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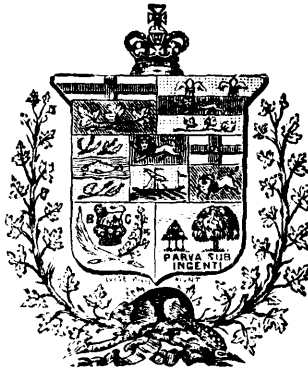
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Anderson, J. Railway	64,087	Baird, J. Rotary engine	63,513
Anderson, L. Belt guide	64,578	Baker, F. Spike	62,887
Anderson, N. F. and W. T. Steam boiler	62,976	Baker, F. Spike, stud or bolt	64,890
Anderson, R. A., et al. Pulverizer	62,453	Baker, J. G. Bolt	63,599
Anderson, R. G., et al. Gas engine	63,954	Baker, R. J., et al. Alarm	63,151
Anderson, S. B. Rail anchor	63,109	Baker, W. C. Anti-friction bearing	62,954
Andreoli, E. Electro-deposition of gold, silver, etc.	65,434	Baker, W. H., et al. Ore separating process and apparatus	64,044
Andrew, W. E., et al. Railway car ventilator	63,714	Baker, W. S. G. Car truck	64,669
Angel, M. Sash fastener	64,050	Baldwin, G. Plough	64,577
Angell, E. R., et al. Acetylene gas generator	63,822	Baldwin, S. B. Ink well	64,916
Angle, A. R., et al. Grain treating apparatus	62,575	Baldwin, W. J. Bicycle chain lubricating device	63,049
Angular Hole Machine Co. Drilling, boring and shapping machine	65,098	Bales, H. H. Electric cigar or pipe lighter	64,021
Anton, R. Boring rod discharge	65,069	Bale, J., et al. Device for receiving and delivering mail pouches from moving trains	62,215
Appel, D. Paper bag making machine	63,741	Balken, G., et al. Furnace	65,294
Apperson, E., et al. Motor vehicle	64,543	Ball, A. R. Napkin holder	63,849
Applegate, A., et al. White lead manufacture	65,526	Ball, H. F., et al. Journal box	64,746
Arbecam Indicator Co. Indicator for ships' compasses	62,861	Ballantine, J. Moulding machine revolving bed	62,996
Arbuckle Brothers. Packaging machine	63,312	Ballard and Ballard Co. Packing auger	62,365
Archambault, O. Acetylene gas generator	65,469	Ballentine, W. J. Ruler	64,662
Archer, D. J. Match box	63,716	Ballou, G. N. Game board	64,954
Archer, F. M. Galvanic battery	64,616	Bancroft, C. F., et al. System of preventing collisions on electric railways	63,793
Archer, W. H., et al. Filtering cistern	63,125	Banks, J. W. Clothes wringer	63,618
Ardagh, A., et al. Bag tying device	64,487	Bannerman, T. W. and A. C. Friction roller seat post	62,759
Arft, C. H., et al. Plough	63,953	Barber, C. A. Fire door or shutter	62,725
Arledter, F. Soap	63,732	Barbour, C. C. Heating and drying device	65,401
	62,474	Bardot, P. Gas lamp and lantern lighting device	65,317

Bargamin, C., et al. Gas stove and cut-off	64,268	Bell Telephone Company of Canada. Telephonic trunk circuit.	64,885
Barker, J. F. Heater	62,987	Beman, R. D. Liquid dispensing measure	63,383
Barlow, W. H., et al. Nut lock	65,345	Benedict, E. J. Legging overshoe	64,145
Barnes, G. J. Non-refillable bottle	65,412	Benedict, L. Pneumatic sheet separating and feeding device	63,759
Barnes, J. S. Button moulding machine	64,465	Benes, F. Divider or compass	62,255
Barnes, E. A. Truck and carrier	63,170	Benger, G. Fabric Manufacture	62,860
Barnett, F. N. Fire escape	65,568	Benjamin, W. R. Pneumatic gun	65,489
Barney, E. H. Hockey skate	63,737	Bennett, J. G., et al. Pin holder	63,686
Barnhill, A. P., et al. Nut lock	62,694	Bennett, J. W., et al. Door check	64,950
Barr, J. N. Car door	64,329	Bennett, J. W. Railway crossing	64,406
Barrett, F. W., et al. Lamp globe	62,582	Bennett, James G., et al. Lock	63,550
Barrett, M. K. Pipe vise bench	63,687	Bennett, T. and H. Bicycle tire tool	63,271
Barrett, M. M., et al. Barrel cover	65,154	Bennett, W. Harvester cord holder	63,986
Barron, G. F., et al. Bicycle seat	63,492	Bensene, E., et al. Axle and axle box	62,335
Barrows, C. H. Motor vehicle	63,046	Berford, V. et al. Desk and seat	63,176
Barry, A. T. Wagon reach	65,370	Berg Clarified Milk Co. Milk Clarifying Apparatus and process	62,658
Barten, W. H. Ink well case	65,417	Berger, H. Acetylene gas making machine	65,586
Bartholomew, L. Windmill	63,493	Berglund, A. Pocket knife	62,543
Bassett, H. Cow happle	63,850	Bergman, V., et al. Clothes pin and clip	63,952
Batcheller, B. C. Machine for unifying the sectional curvature of tubes	63,437	Bergstraesser, O. Cigarette making apparatus	65,213
	64,392	Bergstrom, G. Cattle guard gate	64,501
	64,393	Bernard, J. A. E. Filter	64,247
	64,394	Bernier, H. Roofing compound	63,056
Batcheller, B. C. Pneumatic transmission systems	64,395	Berry, C. J., et al. Earth thawing apparatus	65,211
	64,396	Berry, C. McC., et al. Heel for boots and shoes	63,175
	64,397	Berthoin, E. Garment fastening device	62,515
Batchelor, O. D., et al. Gas stove cut-off	64,398	Bertolus, C. Electric furnace	63,038
Bates, A. J. Wire fencing	64,268	Berude, E. R. Car coupler	64,007
Bates, A. M. Bag	64,747	Berude, E. R., et al. Cover and vessel	64,697
Bates, F. C. Postal box signal	65,112	Best, C. J., et al. Crucible furnace	64,049
Battersby, J., et al. Spindle	63,586	Best, C. V. Vapour burner	64,659
Bay State Electric Heat and Light Co. Air heating and agitating apparatus	63,397	Betcune, D. S. Shoe display device	65,593
Bay State International Shoe Machinery Co. Sewing machine for waxed thread	62,868	Bettendorf, W. P. Car truck	65,459
Bay State International Shoe Machinery Co. Sewing machine thread tension	65,327	Betts, G. J., et al. Pneumatic tire puncture closing compound	62,284
Bay State International Shoe Machinery Co. Sole roughing and channelling machine	64,207	Bickelberger, F. M., et al. Car step	62,287
Bay State International Shoe Machinery Co. Stitch separating machine	63,159	Bickle, H. J. Cattle guard	64,676
Bayldon, F. J., et al. Instrument for facilitating the measurement of trigonometrical ratios	64,168	Bickle, H. J. Harness buckle	65,331
Bayley, W. B. Stripping box	64,726	Biddinger, A. W. Railway signal	63,598
Bauer, A. Bicycle saddle support	63,490	Biersach, M. E. Staple	62,498
Bauer, A. F. Earth auger	62,259	Bigelow, F. A. and V. A., et al. Cigar-tip cutter and match safe	63,720
Bauer, W., et al. Car step	62,287	Billburgh, E. Awning	63,853
Banmann's (Joh.) Wive. Appliance for securing covers of culinary vessels	64,282	Billings, F. E. et al. Sash fastener	64,950
Bawtinheimer, P. M. Gang skinner for furrowing top-soil	63,989	Binney, H. Hose supporter	62,332
Baxter, C. Wire fence spacer	63,852	Bird, F. M. Grindstone mountings	63,766
Baxter, C. Wire fence stay weaving device	63,820	Bird, F. M. Reins guard	63,469
Baxter, E. M., et al. Tie plate gauge	63,554	Bishop, B. G. Door closer	62,672
Beadle, C. H. Fluid pressure engine distributing gear	64,952	Bishop, J., et al. Drier	65,287
Beal, F. C. Garment holder	62,647	Bishop, W. W. Computing device for scales	63,642
Beal, L. G., et al. Electric signal	63,099	Bissell, A., et al. Caster socket	64,163
Beall, T. H. C. Fifth wheel	65,372	Bissell, T. E. Disc harrow bearing	64,093
Beam, E. Chisel	64,702	Black, W. Oil stone box	63,600
Beater, A. G. Embossing die making apparatus	63,880	Blackman, G. L. Skirt support	65,181
Beatty, G. Glass delivering machine	65,290	Blackmore, H. S. Alkali illuminates production	64,443
Beatty, G. Glass lading machine	65,289	Blakely, C. Baby carriage	63,003
Beaty, G. M., et al. Metal cutter and roller	63,446	Blair, M. A., et al. Carrier or holder	62,487
Beausoleil, C., et al. Gasoline burner	65,268	Blazer, A. N. Power wheel	64,646
Beck, W. F. Manifold pass book	63,611	Blessing, L., et al. Separator and purifier	63,371
Becker, R. A., et al. Metronome	65,196	Blevins, W. R. Fan	64,523
Beddingfield, J. H. Table-screen and fly-fan	63,238	Bliss, W. L. Dynamo or car truck mechanism	63,328
Bedel, J. A. Umbrella	65,416	Bloch, W. D., et al. Car coupler	63,309
Bee, H. L., et al. Saw dresser	63,636	Bloom, B. D., et al. Rotary engine	63,634
Beck, W. H. Pot lifter	64,291	Bloomfield, A. S. Sash balance	64,986
Beckman, G. G. Court marker	63,212	Blum, L., et al. Vehicle wheel	63,228
Behney, E. Switch operating mechanism	63,428	Blumenburg, H. Battery solution	62,538
Behr, G., et al. Steel hardening process	62,874	Boak, B., et al. Car lock	63,073
Beins, J. F. Fluid pressure engine	64,981	Boardman, J. H. Electric lamp time cut out	63,904
Belanger, C. E., et al. Voting machine	64,199	Boas, F. Wall plaster	63,338
Bell, C. L. Weighing scale	65,376	Boasso, E. D., et al. Nut lock	64,415
Bell, C. N. Thill coupling	63,410	Boeckh, C. Broom	63,141
Bell, G. H., et al. Fastening for straps	65,155	Boeckh, C. Window cleaner	64,651
Bell, R. M., et al. Telephone arm rest	63,034	Bockhoff, W. F. Cash register drawer	65,388
Bell Telephone Company of Canada. Electro magnet	64,275	Bodam, J. Rotary engine	65,055
Bell Telephone Company of Canada. Register for telephone circuit	65,319	Body, W. E. Pneumatic tires	63,537
Bell Telephone Company of Canada. Telephone circuit	62,869	Boggis, H. Stove pipe	63,287
Bell Telephone Company of Canada. Telephone repeater and relay	62,555	Bolm, G. C. Refrigerator	64,863
Bell Telephone Co. of Canada. Telephone Switch-board signal	62,984	Bohrer, W., et al. Piano pedal	65,278
Bell Telephone Company of Canada. Telephone switch-board circuit	64,884	Boidin, A., et al. Alcohol manufacture	62,879
Bell Telephone Company of Canada. Telephone switch-board cord circuit	65,320	Boidin, A., et al. Alcohol manufacture	65,242
Bell Telephone Company of Canada. Telephone transmitter	62,556	Boimare, P. J. Furnace chamber	62,706
		Bolens, H. W. Chair	64,581
		Bonner, W. T. Feed water heater and purifier	65,464
		Bonsack, J. A. Cigarette making machine	65,080
		Bonsall, S. W. Trunk	62,685
		Booker, J. Hot air furnace	64,259
		Boone, C. H. Alcoholic liquor improving process	64,432
		Boote, A. J., et al. Hydro-carbon oil treatment	62,552
		Borcharding, J. Bicycle gear	62,268
		Borchgrevink, H. K., et al. Milk pail	63,949

Borrett, G., et al. Mower	65,433	Brown, J. H. Harrow teeth fastening	63,964
Bostwick, W. W. Caster	64,174	Brown, J. H., et al. Truck	63,171
Botz, C. J., et al. Type case	64,176	Brown, J. W. Soil pipe	63,146
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Botz Type Setting Machine Co. Type case	65,358	Brown, S. J., et al. Ventilator for house roofs	62,303
Botz Type Setting Machine. Type setting machine	65,162	Brown, R. C. Electric railway rail bond	62,678
Bourdeau, M., et al. Washing machine	65,358	Brown, A. O. Game	65,021
Boudreau, T., et al. Vehicle shaft	62,509	Brown, M. Pastry baking device	64,212
Bouthillier, V. M. Paste	63,005	Brubaker, W. E., et al. Electric signal	63,099
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Bouvier, N., et al. Fire escape	63,011	Bruesewitz, E. Plough	64,134
Bowkett, W. D. Appliance for separating froth from fluids	64,713	Bruguere, F. J. F. Engine	63,514
Bowerman, L. H. Vending machine	64,422	Brunell, H. P. H., et al. Ore separating and concentrating process	63,262
Bowen, G. Bottle corking and labelling machine	64,054	Brundage, W. W. Bridge	62,190
Bower, F. T. Pneumatic tire puncture closing compound	64,773	Bruneau, D. I. Garment cutting square	62,950
Bowers, H. A. Frying pan lid	62,284	Brunette, A. O. Milk vat	64,127
Bowie, W. & J. Textile fabric cleaning and removing apparatus	62,507	Brutschke, F. Road locomotive	64,464
Bowles, T. H. Alarm mechanism	63,087	Bryan, T. A., et al. Alcoholic liquor improving process	64,432
Bowling, E. C. Fabric	64,940	Bryce, A. S., et al. Football	62,604
Bowman, D. W. Hydro carbon burner	63,047	Buchanan, D. Potato digger	63,966
Bowman, J. W. Wagon	64,636	Buehhold, L. Preserving process	62,970
Bowman, S. E., et al. Shoe	65,273	Buckland, F. M., et al. Stove for heating	65,384
Boyd, A. J. Runner gear for wheeled vehicles	65,405	Buckley, R. C. Cultivator and seeder	64,351
Boyer, L. D. Door locking bar	63,353	Buderus, W. C., et al. Lamp extinguisher	64,799
Boyle, D. Carbonating apparatus	63,682	Bugg, O. T. Electric lamp	63,102
Boyle, W. G., et al. Clothes pin and clip	64,442	Buggé, R. Means for preventing the spread of fire	62,884
Bradford, E. S. Inking apparatus for printing presses	63,952	Buis, L. Wheel tightening device	63,680
Bradford, E. S., et al. Pneumatic tires puncture repairing tool	63,481	Bundick, G. E. Bicycle support	63,639
Bradford, E. S. Printing plates fastener	63,064	Bunker, M. Sliding door and window	62,702
Bradford, E. S. Printing press feeding device	63,482	Bull, L., et al. Foot support and shoe	64,157
Bradford, E. S. Wiping and polishing mechanism for printing presses	63,519	Buley, T. McP., et al. Bicycle carrying bracket	65,058
Bradford, O. W. Mop handle	63,560	Bullard, D. W. Cigar making machine	64,874
Bradish, N. P., et al. Folding bedstead	63,940	Bullock, T. R. S. Billiard table cushion	65,013
Bradley, C. A. Antiseptic cabinet	63,724	Buote, F. J. Proof press	63,767
Bradley, C. S. Electric motor	63,243	Burcard, A. H., et al. Electric hair brush	64,079
Bradley, B. C. Show case	64,639	Burdick, C. L. Pressure gage	63,000
Bradley, C. S. Electric motor	64,023	Burger, Moriz, et al. Liquefaction of aeriform fluids	63,843
Bradley, J. C. Method of rendering iron castings malleable	64,369	Burger, R. Paper decoration	62,539
Bradley, J. J., et al. Metal manufacture	65,219	Burgess, J. R. Cooking stove	64,387
Brain, G. Comb	63,452	Burke, J. W. Hook and eye	62,324
Brainard, L. G., et al. Cooking utensil	63,858	Burke, P. W. Steam boiler	65,367
Brake, E. V. Vegetable and dough cutter	62,441	Burke, T. J. Gold saving appliance	62,520
Brakefield, J. J. Level and plumb	63,775	Burkell, J., et al. Lock nut	64,274
Braley, T. Postal advertising card	65,541	Burkell, J., et al. Table	62,788
Brand, T., et al. Lock	63,692	Burkhardt, G., et al. Torch burner	65,298
Brandell, P. Mail distribution indicator	65,575	Burkhardt, M. L., et al. Buckle	65,383
Brandt, W. Fastening for metal sheets, laths, strips, etc.	64,562	Burland, K. Thill couplings	63,280
Branham, A. J. Egg case	64,957	Burubam, A. S. Vehicle canopy	62,990
Bratton, H. C. Singletree	62,351	Burnley, S. M. Washing machine	62,633
Brault, L. Genealogical chart	62,545	Burns, D. H. Furnace	65,079
Bray, G. and J. W. Acetylene gas burner	63,062	Burns, J. A. Egg separator	64,548
Brennan, P. H. Velocipede	63,715	Burns, J., et al. Truck	63,171
Brennan, T., et al. Seeding machine	63,888	Burns, R. H. Smoke preventing apparatus	62,671
Brent, C. Feed water regulator	64,015	Burns, R. H. Smoke preventing apparatus	64,924
Bretherton, M. J. Rotary engine	63,887	Burnside, W. H., et al. Tie plate	63,535
Bretherton, S. E. Hot-blast box	63,633	Burpee, F. W., et al. Fish cutting machine	63,240
Brewer, J. G., et al. Wrench	64,340	Burr, F. P. Ice cream freezer	62,727
Brewer, W. J. Anti-friction bearings	62,980	Burrs' Bobbin Holder and Thread Catcher Co. Bobbin and thread holder	63,542
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Bridgeport Brass Co. Acetylene gas generator	63,041	Burrows, J. A. Tire	61,643
Brien, J. T. and T. R. Hot air furnace	63,267	Burton, G. D. Tanning process	62,632
Brill, J. A. Railway car	64,220	Burton, J. H. Check punch	63,689
Brillié, E. Explosive engine governor	65,094	Burton, J. H. Fountain pen	62,892
Brillinger, M. Electric car	64,451	Burton, J. N., et al. Pocket knife and match safe	65,547
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Brinkmann, A. H. Wire pad	63,461	Burwell, G. A. Ball bearing	63,877
Brintnell, A. H. Self-sealing vessel	63,806	Burwell, G. A. Vehicle wheel	63,131
Briquette Coal Co. Artificial fuel	64,752	Busch, G. W. Identifying device	63,974
British Blahink Arc Light Co. Electric arc lamp	62,618	Bush, S. G. Snow plough	64,016
British Syndicate. Electric propulsion apparatus	62,176	Bush, S. P. Feed water heater	65,030
Britton, J. A. Fire hose washer	63,089	Butcher, J. Electric clock	63,658
Brodhage, W. Tenoning machine	65,399	Butler, Dennis. Railway spike	64,028
Brosigter, H. Locking device for boxes	64,851	Butler, E. A. Pessary applicator	63,551
Bromberger, H. Bottle stopper	62,402	Butler, G. P. and W. H. Tobacco stemming machine	64,690
Brodsky, A. Plaster paris mould treatment	64,684	Butter, W. R., et al. Bucket ear	64,735
Brooke, F. R. Pneumatic horse collar	63,048	Butterfield, G. F. Method of uniting rubber soles to the bottoms of leather boots and shoes	62,399
Brooks, E. S. Bulletin	65,573	Butterfield, S. W. Bark cutting machine	62,695
Brooks, E. W., et al. Gas engine	65,180	Butterfield, S. W. Boiler furnace	64,593
Brooks, M. B. Spraying machine	63,915	Butterfield, S. W. Log thawing apparatus	64,575
Brosnaham, G. O. Check punch	64,771	Butterfield, W. V. Fluid pressure elevator	62,431
Brough, J. Line holder	62,760	Buttler, W. Apparatus for fire finishing glassware	62,790
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Brown, G. A., et al. Farm gate	65,046	Byers, L., et al. Piston packing	62,744
Brown, E. R., et al. Cement fence post	65,474	Byrne, M. Cock or faucet	64,987
Brown, J. Bicycle	63,480	Byrnes, J. M. Weather strip	63,969
Brown, J. H. Harrow	62,317	Byrnes, W. E. Telephone	65,010
	63,965	Cadwell, C. W., et al. Acetylene making apparatus	63,502
		Cadwell, J., et al. Air brake hose coupling	65,271
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Cahoon, C. Vending ticket.	65,015	Cherry, E. E., et al. Hoisting and conveying apparatus.	63,060
Cahoone, E. R. Stove and range.	64,305	Chesnut, G. R. Washing machine.	64,974
Caldar, J. Windmill.	63,614	Clew, J. Turbine.	62,207
Caldwell, J. K., et al. Iron castings.	64,441	Chick, J. S., et al. Non-refillable bottle.	64,801
Caldwell, W. R. Needle for sewing rags.	63,231	Chicago Grain Door Co. Car door.	62,799
	63,103	Chicago Non-Refillable Bottle Stopper Co. Bottle stopper.	62,491
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Call, C. C., et al. Pneumatic tires puncture repairing tools.	63,064	Chollar, B. E. Gas purifier.	65,589
Callanan, W. A., et al. Hat fastener.	64,757	Chollar, B. E. Gas purifying process.	65,588
Callison, R. M., et al. Harness.	63,466	Christensen, P. et al. Artificial leg.	63,398
Cameron, A. B. Umbrella frame.	65,556	Christie, E. J. Unicycle.	63,007
Cameron, A. N. Counter stool.	62,648	Christie, J. M., et al. Valve for fluid pressure engines.	64,926
Cameron, A. N. Ladder.	64,107	Christman, E. et al. Seeding machine.	64,015
Cameron, J. C. Car ventilating system.	62,292	Christman, T. E., et al. Hose coupling.	62,900
Cameron, J. C. Cold storage apparatus.	62,330	Christy, J., et al. Vehicle tire.	63,834
Cameron, J. C. Track cleaner.	62,293	Church, W. H. Washing machine.	64,011
Canmitzer, A. Liquid caustic.	62,852	Cladening, W. H. Nut lock.	64,017
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Campbell, J. J. Bottle.	65,325	Clark, A. C., et al. Boiler cleaner.	64,966
Campbell, D., et al. Straw burning stove.	64,209	Clark, B. G. Clasp.	64,346
Campbell, J. B. Electrical extraction of poisons from the human body.	62,320	Clark, H. F., et al. Toilet paper cutter and distributor.	63,750
Campbell, O. C. Potato digging device for ploughs.	64,123	Clark, L. E. Bicycle brake.	63,593
Campbell, S. O., et al. Gate latch.	62,306	Clark, L. V., et al. Weather strip.	63,220
Campbell (The M) Fanning Mill Company of Chatham. Fanning mill.	64,777	Clark, S. A. Device for holding fast the ends of binding cords.	64,104
Canadian Broom Protector Co. Broom or brush protector.	64,778	Clark, M. Organ.	63,995
Canadian Feather and Mattress Co. Wire mattress frame.	64,519	Clark, W., et al. Thill coupling.	65,106
Canady, L. W. Throttle lever.	62,564	Clarke, J. Car ventilator.	64,081
Canning, A. H. Rotary engine.	64,930	Clarke, M. N. Electrode.	64,430
Canty, T. Hat box.	64,663	Clarke, P., et al. Railway rail sander.	64,485
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Capwell, G. J. Electric railway truck.	62,449	Clarksburg Wood Rim Co. Bicycle wheel rim.	72,964
Capon, P. Draught excluder.	64,615	Clarkson, F. A. Railway tie.	64,679
Carlouneau, M. A. Shoe fastener.	64,817	Clarkson, T. Apparatus for heating and cooling fluids.	63,957
Carder, J. W. Hook and hook-bushing.	63,059	Clarkson, T. Steam generator and regulator.	64,980
Carey, D. M. Grinding mill.	65,460	Claus Handle Bar Co. Bicycle handle bar.	63,479
Carey, N. J. Heat generator.	64,456	Clausen, J. C., et al. Leggins.	64,177
Carleton, H. G. Electric lock.	64,316	Clausen, O. Mechanical movement.	63,369
Carley, H. S. Life-boat.	64,971	Clausen, O. Rocking chair.	64,309
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Carrick, G. W., et al. Nut lock.	65,345	Clish, G., et al. Track sander for locomotives.	63,993
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Carroll, J. F. Cultivator.	63,933	Cobb, L. H. Handcuff.	63,521
Carroll, R. E. Trolley for electric cars.	63,072	Cockshaw, E., et al. Acetylene gas generator.	62,559
Carruthers, J. A. Road making wagon.	63,112	Cockshutt Plow Co. Seeding machine disc shoe.	64,040
Carruthers, W. H. Nut lock.	64,124	Coddington, E. D. Earth thawing apparatus.	64,998
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Carson, L. L., et al. Printing press.	63,897	Coffin, A. W. Seal lock.	63,601
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Case, E. M. Sewing machine work holder.	63,158	Collins, H. R. Vehicle wheel.	62,316
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Electricitats Gesellschaft Triberg. Electrode	62,663	Feltham, G. Sash fastener	65,060
Electro Lamp Co. Bicycle lamp	63,210	Fennell, J. P., et al. Game apparatus	62,488
Ellershausen, F. Sulphide ore treatment	65,528	Felner, J. B. Gas engine	63,024
Ellingsen, C. Stove radiator	62,885	Ferguson, D. Process of canning mashed potatoes	64,698
Elliott Bertram Charles. Speed regulating apparatus	64,043	Ferguson, J. S. Gas generator	63,275
Elliott, G. C., et al. Book type writing machine	62,628	Ferguson, M. Machine for making rivetless pipes	63,413
Elliott, G. R. Ore separator and amalgamator	62,825	Ferguson, W. Bob-sleigh	64,775
Elliott, G. R. Thawing apparatus	63,717	Ferland, A. Advertising sign	64,973
Elliott, H. C. Earth excavator and elevator	63,755	Fernald, G. H. Thill coupling	63,465
Elliott, H. C., et al. Water tube boiler	64,965	Ferris, F. C. Mixing machine	62,811
Elliott, J. A. Electrical hot air heater	63,619	Ferris, L. D. Bicycle gearing	65,377
Elliott, R. A., et al. Lock nut	64,474	Ferris, S., et al. Railway rail joint	65,549
Elliott, R. A., et al. Table	62,788	Fest, W. P. Casket handle	63,290
Ellis, A. W. Stopping device for bottles, etc.	62,226	Fibrous Material Syndicate. Treatment of waste cocoa nut husks	62,184
Ellis, E. W. Bumping post	64,768	Fielder, F. H. Grate	64,289
Ellis, J. T. Smoke consumer	62,273	Fielder, T. Wagon box	63,133
Ellison, W. G. H., et al. Water wheel	63,020	Filor, C. F. Skate	63,745
Elliston, J. O. Barrel pump	63,429	Filstrup, L. L., et al. Saw sharpening machine	64,203
Elms, E. J. Steam boiler furnace	64,933	Filteau, V. Rotary engine	65,220
Elmsley, R., et al. Car brake	62,737	Finch, J. T. Sewer pipe burning kiln	63,704
Elothene Gas Company. Gas for heating and illuminating	65,231	Fink, L., et al. Metallic tubing	65,554
Elrod, H. Letter box and bell	63,368	Fink, M. Vacuum producing machine	62,519
Elson, D., et al. Fence post	63,263	Pinot, R. Corn planter	64,481
Elza, W. S., et al. Nailless horse shoe	64,843	Fischer, G. Ore amalgamation	63,564
Enden, J. Railway safety van	64,020	Fischer, H. Drying and carbonizing apparatus	63,061
Emerton, E. C., et al. Fence	63,232	Fisher, A. Tire inflator	64,791
Emery, F. H. Thawing machine	63,719	Fisher, J. Milk can	63,873
Emmerch, R. F., et al. Bronzing machine	62,809	Fisher, J. W., et al. Harness	63,436
Emond, W. H. Vehicle turn-plate	63,081	Fisher, W. S. Shoe polishing bracket	63,694
Empire Cash Register. Cash register	65,175	Fitch, J. H. Drill and wrench	63,695
Engbretsen, L. Floor cleaning apparatus	64,634	Fitz, A. G. Last joint	64,313
Engelbrecht, W. Fly trap	62,514	Fitz, A. G. Relasting machine	63,805
English, W. H. Perambulator	63,023	Fitz, A. G. Treecing machine	63,871
English, W. H. Perambulator	64,631	Fitzgerald, J., et al. Carpet cleansing compound	63,603
Entwistle, S. C. Stove lifting device	62,797	Fitzgerald, J., et al. Machine for making tufted upholstered work	64,078
Eppes, G. W. Harness	64,763	Fitzgibbons, D. Steam boiler	62,451
Era Incandescent Oil Lamp Co. Oil lamp burner	63,591	Fitzroy, A. Trimmer	61,312
Erickson, E. A., et al. Oak lock	63,073	Fitzsimmons, J. A., et al. Amalgamator	63,213
Ericson, E. H. Sirup tap and measure	64,844	Flax Combing Syndicate. Combing machine	64,736
Ericson's (Sten) Verkstads Aktiebolag. Valve	64,213	Fleisher, B. W., et al. Spindle	63,586
Erie Safety Window Co. Window frame and sash	62,328	Fleming, J. C. Sash	64,970
Erlanger, M. L., et al. Liquid acerator	62,472	Fleshien, J., et al. Match making machine	63,246
Estill, H. V. Water meter box	64,776	Fletcher, B. Drinking fount	65,522
Eulenstein, L. Tobacco pipe	62,586	Fletcher, J. Stump puller	65,562
Eureka Instantaneous Opening Corset Steel Co. Corset clamp	64,865	Fleury, H. W. Grinding machine	63,998
Euston, A. Linseed cake forming apparatus	63,380	Fliegel, J. Clamp	62,922
Euston, A. Oleaginous seeds treatment	63,381	Fliegel, J. Spindle driving machine	64,439
Evans, E. B. Horse shoe	64,896	Flower, J. M. Truss	63,181
Evans, H. S., et al. Fire escape	64,864	Flynn, J. Butter working machine	62,444
Evans, J. E., et al. Hot water heater	64,405	Flynn, W. Milk aerator and cooler	63,975
Evans, J. J., et al. Tumbler washer	63,801	Foedisch, C. O., et al. Curtain pole holder	64,857
Evans, O. Wrench	62,668	Foerster, A. B. S. P., et al. Can opener	64,881
Evans, R. A. Vehicle wheel	62,208	Fogler, G. L. Furnace	64,285
Evans, W. S. Sled	63,925	Fonda, C. T. Rotary engine	65,164
Ewart, H. E., et al. Horseshoe	65,550	Forbes, F. M. Invalid's bed	63,809
Ewing, A. H., et al. Plant box	62,673	Ford, L. P. Artificial stone and concrete	62,846
Ewing, J. G., et al. Vest	63,837	Ford, M., et al. Boot and shoe heel	62,412
Eyanson, G. T., et al. Electric battery	62,870	Foreman, D. Trace buckle	64,858
Eyles, A. H., et al. White lead manufacture	62,861	Foreman, H. Fastener for gloves, boots and shoes, etc.	62,427
Eynon, T. M. Injector	65,415	Form, A. Sash fastener	65,296
Faarup, N., et al. Artificial leg	63,398	Forney, J. M., et al. Bolt and lock	63,552
Fackler, W., et al. Car coupler	63,309	Forrest, A. J. Stringed musical instrument	64,504
Fagerström, E. E. F. Petroleum motor	63,042	Forrest, H. F. Telephone desk and register	62,920
Fairbanks, Morse and Co. Air compressor valve	63,948	Forstner, T. Wrench	62,999
Fairbanks, Morse and Co. Weight register	64,090	Forsyth Brothers Co. Curtain fixtures	64,149
Fairbanks, H. H. Milk urn	65,473	Forsyth Brothers Co. Curtain fixture	62,442
Fairbanks, Morse and Co. Compression controller	63,994	Forsyth, J. B. Tube making process	63,407
Fairbanks, Morse and Co. Compressor	64,489	Forsyth, J. E. Pipe coupling	62,525
Fairbanks, Morse and Co. Clutch mechanism	64,053	Fortier, T. Coulter for plows	63,942
Fairman, A. N. Stovepipe elbow making machine	63,317	Forward, C. B., et al. Petroleum refining process	62,534
Fanta, B. Cigar	65,014	Forward, D. B. Brush and broom	64,683
Farbenfabriken of Elberfeld Co. Pharmaceutical compound	63,203	Foster Brothers Manufacturing Co. Bedstead	62,327
Farfan, J. F. A. Bicycle brake	62,267	Foster, C. W. Blade propeller	63,165
Fargo (F. B.) and Co. Churn and butter worker	64,321	Foster, F. R. Gas burner and mantle	63,571
Farmer, N. M. Journal box	62,973	Foster, R. F. Signalling method and apparatus	62,516
Farney, S. S. Cutter head knife adjuster	62,510	Foster, T. Bag loader	64,599
Fassett, H. H. Door check	65,008	Foster, T. G. Snap hook	62,730
Faulkner, C. Axle bearing	63,876	Foster, W. H. Garment suspender	65,494
Fauset, H. J. Axle lubricator	65,365	Fougereau, J. A. Skate alarm	63,218
Fauval, C. J., et al. Cash register	65,175	Fowble, O. E. Finger shield	64,458
Fawcett, J. W. Car coupler	63,449	Fowler, J. H. Jar closure	62,703
Fawns, R. Single and double trees	62,432	Fowley, J. Hoop machine	64,673
Featherstone, M. S. Fly trap	63,236	Fox, H., et al. Grain shocker	65,567
Feder, C. J. Railway advertising apparatus	65,420	Fox, H., et al. Grain shocking machine	63,990
Feder, R. Railway advertising apparatus	64,823	Fox, L. Shingle sizer and edger	63,675
Feeney, W. H., et al. Floor clamp	64,320	Fox, W. R. Pulley bushings	63,066
Fehrmann, M., et al. Lock	65,575	Frank, E. and L., et al. Knitting machine	63,842
Felcher, L. B. Laundry soap compound	64,789	Frankenburg, I. Cellulose esters	63,101
Feldmann, F., et al. Hasp lock	63,553	Frankenburg, I. Cellulose tetracetate	62,188
Fellows, O. S. Solder removing device	62,541	Fraser, E. J. Process of obtaining precious metals by solution	62,218
Felsing, S. D., et al. Wind straw stacker	64,897		

Fraser, G. H. Pulverizer mill	64,413	Gillett, C. R. Vapor burner	64,644
Fraser, H. A. Stump extractor	64,294	Gilman, B. F. Earth thawing apparatus	62,746
Fraser, R. D. Umbrella and parasol	64,550	Gilman, B. I. Memorandum case	64,402
Fraser, S. A. Cable-car grip	65,174	Gilmour, G., et al. Steam engine reversing gear	63,898
Fraser, W. L., et al. Broom stiffening device	63,754	Gilmour, D. Lumcer manufacture	63,478
Fraser and Chambers. Water raiser	64,738	Gilmour, J. A., et al. Ore treatment	62,955
Fréchette, J. Pegging machine trimmer	64,324	Gilpin, A. L. Garment	64,509
Freddy, M. P., et al. Blow pipe	65,075	Girard, J. B., et al. Wind wheel	63,798
Frederick, E., et al. Cycle	65,192	Girdlestone, R. J. Decoy	63,370
Fredrikson, A. J. Match manufacture	63,570	Girod, E. F. Plough point	64,557
Freed, H. F. and I., et al. Electrical safe protection system	63,539	Giroux, H. J. G. and S. A. Acetylene generator	63,347
Freeman, C. A., et al. Basting roasting pan	64,242	Gittens, G. W. Shoe sole	63,001
Freeman, W. L., et al. Harness buckle	63,992	Glahn, S. Latch	64,558
French, C. A., et al. Stove	64,279	Glazier, J. T., et al. Hose nozzle	64,323
French, J. L. Twine holder	62,528	Glazier, P. F., et al. Hose nozzle	64,323
Friedsam, A., et al. Boiler furnace	63,896	Gleason, J. W. Silk skein holder	62,731
Friedsam, A., et al. Printing press	63,897	Gleason, T. W. Feed water heater	64,410
Fritz, L., et al. Shutter operator and fastener	63,799	Glenn, A. Stock waterer	64,179
Fritz, L., et al. Siphon bottle head	64,686	Globe Trading Co. Treatment of edible oils and fats	62,993
Fuchs, B. Railway carriage cooling apparatus	63,208	Glynn, J. J., et al. Cold air regulator and fire protector	64,583
Fuller, F. L. Price scales indicator	63,638	Gobille, N. L. Plough	63,984
Fuller, L. L. Potato digger	63,968	Godden, S. V., et al. Valve for steam engines	63,068
Fulton, F. B., et al. Can assembling and cooling device	63,515	Goddu, G. String nail	62,610
Fulton, H. H., et al. Bicycle brake	62,576	Godfrey, W. L., et al. Fence	63,232
Fulton, H. H., et al. Clutch mechanism	63,227	Godshall, L. D. Ore roasting furnace	63,261
Pyfe, D. A. Method of preparing hay for shipment	62,256	Godwin, L. A. W., et al. Broom stiffening device	63,734
Gagnon, J. T. Wheel	62,956	Goergen, C. Funnel	64,302
Gahn, F. Corn conveyor	62,705	Goetz, M., et al. Lamp extinguisher	64,799
Gahn, F. Wagon dump	63,137	Goggan, J., et al. Vehicle wheel	63,228
Gaines, E. P. Wrench	62,588	Gold, E. Wood preserving compound	65,391
Gaisman, H. J. Waist belt	62,657	Golden, G. W. Window	62,526
Gale, E. S., et al. Hinge	64,985	Goldie, W. Tie plate	64,373
Galey, W. T., et al. Yarn mercerizing and dyeing treatments	62,437	Goldman, G. Shoulder pad	64,178
Gallant, F. Bicycle hand shade	63,297	Goldschmidt, Dr. H. Method of producing metals, metalloids and alloys	63,977
Gallant, F. Lock	62,687	Goldsmith, A., et al. Vehicle frame support	64,860
Galley, C. E. Horse shoe	64,169	Goldsmith, P. Curtain hanging apparatus	62,849
Gamble, C. T., et al. Steam engine valve	63,050	Good, J. Spinning flier	62,563
Gamble, H. E. Fluid pressure engine	65,034	Goodale, A. M. Sound locating device	65,444
Garchey, L. A. Ceramic stone	62,542	Goodbandy, S. Weighing scales	65,375
Gardiner, J. F., et al. Face and eye protector	62,749	Gooden, A. L. Windlass elevator	63,729
Gardner, A. A. Drapery support	65,033	Gooding, C. W., et al. Rotary engine	63,556
Gardner, D. Sash holder	64,996	Goodrich, E. C. Washing machine	64,899
Gardner, E. P., et al. Acetylene gas making apparatus	65,582	Goodwin, G. F. Egg spoon	65,439
Gardner, J. Skirt	65,499	Goodyear Shoe Machinery Company of Canada. Sole channeling machine	63,872
Gareau, R. R. Illuminated clock dial	62,903	Gordon, D. A. Bottle and bottle stopper	63,265
Garland, F. M. Machine gun	65,470	Gordon, Mackay and Company. Packing case	64,734
Garrison, C. G., et al. Amalgamator	63,213	Gordon, W., et al. Heel and counter protector	64,156
Garvey, J. C. Thawing hood	64,806	Gore, K. Gate	64,457
Garvey, O. F., et al. Cock for gas and liquids	64,230	Gore, L. M. Syringe	64,839
Gas and Sulphate Producer, Limited. Apparatus for producing and carburetting Hydrogen	62,189	Gorham, G. R., et al. Grain treating apparatus	65,098
Gaskill, H. S. Windmill governor	63,468	Gosselin, J. A. Whey distributor	64,712
Gassner, H. Camera	63,045	Gottschalk, J. W. Electrical conductor	63,164
Gates, A. D. Railway rail	64,059	Gould, C. M. Electric lighting apparatus for railway cars	64,522
Gates, C. C., et al. Railway tie distributor	64,411	Gould Coupler Company. Car coupler	62,391
Gates Lacing hook Co. Shoe and fastening	65,379	Gould Coupler Co. Locomotive tender coupler	64,496
Gates, W. H. Brush making machine	64,624	Gould Coupler Co. Railway car	65,023
Gauntner, R. L. Horse detacher	63,122	Gould, F. J. Stove	63,284
Gavett, W. A. Sign board	65,471	Graf, C. Fruit juice preserving process	62,813
Gawne, O. M., et al. Window shade holder	64,389	Graham, I. N. Car door	63,523
Gay, J. B. Pump	63,431	Graham, L. A. Skirt support	63,813
Gaylor, L. B. Bicycle	63,432	Graham, T. C., et al. Method of extracting oil from nuts	62,891
Gaylor, L. B. Bicycle seat post	63,027	Grant, A., et al. Lubricator for valve rods	64,618
Geddis, J. T. Hog trap	63,579	Grant, C. H. Ladder hook	64,902
Gehre, M. Wave motor	63,786	Grant, S. S. Eyeglass nose guard	63,770
Gehre, M. Wave motor for producing electric current	63,823	Grant Axle and Wheel Co. Antifrication bearing	63,895
Geiger, H., et al. Ball and roller bearing	64,249	Granville, W. A., et al. Hydro-carbon burner	62,866
Geiber, D. M. and C., et al. Basket making machine	63,900	Grasser, N. Grinding machine	62,212
Geisler, W. L., et al. Piano touch and technic stops	62,192	Gratz, M., et al. Wheel	63,147
Gelinas, P. H., et al. Wind wheel	62,476	Gravel, J. Car fender	64,345
Gellet, J. H., et al. Peanut heater	63,798	Graves, P. H. Horse shoe	64,574
Gem Needle Threader Co. Needle threader	64,512	Graves, S. V., et al. Spring draft device	63,612
General Incandescent Arc Light Co. Electric switch	65,448	Gravier, H. J. B. Corn cutter	64,307
Genge, R. E. Ash sifter	65,385	Gray, C. B., et al. Rein guard	65,512
Geoffrion, E., et al. Voting machine	64,848	Gray, J. H., et al. Mineral lode tracer	62,383
Gérard, L. L. H., et al. Acetylene producing apparatus	64,199	Greger, T. P. Manhole frame and cover	65,227
Gerlach, F. W. Spike and nail extractor	62,283	Green, A. W. Flour chest and sifter	62,787
Gerry, E. Game board	65,070	Green, F. W. Horse hitch	65,049
Gessner, E. Smokeless furnace	62,470	Green, G. W., et al. Railway signal	63,462
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Ghysens, A. Brick kiln	63,497	Green, W. R. Clamping device	62,465
Gibson, E. Brick drying apparatus	62,499	Green, W. R. Mechanical motion transmitting mechanism	63,439
Gibson, H. Branding composition	62,566	Green, W. R. Method of and apparatus for converting energy	64,046
Gibson, R. R. Gymnastic club	62,313	Green, W. R. Nut Lock	62,436
Gifford, F. V. Vehicle gear	64,335	Green, W. R. Propeller	62,915
Gilbert, F. A., et al. Arc lamp	63,148	Greene, J. H. Invalid's bed	62,835
Gilbert, P. H. Trolley pole	63,302	Grenier, A. Weeder and cultivator	63,926
Gilbert, W. E. Chain cover and gear case	62,986	Grenier, J. N. Ash sifter	64,071
Gilkey, J. A. Wagon brake	62,977	Greening, S. O. Lightning rod	64,785
Gillespie, Ansley & Co. Cap	63,149	Greenwood, A. S. Lamp	65,390
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Gress, S. Thill couplings	63,278	Hanna, J. R., et al. Bolt and lock	63,552
Griesser, F. X. Meal bolting machine	62,368	Hannold, C. C., et al. Box	64,729
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Griffin, J. M. Car wheel truing apparatus	63,608	Hanscom, W. W., et al. Electric battery	63,079
Griffin, M. J., et al. Fire-box door mechanism	62,975	Hansel, S., et al. Waterproofing compound	65,455
Griffin, W. E. Mail pouch fastener	65,156	Hara, J. G. Skirt	64,384
Griffith, A. Stove cover and gas burner	64,219	Harbison & Walker Co. Chrome brick	65,190
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Grimm, A. S. Suspenders	65,482	Hardie, G. H., et al. Steam generator	64,790
Grimmett, J. F. Cradle	63,819	Hardill, J. Steam engine	62,410
Groeschel, E. W. Hook and eye	64,101	Hardgreaves, J. Electrolysis of salts	62,565
Groeschel, E. W. Hook and eye	64,571	Hardwick, H. Chenille fabric weaving	65,461
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Grote, L. Soap manufacture	62,655	Hargreaves, J. Manufacture of alkalies	63,186
Grout, R. A. Railway record bill form	64,066	Hargreaves, S., et al. Yarn and thread making machine	63,507
Grundt, J. J. Railway signal	63,426	Harlan, C. C. Chin rest and modulator for musical instruments	64,470
Grunow, W. Electric railway	62,837	Harlow, J. C. Boat canopy	63,075
Guenthee, H. Ice creeper	64,936	Harries, W. J. Metallic box	64,724
Guérard, E., et al. Nut lock	64,415	Harrigan, W., et al. Railway car ventilator	64,050
Guinan, J. Caster	64,185	Harrington, J. C. Clinical thermometer shield	63,365
Guindon, A. Rotary steam engine	65,040	Harrington, J. P. Crank shaft making apparatus	64,701
Gummere, W. H. Railway car partitioning device	64,119	Harris, B., et al. Electrical wire mains gauge and calculator	62,739
Gunn, J. Wagon bed	63,123	Harris, J. Electric meter	63,017
Gunn, W. A. and W. E. Suspension bridge	63,214	Harris, J. J., et al. Wicket keeping glove	65,356
Gunzburg, U. de. Hide preserving and thawing method	62,850	Harris, W. L., et al. Hose coupling	64,938
Gustafson, E. G., et al. Wind straw stacker	64,897	Harris, W. W. Refrigerating apparatus construction	65,077
Guthrie, B. W. Acetylene gas generator	63,276	Harrison, J. E. and W. H. Thill coupling	65,511
Guthrie, P. F., et al. Fire extinguisher	64,794	Harrison, J. Railway spike	65,324
Gutleber, P. M. Fruit gatherer	64,867	Harrison, L., et al. Computing scales	63,795
Haarer, J. Cigar making machine	63,074	Harrison, W. H. C. Tool holder	65,288
Haase, C. Shackles	64,881	Harrison, W. W., et al. Loom for weaving hair cloth	62,893
Hacke, J. C. C., et al. Can opener	62,325	Hartley, W. H., et al. Liquid separation	62,710
Hacker, G. Broom case	62,486	Hartley, W. H., et al. Ore roasting furnace	64,437
Hachmann, F., et al. Railway rail bond	63,627	Hartman, E. L., et al. Separator bearings	64,378
Haddock, W. Rotary engine	65,011	Hartman, O. P. Engine	63,470
Hafer, B. F. Grain drill	63,545	Hartnell, M. F. Can	63,416
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Hagedorn, J. J. Shirt and bosom	64,607	Harvey, D. Shoe	64,135
Hagy, J. M. Journal packing	65,032	Harvey, J. H. Fire escape	64,108
Hahl, A. L. Pneumatic clock	63,389	Hasschmann, F. Wood treatment	64,423
Hahn, T. Lamp illuminating device	64,892	Haskell, J. O. Pipe hanger	63,669
Hahn, W. Stock rack	62,569	Haslam, J. J. Dumping vessel	65,238
Haight, H. D., et al. Camera	62,960	Hatch, W. P., et al. Book type writing machine	62,628
Haines, E., et al. Bicycle	64,400	Hatcher, J. P., et al. Railway car side bearings	65,552
Haines, S. A. Horse detacher	65,422	Hatfield, T. J., et al. Grain separator	64,273
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Hale, H. S. Car seat	62,597	Hawes, F. Halyard cleat	63,665
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Hall, R. K. Tobacco pipe	63,720	Hawley, L. D., et al. Car door lock	64,299
Hall, E. M., et al. Cigar-tip cutter and match safe	62,286	Haworth, A. J., et al. Bicycle tire repair tool	63,296
Hall, F. A., et al. Bedstead fastening	63,244	Hawthorn, C. A., et al. Pneumatic tire	63,393
Hall, G. W., et al. Clothes rack	63,698	Hawthorne, J. Steam engine reversing gear	63,898
Hall, H. J., et al. Fish hook	63,699	Hawthorne, T. Ring forming and inserting machine	65,064
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Krefting, A. Sea-weed treating apparatus	62,312	Leitch, C. St. S. Knife sharpening compound	65,326
Krichauff, S. H., et al. Spark arrester	62,272	Leland and Faulconer Manufacturing Co. Machine for generating the teeth of bevel gears	64,280
Krische, W., et al. Albuminous product	62,490	Leland & Faulconer Manufacturing Co. Machine for making teeth for bevel gears	63,547
Kroeger, Hans A., et al. Harvester cutting apparatus	64,322	Leland, E. A. Water purifying apparatus	65,237
Kropf, P. Beer making process	62,568	Lemieux, H. Tobacco pipe	64,972
Kryszat (Albert) & Co. Thread twisting and Knotting machine	65,108	Lemire, J. Stump extractor	64,589
Kuersten, H. R. Chair for barbers' and dentists' use	64,082	Lemley, Maurice. Wrench	63,697
Kuhns, J. H., et al. Rotary valve	63,455	Lemon, J. G. Horse shoe	64,904
Kulman, O. S. Antiseptic broom	63,598	Lemons, J. A. Medical bit for horses	64,878
Kurowski, F., et al. Fireproofing process	63,388	Lemyre, J. E. Hame fastening	62,357
Kuster, A. C. Perambulator	65,504	Lennart, P. J. Door check and closer	64,942
Kutz, E. E. Stair rod	64,559	Lennox, R. N. Nitrate of ammonia separation and purification process	62,493
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Labatt, J. A., et al. Vehicle wheel	63,228	Leonard, H. K. Fastener	63,865
Lacey, F. Loom mechanism	62,608	Leonard, H. W., et al. Vehicle pole coupling	64,635
Lachapelle, A. Vehicle sand band	64,790	Lepper, A., et al. Ham wrapper	63,918
Ladd, S. W. Lasting machine	62,387	Lerew, H. Nut lock	64,057
Lagerquist, E. S. Milk strainer and receiver	64,109	LeRoud, L. J. St. B. Rotary engine	65,540
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Lambert, M. G. Combination tool	64,420	Leslie, J. K., et al. Speaking tube	65,217
Lambert, V. Skirt pattern	65,067	Leslie, N. B. Fence stay and fastener	63,773
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Lamplough, F. Steam trap and radiator	63,881	Lévy, M. Etching process and apparatus	63,751
Landa, H. Pump	63,435	Lewis, E. A., et al. Ice bicycle	63,224
Landan, K. E. Life preserver	64,792	Lewis, G. E. M. Veneer cutting machine	63,660
Landis, F. F. Conveyor	64,380	Lewis, G. H., et al. Vehicle wheel	63,228
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Langmuir, W. Vehicle rubber tire	63,337	Lewis, T. J., et al. Spectacle frame temple	65,466
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Lang, W. Purification of caustic alkalis	63,567	Likins, W. H., et al. Separator and purifier	63,371
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Langston Monotype Machine Co. Machine for preparing record strips for type forming machines	65,428	Lindberg, C. A., et al. Toy gun	63,103, 53,104
Langston Monotype Machine Co. Type casting and composing machine	65,350	Lindsey, A. M., et al. Steam engine	63,696
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Larochelle, A. H. Steam steering gear	65,252	Linnell, J. C. Drier	63,707
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La Veine, E. N. Spring clamp	62,590	Lister (R. A.) and Company. Centrifugal separator bowl or drum	62,435
Lavigne, J. P. Lathe	64,656	Lithosite Manufacturing Co. Cement manufacture	63,009
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Lithosite Manufacturing Co. Electrical insulator conduit.	63,008	McDonell, E. L. Refrigerator car.	64,837
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Lloyd, W. A. Boiler.	63,884	McEachern, C., et al. Gold and silverware cleaning compound.	64,449
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Low, G. Coin-controlled vending machine.	63,580	McKiernan, B. Weighing scoop.	62,422
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McConnell, J. S. Carriage top.	63,734	Malmstrom, P. E. Mineral water making and dispensing apparatus.	62,808
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McDonald, W. T. B. Umbrella.	62,544		

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Marshall, L. C. Car roof	63,583	Miller, E. A., et al. Hose coupling	62,900
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Matthews, F. Acetylene gas making machine	64,045	Monfette, J. V. Stone removing apparatus	64,765
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The Canadian Patent Office

RECORD





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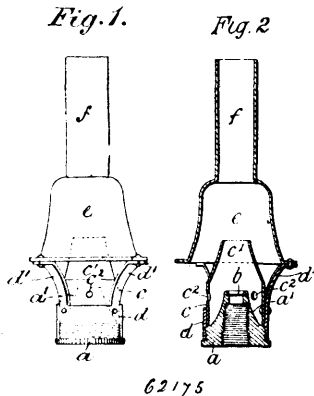
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INVENTIONS PATENTED.

NOTE.—Patents are granted for 18 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 62,175. Gas-Burner. (*Brûleur à gaz.*)



The Daylight Incandescent Mantle Company, assignee of Ferdinand Fritz, all of London, England, 3rd January, 1899; 6 years. (Filed 7th September, 1898.)

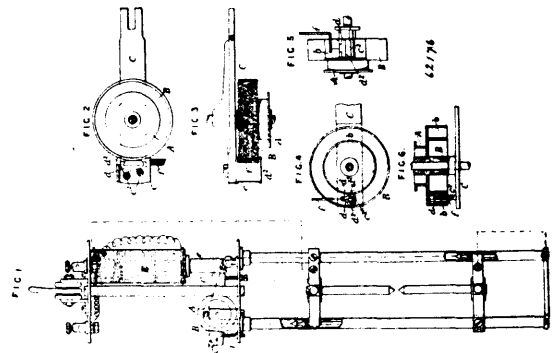
Claim.—1st. In a Bunsen or atmospheric burner, an imperforated bell *e*, united at top to a mixing tube *f*, and open at the bottom, said bell surrounding the upper part of a hollow truncated cone *c*, of the burner, as set forth. 2nd. The improved Bunsen or atmospheric gas-burner, comprising a base *a*, perforated conical top *a'*, perforated tube *c*, hollow truncated cone *c'*, and an outer bell *e* surrounding the upper part of said cone, substantially as and for the purpose set forth.

No. 62,176. Electric Arc Lamp. (*Lamp électrique à arc.*)

The British Blahnick Arc Light Company, Westminster, assignee of Frederic Stanbury Worsley, 119 Church Lane, Kent, England, 3rd January, 1899; 6 years. (Filed 24th November, 1897.)

Claim.—1st. In an electric arc lamp, the combination with an electro magnetic device and winding mechanism for controlling the movement of the carbons, of a lever connected to the armature or core of the electro-magnetic device, projections on the lever and a wedge-shaped brake-block between these projections and the winding drum, substantially as set forth. 2nd. In an electric arc lamp,

the combination with an electro-magnetic device such as *E*, *c*, and winding mechanism such as *A* for controlling the movement of the



carbons, of a lever *C* connected to the armature or core *e*, projection *c* carrying friction rollers *c*² *c*², wedge-block *d*² and tripper *f*, all substantially as shown and described.

No. 62,177. Rail Joint for Electric Railways. (*Joint de rail pour chemin de fer électrique.*)

Fig. 1

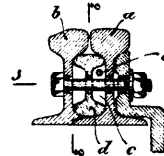


Fig. 2



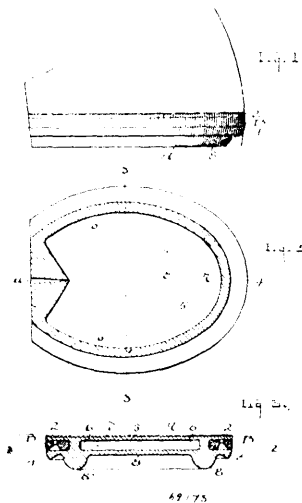
The Firm of Ausführungen für Eisenbahn Oberban Abtheilung "Stoßfangchiene" Siegm, Eppenstein of 45 Wilhelmstrasse, Berlin, German Empire, assignee of Max Barschall, of the said City of Berlin, 3rd January, 1899; 6 years. (Filed 8th March, 1898.)

Claim.—1st. In an electric railway track, the combination with the rail joint of an auxiliary rail supported by the sleeper and a conductor connecting both jointed track rails and placed in the space between the track rails and the auxiliary rail, essentially as described. 2nd. In an electric railway track, the combination with

the rail joint of an auxiliary rail supported by the sleepers, an intermediate fish-plate placed in the space between the track rails and the auxiliary rail and a conductor connecting both jointed track rails and placed in the space between the track rails and the auxiliary rails aside of the intermediate fish-plate, essentially as described.

No. 62,178. Rubber Horse Shoe.

(*Fer à cheval de caoutchouc.*)

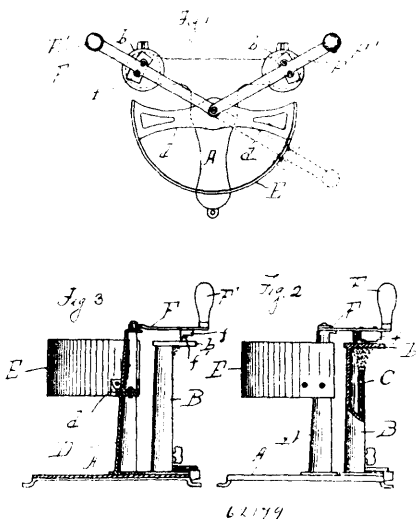


James Hennessy and John M. Warn, both of Painsville, Ohio, U.S.A., 3rd January, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. A rubber pad for horses' feet having flanges about its upper edge to engage on opposite sides of the shoe and be nailed in with the shoe, and having a pneumatic space within the inner edge of the shoe, substantially as described. 2nd. A pneumatic pad for horses' feet having flanges about its edge and a space between said flanges for the horse shoe, and having a pneumatic chamber on its inside on the same plane horizontally as the space for the horse shoe, substantially as described. 3rd. A pad substantially as described having an internal pneumatic space and a flange about its top to be nailed between the shoe and foot, and a bearing rib on its bottom below the plane of the shoe, said internal air space being located opposite the horse shoe, substantially as described.

No. 62,179. Collar Turning and Ironing Machine.

(*Machine à tourner et repasser les cols.*)



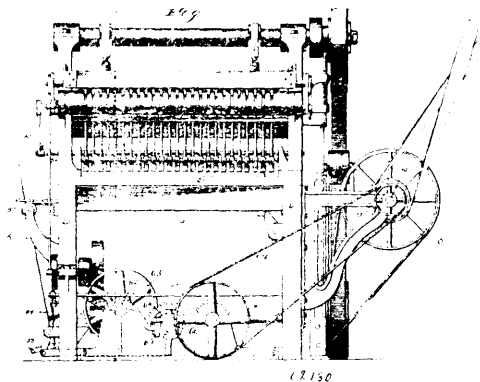
Carl Morrison Reed, assignee of William Channing Shaw, both of Erie, Pennsylvania, U.S.A., 3rd January, 1899; 6 years. (Filed 4th November, 1898.)

Claim.—1st. In a collar turning and ironing machine, the combination of a curved flange-shaped former, over which the collar is folded and curved into proper shape for wear, a grooved iron arranged opposite the former, and means for moving the grooved

iron into engagement with the former and for moving one of said parts upon the other, substantially as set forth. 2nd. In a collar turning and ironing machine, the combination of a curved ironing-bed adapted to support a collar at its bend or foldline, radially-operating levers carrying irons with grooves in their faces wider than the collar-supporting edge of such ironing-bed, and adapted to engage the fold-line of the collar thereon, substantially as and for the purpose set forth. 3rd. In a collar turning and ironing machine the combination of a base, a central standard on said base, radially operating levers on said standard, irons on the free ends of said levers and having grooves in their bottom faces, heaters on said base for supporting and heating said irons, and an ironing-bed having a curved edge narrower than the grooves in the irons, and adapted to support a collar at the turned-over edge, so that when the irons are brought around over said ironing-bed, the grooves in such irons will operate over the bended edge of the collar, substantially as and for the purpose set forth. 4th. In a collar turning and ironing machine, the combination of a base, a vertical semi-circular plate or former over which a collar may be turned, supported by said base, a standard on said base at the centre of said semi-circular plate, levers pivoted on said standard, irons secured to said levers so as to be moved around over the upper edge of said plate or former, and heaters secured to said base at the rear of the ends of said semi-circular plate or former, substantially as and for the purpose set forth.

No. 62,180. Box Cutting and Nailing Machine.

(*Machine à découper et clouer les boîtes.*)



Thomas Benton Abernethy and John Kelly Robinson, both of Chicago, Illinois, U.S.A., 3rd January, 1899; 6 years. (Filed 28th October, 1898.)

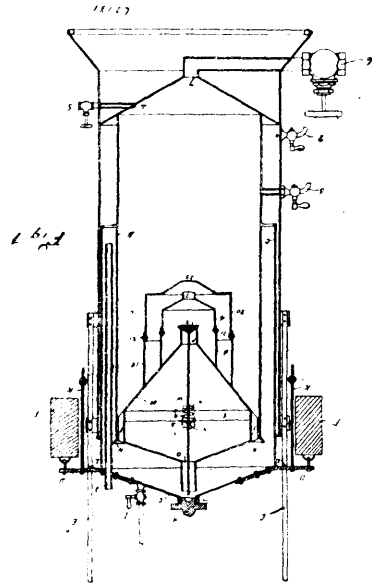
Claim.—1st. A combined scoring and nailing machine, comprising means for supporting a board, cutting mechanism adapted to form transverse grooves in the board, and nailing mechanism for securing strengthening strips upon the board over such grooves, substantially as described. 2nd. The combination with supporting devices adapted to support a board, of cutting mechanism adapted to cut a groove in said board, and nailing mechanism adapted to drive nails into said board at each side of said groove, substantially as described. 3rd. The combination with supporting devices adapted to support a board, of cutting mechanism adapted to cut a groove in the under-side of said board, and nailing mechanism adapted to drive nails into the upper side of said board at each side of said groove, substantially as described. 4th. The combination with supporting devices adapted to support a board, of cutting mechanism adapted to cut a groove in said board, and nailing mechanism for driving independent nails into said board at each side of said groove, substantially as described. 5th. The combination with supporting devices adapted to support a board, of cutting mechanism adapted to cut a groove in the under side of said board, and nailing mechanism above said cutting mechanism, said nailing mechanism being adapted to drive nails into the upper side of said board at each side of said groove, whereby a strengthening strip may be secured upon the board over said groove without moving said board, substantially as described. 6th. The combination with supporting devices adapted to support a board, of cutting mechanism adapted to cut a transverse groove in the under side of said board, and nail-driving devices arranged above said board longitudinally of said groove and at each side thereof, whereby strengthening strips may be nailed upon said board over and longitudinally of said groove, substantially as described. 7th. The combination with nail-driving mechanism, of a nail receptacle, a nail tube leading to the driving mechanism, flexible guide-strips adapted to conduct nails from said receptacle to said nail tube, and means for agitating said receptacle, substantially as described. 8th. The combination with nail-driving mechanism, of a nail receptacle, flexible guides adapted to conduct nails from said receptacle to said driving mechanism, said guides consisting of flexible strips spaced a distance apart and connected to and forming the bottom of said nail receptacle, and

means for agitating said receptacle, substantially as described. 9th. The combination with nail-driving mechanism, and a series of nail tubes adapted to conduct nails thereto, of a receptacle 152, strips 158 adapted to conduct nails from said receptacle to said nail tubes, said strips forming the bottom of the receptacle 152, a pivoted plate 176 in said receptacle, said plate having a series of notches in its lower edge, said notches registering with the spaces between said strips 158, and means for rocking said receptacle 152 and said plate, substantially as described. 10th. The combination with nail-driving mechanism, and nail tubes adapted to conduct nail therein, and flexible guides for the nails, of supporting devices adapted to receive nails singly from said flexible guides and support them at the upper ends of said nail tubes, means for delivering nails singly to said supporting devices, and means for delivering the nails to the nail tubes from the supporting devices singly and without clogging, substantially as described. 11th. The combination with nail-driving mechanism, and tubes adapted to conduct nails thereto, of strips 158, plates 178, 179 adapted to supply nails singly from said strips to said tubes, a dog 197 carried by said plates, cross bar 159 supported under the lower end of said strips 158, said bar having tongues 162 which bear against the under side of said strips, mallets 189, 190 adapted to engage the under side of said bar 159, springs 192, 193, a tappet 196 adapted to throw said mallets out of contact with said bar 159 and to be engaged by said dog, and means for reciprocating said plates 178, 179, substantially as described. 12th. The combination with a scoring device and nail-feeding devices, of reciprocating plungers 102, supporting devices for said plungers, a crank shaft arranged over said supporting devices, pitmans connecting said supporting devices to said crank shaft, whereby by the rotation of said crank shaft said supporting devices will be reciprocated, means for rotating said crank shaft, and devices for automatically throwing said crank shaft out of operation after each complete rotation thereof substantially as described. 13th. The combination with a clamp, as 25, said clamp having a vertically-arranged passage 98 and a nail passage 100 of a plate 204 carried by said clamp, said plate having a perforation to permit of the passage of a nail, laterally-movable blocks supported upon said plate under said passage 90, adjacent edge of said blocks being bevelled, and vertically-movable blocks for normally holding said laterally-movable blocks in contact with each other centrally over said perforation, substantially as described. 14th. The combination with a clamp, as 25, having a vertical passage 98 and a nail passage 100 opening into said passage 98, of a plate 204 at the under side of said clamp, said plate having a perforation 205, blocks 206, 207 resting upon said plate, said blocks having inclined outer and inner edges, vertically-movable blocks 208, 209 adapted to engage the outer edges of said blocks 206, 207 respectively, and springs exerting a downward pressure upon said blocks 208, 209, substantially as and for the purpose specified. 15th. The combination with a supporting table, of a series of clamps 25 adapted to clamp a board upon said table and each provided with a nail passage, rods connecting said clamps, means for vertically moving the clamps to release the board from said table, perforated plates at the under sides of said clamps, laterally-movable blocks supported upon said plates, and vertically-movable blocks for normally holding the said laterally-movable blocks in contact with each other centrally over the perforations in said plates, substantially as described. 16th. The combination with a supporting table having a longitudinal slot, of a cutter, mechanism for moving said cutter longitudinally in one direction, means for automatically throwing said mechanism out of operation when the end of the cut is reached, and a counterpoise for moving said cutter in the opposite direction, and nailing mechanism for driving nails at the opposite sides of the groove formed by said cutter, substantially as described. 17th. The combination with a supporting frame, and horizontal guides carried thereby, said guides being vertically adjustable, of a supporting frame movable in said guides, a cutter carried by said frame, mechanism for moving said frame in a forward direction, nailing mechanism for driving nails at the opposite sides of the groove formed by said cutter, and means for moving said cutter back to the rear of the machine, substantially as described. 18th. The combination with guides, a frame movable therein, and a cutter carried by said frame, of devices for moving said frame in said guides, a lever 77 for throwing said moving devices into operation, a rack adapted to engage said lever to hold said moving devices in operation, devices adapted to be engaged by the cutter-supporting frame when it reaches the front of the machine to throw said lever out of engagement with said rack, and thereby permit the return of said frame to the rear of the machine, and devices for returning said frame, substantially as described. 19th. The combination with guides, a frame 51, and a rotating cutter mounted therein, of a strap 57 connected to said frame 51, a drum to which is connected the other end of said strap, said drum being mounted upon a shaft 62, friction pulleys 63, 64, said pulley 64 mounted on shaft 65 journalled eccentrically in discs 66, 67, means for rotating said discs 66, 67 to throw said friction pulleys into contact with each other, a rack adapted to be engaged by said lever to hold said friction pulleys in contact with each other, devices operated by said frame 51 for throwing said lever out of engagement with said rack, means for returning the frame 51 to the rear of the machine, and means for rotating said cutter, substantially as described. 20th. The combination with nail tubes, guides, and devices for separating the lowermost nail carried by each of said guides from the others, of a plate over said nail tubes, said plate

being adapted to receive the nails and to support them over the nail tubes, and means for operating said plate to cause the nails to drop into the nail tubes, substantially as described. 21st. The combination with the nail tubes, guides 158, and devices for delivering nails singly from said guides, of a plate 217 having slots 218 registering with the guide spaces, and means for operating said plate to cause the nails carried by it to drop into the nail tubes, substantially as described.

No. 62,181. Acetylene Gas Generator.

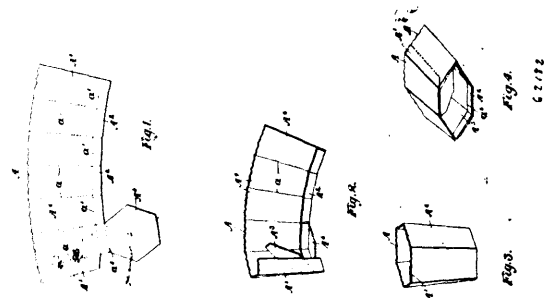
(Générateur de gaz acétylène.)



Isidore Thérien, Québec Cité, Canada, 3 janvier 1899; 6 ans. (Déposé le 14 mars 1898.)

Résumé. — 1° Le récipient de forme ordinaire muni des robinets 2, 5 et 3 en combinaison avec la paroi concentrique B contenant le vase à carbure conique pourvu du bouchon 2 et le tube P tel que décrit. 2° La combinaison du récipient A avec ouverture 7 et robinet 6 tel que décrit. 3° La combinaison du récipient A avec robinet 5 et pièce métallique 4 tel que décrit. 4° La combinaison de la cloche C avec oreilles D D' guides E E', chevilles K K' et poids F F' tel que décrit. 5° La combinaison de la cloche C avec bouchon H robinet I et tube de sureté J tel que décrit. 6° La combinaison de la paroi B avec base à carbure M du rebord N N de l'ouverture O et des conduits 7, 7' tel que décrit. 7° La combinaison du vase M avec tige W du bouchon Z et du tube P tel que décrit. 8° La combinaison de la tige W avec cylindre Q, du ressort R, de la rondelle avec cheville 9, de la traverse 10 et du bras métallique 8, tel que décrit. 9° La combinaison du vase M et du conduit P avec les enveloppes concentriques 15 et 16 et des ouvertures 17 and 22 de tout tel que décrit.

No. 62,182. Paper Cup. (Coupe en papier.)

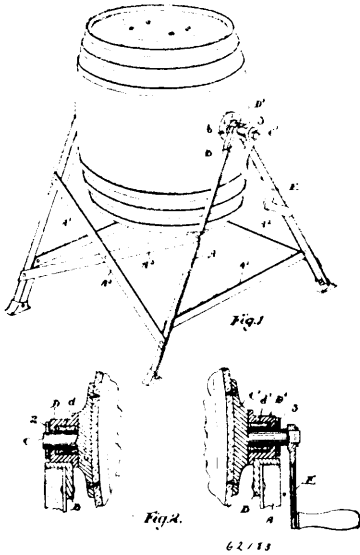


Kilgour Bros., assignees of Frederick George Alexander, all of Toronto, Ontario, Canada, 3rd January, 1899; 6 years. (Filed 13th December, 1898.)

Claim. — A knock-down paper cup comprising a band having a plurality of lines of weakness extending across it and a plurality of lines of weakness extending between the preceding lines near the bottom and substantially at right angles to them, a flap at one end and a bottom formed integrally with one of the sides, having its

sides corresponding in number to the sides of the cup, and so arranged that when the end side is fastened to the flap and the bottom edge turned inwardly and upwardly upon the lines of weakness the bottom will rest upon the upwardly and inwardly turned bottom edge and abut the sides, as and for the purpose specified.

No. 62,183. Churn. (Baratte.)



David Maxwell & Sons, assignees of David Maxwell, all of St. Mary's, Ontario, 3rd January, 1899; 6 years. (Filed 8th November, 1898.)

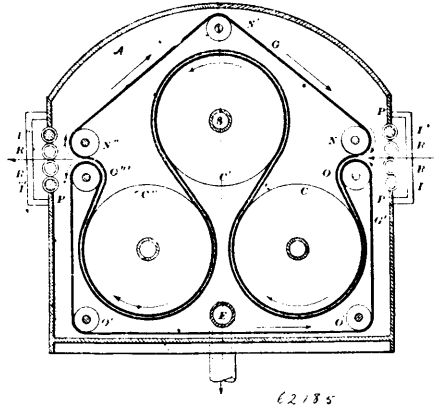
Claim.—1st. The combination with the barrel and suitable frame, having bearing brackets provided with recesses at the apexes of the ends of the frame, of the trunnions secured diametrically opposite each other on the outside of the barrel, the cups provided with end openings through which the trunnions extend, and roller bearings interposed between the trunnions and the cups and surrounding such trunnions, as and for the purpose specified. 2nd. The combination with the barrel and the frame, having triangular ends, with bearing brackets on the apexes of the ends provided with U-shaped recesses, of the trunnions provided with plates by which they are secured diametrically opposite to each other on the outside of the barrel, the cups provided with end openings through which the trunnions extend, the rollers interposed between the bearings and the cups, and surrounding the trunnions and upon which they rotate, and the pins or like retaining device for holding the cups in position when the barrel is removed, and a suitable handle for turning the trunnions, as and for the purpose specified.

No. 62,184. Treatment of Waste Cocoa-Nut Husk.
(*Traitement de déchets de coco.*)

The Fibrous Material Syndicate, 79½ Gracechurch Street, assignee of Henry Redmayne Romney, 50 Broadway Crouch End, and James Mance, 8 Ingleton Villa, Elthorne Road, Uxbridge, Middlesex, England, 3rd January, 1899; 6 years. (Filed 24th September, 1898.)

Claim.—1st. The process of treatment of cocoa-nut dust, fibre or refuse, with any vegetable fibre that will pulp, and the moulding of the said mixtures, substantially as described. 2nd. In a process of treatment of cocoa-nut dust, fibre or refuse, the grading of the refuse and the admixture of vegetable pulp with the fibres for making a binding mixture, and the addition thereto of longer fibres of old rope or sacking, substantially as described. 3rd. In a process of treatment of cocoa-nut dust, fibre or refuse, the mixture of the said refuse and pulp and the shaking and drying of same upon a paper-making machine for long lengths of finished material, substantially as described. 4th. The treatment of material as produced by the processes claimed in claims 1, 2 and 3, with sizing compounds to render it waterproof, substantially as described. 5th. The admixture of material as produced by the processes claimed in claims 1, 2 and 3 with asbestos and other minerals to reduce the combustibility of the material, substantially as described. 6th. The treatment of material as produced by the processes claimed in claims 1, 2, 3 and 5 with glue and tannic acid in order to harden the product for use as in mouldings and the like, substantially as described. 7th. The treatment of material as produced by the processes claimed in claims 1, 2 and 3 with an oxidisable oil or oils to give wearing qualities for use as floor-cloths, mats or the like, substantially as described.

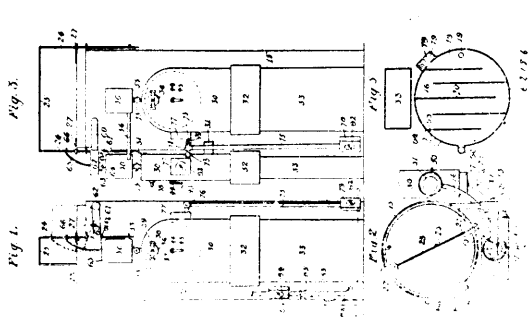
No. 62,185. Web Drier. (Séchoir pour tissus.)



The Vacuum Drier Company, assignee of Howard Parker, all of St. Johnsbury, Vermont, U.S.A., 3rd January, 1899; 6 years. (Filed 9th August, 1898.)

Claim.—1st. A vacuum web-drier, consisting of a closed chamber, connected internally with an exhauster, and having entrance and exit openings for the web, pairs of feed rolls, one or both of each pair with elastic surface, tightly closing the entrance and exit openings, and adapted to draw it and feed out the web to be dried, and moving heated surfaces around which this web is stretched, geared to move with the same surface velocity as the web, and adapted to carry it forward while evaporating the water from it, substantially as herein described. 2nd. A vacuum web-drier, consisting of a closed chamber having entrance and exit openings for the web, pairs of feed rolls, one or both of each pair with elastic surface, closing these entrance and exit openings, and adapted to continuously draw in and feed out the web to be dried, and a series of cylinders heated through their journals, and arranged to hold the web in contact with a considerable part of their heated surfaces, while moving it forward, the said cylinders being connected to each other and to the pairs of rolls by gearing and rolling contact, whereby all have practically the same surface travel, in combination with exhausting apparatus, substantially as herein set forth. 3rd. In a vacuum web-drier, in combination with the exhausted chamber, and with the moving heated surfaces within it, two series of endless metallic tapes, carrying rolls having grooves by which the tapes are guided, the said tapes stretched around and travelling by the path by which the web is to move, each series of tapes made up of several such tapes, spaced near each other, and the two series adapted to receive the said web between them, and hold it to its course while sufficiently exposing it to permit free evaporation, substantially as herein set forth. 4th. In a vacuum web-drier, in combination with the closed chamber and its exhauster, a series of rolls between which the web to be dried may enter the chamber, and a similar series between which it may pass out, the outer two rolls of each series having a hard, smooth surface packed against the walls of the chamber, and the middle roll or rolls being of elastic surface, in rolling contact with the outer two rolls, and adapted to close upon the web, and prevent the air from entering, substantially as set forth. 5th. In a vacuum web-drier, the combination of a closed chamber connected internally with an exhauster, and having entrance and exit openings for the web, pairs of feed rolls, one of each pair with elastic surface, tightly closing these openings, and adapted to continuously draw in and feed out the web to be dried, and moving surfaces heated from within by a liquid (such as oil), which will not vaporise at the heating temperature required, the said moving surfaces being geared to move with the same surface velocity as the web, and adapted to carry this web forward, while evaporating its moisture, and appliances for heating and circulating the heating liquid, whereby the exact temperature best suited for drying any substance in vacuo is maintained in the said moving surfaces in contact with the web of this substance, substantially as described. 6th. In apparatus for drying webs of cloth or paper, the combination of a closed chamber connected internally with an exhauster, and having entrance and exit openings for the web, pairs of feed rolls, one of each pair with elastic surface, tightly closing these openings, and adapted to continuously draw in and feed out the web to be dried, and rotary hollow cylinders, over the surface of which such web passes, geared to move with the same surface speed as the web, and adapted to carry the web forward, while evaporating its moisture, a liquid conveyor of heat, of which the boiling point is higher than the required temperature of said cylinders, introduced into the cylinders through their journals, and apparatus for heating such liquid and circulating it through said cylinders, whereby the heat of their surfaces in contact with the web to be dried is maintained at the predetermined temperature best suited for co-operating with the exhaust in treating the material of this web, substantially as specified.

No. 62,186. Acetylene Gas Generator.
(*Générateur de gaz acétylé.*)



Francis Xavier Nadon and John P. Logue, both of Maniwaki, Quebec, Canada, 3rd January, 1898; 6 years. (Filed 12th May, 1898.)

Claim.—1st. An apparatus for generating acetylene gas, consisting of a tank containing a gasometer and a concentric chamber, a generator secured to said tank, a pipe connecting the said generator and condensing chamber, filters through which the gas passes on its way from the said generator to the condensing chamber, a pipe connecting the said condensing chamber with the gasometer, a pipe from the said condensing chamber to the service pipe and a filter interposed between the said chamber and pipe, substantially as set forth. 2nd. A generator for an apparatus for generating acetylene gas, consisting of a casing open at the bottom, a carbide receptacle consisting of two discs a little distance apart, united at their peripheries by wire gauze, a door in the casing, and a door in one of the discs through which the carbide is fed to the receptacle, an axle on which the said receptacle is secured, journaled in the said casing, a cranked handle for revolving the said receptacle, a box having a deep channel on its upper edge in which the lower edge of the said casing fits, a strip of rubber in the bottom of the said channel, and means for supplying water to the carbide in the said receptacle, substantially as set forth. 3rd. In an apparatus for generating acetylene gas, the combination with the main tank having a gasometer in its upper part of the condensing chamber 18, divisions whereby the gas is made to take a zig-zag course through the said chamber, a vertical pipe open at the top outside the tank connected to said chamber, and a pipe connecting the said chamber with the gasometer, substantially as set forth. 4th. In an apparatus for generating acetylene gas, the combination with the generator containing the carbide receptacle, of a vertical pipe passing through the top of the said generator, over the said receptacle, the said pipe being closed at the top with the exception of a small perforation, a water containing vessel surrounding the said pipe, the top of the said vessel being open and higher than the top of the said pipe, an inverted vessel over the said pipe, and secured to the said water containing vessel, openings at the base of the said inverted vessel, and means for supplying water to the said vessel when the gas is required to be generated, substantially as set forth. 5th. In an apparatus for generating acetylene gas, the combination with the main tank, in which the inverted cylinder of the gasometer slides by means of projecting lugs on vertical slide rods, of the horizontal pipe 60, connected to the said main tank near its upper edge, a slot 61 near the outer edge of said of the said pipe, a pipe 62 journaled on the end of the said pipe 60, a branch pipe 63 registering with the said slot 61, an opening 64 in the closed outer end of the said branch pipe, a rod 65 secured to the said branch pipe, a loop formed on the upper end of the said rod embracing one of the guide rods of the gasometer, above one of the lugs on the inverted cylindrical vessel, the opening 64 being over the vessel supplying the water to the generator, substantially as set forth. 6th. In a filter for an apparatus for generating acetylene gas, the combination with the casing 77 of the perforated divisions 79, a compartment 80 adapted to receive the filtering material, an opening into said compartment, and a door closing the said opening, substantially as set forth.

No. 62,187. Nitro-Cellulose Coating Method.
(*Méthode d'enduire de nitro-celluloses.*)

Charles Edward Shaw, Ricker's Cote, Stafford, assignee of The Publishing, Advertising and Trading Syndicate, Cheapside, assignees of Frederick George Amison, London, all in England, 3rd January, 1899; 6 years. (Filed 22nd September, 1898.)

Claim.—1st. The herein described improvement in the art of applying surfaces of nitro-cellulose compound to a flexible permeable base, which improvement consists, first, in impregnating the base with a solution of the compound sufficiently fluid to permeate it to a required depth to secure a firm hold thereon, surround the fibres, and to an extent fill the interstices thereof, drying the same, superposing thereupon a solution of the compound thicker than the

solution for the first coating, but sufficiently fluid to be spread over the surface of the dried impregnating compound, thereby further filling the interstices of the base and partially dissolving the dried impregnating compound so as to coalesce or intimately unite therewith, whereby the coat as a whole is homogeneous and intimately united to, or anchored within, the body of the base. 2nd. The herein described improvement in the art of applying surfaces of nitro-cellulose compound to a flexible permeable base, which improvement consists, first, in impregnating the base with a solution of the compound sufficiently fluid to permeate it to a required depth to secure a firm hold thereon, surround the fibres, and to an extent fill the interstices thereof, second, drying the impregnating compound, third, superposing upon the dried impregnating compound a coating of a solution of the compound thicker than the solution for the first coating, but sufficiently fluid to be spread over the surface of the impregnating compound, thereby further filling the interstices of the base and partially dissolving the impregnating compound so as to coalesce or intimately unite therewith, fourth, drying the superposed coating, and fifth, applying one or more coatings of the such heavier solution and drying each in turn until a surface of the requisite body has been built up, whereby the coat as a whole is homogeneous and intimately united to or anchored within the body of the base. 3rd. The herein described improvement in the art of applying surfaces of nitro-cellulose compound to a flexible permeable base, which improvement consists, first, in impregnating the base with a solution of the compound sufficiently fluid to permeate it to a required depth to secure a firm hold thereon, surround the fibres and to an extent fill the interstices thereof, second, drying the impregnating compound, third, superposing upon the dried impregnating compound a coating of a solution of the compound thicker than the solution for the first coating, but sufficiently fluid to be spread over the surface of the impregnating compound, further filling the interstices of the base and partially dissolving the impregnating compound so as to coalesce or intimately unite therewith, fourth, drying the superposed coating, and fifth, applying one or more coatings of such heavier solution and drying each in turn until a surface of the requisite body has been built up, whereby the coat as a whole is homogeneous and intimately united to or anchored within the body of the base, and then compacting the coat by heat and pressure. 4th. The herein described improvement in the art of applying surfaces of nitro-cellulose compound to a flexible permeable base, which improvement consists, first, in impregnating the base with a solution of the compound sufficiently fluid to permeate it to a required depth to secure a firm hold thereon, surround the fibres and to an extent fill the interstices thereof, second, drying the impregnating compound, third, superposing upon the dried impregnating compound a coating of a solution of the compound thicker than the solution for the first coating but sufficiently fluid to be spread over the surface of the impregnating compound, further filling the interstices of the base and partially dissolving the impregnating compound so as to coalesce or intimately unite therewith, fourth, drying the superposed coating, and fifth, applying one or more coatings of such heavier solution, and drying each in turn, until a surface of the requisite body has been built up, whereby the coat as a whole is homogeneous and intimately united to or anchored within the body of the base, and then compacting the coat by heat and pressure and finally embossing it. 5th. The herein described improvement in the art of applying flexible surfaces of nitro-cellulose compound to a flexible permeable base, which improvement consists in impregnating the base to the desired depth with a liquid solution of the compound, then drying the impregnating compound, then superposing thereupon one or more coatings of a heavier solution of the compound containing oil, then upon the coating thus produced, applying one or more coatings of the compound containing less oil than is contained in the intermediate coatings, drying each in turn. 6th. The herein described process of coating a base with nitro-cellulose compound, consisting in applying to the base a coating of a nitro-cellulose compound containing little or no oil, and then applying thereto one or more coatings of nitro-cellulose compound rich oil, and then one or more coatings containing little or no oil, drying each coating in turn, substantially as described. 7th. The herein described improvement in the art of applying flexible surfaces of nitro-cellulose compound of a flexible permeable base, which improvement consists in impregnating the base to the desired depth with a liquid solution of the compound containing little or no oil, then drying the impregnating compound, then superposing thereupon one or more coatings of a heavier solution of the compound rich in oil, drying each coat in turn, then, upon the coating thus produced, applying one or more coatings of the compound containing less oil than the immediately preceding coating, drying each coat in turn, and, finally, applying one or more finishing coatings of the compound containing materially less oil or none at all. 8th. The herein described improvement in the art of applying a surface of nitro-cellulose compound to a flexible permeable base, which improvement consists in impregnating the surface of the base with a liquid solution of the compound free from pigment, then drying the impregnating coating, then superposing upon the dried impregnating coating a thin coating of a heavier solution of the compound containing coloring matter and oil that is sufficiently fluid to intimately unite with the dried impregnating coating, then drying the superposed coating, and then successively applying coats of solution containing coloring matter and oil, drying each in turn,

until the coating has been built up to the desired thickness and colour, and then superposing upon the last of said coats one or more coats of a solution of the compound free from colouring matter, and drying the same. 9th. The herein described improvement in the art of applying a surface of nitro-cellulose compound to a flexible permeable base, which improvement consists in impregnating the surface of the base with a liquid solution of the compound so as to penetrate it to a required depth to secure a firm hold thereon, then drying the impregnating coating, then superposing upon the impregnating coating a thin coating of a solution of the compound containing oil and thicker than the solution for the first coating, then drying such superposed coating, and then successively applying coats of solution containing oil, drying each in turn until the coating has been built up to the desired thickness. 10th. The herein described improvement in the art of applying a surface of nitro-cellulose compound to a flexible permeable base, which improvement consists in impregnating the surface of the base with a liquid solution of the compound, then drying the impregnating coating, then superposing upon the dried impregnating coating a thin coating of a heavier solution of the compound containing colouring matter, and oil then drying such superposed coating, and then successively applying coats of solution containing colouring matter and oil, drying each in turn, until the coating has been built up to the desired thickness and colour. 11th. The herein described article of manufacture consisting of a flexible permeable base, having a coat of nitro-cellulose compound of the character described, consisting of successive intimately united thin coatings, the first of which was of such fluidity as to impregnate the substance of the base to a required depth and secure a firm hold or anchorage to and within the substance of the base as described, and the succeeding coating or coatings of which are less fluid and are respectively coalesced with or intimately united to the preceding coating. 12th. The product or article of manufacture herein described, consisting of a flexible permeable base having a coat of nitro cellulose compound of the character described, which coat has a central stratum relatively rich in oil and a stratum on either side of said central stratum deficient in oil, the outer stratum of which forms a continuous surface covering the face of the base, and the inner stratum of which was of such fluidity as to impregnate the substance of the base to the required depth so as to increase the fibres of the flexible base and anchor the coat firmly to and within the substance of the base, substantially as described. 13th. The product or article of manufacture herein described, consisting of a flexible permeable base having a coat of nitro-cellulose compound of the character described, which coat has a central stratum relatively rich in oil and a stratum on either side of said central stratum deficient in oil, the outer stratum of which forms a continuous surface covering the face of the base. 14th. The article of manufacture herein described, consisting of a flexible permeable base having a coat of nitro-cellulose compound of the character described attached thereto, which coat has an inner surface or stratum in contact with the base containing no oil, and a stratum rich in oil lying outside of said inner stratum, whereby the base is protected from the oil. 15th. The herein described article of manufacture, consisting of a flexible permeable base having a built up coat of nitro-cellulose compound of the character described, consisting of successively intimately united thin coatings, as follows: a first coating which was of such fluidity as to impregnate the substance of the base to such a depth as to secure a firm hold or anchorage to and within the substance of the base, as described, then a succeeding coat or coatings which were less fluid and are respectively coalesced with or intimately united to the preceding coating, and finally a finishing coating, oil being so used in the coatings that the resulting coat as a whole has a surface containing little or no oil and is rich in oil beneath its surface.

No. 62,188. Manufacture of Cellulose Tetracetate.

(Fabrication de produits de cellulose.)

Isidor Frankenburg, Salford, England, assignee of Carl Otto Weber, of Salford aforesaid, and Charles Frederick Cross, 4th New Court, Lincoln's Inn, London, 3rd January, 1899; 6 years. (Filed 19th September, 1898.)

Claim.—The manufacture of cellulose tetracetate in the pure state by combining with the acetylizing mixture, essentially as above described, the use of solvents such as nitro-benzine, its homologues dichlorohydrine or epichlorohydrine, essentially in the manner set forth, for the purpose of restraining and controlling the reactions involved in the acetylizing process.

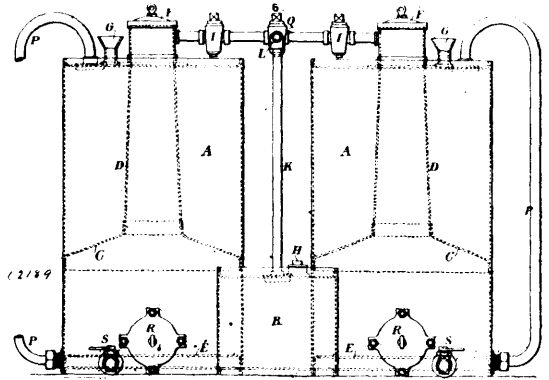
No. 62,189. Apparatus for Preparing Hydrogen.

(Appareil pour la preparation d'hydrogene.)

The Gas and Sulphate Producer, Limited, 14th Market Street, Brompton, London, assignee of John Fielding, Belmont, St. Leonards, Gloucester, all in England, 3rd January, 1899; 6 years. (Filed 8th September, 1898.)

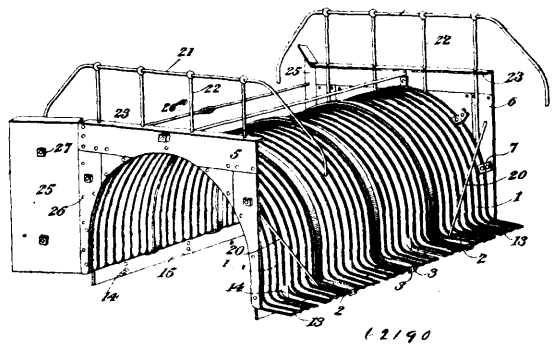
Claim. 1st. Apparatus for producing and carburetting hydrogen, consisting of a circular producer A, with central filling tube D, such apparatus being constructed and operating in combination with a carburetting apparatus B, substantially as described with reference to the accompanying drawings. 2nd. Apparatus for the

continuous production and carburetting of hydrogen, consisting of two producers A and a carburetting apparatus B, constructed and



operating substantially as described with reference to the accompanying drawings.

No. 62,190. Bridge. (Pont.)

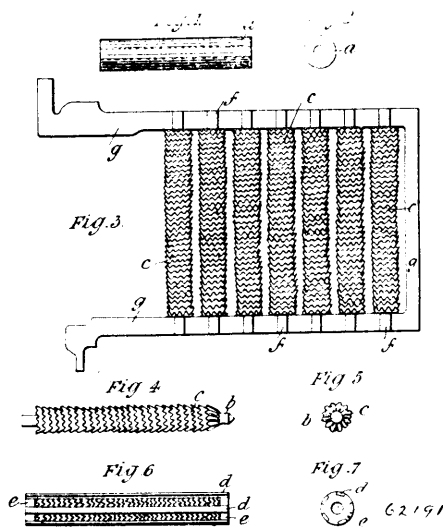


Walter W. Brundage, assignee of Aaron Grant Pratt, both of Hammondsport, New York, U.S.A., 3rd January, 1899; 6 years. (Filed 2nd September, 1898.)

Claim. 1st. A bridge composed of a series of metallic arch plates and intermediate binding members united together, the intermediate binding members being in part situated between the edges of the arch plates, which are supported and aligned thereby, substantially as set forth. 2nd. A bridge composed of a series of metallic arch plates, intermediate binding members uniting the arch plates, the intermediate binding members being in part situated between the edges of the arch plates which are supported and aligned thereby, and horizontal bases upon the opposite ends of the arch plates, substantially as set forth. 3rd. A bridge composed of a series of metallic arch plates, intermediate binding members uniting the arch plates, the intermediate binding members being situated between the edges of the arch plates, which are supported and aligned thereby, and horizontal bases upon the opposite ends of the arch plates, formed by bending the material of the structure at a proper angle, substantially as set forth. 4th. In a bridge, the combination with a series of arch plates, of T-iron binding members interposed between and supporting the plates, and having their supporting flanges secured to the plates near their edges, substantially as set forth. 5th. In a bridge, the combination with an arched member, and its bases, of a substantially vertical bottom plate projecting from the arched member and extending in the direction of the axis of the arch, and adapted to afford a breast to retain an earthen foundation upon which the base is designed to rest, substantially as set forth. 6th. In a bridge, the combination with an arched member and its bases, of vertical projections or tongues upon the arched member, and a vertical bottom plate secured to the tongues, substantially as and for the purpose specified. 7th. In a bridge, the combination with an arched member formed of plate metal and bases formed by bending the plate metal at a proper angle, of vertically disposed tongues formed by slitting the ends of the arched member, and a vertical bottom plate secured to the tongue, substantially as set forth. 8th. A section of bridge, consisting of a sheet of metal having its ends bent to form bases at its opposite ends, and tongues formed by slitting the ends of the metallic sheet and bending them at an angle to the respective bases, substantially as set forth. 9th. The combination of a bridge-head and flange, of standards passing through the apertures of the flange, and a rail supported by the standards, the lower end of the standards adapted to be anchored in the earth, substantially as

set forth. 10th. The combination with a bridge and its heads, of wing plates secured to the opposite ends, and tie rods uniting the opposite wings, substantially as and for the purpose specified. 11th. As a part of a bridge, wing plates adapted to be secured to the heads of a bridge, and tie rods connecting the wing plates to hold them in position, substantially as set forth.

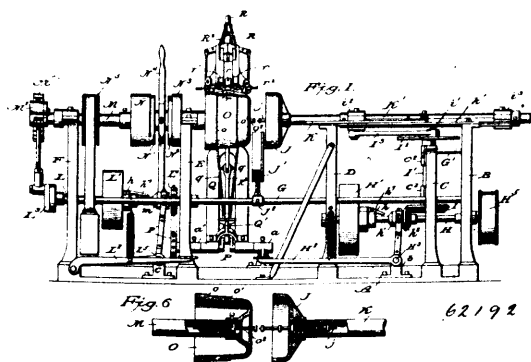
No. 62,191. Electrode. (Electrode.)



The Porous Accumulator Company, assignee of John Charles Howell, both of 24 Queen Victoria Street, London, England. 3rd January, 1899; 6 years. (Filed 18th July, 1898.)

Claim.—1st. The process of producing battery plates or electrodes which consists in cutting spirally a metallic tube and causing the continuous ribbon so produced to be wound upon a core or mandrel, substantially as described. 2nd. The process of producing battery plates or electrodes, which consists in cutting spirally a metallic tube and causing the continuous ribbon so produced to be wound upon a core or mandrel giving less surface speed than the tube so as to produce a crinkled or waved ribbon, substantially as described. 3rd. The process of producing battery plates or electrodes which consists in cutting spirally a metallic tube and securing the continuous ribbon so produced upon or to a core or frame, substantially as described. 4th. As an article of manufacture, a battery plate or electrode composed of a spirally wound continuous metallic ribbon mounted upon or to a core or frame, substantially as described.

No. 62,192. Basket Making Machine. (Machine à faire les paniers.)



Roger E. Reed, Elmer E. Weed, Milton Gerber and Cornelius Gerber, all of Douglas, Michigan, U.S.A., 3rd January, 1899; 6 years. (Filed 14th July, 1898.)

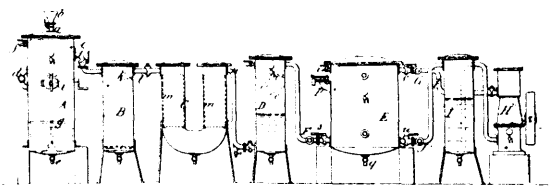
Claim.—1st. In a basket-making machine, the combination with a form mounted on a shaft connected with mechanism for imparting an intermittent rotary movement or a continuous rotary movement thereto, a shaft journaled in line therewith and provided with a hood or cap, means for moving the same over the form so as to bend and retain the basket-splints thereon, of a stapling-machine mounted on a swinging support so that it can be moved into operative position over the form or to one side of the same, when placing the

splints on the form or removing the completed basket therefrom. 2nd. In a basket-making machine, a shaft having a basket-form carried thereby, a cap or hood carried by a shaft on a line therewith, said shaft being mounted so as to be moved to and from the form, a stapling-machine mounted on a swinging support, the driving-shaft of the stapling-machine being in gear with the driving mechanism for the shaft upon which the form is mounted, said mechanism embodying a pawl and ratchet for imparting an intermittent rotary motion to the form and gearing to operate the stapling-machine when the form is at rest, substantially as shown and for the purpose set forth. 3rd. In a basket-making machine, the combination with a shaft having a basket-form attached thereto, mechanism for imparting to said shaft and basket-form an intermittent rotary motion, a pulley mounted on the shaft so as to impart when it positively engages the shaft a continuous rotary movement, a second shaft mounted on a line with the shaft carrying the form, the same being provided with a hood or cap, and means for supporting the shaft so that it may be moved to place the hood or cap partially over the form, together with a stapling-machine supported so as to be moved to an operative position over the form or to one side of the same, the stapling-machine being connected with the shaft carrying the form so that a downward movement of the staple-drivers will be effected when the form is at rest, substantially as set forth. 4th. In a basket-making machine, the combination of a horizontally-mounted shaft carrying a basket-form, of a shaft mounted on a line therewith and provided with a cap or hood for bending the basket-splints over the form, said shaft being connected with means for moving the same longitudinally, the basket-form having its end adjacent to the hood or cap concave, and a spring-projected rod carried by the shaft upon which the hood or cap is mounted for bending the splints in the concave portion of the basket-form, for the purpose set forth. 5th. In a basket-making machine, the combination with the shafts one carrying a form having a concave end and the other a cap or hood, the shaft carrying the cap or hood being movable longitudinally to and from the form, of spring-projected rods carried by the shafts so as to be on a line with each other to provide means for holding the splints and forcing them in the concave portion of the basket-form prior to the engagement of the hood or cap with said splints, said hood or cap bending and holding the splints over the form while the bands are being applied thereto, the spring-projected rod carried by the shaft upon which the form is mounted projecting the basket from the form when the cap is moved away therefrom, for the purpose set forth. 6th. In a basket-making machine, the combination with shafts one having a form with concave end and the other a splint-bending cap mounted thereon, of spring-projected rods carried by the shafts and positioned centrally with respect to the form and cap, one of the rods having means for limiting its inward movement so that a part thereof will be positively projected to force the splints into the concave end of the basket-form prior to the bending of the splints over the form by the cap, for the purpose set forth. 7th. In a basket-making machine, the combination with a basket-form mounted on a horizontal shaft, said form having shoulders to provide inner hoop-bearings, the outer end of the form being concave, a hood or cap mounted on a shaft having means for moving the shaft so as to position the hood or cap over the form, the shafts upon which the form and hood or cap are mounted each carrying spring-projected rods which hold the splints centered, one of the rods having means for holding the same positively projected so as to bend the splints within the concave portion of the form, the hood or cap subsequently bending the splints over the form, substantially as shown and for the purpose set forth. 8th. In a basket-making machine, the combination with a form having a concave end, of a hood or cap adapted to bend the splints over the form, a rod carried by the shaft upon which the hood is mounted, a spring for projecting said rod and a collar or stop to limit the inward movement of the rod to provide a projecting portion which will force the splints into the concave portion of the form. 9th. In a basket-making machine, the combination of a shaft mounted so as to be rotatable in bearings, the bearings being supported so as to have a longitudinal movement, a hood or cap for the purpose set forth mounted on one end of the shaft, a lever fulcrumed on a fixed frame and provided with a projecting portion for engagement with the sliding frame having the bearings and means substantially as shown for effecting the movement of the sliding frame, for the purpose set forth. 10th. In a basket-making machine, the combination with a form, of a cap or hood mounted on a shaft, means for moving the shaft and hood to and from the form embodying a sliding frame with bearings in which the shaft is journaled, a pitman connected to the sliding frame and to an arm or disc, a vertical shaft on which said arm or disc is mounted, a gear-wheel on the lower end of said shaft, together with a horizontal shaft having a driving-pulley loosely mounted thereon, a sliding block for throwing a clutch of the driving-pulley in engagement with the shaft and a lever for moving said clutch, substantially as shown. 11th. In a basket-making machine, the combination with a form and hood having spring-projected, splint-holding bars or rods, of a centering device positioned beneath the form and cap so as to occupy an intermediate position between the same with which the ends of the splints are adapted to engage, substantially as shown. 12th. In a basket-making machine having a form and hood, of a segmental plate supported beneath the same to serve as a centering device for the splints, together with spring-projected, splint-holding bars carried by the shafts upon which the

form and hood are mounted so as to engage with the splints, substantially as shown. 13th. In a basket-making machine having a form and hood or cap, of a segmental centering device supported beneath the same, said centering device having on one of its edges an upwardly-projecting flange, the supports for the form and the hood having spring-actuated, splint-holding rods beneath which the centering device is positioned, for the purpose set forth. 14th. In a basket-making machine, the combination with the shafts having hollow ends upon which are mounted a form and hood for bending the splints over the same, spring-actuated splint-engaging rods carried by the hollow shafts, together with a segmental centering device adjustably mounted upon the frame below the splint-holding rods, for the purpose set forth. 15th. In a basket-making machine, the combination with a form and means for holding splints thereon and imparting a rotary movement thereto, of a stapling-machine mounted on a swinging support so as to be moved into operative position over the form, said stapling-machine having a pair of staple-drivers maintained at opposing angles with each other and with the grain of the hoops and splints. 16th. In a basket-making machine, the combination with a stapling-machine mounted on a movable support, the same having in front of the staple-drivers thereof hoop-rollers, of a form mounted on a shaft, said form having shoulders against which the inner hoops of the basket are positioned so that the inner hoops will be beneath the staple-drivers and hoop-rollers adjacent thereto when the stapling-machine is moved over the form, for the purpose set forth. 17th. In a basket-making machine, the combination with a form and a cap for holding the splints thereon, and means for imparting an intermittent rotary movement to the form, of a stapling-machine having a pair of rollers for the exterior hoops and mechanism for driving two staples simultaneously when the form is at rest, the shaft carrying the form and the driving-shaft of the stapling-machine being in gear with each other, substantially as shown and for the purpose set forth. 18th. In a basket-making machine, the combination with a shaft having means for imparting an intermittent rotary movement thereto, a form mounted on said shaft, a stapling-machine supported so as to be moved to one side of the form to provide room to bend the splints upon the form, the stapling-machine being moved over the same when in operative position, a cap or hood for holding the splints on the form and mechanism substantially as shown for operating the stapling-machine when the form is at rest, for the purpose set forth. 19th. In combination with a basket-making machine, having a form and means for holding the basket-splints thereon, of a stapling-machine mounted on a swinging support, a foot-lever or brake for moving the stapling-machine above the form, together with means for throwing the driving mechanism which operates the stapling-machine in gear with the shaft upon which the form is mounted, substantially as shown. 20th. In a machine for making baskets from splints and hoops, a form over which the splints are bent, a cap for bending and holding the splints thereon, in combination with a stapling-machine which is movable at right-angles to the longitudinal axis of the form, rollers carried by the frame of the stapling-machine in advance of the staple-driving mechanism and a cross-bar having upwardly-projecting guide-pins, supported so as to be positioned in advance of the rollers, substantially as shown and for the purpose set forth. 21st. In a basket-making machine, the combination with a form and a cap or hood for holding the splints thereon, the shaft upon which the form is mounted carrying a ratchet-wheel, means for turning the ratchet-wheel, said shaft also carrying a friction-brake to provide means for holding the shaft against rotation, together with a stapling-machine and means for operating it from the driving-shaft to which the shaft carrying the form is geared so that the staples will be driven when the form is at rest, for the purpose set forth. 22nd. In a basket making machine, the combination of a pair of shafts in alignment with each other, one of the shafts having a basket-form mounted thereon, the other shaft carrying a cap or hood for bending and holding the splints upon the form, means for imparting an intermittent rotary movement to the shaft carrying the form, a stapling machine in gear with a main driving shaft, said main driving shaft also being connected to the shaft carrying the form, means for disengaging the driving pulley from the main driving shaft, a pulley mounted on the shaft carrying the form and a clutch adapted to be placed in engagement therewith, so as to effect a continuous rotary movement of the form without operating the staple-driving mechanism, the parts being organized and combined substantially as shown and for the purpose set forth. 23rd. In a basket-making machine, the combination of an intermittently driving shaft carrying a form, of a shaft mounted so as to be movable to and from the form, a hood carried by said shaft, driving shafts as H, L, and means for connecting said shafts with the shafts carrying the form and hood, pulleys loosely mounted on the shafts L, H, and foot-levers having their ends projecting toward each other, said foot-levers being connected to rock-shafts having arms for engagement with slides mounted on the shafts L, H, so that when the foot-levers are depressed the slides will be moved to engage catches on the shafts so that said pulleys will be positively connected with the shafts, together with an arm pivotally attached to a crank shaft, said arm carrying stapling mechanism, a foot lever for bringing the arm forward so that the stapling mechanism will be in operative position and gearing for connecting the crank shaft L, the parts being combined and organized substantially as shown and for the purpose set

forth. 24th. In a basket-making machine the combination with the form and means for holding splints thereon and imparting an intermittent rotary motion to the form and splintholder, of a duplex stapling machine having separate plungers and staple forming devices, guide rollers and wire holders, motion being imparted to the operative parts by a single rod which is reciprocated from the shaft which drives the shaft carrying the form, the stapling-machine also carrying in front of the staple inserting plungers, flanged rollers for the hoops and an intermediate resilient bar carrying a cross bar with upwardly projecting pins, the parts being organized substantially as shown and for the purpose set forth. 25th. In a basket making machine, the combination with a form, and a hood or cap for bending the splints and holding them on the form, the form and the hood or cap being mounted on independent shafts, means for moving longitudinally one of the shafts so that it will turn in unison with the shaft carrying the form, of a stapling-machine carried by a swinging support, so as to be positioned away from the form and brought over the form, the basket form serving as an anvil for the staple drivers, substantially as set forth. 26th. The combination of a basket-making machine, having a driven shaft to which is imparted an intermittent rotary movement, a basket-form carried by said shaft and a cap or hood for holding the basket-splints thereon, of a stapling-machine mounted on a swinging support, the driving-shaft of the stapling-machine being geared and ordinarily arranged to operate the staple-drivers which are indirectly connected with said shaft so that the downward movement thereof will be between the impulses of the basket-form, the mechanism embodying a driving-shaft with which the driving-shaft of the form and the driving-shaft of the stapling-machine are geared, for the purpose set forth. 27th. In combination with the basket-making machine, a staple making and driving mechanism, comprising a base-frame with stapling mechanism arranged at opposing angles with respect to the longitudinal axis of the basket-form, the base-frame having a centrally-projecting lug upon which are mounted hoop-rollers, a plate carried by the lug so as to project in advance of the hoop-rollers, said plate having upward projecting pins, together with a reciprocating frame the downward movement of which actuates the mechanism which forms and drives the staples, substantially as shown. 28th. In combination with a basket-making machine, a stapling-machine having a pivotally-supported base-frame with staple-making and driving mechanisms carried thereby so as to be at opposing angles, relative to the longitudinal axis of the basket-form, an operating-rod which passes through and is guided by the base-frame, a frame mounted on said shaft so as to reciprocate therewith said frame carrying depending members which actuate the staple making and driving mechanisms and means in engagement with each other for rotating the basket-form and reciprocating the operating-rod of the staple mechanism, substantially as shown and for the purpose set forth. 29th. In combination with a basket-making machine, a duplex stapling-machine comprising a lower base-frame, the portions which carry the staple making and driving mechanisms being arranged at opposing angles with each other, a driving-rod for operating both staple making and driving mechanism, said rod passing through the base-frame and being guided thereby, a reciprocating frame carrying pawls for operating the feed-wheels, latches for engagement with the staple-formers, and staple-drivers connected to the upper reciprocating frame, substantially as shown and for the purpose set forth.

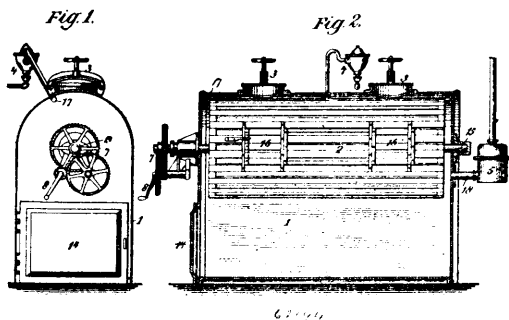
No. 62,193. Apparatus for Preserving Organic Substances. (*Appareil pour la préservation de substances organiques.*)



Jeanne d'Echevanne, assignee of Raoul Minron d'Arcenant, both of Paris, France, 3rd January, 1899; 6 years. (Filed 6th July, 1898.)

Claim. 1st. A process for preserving organic or other solid or liquid substances, the said process consisting in treating the substances under pressure in an autoclave or in an air-tight case by a continuous or alternating current consisting of a mixture of carbonic acid or gaseous formalin. 2nd. The described apparatus for carrying out the process described comprising a generator for producing carbonic acid gas, a purifier, a sypoon drier and a washer containing methenyl and in which the carbonic acid gas is washed and charged with formalin, after which the gaseous mixture enters the autoclave in which a circulation of gas is kept up by a compressor which forces the gas out after having again washed it, substantially as described and illustrated in the accompanying drawing.

No. 62,191. Acetylene Gas Generator. (Générateur de gaz acétylène.)

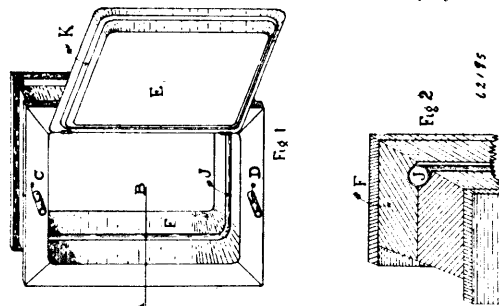


Edward James Dolan, Philadelphia, Pennsylvania, U.S.A., 4th January, 1899; 18 years. (Filed 31st August, 1897.)

Claim.—1st. The method of generating acetylene gas, which consists in superimposing a suitable body of loose, solid pieces of carbide of calcium upon each other so as to form a pervious mass, spraying or dropping water upon the said mass of calcium carbide, whereby it is enabled to percolate through said mass, and at intervals causing the pieces of carbide of calcium to be displaced relatively to each other and to rub against each other so as to expose fresh surfaces to the water, and to remove decomposed portions which fall away by gravity, substantially as described. 2nd. The method of generating acetylene gas, which consists in superimposing a suitable body of loose, solid pieces of carbide of calcium upon each other so as to form a pervious mass, spraying or dropping water upon the said mass of calcium carbide, whereby it is enabled to percolate through said mass, in varying the flow of water in proportion to the consumption of the gas, and at intervals causing the pieces of carbide of calcium to be displaced relatively to each other and to rub against each other so as to expose fresh surfaces to the water, and to remove decomposed portions which fall away by gravity, substantially as described. 3rd. In a gas generator, the combination of a gas tank, an open work support for the gas producing material within the tank supported so as to be exposed to gas on all sides, means extending to without the tank for moving the support, a gastight packing surrounding the mechanism for moving the support which extends through the tank to the open air, and means for dropping or spraying water on the top of the material within the open support, substantially as described. 4th. In a gas generator, the combination of a gas tank, an open work support for the gas producing material within the tank supported so as to be exposed to gas on all sides, means extending to without the tank for moving the support, a gas tight packing surrounding the mechanism for moving the support which extends through the tank to the open air, means for dropping or spraying water on the top of the material within the open support, and an automatic governor operated by the pressure of gas within the tank to control the supply of water, thereby maintaining a substantially uniform pressure of gas within the tank and preventing excessive, sudden and rapid violent jets of water into the apparatus, which water might pass around the carbide instead of percolating through it, substantially as described. 5th. In a gas generator, the combination of a gas tank, an open work support for the gas producing material within the tank suspended so as to be exposed to gas on all sides, means extending to without the tank for moving the support, a gastight packing surrounding the mechanism for moving the support which extends through the tank to the open air, means for dropping or spraying water on the top of the material within the open support, and a conveyor or feeding screw at the bottom of the tank for discharging the deposits or refuse, substantially as described. 6th. In a gas generator, the combination of a gas tank, an open work support for the gas producing material within the tank suspended so as to be exposed to gas on all sides, means extending to without the tank for moving the support, a gastight packing surrounding the mechanism for moving the support which extends through the tank to the open air, means for dropping or spraying water on the top of the material within the open support, a conveyor or feeding screw at the bottom of the tank for discharging the deposit or refuse, and gastight caps to cover the discharge end of the screw and conveyor and also the crank end of its shaft when the apparatus is normally operating to generate gas, substantially as described. 7th. In a gas generator, the combination of a gas-tight vessel connecting with a gas main, a water spraying pipe extending within the vessel, and means for suspending the lumps or pieces of carbide of calcium contained within the vessel so that they are exposed on all sides to gas, and for causing them at intervals to be displaced relatively to and to rub upon each other to expose fresh surfaces to be acted upon by the water without crushing or pulverizing said lumps of carbide, substantially as described. 8th. The combination, in an apparatus for generating acetylene gas, of a casing or gas-chamber, a revoluble open work drum for containing the calcium carbide, and a water tube for spraying water upon said calcium carbide extending into said drum and passing outward to

a water connection through the axis of revolution of the drum, substantially as described. 9th. In a gas generator, the combination of the tank 1, having charging-door 3, and a gas outlet-pipe, an open work cage 2, adapted to revolve within the tank having a charging aperture 16, and a shaft for operating it extending through the tank, a stuffing-box surrounding said shaft, means outside the tank 1 to rotate the cage and its shaft, a water-pipe to drop or spray water upon the contents of the open cage, and means whereby the refuse material may be removed, substantially as described. 10th. In a gas generator, the combination of the tank 1, having charging-door 3, and a gas outlet-pipe, an open work cage 2 adapted to revolve within the tank and having a charging aperture 16, and a shaft for operating it extending through the tank, a stuffing-box surrounding said shaft, means outside the tank 1 to rotate the cage and its shaft, a water-pipe to drop or spray water upon the contents of the open cage, an opening through which the refuse material may be discharged, and a gas-tight door for covering the same, substantially as described. 11th. The combination with a carbide holder, of an acetylene gas generator and a gas-pipe leading from said generator, of mechanism caused to operate by the varying gas pressure whereby said carbide holder will be automatically agitated at intervals, substantially as described. 12th. The combination with a carbide holder, of an acetylene gas generator and a gas pipe leading from said generator, of mechanism operated by gas pressure interposed between said gas pipe and the carbide holder will be automatically agitated at intervals, substantially as described. 13th. The combination with a carbide holder, of an acetylene gas generator and mechanism for automatically agitating the same, of a diaphragm adapted to be raised by the gas pressure and to thereby automatically agitate the carbide holder, and a weighted lever adapted to return the diaphragm to position when the gas pressure is decreased, substantially as described. 14th. In combination with a rotatable drum or cylinder for holding the calcium carbide in a gas generator, the gas chamber, the gas pipe leading from said chamber, a chamber having a flexible diaphragm in connection with the gas outlet pipe, a rod attached to the diaphragm and extended through the top plate of the diaphragm chamber, a ratchet-wheel upon the shaft of the drum or cylinder, and connections, substantially as described, between said diaphragm and ratchet-wheel whereby an upward movement of the diaphragm will serve to partially rotate the drum, substantially as described. 15th. In combination with a rotatable drum or cylinder for holding calcium carbide, journaled in a gas chamber of a generator, a gas pipe connecting the said generator with a regulating chamber 6, a rod 24 actuated by a diaphragm in said chamber, a connecting rod 25 pivoted to the said rod 24 and to a pivoted arm 9, the pivoted arm 9 engaging a ratchet-wheel 27 by means of a pawl, the ratchet-wheel 27 secured on the axle of the said rotatable drum or cylinder, a larger ratchet-wheel 10 secured on the said axle, a detent engaging the teeth of the said ratchet wheel 10, and a weighted arm 39 connected to said connecting rod 25 and pivoted at one end to the said gas chamber and at its free end an adjustable weight, substantially as set forth and for the purposes described. 16th. The combination water regulating valve, of a water chamber closed by a flexible diaphragm and angular diaphragm valve seat, and a conical valve adapted to seat therein substantially as described and shown. 17th. A valve seat of the character described, the same consisting of a thin and flexible disc or plate of metal provided with a valve opening, substantially as described. 18th. A valve seat consisting of a flexible disc or plate of metal, having a valve opening and having that portion of the disc or plate thinner in the vicinity of the valve opening than at other portions of the disc or plate, substantially as described. 19th. A valve seat consisting of a flexible metallic diaphragm or disc 12 having a valve opening, in combination with a conical plug 37 regulated by a spring 38, substantially as described and set forth. 20th. The combination with the flexible metallic disc or plate 12 having a valve opening therein, the portion of the plate in the vicinity of the said opening being thinner than the body portion, a conical valve or plug 37 seated in the said opening, an adjustable spring 38 secured to the said plug whereby the valve is held normally in the closed position, substantially as set forth.

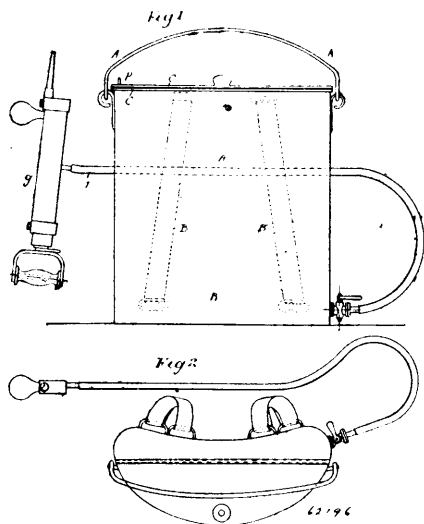
No. 62,195. Refrigerator Door. (Porte de réfrigérateur.)



Enphrases Norbert Chumette and George Henry Hawkins Emett, both of Vancouver, British Columbia, Canada, 4th January 1899; 6 years. (Filed 13th December, 1898.)

Claim.—The elastic or India rubber tube J, inserted in an annular space in the door jamb or in the door itself so as to make an air tight joint for refrigerators.

No. 62,196. Fire Extinguisher. (Extincteur d'incendie.)



Joseph Tombeur, Brussels, Belgium, 4th January, 1899; 6 years. (Filed 2nd September, 1897.)

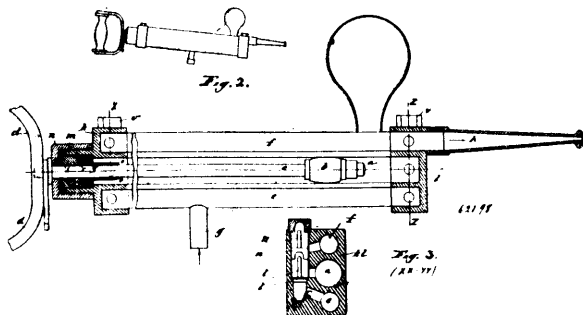
Claim.—1st. In a portable fire extinguishing apparatus, a reservoir to contain the solution provided with suitable straps for attaching it to the back, a suitable pipe provided with a tap connected at the bottom of the reservoir and a suitable syringe pump connected to the end of the pipe intermediate of length of syringe as and for the purposes specified. 2nd. In a portable fire-extinguishing apparatus, a syringe pump comprising the main body, the side tubes, the valve chambers connected thereto and provided with passage-ways leading from the pipes to a common passage-way in each valve chamber, the clapper valves arranged in such chambers and the air-bulb at the side thereof, of the piston and piston rod provided with suitable handle, the nozzle and packing tube, washers, ring and nut holding the same in place and fitting upon the extension of the valve chamber next the handle, as and for the purpose specified. 3rd. The combination with the reservoir provided with a suitable lid and a syringe pump connected thereto, of the stand reservoir having a truncated cone *m*¹, and the reversed funnel fitting on same and provided with a plate *n*¹, forming a supporting lid and provided with a suitable rim or edge *n*², as and for the purpose specified. 4th. In an apparatus of the class described, a cart comprising the usual wheels and axle, the floor surrounded by a suitable hoop, the openings in the floor and the reservoirs provided with suitable central flanges whereby they are supported in position in the openings as and for the purpose specified.

No. 62,197. Fire Extinguishing Compound. (Composé à extincteur d'incendie.)

Joseph Tombeur, Brussels, Belgium, 4th January, 1899; 6 years. (Filed 2nd August, 1898.)

Claim.—The herein described composition of matter consisting of water, sulphate, aluminium, borate of sodium and boric acid, substantially in the proportions described and for the purpose specified.

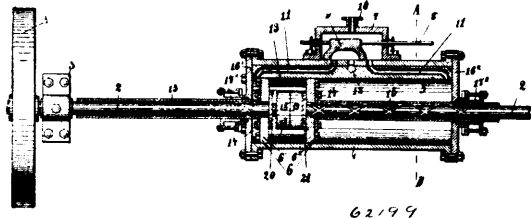
No. 62,198. Mixer. (Mélangeur.)



Joseph Tombeur, Brussels, Belgium, 4th January, 1899; 6 years. (Filed 2nd August, 1898.)

Claim.—1st. In an automatic mixer, the combination with the reservoir 10, of the pipe 11, cock 12, pipe 13, funnel 15 and 16, all arranged, as and for the purpose specified. 2nd. In an automatic mixer, in combination, a suitable hose provided with a spout comprising the conical socket X, plate G, and the orifices thereof provided with a conical central hole H and a series of circumferentially arranged conical openings H¹ inclined towards the periphery of the spout, as and for the purpose specified.

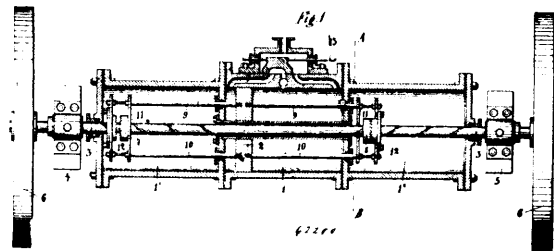
No. 62,199. Motor. (Moteur.)



Zdzislaw Maevsky, St. Petersburg, Russia, 4th January, 1899; 6 years. (Filed 9th August, 1898.)

Claim. 1st. In power motors, in combination, a cylinder, a double-head piston, means for preventing the rotation of the piston, a slide valve to distribute the working fluid, collars mounted on the shaft adapted to engage spiral grooves in the drive shaft and having ratchet teeth on their outer faces, clutches secured to the piston and having ratchet teeth adapted to engage the like teeth on the collars, a shaft having oppositely arranged spiral grooves therein, substantially as described. 2nd. In power motors, in combination, a cylinder, a double-head piston, means for preventing the rotation of the piston, collars mounted on the drive shaft and adapted to engage spiral grooves in the shaft and having ratchet teeth on their outer faces and with smooth contiguous faces, clutches secured to the piston and having ratchet teeth adapted to engage like teeth on the collars, a shaft having oppositely arranged spiral grooves therein, and a steam pipe surrounding a portion of the drive shaft, as described. 3rd. In power motors, a cylinder, a reciprocating piston, and a segmental plate arranged in said cylinder to prevent the rotating of the piston, substantially as set forth.

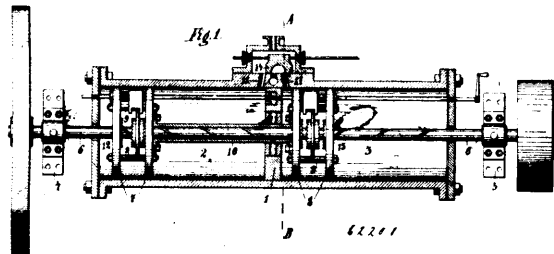
No. 62,200. Motor. (Moteur.)



Zdzislaw Maevsky, St. Petersburg, Russia, 4th January, 1899; 6 years. (Filed 9th August, 1898.)

Claim.—In power motors, in combination with a central cylinder, an annular piston reciprocated upon a central shaft 3, a slide valve to distribute the working fluid, operating rods attached to the said piston and moving alternately into and out of gear two collars which rotate the central shaft by operating respectively upon right and left hand threads cut therein, ratchet half-clutches engaging alternately with similar ratchets upon cross-bars so that while one nut is operative the other is idle, substantially as hereinbefore described.

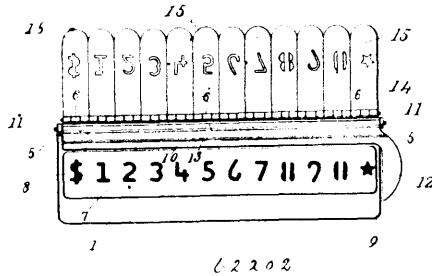
No. 62,201. Motor. (Moteur.)



Zdzislaw Maevsky, St. Petersburg, Russia, 4th January, 1899; 6 years. (Filed 9th August, 1898.)

Claim.—1st. In improvements in power motors, in combination, two cylinders with two reciprocating pistons 7 and 8, each consisting of two heads connected together by a tubular shaft in steam tight packings, a reversing device, one part of which is formed by collars provided at both ends with oppositely arranged ratchet teeth which engage in parts of the driving shaft, provided with oppositely directed spiral grooves or threads, corresponding ratchet teeth which engage parts of the piston and adapted to engage with the adjacent teeth in the collars, and suitable slide or other valve gear for controlling the working fluid, all operating, substantially as hereinbefore described. 2nd. A power motor composed of two cylinders, reciprocating pistons arranged therein, said pistons being connected by a tubular shaft, a clutch mechanism consisting of collars having ratchet faces adapted to engage each other, and with threads adapted to engage oppositely directed spiral grooves in the drive shaft, and a reversing device consisting of a crank, rod and tappets constructed and arranged, substantially as described.

No. 62,202. Check Punch. (*Enporte-pièce à papier.*)



Frank Zander, Buffalo New York, U.S.A., 4th January, 1899; 6 years. (Filed 17th March, 1898.)

Claim.—1st. In a vest pocket check punching device, the combination with a supporting base provided with a slightly elevated platform having a series of openings through it, a series of pivotal portions at one side, a lower die plate secured to the elevated platform, and a series of die plates pivoted to the pivotal portions on the base, each carrying a die corresponding with its companion die in the lower die plate. 2nd. In a vest pocket check punching device, the combination with a supporting base provided with a platform, having a series of openings through it, a series of pivotal portions at one side and a pivoted ear at each end, a lower die plate secured to the platform, a lifting bar pivoted between the pivotal ears and provided with an operating handle, and a series of die plates pivoted to the pivotal portions on the base, each carrying a die adapted to fit its companion die in the lower die plate. 3rd. In a vest pocket check punching device, the combination with the supporting base, of a lower die plate mounted thereon and carrying a series of open dies each representing a character or numeral, a series of die plates pivoted side by side to one side of the base plate each pivoted die plate having a punch die formed of a portion of itself and corresponding with its companion die in the lower die plate, and means for securing said dies to their die plates. 4th. In a vest pocket check punching device, a supporting base plate having a raised platform provided with a series of openings, a pivotal ear at each end and a series of pivotal portions along one side, the whole formed in one integral piece of sheet metal, as described. 5th. In a vest pocket check punching device, the combination with a base plate carrying a portion of the perforating dies, of a plurality of hinge die plates carrying the other corresponding co-acting portions of the perforating dies, substantially as described.

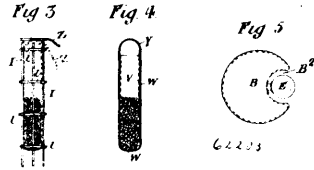
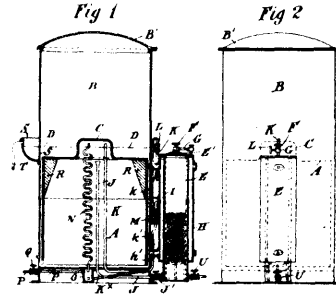
No. 62,203. Acetylene Gas Generator.

(*Générateur de gaz acétylène.*)

John William Searth, Pudsley, and William Arthur Thornton, Belper House, Wetherby, both in York, England, 4th January, 1899; 6 years. (Filed 29th March, 1898.)

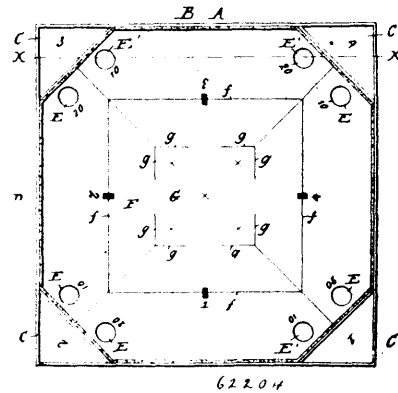
Claim.—In apparatus for generating acetylene gas from calcium carbide, the combination of the gas-holder A inclosed within a water cylinder B partially filled with water and provided with an inlet funnel S and overflow pipe T, a gas chamber C in top of the said gas-holder, a conical displacer R arranged within the said gas-holder near its top, a gas-generating chamber E arranged at the side of the said water cylinder, closed at its top by lid E¹ and provided with a water-jacket H in communication at its top and bottom by means of pipes h h¹ with the said water-cylinder, bridge G and screw F for retaining the lid E¹ in position, perforated carbide holder I inserted within the generator E, a cartridge-case V constructed as described, and provided at its base and sides with strengthening pieces W and at its top with a loop Y for receiving the charge of calcium carbide, water-pipe J communicating respectively with the bottom of generator E and interior of the gas-holder A, and armed with a stop-cock J¹, gas-pipe K divided into two portions, one of which is armed with a stop-cock L, said gas-pipe being in communication at its extreme ends respectively with the gas-

chamber C and top of the generating chamber I, a water lock M interposed between the extremities of the said gas-pipe for receiving



the divided ends, a gas-cooling coil N in communication with the gas-chamber C and a collecting-box O arranged at the base of the water-cylinder, a service-pipe P armed with a stop-cock Q in communication with said collecting-box, and a discharge-cock U arranged at the bottom of the generator, all arranged and operating as set forth.

No. 62,204. Game Board. (*Tableau pour jeu.*)

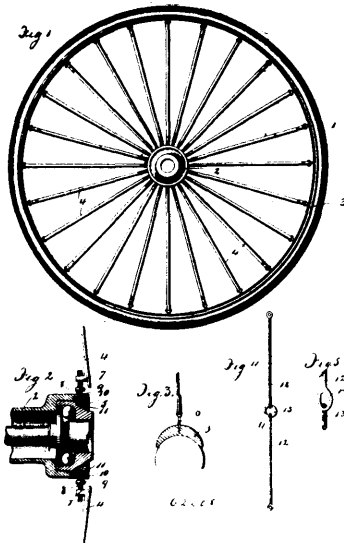


Edgar F. Carson, Pleasanton, Kansas, U.S.A., 4th January, 1899; 6 years. (Filed 9th May, 1898.)

Claim.—1st. A game board provided with a field whereon the game is played, of octagonal outline, each alternate side of said field of the same length and the intermediate sides each of the same length but shorter than the other sides, said field surrounded with a cushioned wall, each of four equal sides of said field at points equidistant from the center of said field and adjacent to said wall, provided with two pockets, said pockets the same distance apart in each of the four sides and at the same distance from the ends of said sides, substantially as shown and described. 2nd. A game board having a field of octagonal outline surrounded by a cushioned wall and provided with two pockets along each of four alternate sides of said field and at equal distances from the ends of said sides, a cross in the center of said board in the center of a square indicated thereon and a cross in each corner of said square to indicate the points where the pieces which are played upon are to be placed, and a square outlined at equal distances from the central square to indicate the place from which the play is made and a rectangular area marked on said outline on each side thereof equidistant from the corners thereof, substantially as shown and described. 3rd. A game board of quadrangular outline, each of its sides of the same length, a wall surrounding its margins and each of the four corners of its face provided with triangular inclosures of the same area, the field on said board whereon the game is played of octagonal outline, each alternate side formed of the same length and said field inclosed with a cushioned wall, the walls facing the hypotenuse of the triangular inclosures forming four of the walls surrounding the field, two pockets each in the face of the field in front of the wall of each of said triangular inclosures, a cross marked in the center of the field and in the center of a square indicated thereon and a cross in each corner

secured to the shaft, the sleeve supported in suitable bearings thereon, and curvilinear buckets and a lower hub provided with a tapered hole designed to fit the stop on the upper end of the lower wheel, a suitable casing for both wheels, inclined chutes at the upper end thereof for directing the water into the wheel and a suitably operated gate for controlling the supply of the water, as and for the purpose specified.

No. 62,208. Vehicle. (*Roue de voiture.*)

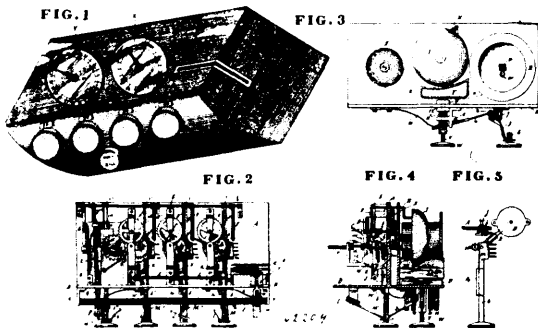


Robert Anderson Evans, Winnipeg, Manitoba, Canada, 4th January, 1899; 6 years. (Filed 5th August, 1898.)

Claim.—1st. A wheel, comprising a rim, a hub suspended within said rim, and elastic and flexible connections between said hub and said rim. 2nd. A wheel, comprising a rim, a hub suspended within said rim, elastic and flexible connections between said hub and said rim, and means for adjusting the tension of said connections. 3rd. A wheel, comprising a rim, a hub suspended within said rim, and leather spokes connecting said hub and said rim. 4th. A wheel, comprising a rim, a hub suspended within said rim, leather spokes connecting said hub and said rim, and means for adjusting the tension of said spokes.

No. 62,209. Apparatus for Registering Payment.

(*Appareil à enregistrer les paiements.*)



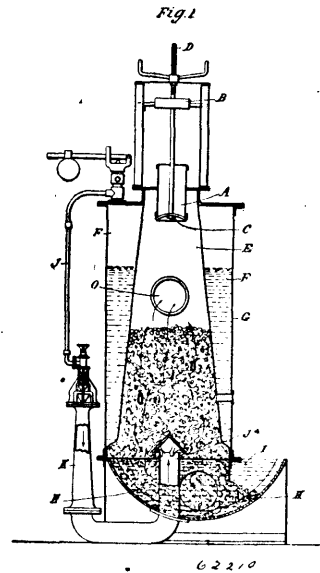
Frederick William Phillips, 2 Harcourt Villas, Harcourt Road, Besley Heath, Kent, England, 4th January, 1899; 6 years. (Filed 26th July, 1898.)

Claim.—1st. In a checking apparatus for registering payments on vehicles and similar commercial transactions the combination of a rack *b*, with striking pins *m*, check lever *K*, fly train and spring box *D*, with a rocking spindle *L*, operating a punch *o*, and register feed bar *Q*, and register punch *H*, substantially as herein described and set forth. 2nd. In checking apparatus for registering payments on vehicles and similar commercial transactions, the combination of an automatically fed drum *R*, carrying a paper register punched at intervals, with a bell and striker and sight indicating dials arranged and operated in connection with a ticket punch substantially as herein described and shown. 3rd. In a checking apparatus for registering payments on vehicles and similar commercial transactions, the combination of a rack *b*, with a check *K*, preventing any return action until the completion of the stroke, and a multiple bell strik-

ing device operating on the return action, substantially as herein described and shown. 4th. In checking apparatus for registering payments on vehicles and similar commercial transactions, the combination of a rack *b*, with a rocking bar *L*, operating a ticket punch *o*, and register feed and also a register punch by a lever *3*, substantially as herein described and shown.

No. 62,210. Earth Thawing Apparatus.

(*Appareil à dégeler la terre.*)



James John Shedlock, Hacheston, Suffolk, England, 4th January 1899; 6 years. (Filed 10th August, 1898.)

Claim.—1st. In gas producing apparatus, the combination with a closed fuel chamber *E*, of an open trough or receptacle *H*, at the bottom thereof adapted to be filled with water, a partition or partitions extending downwards from said fuel chamber *E*, and dipping into said water forming a water seal to prevent the escape of gas while permitting the removal of the refuse from said trough, a steam generating chamber surrounding the fuel chamber *E*, and a steam pipe leading from said steam generator to a blower *K*, communicating with the lower part of said fuel chamber, substantially as and for the purposes hereinbefore set forth. 2nd. In gas producing apparatus, the combination with a closed fuel chamber *E*, of an open trough or receptacle *H*, at the bottom thereof adapted to be filled with water, a partition or partitions extending downwards from said fuel chamber *E*, and dipping into said water forming a water seal to prevent the escape of gas while permitting the removal of the refuse from said trough, a steam generating chamber surrounding the fuel chamber *E*, a steam pipe leading from said steam generator to a blower *K*, communicating with the lower part of said fuel chamber, a second steam pipe leading from said steam generator to another blower *K*¹, a burner, a connection between said blower and the burner, and a connection for gas between the generating chamber and the burner, substantially as and for the purpose specified. 3rd. In gas producing apparatus, the combination with a closed fuel chamber *E*, of an open trough or receptacle *H*, at the bottom thereof adapted to be filled with water, a partition or partitions extending downwards from said fuel chamber *E*, and dipping into said water forming a water seal to prevent the escape of gas while permitting the removal of the refuse from said trough, a steam generating chamber surrounding the fuel chamber *E*, and a steam pipe leading from said steam generator to a blower *K*, communicating with the lower part of said fuel chamber, a second steam pipe leading from said steam generator to another blower *K*¹, a condenser *L*, with one end of which said blower communicates, a flexible connection or connections leading from the other end of said condenser *L*, to produce the air blast in a burner or burners, and a flexible connection or connections to conduct the gas from said gas producer to said burner or burners, substantially as and for the purposes hereinbefore set forth.

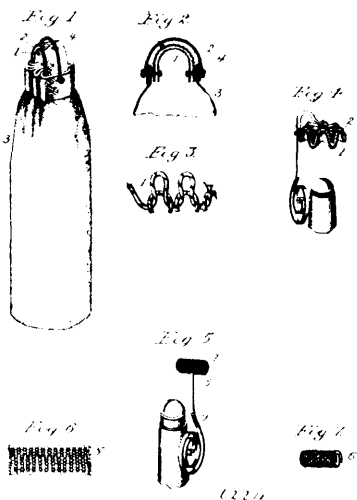
No. 62,211. Gas Lighter. (*Allume-gaz.*)

Angelo Simonini, Brooklyn, New York, U.S.A., 4th January, 1899; 6 years. (Filed 12th September, 1898.)

Claim.—1st. The herein described art of igniting gas or vapour, which consists in placing in the path or flow of such gas or vapour two preparations such as set forth in the foregoing specification, one having at normal temperature an avidity for gases and capable of becoming heated by absorption thereof, and the other possessing an

avidity for gases when heated, causing gas or air to flow in contact with the first preparation and to heat the same, transmitting the

ment laterally on its hinge-pin, and a knife-clamping and holding means mounted on the swinging-plate. 6th. In a knife-holding

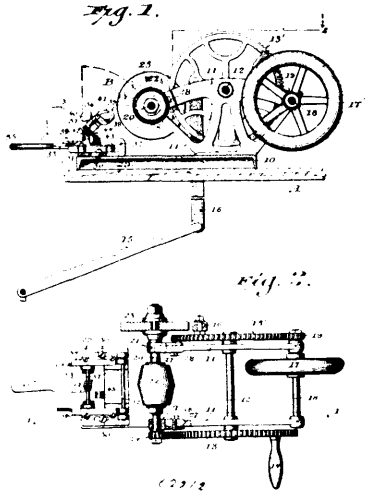


heat from the first to the second preparation, and thus casing the compound to take up the gas and become highly incandescent, thereby igniting the gas or vapour. 2nd. A lighter for gas or other vapours, consisting of webbings or other vehicles or supports, one provided with a preparation such as described, capable of absorbing and condensing gases at normal or moderate temperature and being thereby rendered more or less incandescent, the other capable when heated, of absorbing and condensing large volumes of gases and being thereby rendered highly incandescent, and consequently able to ignite gases and vapours. 3rd. A lighter for gases and vapours, comprising a fibrous body having its pores and interstices first charged with a preparation of platinum and thorium, or platinum and cerium, and afterwards with a solution containing the same nitrate as the first preparation, together with platinum chloride, with iridium, or osmium, ruthenium, rhodium, palladium, neodymium, or praseodymium chloride, in substantially the proportions stated, and a second webbing or body impregnated with a solution of nitrate of cerium, didymium, praseodymium or neodymium, with or without thorium nitrate. 4th. A lighter for gases and vapours comprising a hood or support having one portion charged with a preparation such as described, capable at normal temperature of absorbing and condensing gases, and another portion charged with a preparation such as set forth, capable when heated of absorbing and condensing gases, the first serving to prepare the second for action. 5th. In a gas lighting device, a cage or holder for containing an initial heating body, said cage or holder formed of wire of an alloy of platinum and iridium in substantially the proportions of 95 per cent of platinum and 5 per cent of iridium. 6th. A lighting device for gases and vapours, consisting of a preliminary heater of the character set forth, capable of absorbing and condensing gases, and a wire of the platinum group placed outside of but in close proximity to said preliminary heater. 7th. An igniting device for gases and vapours, comprising a preliminary heater such as described, capable of absorbing gases and condensing them, and an enveloping cage or holder formed of wire of the platinum group. 8th. The herein described lighter comprising a fabric impregnated with a platinum thorium or platinum cerium solution and rolled into compact form, and a cage or holder 7 enveloping the fabric and formed of wire of the platinum group.

No. 62,212. Grinding Machine. (*Machine à aiguiser.*)

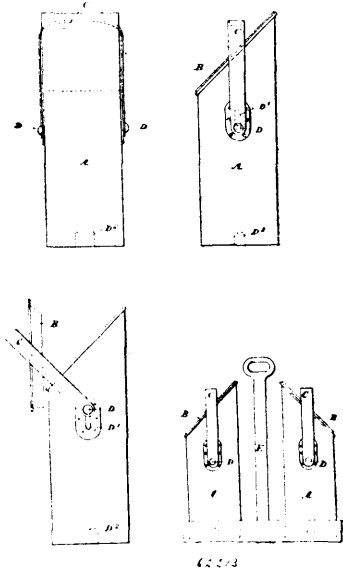
Nicholas Grasser, Random Lake, Wisconsin, U.S.A., 4th January, 1899; 6 years. (Filed 26th August, 1898.)

Claim.—1st. The combination with a frame, of a driving shaft mounted therein, a driven-shaft also mounted on the frame, boxes secured detachably to the frame in which boxes the driven-shaft has its bearings, and a plurality of grinders on and carried by the driven-shaft. 2nd. In a grinding machine, the combination with a driven revolvable grinder, of a knife-clamping-plate, and a reciprocable-plate to which the clamping-plate is hinged. 3rd. In a grinding machine, the combination with a driven revolvable grinder, of a knife-clamping-plate, a reciprocable-plate to which the clamping-plate is hinged, and a swinging-plate on which the reciprocable-plate is mounted. 4th. In a knife-holding device for a grinding machine, a supporting-plate 29 mounted adjustably toward front and rear on a permanent base, a swinging-plate 34 so hinged and mounted on the adjustable-plate as to be capable of limited move-



device of a grinding machine, the combination of a swinging-plate 34, a slidible-plate 33 reciprocable on the swinging-plate, a knife-holding-plate 36 hinged on the reciprocable-plate, fixed jaws on the knife-holding-plate, clamping jaws movable on the knife-holding-plate, and means for clamping the movable jaws to the fixed jaws. 7th. In a knife-holding device of a grinding machine, the combination of a swinging-plate 34, a slidible-plate 33 reciprocable on the swinging-plate, a knife-holding-plate 36 hinged on the reciprocable-plate, and a spring on the hinge-pin bearing against the adjacent-plates adapted to actuate the knife-holding-plate with reference to the slidible-plate. 8th. In a knife-holding device for a grinding machine, the combination of a movable-plate 33, a knife-holding-plate 36 hinged on the movable-plate, a spring adapted to actuate the knife-holding-plate with reference to the movable-plate, and a stop device adapted to limit the action of the spring and therewith to hold the knife-holding-plate at a predetermined angle to the movable-plate.

No. 62,213. Receptacle for Coal. (*Réceptacle à charbon.*)

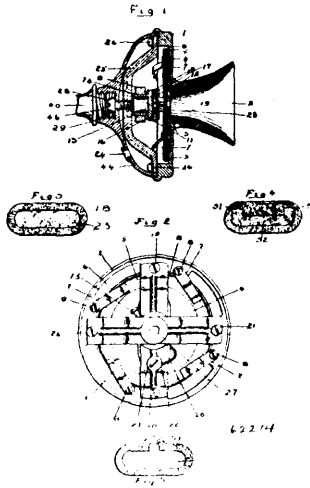


James Bailey and Frederick Lionel Armstrong, both of Kingstown, Dublin, Ireland, 4th January, 1899; 6 years. (Filed 13th August, 1898.)

Claim.—1st. The improved carrier or receptacle, in the form of a vertical rectangular box the top of which is splayed to carry a lid therefor in an oblique plane, a lid having a bridge-shaped handle, the ends of which have a swivelling connection with vertical grooves in the sides of the box, and a hand-hold at the bottom of the box, all substantially as shown and described and for the purposes set forth. 2nd. The improved carrier or receptacle, comprising box A, lid B, handle C, studs D, grooves D¹, hand-hold D², a carrier-stand

and handle E, all substantially as shown and described and for the purposes set forth.

No. 62,214. Telephone Transmitter.
(*Transmetteur téléphonique.*)



Forest A. Ray, Boston, Massachusetts, U.S.A., 5th January, 1899; 6 years. (Filed 26th May, 1898.)

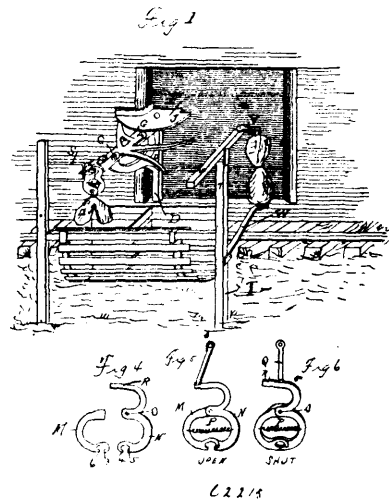
Claim.—1st. In a telephone-transmitter, an oblong horizontal cell, having a long horizontal axis and containing closely confined comminuted resistance-varying material, and a diaphragm varying resistance therefor, by exerting its force upon the side of said oblong cell, and a solid unyielding back for said comminuted material, substantially as described. 2nd. In a telephone-transmitter, a diaphragm, an oblong horizontal cell having a long horizontal axis and a short vertical axis, containing comminuted resistance-varying material, said cell having two sides, one a solid unyielding back electrode and the other a front electrode vibratory with said diaphragm, substantially as described. 3rd. In a telephone-transmitter, a diaphragm, an oblong horizontal cell having a long horizontal axis and a short vertical axis, having two sides, one a solid unyielding back electrode and the other a vibratory front electrode, and a strip of yielding material between the edges of said electrodes, and comminuted resistance-varying material between said electrodes and closely confined by said strip, substantially as described. 4th. In a telephone-transmitter, a transmitter cup and base, a bridge across said base attached to said cup, an arm attached to said cup, a second bridge transversely mounted on said base, and a cell between it and the first bridge, a diaphragm mounted on said base, and a cell between said second bridge and said diaphragm, substantially as described. 5th. In a telephone-transmitter, a base, a bridge across said base, a diaphragm on said base, a cell between said diaphragm and said bridge, a second bridge transversely mounted on said base, a cup mounted on said base and secured to said second bridge, an arm screwed into said cup, substantially as described. 6th. In a telephone-transmitter, a base, a diaphragm, a bridge, an oblong horizontal cell having a long horizontal axis and a short vertical axis between said bridge and said diaphragm, and a strip of yielding material forming the edges of said cell, and two electrodes mounted on said bridge, insulated from each other and connecting with the comminuted material at the two ends of said cell, substantially as described. 7th. In a telephone-transmitter, an oblong horizontal cell having a long horizontal axis and a short vertical axis, having its sides vibratory with relation to each other, and having insulating containing walls, with two electrodes penetrating said walls, one at each end of said cell, substantially as described.

No. 62,215. Device for Receiving and Delivering Mail Pouches from Moving Trains. (*Appareil pour recevoir et délivrer les sacs de maille des trains en mouvement.*)

James Bale, Paw Paw, Michigan, and Anson E. Lapham, Chicago, Illinois, U.S.A., 5th January, 1899; 6 years. (Filed 16th November, 1898.)

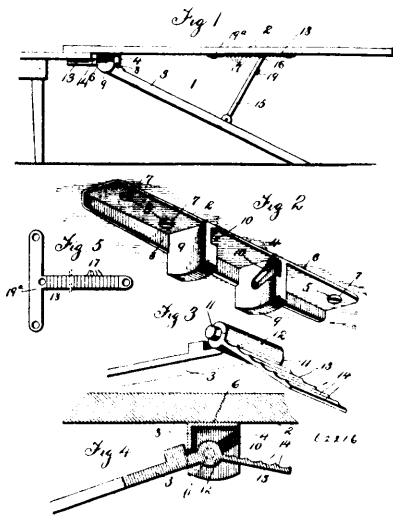
Claim.—1st. In a device for discharging mail-pouches from a moving car, the combination with a mail-car, of a crane pivoted to said car and adapted to swing outwardly carrying with it the mail-pouch, a pair of jaws adapted to close upon the ring of the mail-pouch and retain the same in position, one of said jaws made rigid with the crane, the other jaw adapted to be opened and release the ring of the mail-pouch, an extension on said movable jaw, a pivoted arm on the crane adapted to bear upon the extension of the movable jaw, and a stationary trip supported outside of the moving car adapted to come in contact with said stationary trip for the purpose

of opening the jaws and releasing the mail-pouch, substantially as described. 2nd. In combination with a swinging crane adapted to



be swung outwardly from a moving car, a pair of jaws carried by said crane and adapted to grasp the ring of the mail-pouch, one of said jaws rigid with the crane, the other jaw pivoted to the rigid jaw and adapted to open, a projection upon said movable jaw, a pivoted crane, and a trip located outside of the moving car adapted to come in contact with the pivoted arm for the purpose of opening the movable jaw, substantially as described. 3rd. In combination with a mail-car, a swinging crane adapted to swing outwardly from said car, a pair of jaws carried by the said crane, one of said jaws made rigid with the crane, the other jaw pivoted to the immovable jaw and adapted to open, a pivoted arm adapted to operate the movable jaw, a spring adapted to close said jaws and retain them closed, and a stationary trip supported outside the moving car adapted to come in contact with said pivoted arm and thereby separate the jaws, allowing the mail-pouch to be deposited in a receptacle, substantially as described. 4th. In combination with the swinging crane, a pair of clamping jaws, each jaw provided with an upper and a lower hook, said lower hook adapted to clasp the ring of the mail-pouch and said upper hook adapted to withdraw the ring from the supporting-hooks when the jaws are opened, substantially as described. 5th. In combination with a moving car, a crane adapted to swing outwardly into position to receive a mail-pouch supported outside of the moving car, a pair of forks or arms pivoted to the crane adapted to receive the mail-pouch supported outside of the car and provided with a rearward projection, a stationary plate upon the mail-car beneath which the rearward projection or extension of the pivoted forks is adapted to pass in order to retain the forks in a horizontal position to receive the mail-pouch and allow the said forks, to be dropped into a perpendicular position when the crane with the forks is turned or swung into the car, substantially as described. 6th. In combination with a mail-car, a crane pivotally connected thereto and adapted to swing outwardly and having a horizontal arm, a pair of forks pivotally connected to said horizontal arm and adapted to be raised to a horizontal position when swung outwardly and to be dropped into a perpendicular position when the crane is turned or swung into the car, substantially as described. 7th. In combination with a car, a crane adapted to be swung outwardly, a pair of jaws carried by the said crane, one of said jaws rigid with the crane and one pivoted to the rigid jaw and adapted to be opened, a spring adapted to close the jaws, a pivoted arm adapted to engage with the movable jaw to open the same, a stationary trap outside the moving car adapted to close in contact with said pivoted arm, and a receptacle adapted to receive the mail-pouch as it falls from the jaws of the crane, and friction-springs upon the said receptacle, substantially as and for the purpose described. 8th. In a receptacle adapted to receive a mail-pouch from a moving car, the combination of the receptacle proper, a partition through the centre of said receptacle, parallel ways supporting the receptacle, rollers travelling on said ways supporting the said receptacle, antifriction-springs connected to the receptacle and adapted to move on said parallel ways or in contact therewith, all substantially as described. 9th. A receptacle for receiving a mail-pouch from a moving train, in combination with parallel ways supporting said receptacle, rollers between said receptacle and said ways, springs carried by the receptacle and adapted to move in contact with the said ways, and spring-buffers arranged at either end of the said receptacle for the purpose of breaking the stroke caused by the moving of the receptacle upon receiving the mail-pouch from a moving train, substantially as described.

No. 62,216. Ironing Board. (*Planché à repasser.*)

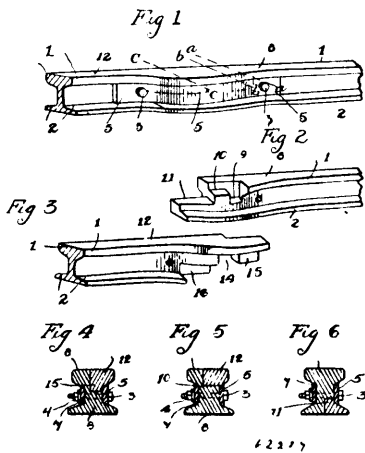


William Hargrove and James John Wylde, both of Montreal, Quebec, Canada, 5th January, 1899; 6 years. (Filed 22nd November, 1898.)

Claim.—An ironing board, comprising a board proper, a bracket secured to the under side thereof, said bracket having open bearings, a supporting leg having bearings adapted to be removably placed in said open bearings, said leg also having a clamping extension, a lug formed on said leg to normally hold it in its operative position, and a brace pivotally connected to said leg, the free end of said brace being adapted to contact with one of a series of teeth formed on a strengthening plate secured to the under side of said board proper, substantially as described.

No. 62,217. Railway Rail Joint.

(*Joint de rail de chemin de fer.*)



Tilman Cape Hart Gray, Grayridge, Missouri, U.S.A., 5th January, 1899; 6 years. (Filed 7th December, 1898.)

Claim.—The combination with the interlocking rail ends having one side arched, of a spring plate bowed over the arch and bearing upon the side joints of the said interlocking ends, and the bolts and the nuts at the ends of said plate for securing the latter to the rails, as set forth.

No. 62,218. Process of Obtaining Precious Metals by Solutions. (*Procédé pour obtenir des métaux par le moyen de solutions.*)

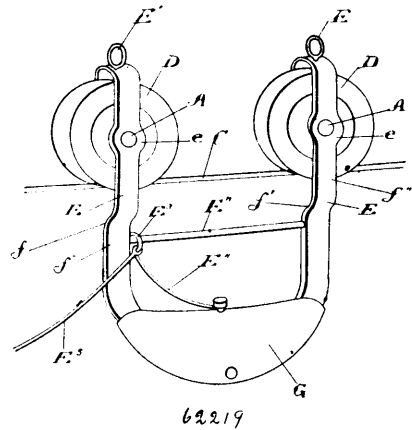
Edwin Joseph Fraser, San Francisco, California, U.S.A., 5th January, 1899; 6 years. (Filed 10th October, 1894.)

Claim.—1st. The process of treating gold and silver ores by solution, which consists in converting the metallic bases of the dioxids of the alkaline metals or alkaline earth-metals into sulfates, removing the metallic sulfate and using the solution after the metallic sulfate has been removed in combination with a solution of cyanid of potassium and lime in the presence of the ore, substantially as described. 2nd. The process of treating gold and silver ores by

solution, which consists in converting the metal bases of dioxids of the alkaline metals into sulfates, by the addition of sulfuric acid, so as to produce hydrogen dioxide, preventing the decomposition of the hydrogen dioxide by an excess of acid, separating the solution from the metallic sulfate, mixing the solution with a solution of cyanid of potassium and lime in the presence of a precious metal, and leeching the liquid holding the precious metal. 3rd. The process of treating gold and silver ores by solution, which consists in first mixing lime and cyanid of potassium in solution, second, mixing sulfuric acid and the dioxide of barium in solution, and third, combining the two mixtures with the finely-divided ore, substantially as described.

No. 62,219. Trolley Connection for Canal Boats.

(*Attache de trolley pour bateaux de canal.*)

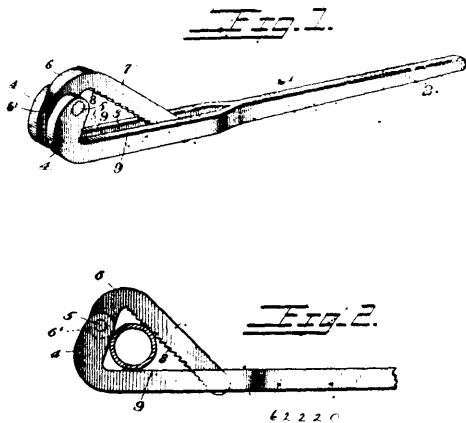


Frederick J. Shewring, Toronto, Ontario, Canada, 5th January, 1899; 6 years. (Filed 10th March, 1897.)

Claim.—1st. A trolley system for canal boats consisting of a main circuit wire, a trolley mounted on the main circuit wire, a frame for the trolley-wheel consisting of two vertical members, each consisting of two sides united at the top, an eye connected to the top of the sides, a hanger depending from each of the vertical members at one side thereof, a horizontal extension for the hanger projecting under the vertical axis of the wheel, a vertical extension depending from the horizontal extension, a counter balance connected to the end of the vertical extension, a circuit wire elevated above the main circuit wire at canal junctions, a trolley-wheel mounted on the elevated circuit wire to avoid the obstruction of vessels passing beneath, and a hanger depending from the trolley-wheel, having a hooked-shaped end to engage the eye of the trolley-wheel, in combination with a trolley pole connected to the vessel and a flexible connection between the pole and the wheel, substantially as specified. 2nd. In a trolley system for canal boats a trolley consisting of a frame embracing in its construction two vertical members, each member, composed of two opposite sides united at their upper ends, a depending arm from each vertical member at one side thereof, bent horizontally below the wheel and then perpendicularly, a counter balance connected to the lower ends of the depending arms, a rod connected to the arms above the counter balance, and a sliding ring mounted on the rod to which is adapted to be attached the connection for the trolley pole, substantially as specified. 3rd. In a trolley system for canal boats a trolley consisting of a frame embracing in its construction two vertical members, each member composed of two opposite sides united at their upper ends, a depending arm from each vertical member at one side thereof, bent horizontally below the wheel and then perpendicularly, a counter balance connected to the lower ends of the depending arms, a rod connected to the arms above the counter balance, a trolley pole fitted with a swivelled arm connected to the boat, and a flexible electrical connection between the sliding ring and trolley pole arm, substantially as specified. 4th. A trolley embracing in its construction two trolley wheels, a vertical frame for each trolley-wheel, a hanger depending from one side of each frame below and clear of the line wire, a horizontal extension for each hanger projecting under the trolley wire, a vertical extension depending from the horizontal extension, a balance suspended from the vertical extensions below the vertical axis of the wheel, in combination with a trolley pole connected to the vessel, and a flexible connection between the pole and the wheel, substantially as specified. 5th. A trolley system for canal boats consisting of a main circuit wire, a trolley-wheel mounted on the main circuit wire, a vertical frame for the trolley-wheel composed of two sides united at the top, an eye connected to the top of the sides, a hanger depending from one of the sides below the wheel, a horizontal extension for the hanger projecting under the vertical axis of the wheel, a vertical extension depending from the horizontal extension, a balance connected to the end of the vertical extension, a circuit wire elevated above the main circuit wire at canal junctions, a

trolley-wheel mounted on the elevated circuit wire, and a hanger depending from the trolley-wheel, having a hook-shaped end to engage the eye of the trolley-wheel, in combination with a trolley pole connected to the vessel, and a flexible connection between the trolley pole and wheel, substantially as specified. 6th. A trolley connection consisting of a trolley-wheel, a vertical frame for the trolley-wheel having at the top an eye, a hanger depending from one side of the frame below and clear of the line wire integral with the vertical frame, a horizontal extension for the hanger projecting under the trolley wire integral with the hanger, a vertical extension depending from and integral with the horizontal extension, and a balance suspended from the vertical extension below the vertical axis of the wheel, and the wheel upon the trolley wire in combination with a trolley pole connected to the vessel, and a flexible connection between the pole and the wheel, substantially as specified.

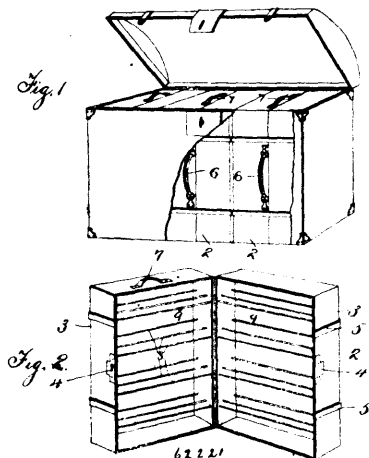
No. 62,220. Pipe Wrench. (Clé de tuyau.)



Owen Lannon, Lee, Massachusetts, U.S.A., 5th January, 1899; 6 years. (Filed 30th November, 1898.)

Claim.—In a pipe-wrench, the combination with the handle-bar 1 whose forward portion is bifurcated longitudinally at 3 and upturned in rigid jaws 4, the upper edge of the bifurcation and inner edges of said jaws forming two smooth bearing-surfaces standing at an acute angle to each other and in duplicate, of a movable jaw 7 whose outer end is downturned into an arm 6, with rounded extremity 6', pivoted between the upper ends of said rigid jaws, whose straight body is serrated at 8 on its inner edge adjacent said bearing-surfaces, and whose inner end is adapted to pass loosely through said bifurcation, as and for the purpose set forth.

No. 62,221. Sample Carrier. (Porte-échantillon.)

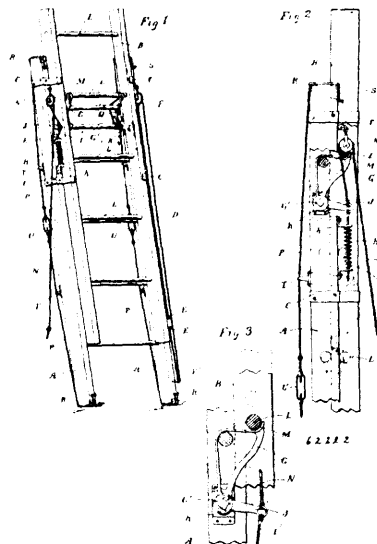


Edmond Parent, Terrebonne, Quebec, Canada, 5th January, 1899; 6 years. (Filed 11th November, 1898.)

Claim.—1st. A sample carrying case for shoes, comprising a case formed in sections, hingedly connected, and having locking mechanism located at the front thereof, and rods secured within said sections in series, each series of rods being adapted to support and hold a series of shoes in alignment, substantially as described. 2nd. A sample carrying case for shoes, comprising a case formed in sections

hingedly connected at their rear, and having locking mechanism arranged at the front thereof, handles located at the front and top of said case, and rods secured within said sections in series, each series of rods being adapted to support and hold a series of shoes in alignment, substantially as described. 3rd. The combination with a shoe sample carrying case, of rods secured therein in series, one of the rods in each series being located near the back of each section, the remaining rods in each series being located near the front of the section, said latter rods being arranged above each other but out of vertical alignment, whereby the rear rod will receive and support the heel of the shoe, the toe of the shoe being passed between said remaining rods, substantially as described.

No. 62,222. Extension Ladder. (Echelle à rallonge.)



Levi M. Weber, Berlin, Ontario, Canada, 5th January, 1899; 6 years. (Filed 23rd November, 1898.)

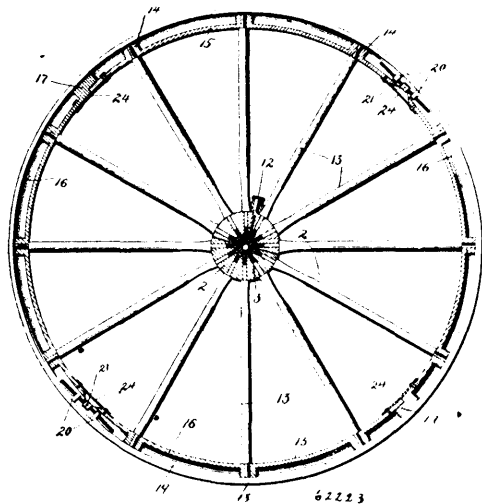
Claim.—1st. The combination of the spring hooks G, secured to shaft G¹ and pivoted to ladder by journal boxes K, the lever J, coil spring H, rod and collar I, cord N and block pulley N¹, and the raising and lowering apparatus secured to side of ladder instead of elsewhere, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the spring hooks G, secured to shaft G¹, shaft pivoted to ladder with journal boxes K, the lever J, coil spring H, rod and collar I, cord N, and block pulley N¹, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the steel wires or rods P, secured to ends of ladder A, and passing over iron knuckles R and metal blocks T, and tensioned by turn buckle U, substantially as and for the purpose hereinbefore set forth. 4th. The combination with steel wires or rods P, the iron knuckles R, the metal blocks T and turn buckles U, substantially as and for the purpose hereinbefore set forth.

No. 62,223. Carriage Wheel. (Roue de voiture.)

Dominat Quintal, Isle Dupas, Quebec, Canada, 5th January, 1899; 6 years. (Filed 22nd July, 1898.)

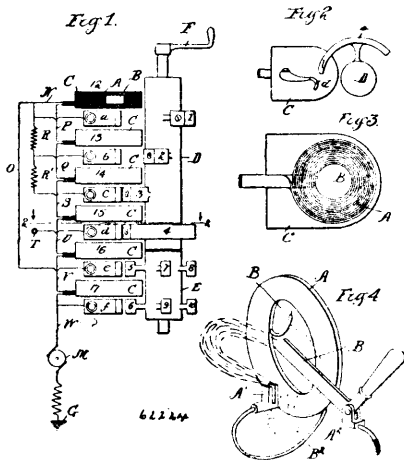
Claim.—1st. A hub for vehicles, comprising an outer spoke receiving portion, an inner spindle receiving portion removably located therein, said inner portion being held against rotary movement within said outer portion. 2nd. A hub for vehicles, comprising an inner member, having a squared portion, an outer portion located about said inner member, said outer portion having openings to receive said squared portions. 3rd. A hub for vehicles, comprising an inner member, said inner member being provided with squared portions, sectional outer members located without said inner member, each of said sectional members being provided with openings to receive said squared portions, and means for removably securing said outer members in position without said inner member. 4th. In a carriage wheel, the combination with a hub, spokes located therein, and a felloe having a peripheral groove secured about said spokes, of a sectional tire, having an interior annular flange, removably secured about said felloe. 5th. In a carriage wheel, the combination with a hub, spokes located therein, and a felloe secured about said spokes, said felloe being provided with a peripheral groove, of a tire, having an interior annular flange, removably secured about said felloe, said tire being formed of a plurality of sections, and means for adjusting said sections about said felloe. 6th. In a carriage wheel, the combination with a hub, spokes located therein, and a felloe secured about said spokes, said felloe being provided with a peripheral groove, of a tire, having an interior annular flange, removably secured about said felloe, said tire being formed of a plurality of sections, and screw-threaded

bolts connected to the ends of the said sections, said bolts being adapted to adjust the position of said sections about said felloe.



7th. In a carriage wheel, the combination with a hub, and spokes located therein, of a felloe secured about said spokes, said felloe being provided with a peripheral groove, of a tire, having an interior annular flange removably secured to said felloe, said flange being adapted to rest within said groove.

No. 62,224. Solenoid Blow-Out for Displacing, Dispersing or Extinguishing, Formed in Breaking Electric Circuits. (*Frein pour circuits electriques.*)

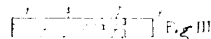
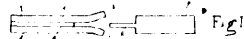
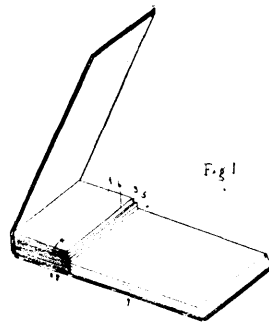


Sidney Howe Short, Cleveland, Ohio, U.S.A., 5th January, 1898; 6 years. (Filed 3rd March, 1898.)

Claim.—1st. The combination with separable contacts arranged in an electric circuit, of a spiral conducting coil arranged in proximity to said contacts and normally in shunt circuit therewith, said coil adapted to be introduced in the circuit of said contacts at the moment circuit is broken between said contacts, as and for the purpose set forth. 2nd. The combination with separable contacts arranged in a circuit to be broken, a conducting coil having a central open space, said central open space being arranged in proximity to said contacts, said coil being normally in shunt-circuit with said contacts, and means whereby said coil is introduced into main or direct circuit at the moment circuit is broken between said contacts, as and for the purpose set forth. 3rd. The combination with separable contacts included in a circuit to be broken, a coil of conducting material arranged in insulated convolutions, said coil being arranged in proximity to said contacts, said coil being normally in shunt-circuit with said contacts, and means for introducing said conducting coil into working circuit with said contacts at the instant the circuit is broken between said contacts, as and for the purpose set forth. 4th. The combination with separable contacts arranged in a circuit to be broken, a conductor normally in shunt-circuit with said contacts and arranged in convoluted coils, an enclosing casing for said conductor, and means for introducing such conductor into the main circuit of said contacts at the moment circuit is broken

between such contacts, as and for the purpose set forth. 5th. The combination in a controller, of a switch including a series of separable contacts, an electric blow-out coil arranged in proximity to each pair of such separable contacts, said electric blow-out coils being normally out of main working circuit with said contacts, and means whereby said coils are introduced into the main working circuit of said contacts at the moment circuit is broken between such contacts, as and for the purpose set forth. 6th. The combination in a controller, of a switch including contacts, a conductor formed into convoluted coils having a central open space and arranged in proximity to each pair of separable contacts, said coils being normally out of main working circuit with said contacts, and means for introducing such coils into the main working circuit of said contacts in advances of the opening or breaking of said circuit between said contacts, as and for the purpose set forth. 7th. The combination of a controller cylinder having contact segments, stationary fingers arranged in the main circuit adapted to contact with said segments, whereby the main circuit is made or broken and the motor resistance and motor connections are varied, a conducting coil arranged in proximity to the point where circuit is broken between each finger and its co-operating segment, and contact terminals and segments whereby said coils are out of main working circuit while the controller cylinder is in running position, but adapted to be introduced into main working circuit at the moment circuit is broken between said fingers and segments, as and for the purpose set forth. 8th. In a controller, a series of separable contacts for controlling the main circuit, a corresponding series of conducting coils arranged in proximity to said separable contacts, said coils being arranged in series with each other and normally out of the main working circuit, and means whereby said coils are introduced to the main working circuit at the moment circuit is broken between said contacts, as and for the purpose set forth. 9th. In a controller, a series of separable contacts, a conducting coil arranged adjacent to and having a central open space presented towards each pair of contacts, and means for cutting said coils into and out of circuit with said contacts, as and for the purpose set forth. 10th. In an electric controller, the combination with a plurality of fixed fingers and corresponding movable contacts, and conducting coils arranged in proximity to the contact ends of said fingers and adapted to be cut into and out of the circuit thereof, each coil comprising convolutions around a central open space, as and for the purpose set forth. 11th. The combination in a controller, of a cylinder, contacts mounted thereon, relatively stationary co-operating contacts, a conducting coil arranged in the circuit to be broken adjacent to each pair of contacts to be broken, said coils comprising spiral convolutions, a shunt-circuit for said coils, and contacts controlling said shunt-circuit, whereby when said controller is in running position said coils are out of working circuit, but are replaced in circuit in advance of the opening of said circuit, as and for the purpose set forth.

No. 62,225. Device for Preserving Public Records. (*Appareil pour préserver des records.*)

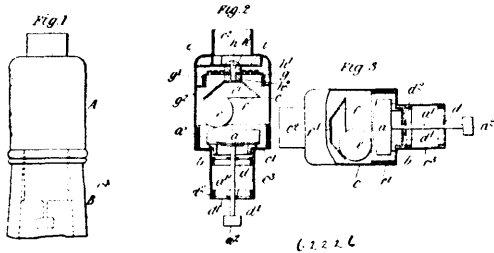


Jasper E. Wickham, Glenwood, Iowa, U.S.A., 5th January, 1898; 6 years. (Filed 1st December, 1898.)

Claim.—1st. A stub, composed of intermediate and outside layers, united together, the former being narrower than the latter, and flaps upon the edges of the outside layers adapted to receive sheets between them, substantially as set forth. 2nd. The combination with a composite sheet or stub, composed of intermediate and outside layers, the latter extending to form flaps, of a sheet provided with a narrow tongue or margin inserted between and secured to the flaps of the stub, substantially as set forth. 3rd. The combination with a composite stub composed of intermediate and outside layers, the latter constituting flaps, of a sheet of thickness equal to the thickness of the composite stub, and a tongue or margin of

thickness substantially equal to the thickness of the intermediate layer of the stub, and means for uniting the flaps to the margin or tongue, substantially as set forth. 4th. A book composed of a plurality of composite stubs, comprehending, respectively, intermediate and outside layers, the latter constituting flaps upon the edges of the stubs, substantially as and for the purposes specified. 5th. As a new article of manufacture, a record sheet of paper of suitable thickness, provided upon one edge with an intermediate tongue or margin, substantially as set forth. 6th. As a new article of manufacture, a record sheet of paper provided with an intermediate tongue or margin on one edge thereof, and a coating of adhesive material on both sides of the tongue, substantially as specified.

No. 62,226. Bottle Stopping Device.
(*Bouchon de bouteilles.*)



Arthur William Ellis, 5 Oakley Crescent, Chelsea, England, 5th January, 1899; 6 years. (Filed 13th September, 1898.)

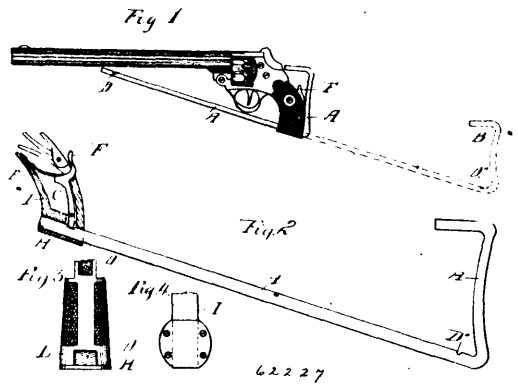
Claim.—1st. In a stopping device for bottles or like receptacles, the combination of a buoyant valve, a wide angle cone, and a ball arranged between said valve and cone, substantially as described. 2nd. In a stopping device for bottles or like receptacles, the combination of a buoyant valve, a rounded upper surface on said valve, a wide angle cone, and a ball arranged between said cone and valve, substantially as described. 3rd. In a stopping device for bottles and like receptacles, the combination of a buoyant valve, a wide angle cone, a ball situated between said valve and cone, and a flat or truncated portion inside the cone to prevent the ball sticking therein by capillary attraction, substantially as described. 4th. In a stopping device for bottles and like receptacles, the combination of a buoyant non-return valve, a ball, a wide angle cone, a shield plate and a perforated guard, substantially as described. 5th. In a stopping device, the combination of a buoyant valve, a ball and a cone, a perforated guard and a guard disc above said guard, substantially as described. 6th. A stopping device having a non-return ball valve, a ball and a cone, and an indirect or baffled outlet passage which increases in area from the said valve to the discharge outlet of the device, substantially as described. 7th. In a stopping device, the combination of the valve *a*, the valve stem *a'* and weight *a''*, the valve seat *b*, the casing *c*, the ball *e*, the cone *f* having the truncated portion *f'*, the perforated guard *g*, and the baffle plate or disc *i*, substantially as described. 8th. In a stopping device, the combination of an outer casing, a non-return valve, a ball and cone inside said casing, a ring or flange *c'* outside said casing, a cork ring beneath said ring, a filling of cement above said ring, and a groove in the bottle neck to receive said cement and so lock the device immovably in the bottle neck, substantially as described. 9th. The combination with a stopping device having its casing arranged inside the bottle neck, of a ring or flange, spring catches above said flange, a cork ring below the same, and a filling of cement, substantially as described. 10th. The combination with a stopping device, of a glass casing *e* containing the movable parts of said device, a cork liner *l* surrounding the lower portion of said device, a ring or washer *a'*, and a cement groove *B'*, formed partly in the casing *e* and partly in the bottle neck, substantially as described.

No. 62,227. Extension Stock for Fire Arms.
(*Crosse de fusil à extension.*)

David Henderson Houston, Hunter, North Dakota, U.S.A. 5th January, 1899; 6 years. (Filed 16th November, 1898.)

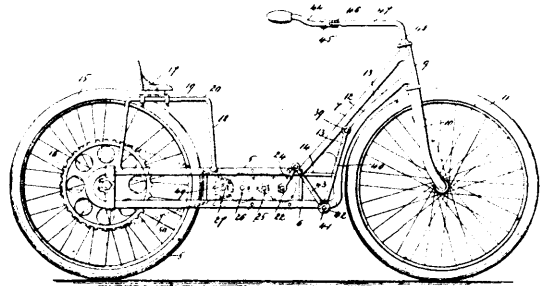
Claim.—1st. The combination with a pistol-butt having a channel, or guide at its lower portion arranged in the centre thereof, of a triangular shaped sliding skeleton stock composed of one continuous piece of material, substantially as shown. 2nd. The combination with the pistol-butt having a channel or guide at its lower portion arranged in the centre thereof, the sliding skeleton stock fitted in said central channel, and having the notches, or recesses to receive the lower end of the catch bolt, said catch bolt having a handle projecting to the outside of the butt. 3rd. The combination with the pistol-butt having the channel or guide at its lower portion arranged in the centre thereof, the sliding skeleton stock fitted in said central channel and having the notches, or recesses, the catch bolt arranged in the butt to engage the notches of the sliding skeleton stock, the handle or finger portion projecting out through the

butt, and the spring secured in the butt and having its free end bearing upon the catch bolt to hold the same in engagement with



the notches of the stock. 4th. The herein shown and described improvement in firearms, consisting of the pistol-butt having the channel or guide in the lower portion, the spring having one end secured to the inner wall of the pistol-butt, the catch bolt against which bears the free end of the spring, the handle on said catch bolt projecting out through the outer wall of the butt to be readily accessible to the finger, and the sliding skeleton stock adjustable in the channel or guide of the butt and having the notches, or recesses to receive the catch bolt for holding the stock at the proper adjustment.

No. 62,228. Bicycle. (*Bicycl.*)



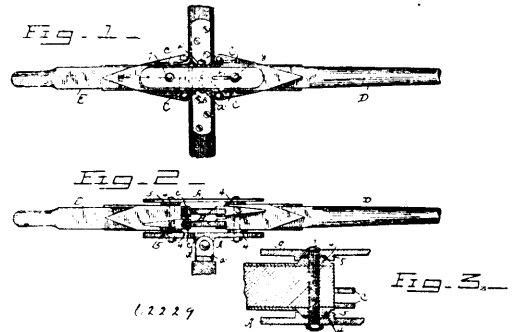
George Washington Manson, New York City, New York, U.S.A., 5th January, 1899; 6 years. (Filed 2nd December, 1898.)

Claim.—1st. An improved bicycle adapted for military and other similar purposes, comprising a frame embodying a main portion formed of longitudinal side bars extending from front to rear of the machine, a plurality of said longitudinal side bars being arranged in parallel position in a vertical plane at each side of said main portion of the frame, and a front portion formed of side bars relatively arranged at each side and projecting upwardly from the side bars at the front of the main portion of the frame, whereby a storage space is provided within the front portion of the frame and the front of the main portion of the frame, a drive-wheel being mounted between said longitudinal side bars of the main portion of the frame at the rear end and the steering head and wheel being connected to said upwardly projecting front portion of the frame, substantially as and for the purpose set forth. 2nd. An improved safety bicycle, comprising a frame embodying a main portion formed of longitudinal side bars extending from front to rear of the machine, a plurality of said longitudinal side bars being arranged in parallel position in a vertical plane at each side of the main portion of the frame, and a front portion formed of side bars extending upwardly and forwardly from said longitudinal side bars of the main portion of the frame at the front, the drive-wheel being arranged between said side bars of the main portion of the frame at the rear end and the steering head and wheel being arranged in connection with the upwardly projecting front portion of the frame, and the driving mechanism enclosed between and carried by the vertically parallel longitudinal side-bars at each side of the main portion of the frame and connected with the main drive-wheel, substantially as and for the purpose set forth. 3rd. An improved bicycle, comprising the frame embodying a main portion formed of longitudinal side-bars extending from front to rear of the machine, a plurality of said longitudinal side bars being arranged in parallel position in a vertical plane at each side of the main portion of the frame, and a front portion formed of side-bars extending upwardly and forwardly from the side-bars of the main

portion of the frame at the front end, and supplementary arched side-bars extending upwardly from said longitudinal side-bars of the main portion of the frame at the rear end and constituting a yoke forming a truss for the rear end of the longitudinal side-bars of the main portion of the frame, the drive-wheel being mounted between the sides of the main portion of the frame formed by said parallel longitudinal side-bars and between the supplementary arched side-bars or yokes, and the steering-head and wheel being arranged in connection with the upwardly projecting side-bars of the front portion of the frame, substantially as and for the purpose set forth. 4th. An improved bicycle, comprising a frame embodying a main portion formed of longitudinal side-bars extending from front to rear of the machine, a plurality of said longitudinal side-bars being arranged in parallel position in a vertical plane at each side of the main portion of the frame, and a front frame portion extending upwardly and forwardly from the top of said longitudinal side-bars of the main portion of the frame, supplementary arched side-bars projecting upwardly from the top of the longitudinal side-bars at the rear, and constituting a yoke forming a truss at the rear of the main portion of the frame, the drive-wheel mounted between the longitudinal side-bars at the rear and within the supplementary arched side-bars or yokes, a seat mounted upon the front portion of the supplementary arched side-bars or yoke in front of the drive-wheel, a driving mechanism mounted between the longitudinal and vertically parallel sets of side-bars at the rear end of the main portion of the frame, said driving mechanism being connected with the drive-wheel and embodying gears and a crank-shaft for operating the same, rods pivotally suspended from the upwardly and forwardly projecting front portion of the frame, pitmen extending from the lower ends of said rods to the cranks upon the crank-shaft of the driving mechanism, and pedals or foot-pieces mounted at the joint between said pivoted rods and the pitmen, the relative construction and arrangement being such that a low seat is provided and a direct forward thrust upon the pedals or foot-pieces is enabled, substantially as and for the purpose set forth. 5th. As an improvement in bicycles, the combination with the frame embodying the main portion formed of longitudinal side-bars extending between the drive-wheel and the steering wheel, a plurality of said longitudinal side-bars being arranged in parallel position in a vertical plane at each side of the main portion of the frame, and the drive-wheel mounted between said longitudinal and vertically parallel sets of side-bars at the rear end and having a large sprocket-wheel or gear upon its shaft, of its pedal shaft mounted upon said longitudinal side-bars of the main portion of the frame in front of the drive-wheel and carrying a gear and having its ends projecting beyond said side-bars, a gear mechanism mounted and sustained upon said longitudinal side-bars and within the main portion of the frame formed thereby and consisting of a supplementary shaft having a relatively small sprocket or gear connected with the sprocket or gear upon the shaft of the drive-wheel and provided with a gear and a series of shafts intermediately arranged between the pedal shaft and said supplementary shaft and provided with relatively intermeshing pinions and gears, whereby the driving mechanism is mounted within the main portion of the frame formed by said longitudinal and vertically parallel sets of side-bars and the speed of the pedal shaft is communicated to and multiplied in the supplementary shaft and the speed of the supplementary shaft is communicated to and reduced in the drive-wheel shaft and a strong leverage is obtained in the communication between the supplementary shaft and the drive-wheel shaft, substantially as and for the purpose set forth. 6th. In a bicycle, an improved frame comprising a main portion formed of longitudinal side-bars extending from end to end at the bottom portion of the machine, a plurality of said longitudinal side-bars being arranged in parallel position in a vertical plane at each side of said main portion of the frame, the front portion framed of relatively arranged side-bars projecting upwardly and forwardly from said longitudinal side-bars of the main portion of the frame at the front end and converging at their top-ends to the steering head, and a supplementary frame portion formed of the arched side-bars projecting upwardly from said longitudinal and vertically parallel sets of side-bars at each side of the main portion of the frame at the rear end and constituting a yoke which forms a trussed rear end, the drive-wheel being received between said longitudinal and vertically parallel sets of side-bars and within the supplementary arched side-bars or yokes and the steering head and wheel being arranged in connection with the convergent front end of the forwardly and upwardly projecting front portion of the frame, substantially as and for the purpose set forth. 7th. An improved safety bicycle, comprising the frame embodying a main portion formed of longitudinal side-bars extending from end to end, a plurality of said longitudinal side-bars being arranged in parallel position in a vertical plane at rear side of said main portion of the frame, and front portion extending upwardly and forwardly from said longitudinal side-bars at the front ends, supplementary arched side-bars projecting upwardly from the longitudinal and vertically parallel side-bars of the main portion of the frame at each side the latter at the rear end and constituting a yoke which forms a truss at the rear end of said longitudinal side-bars, the drive-wheel mounted between the longitudinal and vertically parallel sets of side-bars at the rear end of the main portion of the frame, driving mechanism supported by and mounted between said longitudinal side-bars and within the main portion of the frame formed thereby, said driving mechanism being connected with the drive-wheel, the steering wheel and steering

head arranged in connection with the upwardly and forwardly projecting front portion of the frame, the steering head being extended laterally and carrying the handle bar upon said extension, and the seat supported upon the supplementary side-bars or yokes, substantially as and for the purpose set forth.

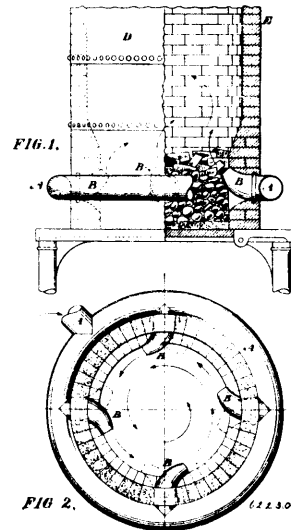
No. 62,229. Boat Oar. (Rame.)



Orlando B. Shedd, St. Johnsville, New York, U.S.A., 5th January, 1899; 6 years. (Filed 29th November, 1898.)

Claim.—The combination with an oar formed into two parts of caps fitted over the adjacent ends of said parts and provided on their opposite sides with perforated lugs or oars, diagonally-crossed links pivoted at their opposite ends to said lugs or oars, frusto-conical shaped bosses formed on the upper and lower sides of said caps, parallel plates bolted to the upper and lower sides of the caps and provided with conical recesses in which said bosses have bearing, and means for pivotally attaching the lowermost of said plates to the gunwale of a boat, substantially as described.

No. 62,230. Tuyere. (Tuyere.)



Michael Hynes, St. Johnsbury, Vermont, U.S.A., 5th January, 1899; 6 years. (Filed 3rd December, 1898.)

Claim.—1st. In combination with a furnace and wind pipe, a tuyere supplied by said pipe and mounted permanently in the wall of the furnace, the said tuyere having a curved discharging part, which is movable to all points of a circle for varying at will the direction of the blast, substantially as set forth. 2nd. In combination with a furnace and a source of air supply, a tuyere discharging the air into the said furnace, the said tuyere being provided with a curved discharging part which is adapted to turn independently on the remainder of the said tuyere, substantially as set forth.

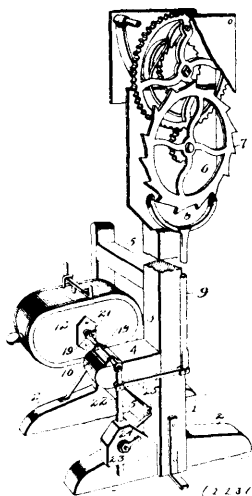
No. 62,231. Motor for Churns or Washing Machines.

(*Motor pour barattes ou machines à laver.*)

Albert Edward Dafoe and Frank Amenzio Walters, both of Stevens Point, Wisconsin, U.S.A., 5th January, 1898; 6 years. (Filed 1st December, 1898.)

Claim. 1st. In a motor, the combination with the supporting frame, a spring-actuated gearing supported by said frame and actuating an escape-wheel, pallets to control the escape-wheel, a pendulum-rod secured to said pallets, an operating shaft to support

the body to be rocked, an arm projecting downward from said operating shaft and provided with a weight located in a plane below



that of the body to be rocked, and a link connecting the arm with the pendulum-rod, substantially as set forth. 2nd. The combination with the operating shaft having a bifurcated end, of a stud adapted to be secured to the churn body or the body of a washing machine, and provided with a squared end embraced by the bifurcated end of the operating shaft, said stud having an upper and lower notch and the said bifurcated end having aligned openings and a cross-pin, the latter engaging the lower notch of the stud, and a cotter pin inserted through the aligned openings and engaging the upper notch, substantially as set forth. 3rd. The combination with the supporting frame, the oscillating pendulum-rod, the operating shaft adapted to be connected with the body to be rocked, a downwardly extending arm, a weight vertically adjustably secured to said downwardly extending arm, and gearing below the body to be rocked, and a link connecting the pendulum-rod with the weight arm, substantially as set forth.

No. 62,232. Boot Plate. (*Plaque de chaussures.*)

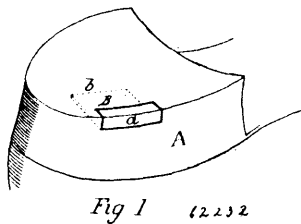


Fig. 1 62232



Fig. 2

James Robert Kirby, Toronto, Ontario, Canada, 5th January, 1899; 6 years. (Filed 28th October, 1898.)

Claim.—1st. For a shoe-plate, a flanged-plate having an elevated ridge thereon uniform with the wearing surface of the shoe, the flange inserted between the layers of the sole or heel, substantially as described. 2nd. For a shoe-plate, a flanged-plate inserted between the layers of leather of sole or heel, having an elevated ridge thereon uniform with the wearing surface of the shoe, the plate secured to the shoe by means of nails driven through the flange, substantially as described.

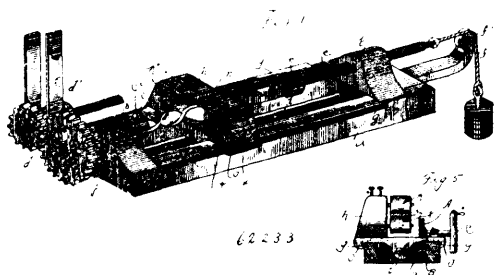
No. 62,233. Auger Twisting Machine.

(*Machine à faire les tarières.*)

William M. Hamilton, Clinton, Indiana, U.S.A., 5th January, 1899; 6 years. (Filed 10th November, 1898.)

Claim.—1st. A twisting machine having a frame, head-blocks at each end thereof, a revolving clamp working in one of said head-

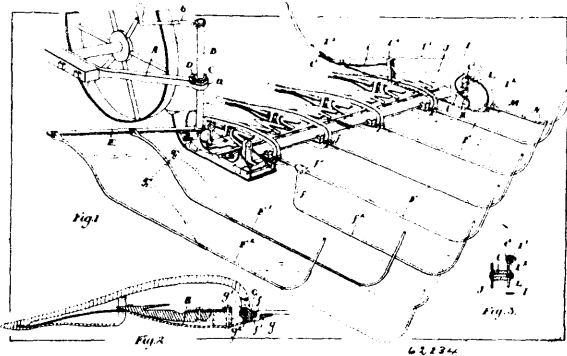
blocks, a laterally-moving weight-actuated clamp working in the other, the metal bar to be twisted being secured between said



clamps, a travelling carriage having rollers bearing rotatably on said metal bar, and controlling the twist thereof and gearing graduated to operate the twisting clamp and travelling carriage as described, substantially as set forth. 2nd. In a twisting machine, the combination of the frame, the clamps, a travelling carriage, a worm-screw carrying said carriage, rollers journaled within said carriage and adapted to hold and control the twist of the metal to be bent, substantially as set forth. 3rd. In a twisting machine, the combination of the frame, the guide-ribs formed longitudinally thereon, a travelling carriage running on said frame, rollers carried by said carriage adapted to guide and control the twist of the metal, a worm-screw moving said carriage and operated by gearing arranged in the proper ratio to the twisting-gearing to form the desired pitch or thread, substantially as set forth. 4th. A movable guide-carriage for twisting machines or the like, comprising the head having its base undercut holding a guide-toe, a downwardly central projection adapted to carry a screw, the upwardly-projecting jaws arranged to form a chamber between them, anti-friction rollers working in said chamber and journaled in said carriage to hold in a true line plates or bar for the purpose set forth.

No. 62,234. Buncher for Pea Harvesters.

(*Machine à mettre en javelle pour moissonneuses de pois.*)

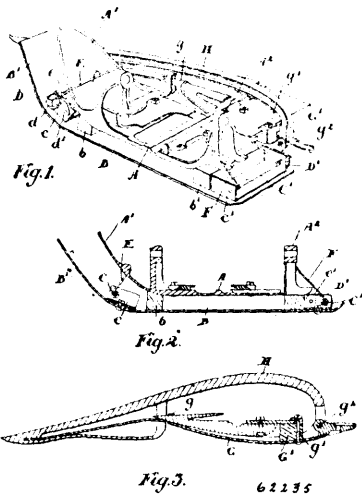


William H. Wortman, London, and William Richmond, Blythe, both of Ontario, Canada, 7th January, 1899; 6 years. (Filed 12th December, 1898.)

Claim.—1st. In a pea harvester, the combination with the mower bar and lifters and obliquely arranged fingers having the curved rear ends, of the supplemental fingers adjustably held at the rear end of the machine, so as to form a receptacle to hold the gathered peas, and means for throwing the curved ends of such supplemental fingers in alignment with the curved ends of the remaining fingers, as and for the purpose specified. 2nd. In a pea harvester, the combination with the mower bar and lifters and obliquely arranged fingers having the curved rear ends, of the inner-supplemental fingers, the bracket secured to the frame, the crank shaft rotatably supported in such bracket, the arm secured to the crank shaft to which such fingers are connected and means for turning such shaft and holding it in the required position when turned, as and for the purpose specified. 3rd. In a pea harvester, the combination with the mower bar and lifters and obliquely arranged fingers having the curved rear ends, of the inner supplemental fingers, the bracket secured to the frame, the crank shaft rotatably supported in such bracket, the arm secured to the crank shaft to which such fingers are connected, the crank handle, the ratchet wheel secured to the crank shaft and the dog designed to engage therewith, as and for the purpose specified. 4th. The combination with the mower bar and lifters and shoes secured underneath the lifters, of the hinged bracket pivoted in the rear of the shoe and having the socket therein and the buncher fingers having the L-shaped front ends with forwardly turned ends fitting in correspondingly shaped socket, so as to hold the buncher fingers in proper relative position as and for the purpose specified. 5th. The combi-

nation with the mower bar and lifters and shoes secured underneath the lifters, of the hinged bracket pivoted in the rear of the shoe provided with a notch forming a shoulder to abutt the rear end of the shoe and having the socket therein and the buncher fingers having the L-shaped front ends with forwardly turned ends fitting in correspondingly shaped socket, so as to hold the buncher fingers in proper relative position, as and for the purpose specified. 6th. The combination with the mower bar and lifters and fingers obliquely arranged, of a sleeve secured to the innermost finger and the supplemental finger parallelly arranged to the main fingers and having an off-set portion extending into the sleeve on the inner finger, as and for the purpose specified. 7th. The combination with the mower bar and lifters and fingers obliquely arranged as specified, of the supplemental divider comprising the upper side bar 1¹, lower side bar 1², having curved rear portions, the ends of which are adjacently placed the block secured to the divider of the mower bar, the link adjacent thereto, the bolt securing the block and link to the divider, the bolt extending through the link and ends of the curved rear portions, the said side bars converging to the front portion and having a curvular end piece and the spring extending from the converging portion over the end of the divider of the mower bar, as and for the purpose specified. 8th. The combination with the mower bar and lifters and fingers obliquely arranged as specified, of the supplemental divider provided with a portion extending rearwardly of the mower bar, a bracket secured to such portion and a supplemental finger suitably socketed in such bracket and extending rearwardly from the same, as and for the purpose specified. 9th. The combination with the mower bar and obliquely arranged fingers suitably connected to the rear thereof, of the supplemental fingers also suitably connected to the rear of the machine, so as to form a receptacle for the vine and means for throwing the curved ends of such supplemental fingers in alignment with the curved ends of the remaining fingers, as and for the purpose specified.

No. 62,235. Pea Harvester. (*Moissonneur à pois.*)



William H. Wortman, London, and William Richmond, Blythe, both in Ontario, Canada, 7th January, 1899; 6 years. (Filed 12th December, 1898.)

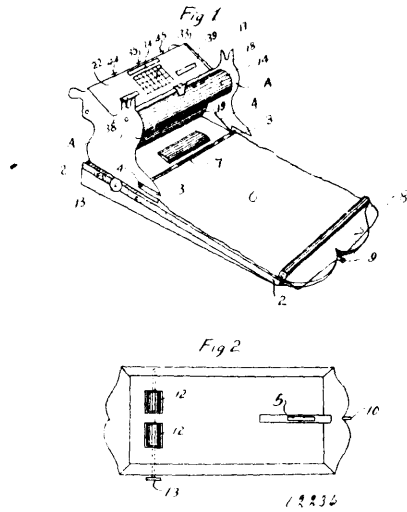
Claim. 1st. The combination with the cutter-bar and end shoe for same, of the supplemental shoe-supports for the main shoe upon the supplemental shoe, and a detachable means for connecting the main shoe to the supplemental shoe, as and for the purpose specified. 2nd. The combination with the cutter-bar and end shoe for same, of the supplemental shoe-supports for the main shoe upon the supplemental shoe, the spindles journalled in suitable bearing plates and provided with a ratchet having a square collar and a suitable co-acting dog, and the wires affixed to the spindles and looping over the front and rear portions of the main shoe, as and for the purpose specified. 3rd. The combination with the cutter-bar and lifting-bars, of the shoe having an eye for supporting it upon the guard-block, and bolt for connecting the bar proper and a bracket to which the lifting-bar is pivotally connected, as and for the purpose specified.

No. 62,236. Desk. (*Papitre.*)

John Millin, Ahmic Harbour, Ontario, Canada, 7th January, 1899; 6 years. (Filed 3rd December, 1898.)

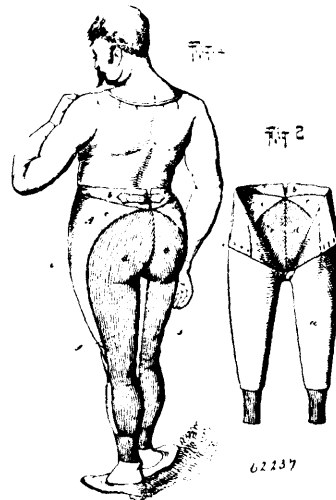
Claim. 1st. The combination of the writing-desk and the paper-holder, having a movable attachment 5 so that it can be adapted to different sizes of paper, substantially as described. 2nd. The combination of the writing-desk, the paper-holder and the covering 6 connected to the roller 8, substantially as and for the purpose specified. 3rd. The combination of a writing-desk, the covering 6 and the blotter, which is also attached to the roller 8, the blotter to be

used as an advertising medium, substantially as described. 4th. The combination of the writing-desk, the paper-holder, the cover-



ing, the blotter as an advertising medium, the manner in which the covering is fastened by the roller, and the compartment for the envelopes having a flexible bottom and frictional rollers, substantially as described and for the purpose herein specified. 5th. In a combination writing-desk, the ink-holder, having closed ends and composed of two hollow cylinders and supported by the pivots 15, 15, which fit into the opening designed to receive them, substantially as described. 6th. The combination of a writing desk and the pen and pencil-holder, substantially as described. 7th. The combination of a writing-desk and the stamp-holder with the shaft 24, on which are fastened the frictional rollers 30, substantially as described and for the purpose herein specified. 8th. The combination of a writing-desk, the paper-holder, the covering, the blotter to be also used as an advertising medium, the envelope-holder, the ink-holder, the pen and pencil-holder, and calendar with the endless ribbons and frictional rollers, substantially as described and for the purpose herein specified.

No. 62,237. Underwear. (*Sous-vêtements.*)

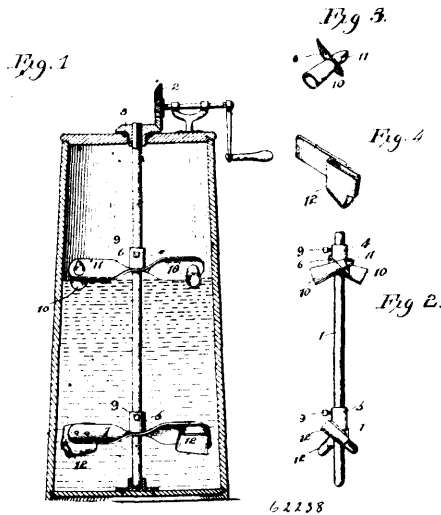


Jeremiah Anderson Scriven, New York City, New York, U.S.A., 7th January, 1899; 6 years. (Filed 7th December, 1898.)

Claim. 1st. In a nether garment, the combination of a front section *a*, of inelastic material extending over the hips of the wearer and having its rear edge cut on a curve *c*, surrounding the buttocks, and a section of elastic material secured to the said edge *c*, and covering the buttocks so as to stretch when the garment is strained in use. 2nd. A pair of drawers, comprising an inelastic waist band *l*, an inelastic front section *a*, extending around and forming part of the rear of the drawers and adapted to cover a portion of the buttocks and a continuous rear elastic section constituting a portion only of the rear of the drawers below the rearward extensions of the front sections, the said elastic section being therefore overlapped by the said extensions of the inelastic section, substantially as specified. 3rd. In a pair of drawers, the combination of a waist band *b*, an

inelastic front section *a*, secured to the lower edge of the said waist band and extending over the hips of the wearer and forming part of the rear thereof, the lower edge of the said inelastic section *a*, being sloped away from the lower rear edge of the waist band so as to impart to the upper part of the said inelastic section the general shape of a tapering gore and an elastic rear section secured to the edges of the inelastic front section and constituting with the said front section an under garment having its front portion and part of its rear portion inelastic and with an elastic rear portion constituting part only of the rear of the garment.

No. 62,238. Churn-Dasher. (*Cylindre à baratte.*)



Silas Sims, Hannibal, Missouri, U.S.A., 7th January, 1899; 6 years. (Filed 10th December, 1898.)

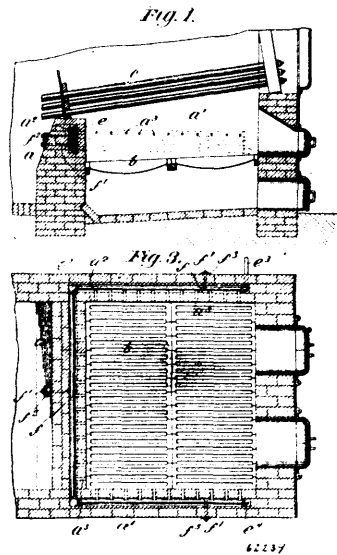
Claim.—1st. A rotary churn-dasher having a plurality of blades provided with downwardly and rearwardly inclined cross-sectionally flat arms, terminating in deflectors which respectively impart upward and downward pressure to the liquid contents of a churn-receptacle, substantially as specified. 2nd. A rotary churn-dasher having upper and lower blades each consisting of radially-disposed cross-sectionally flat arms, inclined to a horizontal plane to exert downward pressure, the arms of said upper and lower blades respectively carrying funnels and scoops having open front ends and lateral outlets, substantially as specified. 3rd. A rotary churn-dasher having upper and lower blades of which the body portions consist of radial arms inclined to a horizontal plane to exert a downward pressure, the upper blade having its arms provided with forwardly-extending funnels inclining downwardly toward their mouths, and terminating in discharge nozzles, the lower blade having its arms terminating in rearwardly and downwardly inclined scoops having lateral outlets, substantially as specified. 4th. A churn-dasher having radial arms of cross-sectionally flat construction, for arrangement contiguous to and above the plane of the surface of the contents of the churn-receptacle, and deflectors carried by the extremities of said arms, and each consisting of a forwardly and downwardly inclined funnel, for partial immersion in the liquid contents of the churn-receptacle, and rearwardly and upwardly inclined communicating nozzles having rear and lateral outlets, substantially as specified. 5th. A churn-dasher having radial arms terminating in inclined scoops, open at their front ends, provided with rearwardly and outwardly inclined rear closed ends, and having lateral outlets at the outer extremities of said rear closed ends, toward which liquid is deflected by the inclination of the rear ends, substantially as specified.

No. 62,239. Boiler Furnace. (*Fournaise de chaudières.*)

Thomas E. Puddington, West Sumnerville, Massachusetts, U.S.A., 7th January, 1899; 6 years. (Filed 10th December, 1898.)

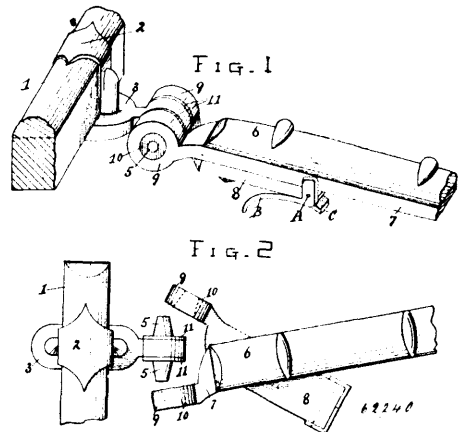
Claim.—1st. In combination, a furnace having a grate and a retort arranged to discharge into the fire chamber, and adapted to be heated by the fire on the grate, said retort comprising a number of sections fitted together at their ends. 2nd. In combination, a furnace having a grate and a retort adapted to be heated by the fire on the grate and to discharge into the fire chamber above the grate, said retort comprising a number of sections that are fitted together at their ends and apertured so as to form a conduit having continuous convolutions. 3rd. In combination, a furnace having a grate, and a retort located in the walls of the furnace above the grate, and adapted to be heated by the fire on the grate, said retort having openings opening into the fire-chamber above the grate, substantially as and for the purpose set forth. 4th. In combination, a furnace having a grate, a retort having a conduit extending in hor-

izontal lengths along the walls of the furnace above the grate and in heating relation to the fire on the grate, and jets or outlets in said



retort opening into the fire chamber above the grate, substantially as and for the purpose set forth. 5th. In combination, a furnace provided with a grate, and having a wall formed with an integral chamber or cavity, said wall having openings from said cavity into the fire chamber, a pipe laid in horizontal lengths or convolutions in said cavity above the level of the grate, and nozzles or outlets projecting from said pipe into the said openings into the wall. 6th. In combination, a furnace having a grate, a retort having a conduit extending in horizontal lengths or convolutions along the wall of the furnace above the grate, and in heating relations to the fire on the grate, an inlet connected with the lowest convolution, and a series of outlets or jets connected with the uppermost convolution and leading into the fire-chamber. 7th. In combination, a furnace having a wall formed with an internal chamber or cavity, a retort comprising a pipe laid in convolutions in said cavity, and supports or brackets anchored to the wall and supporting the said pipe. 8th. In combination, a furnace having a grate and a retort adapted to be heated by the fire on the grate, said retort having outlets so constructed and arranged as to discharge into the fire chamber above or beyond the grate. 9th. In combination, a furnace having a grate, and a retort adapted to be heated by the fire on the grate, said retort being located in the wall of the furnace, and having outlets in the form of nozzles extending partly through the wall, and having sleeves surrounding them. 10th. In combination, a furnace having a grate and a retort adapted to be heated by the fire on the grate, said retort being located in the wall of the furnace, and having outlets in the form of nozzles extending partly through the wall, and having sleeves surrounding them and projecting nearly but not quite through the wall.

No. 62,240. Thill Coupling. (*Armons de limoniers.*)

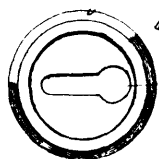
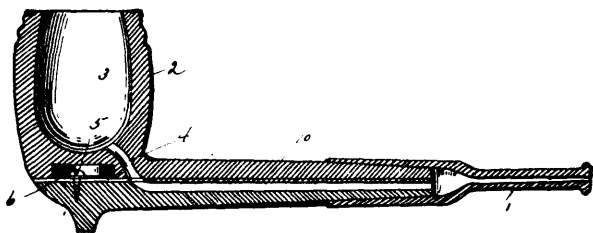


Edward Storm, Poughkeepsie, New York, U.S.A., 7th January, 1899; 6 years. (Filed 3rd September, 1897.)

Claim.—1st. In combination, a clip plate and pivoted shear members the one being provided with studs and the other being provided

with coating bearing lugs, a yoke pivoted to one of the members and adapted to be moved into engagement with the other and thereby lock the two members against movement, and means for holding the yoke in locked position, substantially as specified. 2nd. In combination, a clip plate and pivoted shear members, the one being provided with studs and the other being provided with coating bearing lugs, a yoke pivoted to one of the shear members and adapted to be swung into engagement with the other member and lock said members against movement, said yoke being provided with a handle that lies underneath one of said shear members, and a spring for locking said yoke in close position, substantially as set forth. 3rd. In combination, a clip plate and pivoted shear members, the one being provided with studs and the other being provided with coating bearing lugs, a yoke pivoted to one of the shear members and adapted to be swung into engagement with the other member and lock said members against movement, said yoke being provided with a handle, said handle formed with a longitudinal opening, and a flat spring secured to one of said members and projecting through the opening in the handle and engaging the cross piece of the yoke, substantially as set forth.

No. 62,241. Tobacco Pipe. (*Pipe à tabac.*)



62241

Lutellas Richards, Allegheny, Pennsylvania, U.S.A., 7th January 1899; 6 years. (Filed 14th December, 1898.)

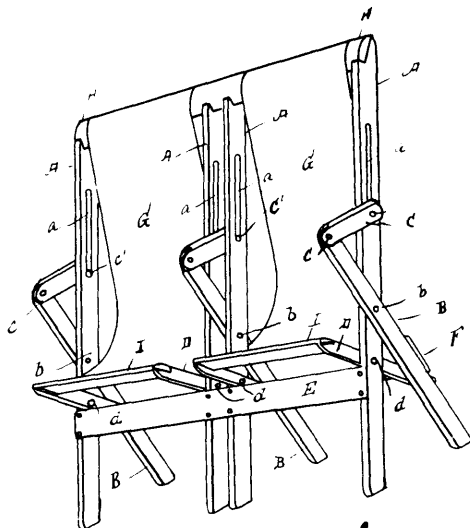
Claim.—In a tobacco pipe, the combination with the stem sections and bowl integral with one of same, of the hollow screw threaded plug 6 designed to be fitted into a recess in the under flat surface of the bowl, of the screw head carried by the under stem section, and adapted to engage in a keyhole slot in the end of the said screw threaded plug, and means for holding the outer ends of the stem sections together, substantially as shown and described.

No. 62,242. Opera Chair. (*Siège d'opéra.*)

Orville Lincoln Story, Somerville, Massachusetts, U.S.A., 7th January, 1899; 6 years. (Filed 14th December, 1898.)

Claim.—1st. An improved folding chair of the class described, comprising the main side bars, supplementary side bars pivotally connected to the main side bars, means for retaining said bars in relatively open position, and the seat-bars pivotally connected to the main side bars and having a bearing sustained by the main side bars in front of the pivot and a bearing sustained by the supplemental side bars in rear of the pivot, whereby said seat-bars can be folded up independently of the main frame, substantially as and for the purpose set forth. 2nd. An improved folding chair of the class described, comprising the main side bars, the supplementary side bars pivotally connected to said main bars, the arm-bars pivotally connected at their front portion to the portion of the supplementary side bars which projects above the pivot of the latter, said arm-bars having a movable connection at their rear end with the main side bars, and the seat-bars pivotally connected to the main side bars and having a bearing sustained by the main side-bars in front of the pivot and a bearing sustained by the supplementary side bars in rear of the pivot, substantially as set forth. 3rd. An improved folding chair of the class described, comprising the main side bars having the longitudinally-arranged slot in their upper portion, the supplementary side bars pivotally connected to the main side bars, the arm-bars having their front ends pivotally connected to the portion of the supplementary side bars which projects above the pivot of the latter, the rear ends of said arm-bars having a pivotal and longitudinally-sliding connection with the

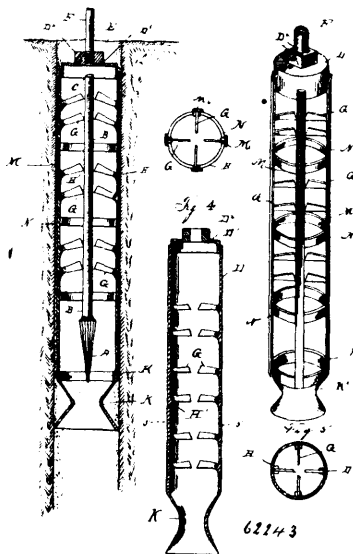
main side bars by means of said longitudinal slot, the seat-bars pivotally connected to the main side bars, the support for said seat-



62242

bars carried by the main side bars at a point in front of the pivot of the seat-bars, and the bearing piece carried by the supplementary side bars and operating to retain the seat-bars in position, substantially as for the purpose set forth.

No. 62,243. Drill Clutch. (*Embrayage de forêt.*)



62243

William L. Hirlinger, Luzerne, Pennsylvania, U.S.A., 7th January, 1899; 6 years. (Filed 14th December, 1898.)

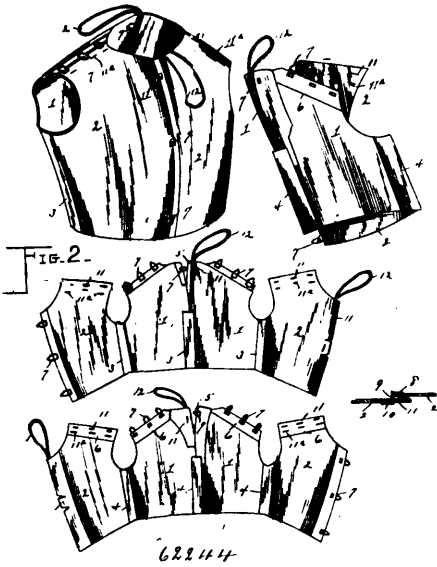
Claim.—A clutch for broken drill-shanks, comprising a skeleton cylinder composed of vertical bars secured in position by interior hoops, a cap for said cylinder provided with means for adjustment to the drill-rod, a bottom nozzle or end for said cylinder consisting of a sleeve in the form of two vertically-arranged conic frustums, joined together at their smaller ends, and a series of clutches pivoted to the inside of the cylinder and projecting toward the centre thereof, each of said clutches being arranged to normally maintain a horizontal position, their inner ends being located at a distance apart less than the diameter of the broken drill-shank, and the clutches being free to rise upon contact of the broken shank with under sides, substantially as described.

No. 62,244. Coat and Vest Holder. (*Porte-habit.*)

David Wilhelm Axene, Kansas, City, Missouri, U.S.A., 7th January, 1899; 6 years. (Filed 14th December, 1898.)

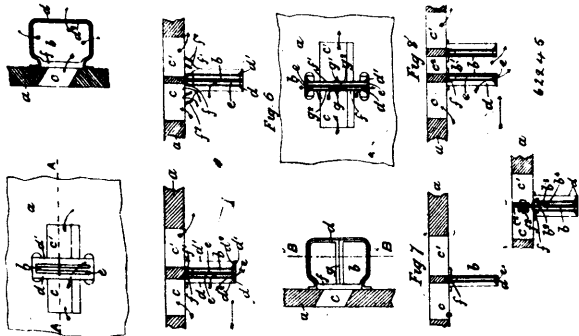
Claim.—1st. A hanger for coats and vests, comprising two front sections, and two back sections, said sections being shaped substan-

tially like the front and back sections of a vest, the two back sections being hinged together and to the front sections, whereby the



sections are adapted to fold upon one another, and fastening devices for connecting the free edges of the front sections and for connecting the adjacent upper edges of the front and rear sections to hold the sections in operative position, substantially as described. 2nd. A hanger for coats and vests, comprising two front and two back sections shaped like the front and back sections of a vest, and hinged together at the sides and back of the hanger, whereby the sections are adapted to fold one upon another, the upper edges of the front sections and the free edge of one of the front sections being provided with slots and hooks mounted on the free edge of the other front section and on the upper edges of the back sections in operative position, substantially as described. 3rd. A foldable hanger for coats and vests, comprising two front and two back sections of flexible material, shaped substantially like the front and back sections of a vest, the two back sections being hinged together at their opposing edges by a strip of textile fabric extending substantially half-way their length, said edges above the hinge inclining away from each other to form a gore, and the front sections being hinged to the respective back sections by strips of textile fabric and the free edges of the front sections, the shoulder edges of adjacent front and rear sections, and the opposite edges of the said gore being respectively provided with devices to detachably lock them together, substantially as described. 4th. A foldable hanger for coats and vests, comprising two back and two front sections of flexible material shaped substantially like the front and back sections of a vest, the two back sections being hinged together and to the front sections by strips of textile fabric, and a strip of flexible material being secured at one edge to one section at each hinge-joint and extending across said joint to loosely engage the other section, and the free vertical edges of the front sections and the shoulder edges of adjacent front and back sections being respectively reinforced by strips of textile fabric, and provided with devices to detachably lock them together, substantially as described.

No. 62,245. Ventilator. (Ventilateur.)

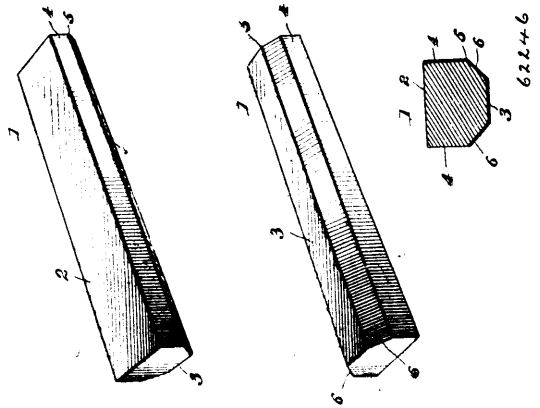


Joseph Leather, Liverpool, Lancaster, England, 7th January, 1899; 6 years. (Filed 14th December, 1898.)

Claim.—1st. In ventilating appliances the combination with an opening or openings through a wall, of a projecting piece surrounded

by a rim or rims, such rim or rims having openings adapted to allow escape of gravel, dust, rain, etc., substantially as described. 2nd. In ventilating appliances the combination with a projecting piece adapted to cause a plenum on one side and a partial vacuum on the other, of a rim or rims having openings adapted to allow escape of gravel, dust, rain, etc., substantially as described. 3rd. In ventilating appliances the combination with a projecting piece having a perforated rim or rims, of a central tapering wedgeshaped piece adapted to allow escape of water between such central piece and the faces of the projecting piece substantially as described. 4th. In ventilating appliances the combination with a projecting piece adapted to cause a plenum on one side and a partial vacuum on the other, of a rim or rims with curved inner faces and having openings adapted to allow escape of gravel, dust, rain, etc., substantially as described. 5th. In ventilating appliances the combination with a central opening and two side openings through a wall, of two projecting pieces having perforated rims and adapted to cause a partial vacuum in a space between said two projecting pieces, substantially as described. 6th. In ventilating appliances the combination with a projecting piece having curved dust retaining pieces and rims, of vertical deflecting pieces, substantially as described under Fig. 4. 7th. In ventilating appliances the combination with a projecting piece, of adjustable curved dust deflecting pieces and a swinging piece in the projecting piece, substantially as described under Fig. 9.

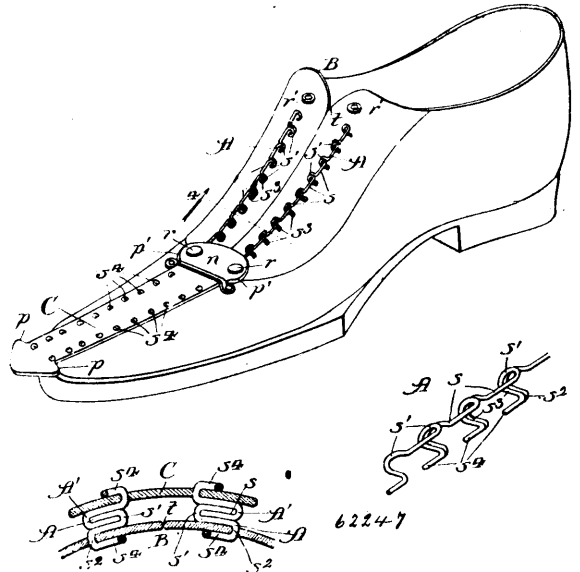
No. 62,246. Railroad Tie. (Traverse de chemin de fer.)



Arnold J. West, Aberdeen, Washington, U.S.A., 7th January, 1899; 6 years. (Filed 12th December, 1898.)

Claim.—In a railroad tie, the oblong tie body provided at its opposite lower side edges with cut-away corners forming downwardly convergent flat inclined faces extending longitudinally from end to end of the tie body to facilitate the tamping of ballast beneath the latter, substantially as set forth.

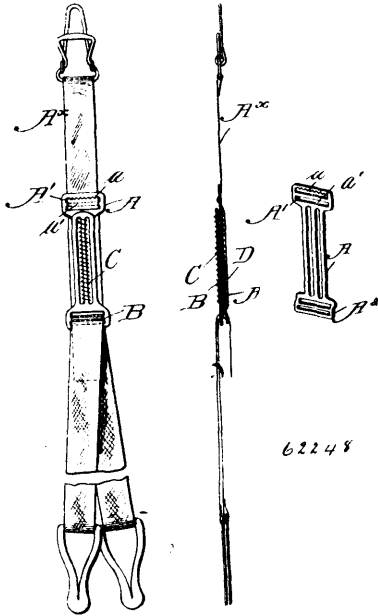
No. 62,247. Shoe Fastener. (Attache de chaussures.)



George Samuel Webber, Chicago, Illinois, U.S.A., 7th January, 1898; 6 years. (Filed 12th December, 1898.)

Claim.—1st. In a fastening for shoes or the like, the combination with a guide-equipped slide, of guides upon the shoe or the like, comprising a single continuous length of flexible wire bent to form the practically continuous projecting guide edges *s*, the supporting shanks *s*¹, and attaching means comprising extensions of said shanks bent to the desired form, substantially as and for the purpose set forth. 2nd. In a fastening for shoes or the like, the combination with a guide-equipped slide, of guides upon the shoe or the like, comprising a single continuous length of flexible wire bent to form the practically continuous projecting guide edges *s*, the supporting shanks *s*¹, and attaching means comprising extensions of said shanks bent to afford the portions *s*² resting on the outer surface and the portions *s*⁴ inserted through perforations and clinched, substantially as described.

No. 62,248. Garment Supporter. (*Support de vêtement.*)



62248

William G. Washburn, Thomaston, Maine, U.S.A., 7th January, 1899; 6 years. (Filed 12th December, 1898.)

Claim.—A garment supporter, consisting of two slides placed one against the other, each of said slides having a central longitudinal bar connected by a coiled spring which surrounds both bars and re-acts against the longitudinal movement of said slide, one of said slides having lower connections for the lower strap and the other or rear slide having transverse slots and bars at both ends adapted to receive the upper strap, and means at the upper end for holding the said upper strap, whereby the said strap is held at both ends of the slide and behind the spring, all as set forth.

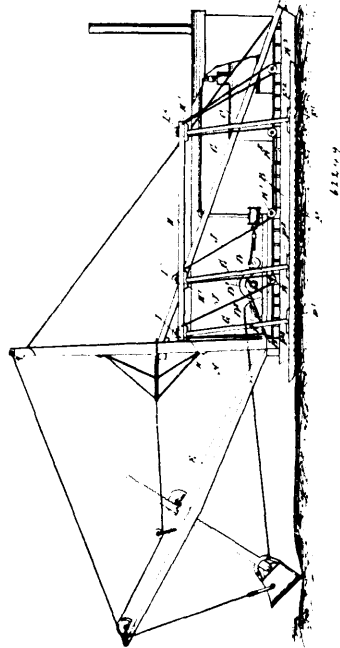
No. 62,249. Device for Moving Dredging Machines.

(*Appareil pour le fonctionnement des machines à draguer.*)

Joseph William Pike, Vancouver, British Columbia, Canada, 7th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—1st. A device for moving machines over the ground, comprising a swinging support for the machines to be moved, and a connection between the support and the machine, to move it by swinging the support in the desired direction, substantially as shown and described. 2nd. A device of the class described, comprising frame supports mounted to swing on opposite sides of the machine to be moved, and a flexible connection between the supports and the machine to be moved to it, upon swinging the supports in the desired direction, substantially as shown and described. 3rd. A device for moving dredging and other machines, comprising longitudinal base beams arranged on opposite sides of the machine to be moved, posts mounted to swing on said base beams, cap beams loosely connected with the upper ends of said posts, and a rope connection between said cap beams and the machines to be moved, the ropes being arranged for winding on drums on the machine, to be moved, substantially as shown and described. 4th. A device for moving dredging and other machines, comprising longitudinal base beams arranged on opposite sides of the machine to be moved, posts mounted to swing on said base beams, cap beams loosely connected with the upper ends of said posts, and a rope connection between said cap beams and the machines to be moved, the ropes being arranged for winding on drums on the machines to be moved, the said ropes passing over pulleys on the cap beams, and pulleys on the

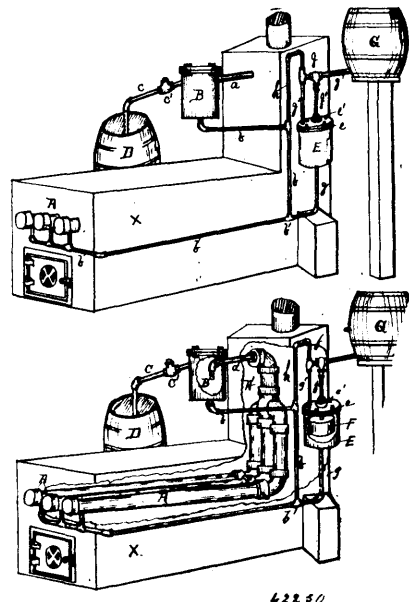
framework of the machine to be moved, substantially as shown and described. 5th. A machine of the class described, provided with



base beams having wedge shaped blocks to prevent the beams from moving in the wrong direction, substantially as shown and described.

No. 62,250. Feed Boiling Apparatus.

(*Appareil à bouillir les aliments.*)

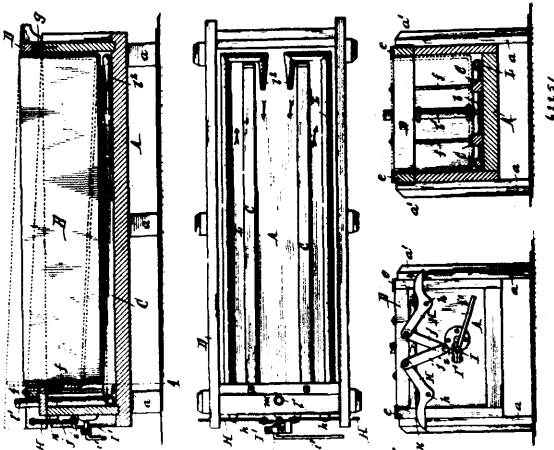


62250

William H. Taylor and Duncan McKenzie, both of Mitchells Bay, Ontario, Canada, 7th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—1st. The combination in a feed cooking device of the battery of cooking pipes *A* within the fire box *X*, the upright position being connected together to form the steam dome *A*¹, the steam trap *B*, the return pipes *b*, and the boiling tank *D*, substantially as and for the purposes specified. 2nd. The combination in a feed cooking device, the battery of heating pipes *A*, the steam dome *A*¹ and the supply tank *E* containing the float *F*, which is connected to the gate valve *f*, the water tank *G*, and the pipe *h*, connecting the supply and return pipes, substantially as specified and for the purposes hereinbefore set forth.

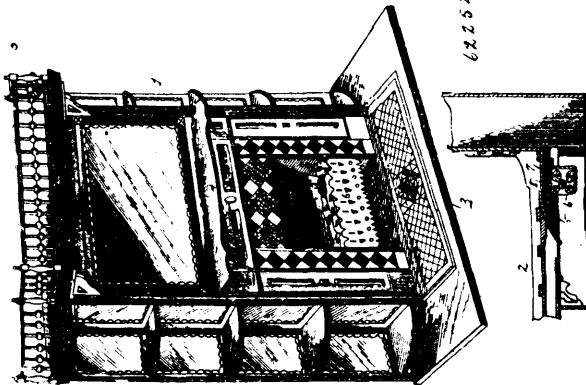
No. 62,251. Cheese Vat. (*Cuve à fromage.*)



Willard Almond Dodge, Patroia, New York, U.S.A., 7th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—1st. The combination with an outer stationary vat, of an inner vat adapted to be tilted independently of the outer vat and a device for raising and lowering the inner vat, applied to one end thereof, substantially as set forth. 2nd. The combination with an outer vat, of vertically movable support mounted on said vat, and an inner vat carried by said support, substantially as set forth. 3rd. The combination with an outer vat, of vertically swinging beams or supports arranged in the bottom of said vat, a vertically swinging frame or support mounted on the top of said vat and having its free end connected with the free ends of said bottom beams or supports, an inner vat carried by said supports and a lifting device applied to said upper frame or support, substantially as set forth. 4th. The combination with an outer vat, and a vertically swinging frame or support mounted on the top thereof, of an inner vat carried by said frame or support, and a vertically swinging lifting lever mounted on the outer vat and engaging with the free end of said frame or support, substantially as set forth. 5th. The combination with an outer vat and a vertically swinging frame or support mounted on the top thereof, of an inner vat carried by said frame, transverse lifting levers pivoted to the end wall of the outer vat and engaging with their outer arms under the side bars of said frame, a longitudinal crank shaft journaled at the same end of the outer vat and having a hand lever, and upright links connecting the inner arm of said levers with said crank shaft, substantially as set forth. 6th. The combination with the outer and inner vats, of longitudinal heating pipes arranged along the bottom of the outer vat near the side walls thereof and each provided at its rear or discharge end with a return bend or nozzle which nozzles are arranged between said pipes and face the front or inlet ends thereof, substantially as set forth. 7th. The combination with the inner and outer vats, of a heating pipe arranged lengthwise along the bottom of the outer vat and provided at its discharge end with a tapering or reduced outlet nozzle, substantially as set forth.

No. 62,252. Bedstead and Mantle. (*Couchette et manteau de cheminée.*)

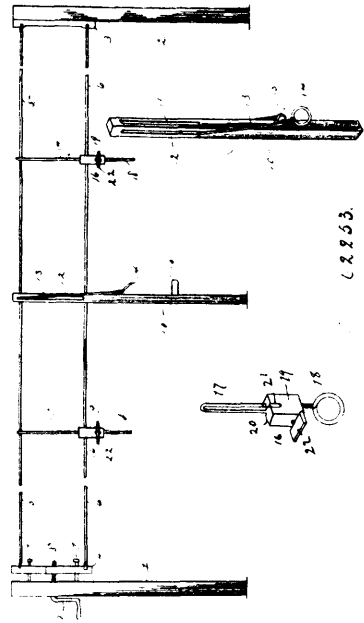


Lewis W. Rhoads, San Jose, California, U.S.A., 7th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—A combined cabinet-mantel and folding bed comprising a casing or cabinet, and a folding bed pivotally mounted therein and adapted to swing upward and downward, said bed having a depression in its outer or lower face to form a fireplace and provided with

a swinging grate pivoted within the fireplace and adapted to maintain a perpendicular position at all times, substantially as described.

No. 62,253. Clothes Line. (*Corde à linge.*)



Frances Newton Renfrew, Pearce, Mississippi, U.S.A., 7th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—1st. The combination with suitable support, of a clothes line, composed of a plurality of strands and line-clamps composed of clamping-blocks and adjustable loops carried by said blocks and through which the strands are designed to pass, substantially as specified. 2nd. The combination with suitable supports, of a clothes-line composed of a plurality of strands, a slotted clamping-post through which said strands are passed intermediate of the supports, and clamping-post and designed to regulate the relations of the strands within the limits of the slot, substantially as specified. 3rd. The combination with a pair of posts, of cleats carried by said posts, strands secured at their opposite ends to the opposite extremities of the cleats, a slotted clamping-post through which the strands are designed to be passed, and an adjustable clamping-loop carried by the clamping-post, means for securing said loop in place, and line-clamps carried by the strands, substantially as specified. 4th. The combination with a pair of supports, of a clothes-line composed of a plurality of strands, a clamping-post provided with a slot through which the strands are passed, and a movable clamping-loop carried by the clamping-post, substantially as specified. 5th. In a line clamp of the character described, the combination with an elongated loop provided with a handle at one extremity, of a clamping-block provided with a bore designed for the reception of said loop, a transverse recess in the upper end of said clamping-block, and a set-screw upon said block designed to secure the same to the loop, substantially as and for the purpose specified. 6th. The combination with a pair of supports, of a clothes-line composed of a plurality of strands secured at their opposite ends to the supports, a clamping post provided with longitudinal slots at right angles, one of said slots being designed for the reception of the strands and a movable clamping-loop passing through the other of said slots and designed to regulate the relations of the strands, substantially as specified. 7th. In a line clamp of the character described, the combination with a loop, of a clamping-block provided with a longitudinal bore, and with a transverse recess in its upper end and in line with the eye or open portion of the loop, and means for adjustably securing said loop, substantially as specified.

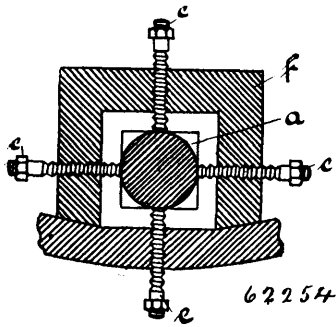
No. 62,254. Axle for Band-Saw Pulleys.

(*Essieu pour poulies de scies sans fin.*)

Thomas Oskar Zeinwoldt, Kimstad, Sweden, 9th January, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—1st. In a band-saw, the combination of the stationary wheel or pulley axle provided with a spherical enlargement near the pulley hub, a support having a spherical hollow in which the spherical enlargement of the axle fits, a pulley hub journaled by a ball bearing upon one end of the axle adjacent to said support, a frame surrounding the other end of the axle and secured to the framing and adjusting screws in said frame bearing upon said axle, substantially as set forth. 2nd. A band-saw pulley axle carrying a band pulley at one end, a yielding axle support adjacent to the hub of said pulley, a stationary frame surrounding the other end of said

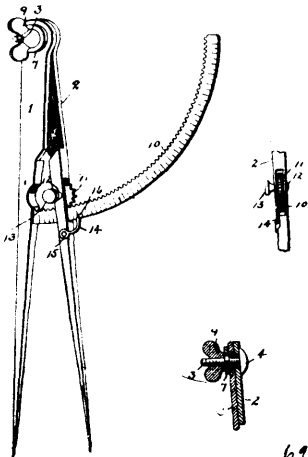
axle and secured to the framing and adjusting screws passing through said frame and bearing upon said axle, substantially as set



62254

forth. 3rd. Band-saw pulley axles each having one end supported by four adjusting screws passing through a fixed frame, in which said axles of the saw-band pulley are journaled, in order that the axles and thus the band-wheels may be accurately positioned.

No. 62,255. Divider or Compass. (*Diviseur ou compas.*)



62255

Francis Benes Bluff, Texas, U.S.A., 9th January, 1899; 6 years. (Filed 21st December, 1898.)

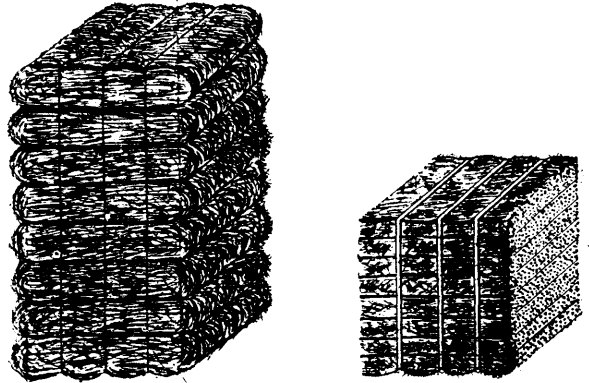
Claim.—The combination with the divider-legs, of a headed screw provided with a cylindrical portion of uniform diameter adjacent to the head and on which the legs are pivoted, a polygonal portion on said cylindrical portion, and a screw-threaded extension on said polygonal portion, a clamping-washer having a polygonal perforation for engaging said polygonal portion of the screw, a thumb-nut on said screw for clamping the divider-legs between the washer and the head of the screw, a tooth and graduated segment rigid on one leg and passing through a slot in the other leg, means connected with the last named leg for effecting its adjustment on said segment, and the pointer projected laterally from said leg to overlie the graduated segment, all substantially as described.

No. 62,256. Method of Preparing Hay for Shipment. (*Méthode de mettre le foin en pressé.*)

David Adam Fyfe, Stratford, Essex, England, 9th January, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. In the preparation of bales of hay, removing the looped side portions of the bale so that such side portions shall be free from loops, as and for the purpose set forth. 2nd. In the preparation of bales of hay for shipment, removing the looped side portions of the bale so that such bale will present flat or flush surfaces, as and for the purposes set forth. 3rd. In the preparation of bales of hay for shipment, first firmly compressing the original bale to a greater degree of compression and then cutting off the looped side portions so that the bale will present flat or flush surfaces, as

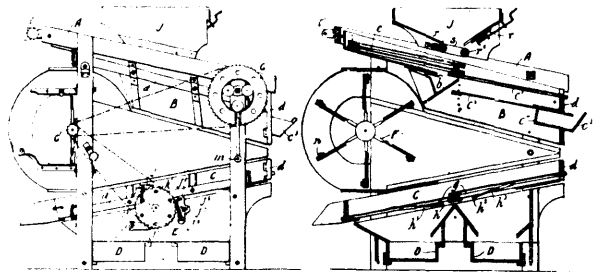
and for the purposes set forth. 4th. In the preparation of bales of hay for shipment, first firmly compressing the original bale to a



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greater degree of compression and then cutting off the looped side portions so that the bale will present flat or flush side surfaces free from loops, as and for the purposes set forth. 5th. The improved hay bale, having flat or flush side surfaces free from loops, as shown and described.

No. 62,257. Seed Cleaning and Separating Machine. (*Machine à séparer et nettoyer les graines.*)



62257

Herman House, Christ-church, Canterbury, New Zealand, 9th January, 1899; 6 years. (Filed 15th December, 1898.)

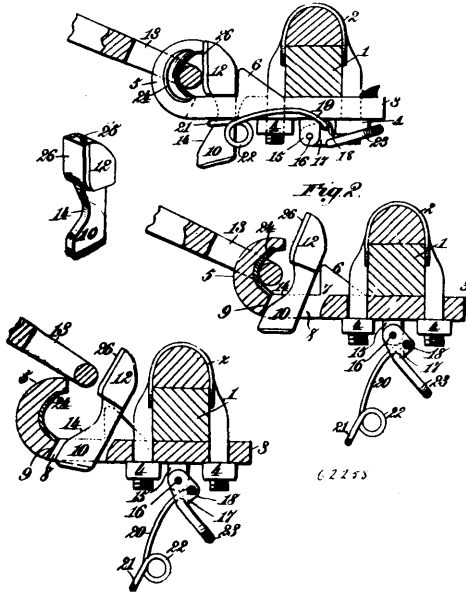
Claim.—1st. In grain and seed-cleaning and separating machines the upper and lower shoes being hung on horizontal straps *a* and *a'* respectively in lieu of vertical straps, substantially as described and illustrated in the accompanying drawings. 2nd. The combination with the upper shoe, of a gravity board *c* provided with an adjustable inclined slide *c'* and wind-guard *c''*, substantially as described. 3rd. The combination with the screens and riddles in the upper shoe, of adjustable knockers substantially as and for the purpose described and illustrated in Figures 7 and 8 in the accompanying drawings. 4th. The combination with the screens in the lower shoe, of adjustable knockers working in brackets *j* and *j'* and operated by means of the sprocket wheel *E*, provided with adjustable pins *k'*, substantially as and for the purposes described and illustrated in the accompanying drawings. 5th. The combination with the fan, of weight bars *n*, substantially as and for the purposes described. 6th. The combination of the grooved cam *p* fitted on fan shaft, the arm *o* with pin *o'*, fitted on rocking shaft *H*, and the rods *q*² and *q*⁵, provided with springs *q*³ and *q*⁶ connecting the arms *g* and *g'* with upper and lower shoes respectively, substantially as and for the purposes described. 7th. The hopper *J* being fitted loosely upon the frame of machine, with means for securing it in the required position, and provided with an endless feed apron *s* working upon rollers *r*¹ and *r*², and operated by means of an endless chain working over the sprocket wheel *t* on shaft *t'*, and sprocket wheel *t*² on bracket at end of frame, said chain engaging the underside of sprocket wheels *s*¹ on roller *r*² and passing over the sprocket wheel *s*² on a bracket fixed to hopper, substantially as and for the purpose described.

No. 62,258. Thill Coupling. (*Arceau des limoniers.*)

Robert Grier Matthews, Barnesville, Georgia, U.S.A., 9th January, 1899; 6 years. (Filed 22nd October, 1898.)

Claim.—1st. A thill coupling, consisting of a clip, a clip tie-plate formed with a hook upon its front end, a slotted or recessed fixed abutment rising from its upper side, a longitudinal slot located in front of said abutment and provided with a downward and forward inclined front end or wall, and an oscillatory and vertically movable headed dog having its shank arranged in the slot of the tie-plate

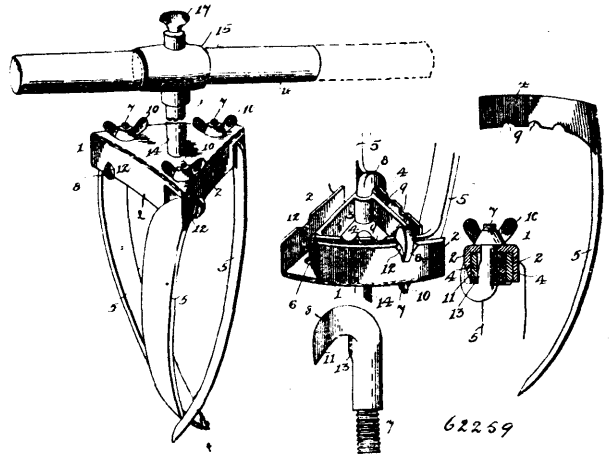
with its head normally resting at its rear side against the said fixed abutment and its lower front edge constructed to bear against the



downward and forward inclined end wall of said longitudinal slot when the lower end of the dog is moved forward, the construction being such that upward pressure on the dog causes its lower end to ride against the inclined front end or wall of the slot, throws the upper headed end rearward and causes the shank to enter the slot or recess in the abutment, substantially as described. 2nd. A thill coupling, consisting of a clip, a clip tie-plate formed with a hook on its front end, a fixed abutment rising from its upper side, a longitudinal slot located in front of said abutment and constructed with a downward and forward inclined front end or wall, and an oscillatory and vertically movable headed dog having its shank arranged in the slot of the tie-plate with its head normally resting at its rear side against the said fixed abutment and its lower front edge constructed to bear against the downward and forward inclined front end or wall of the slot in the tie-plate when the lower end of the dog is moved forward, the construction being such that upward pressure on the dog causes its lower end to ride upward against the inclined front end wall of said slot and throws the headed end of the dog rearward for the attachment or detachment of the thill eye or iron, substantially as described. 3rd. A thill coupling, consisting of a clip, a clip tie-plate formed with a hook on its front end, a fixed abutment rising from its upper side, a longitudinal slot located in front of said abutment and constructed with a downward and forward inclined front end or wall, an oscillatory and vertically movable headed dog having its shank arranged in the slot of the tie-plate with its head normally resting at its rear side against the said fixed abutment and its lower front edge constructed to bear against the downward and forward inclined front end or wall of the slot in the tie-plate when the lower end of the dog is moved forward, the construction being such that upward pressure on the dog causes its lower end to ride upward against the inclined front end wall of said slot and throws the headed end of the dog rearward for the attachment or detachment of the thill eye or iron, and means for holding the lower end of the dog-shank from moving forward when the coupling is in use, substantially as described. 4th. A thill coupling, consisting of a clip, a clip tie-plate formed with a hook upon its front end, a slotted or recessed fixed abutment rising from its upper side, a longitudinal slot located in front of said abutment and provided with a downward and forward inclined front end or wall, an oscillatory and vertically movable headed dog having its shank arranged in the slot of the tie-plate with its head normally resting at its rear side against the said fixed abutment and its lower front edge constructed to bear against the downward and forward inclined end wall of said longitudinal slot when the lower end of the dog is moved forward, the construction being such that upward pressure on the dog causes its lower end to ride against the inclined front end or wall of the slot, throws the upper headed and rearward and causes the shank to enter the slot or recess in the abutment, and means for holding the lower end of the dog-shank from moving forward when the coupling is in use, substantially as described. 5th. A thill coupling, consisting of a clip, a clip tie-plate formed with a hook on its front end, a fixed abutment rising from its upper side, a longitudinal slot located in front of said abutment and constructed with a downward and forward inclined front end or wall, an oscillatory and vertically movable headed dog having its shank arranged in the slot of the tie-plate with its head normally resting at its rear side against the said fixed abutment and its lower front edge constructed to bear against the downward and forward inclined

front end or wall of the slot in the tie-plate when the lower end of the dog is moved forward, the construction being such that upward pressure on the dog causes its lower end to ride upward against the inclined front end wall of said slot and throws the headed end of the dog rearward for the attachment or detachment of the thill eye or iron, a lever pivoted to the underside of the tie-plate and having a finger piece, and a yoke-shaped spring eccentrically connected with said lever and constructed to be engaged with the lower end of the dog-shank to hold the latter from forward motion when the coupling is in use, substantially as described. 6th. A thill coupling, consisting of a clip, a clip tie-plate formed with a hook covered with packing on its inner surface, a fixed abutment rising from its upper side, a longitudinal slot located in front of said abutment and having a forward and downward inclined front end or wall, and an oscillatory and vertically movable dog having a head covered on its front side with packing and a shank arranged in the slot of the tie-plate, said dog-head normally resting at its rear against the fixed abutment and the shank having its front edge constructed to bear against the downward and forward inclined front end or wall of the longitudinal slot when the lower end of the dog is moved forward, substantially as and for the purposes described.

No. 62,259. Earth Auger. (*Soule à trépoint.*)

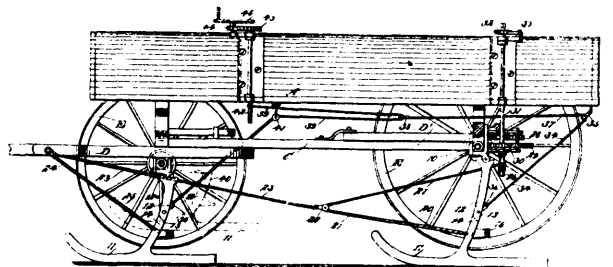


Alonzo F. Bauer, Fort Madison, Iowa, U.S.A., 9th January, 1899; 6 years. (Filed 15th December, 1898.)

Claim—In an earth auger, the combination with an angular head having the flanges forming seats, and a series of blades each provided with an angular arm which is fitted in the head to bear on one edge against the head and one side against a flange thereon, of the hooked clamping-bolts, each having a head provided on one side with an inclined bearing face 11 and on its shank with the reversely inclined boss or face 13, and said bolt head applied to have a wedging action on the blade arm by its face 13 bearing against the inner side of said blade arm and its face 11 against the outer side of a flange on said angular head, and tightening nuts screwed on the bolts to draw the heads thereof against the lower edges of the blade arms, whereby the arm of each blade is clamped both edgewise and laterally on the four sides thereof by and between the flanged head, and one hook bolt, substantially as described.

No. 62,260. Sleigh Attachments for Vehicles.

(*Attache de traîneau pour voitures.*)

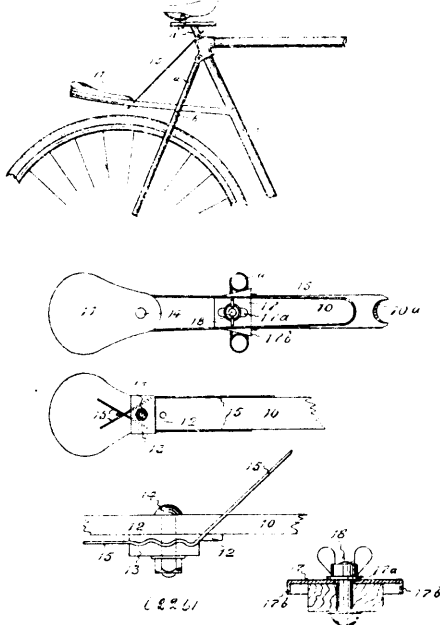


Andrew Christian Nygaard, Rawlins, Wyoming, U.S.A., 4th January, 1899; 6 years. (Filed 10th September, 1898.)

Claim.—1st. A running gear for vehicles, runners, knees for the runners pivotally attached to the running gear, the knees being constructed in pivoted sections, flexing in a rearwardly and locking in a forwardly direction, spreaders for the knees, operating in like manner as the knees, and means, substantially as described, for exerting tension on the spreaders in a forwardly direction and tension

on the knees in a rearwardly direction, as set forth. 2nd. A vehicle running gear, knees pivotally attached to the axles of the running gear, the said knees being constructed in pivotally connected sections, one section being provided with a socket and the other with a tongue to enter the socket, the shoulders formed on the tongue and opposing surface of the sockets being inclined in a forwardly and downwardly direction, runners attached to the lower sections of the knees, spreaders pivotally attached to the lower sections of transversely opposing knees, the said spreaders being constructed in pivotally connected sections, one section being provided with a socket and the other with a tongue to enter the said socket, the shoulders formed by the tongue and the opposing surfaces of the sockets being inclined in a manner to cause the spreaders to flex in a rearwardly direction, winding shafts, a flexible connection between of the winding shafts and the forward portions of the spreaders, and a flexible connection between the second winding shaft and the rear portions of the upper sections of the said knees, as and for the purpose specified. 3rd. The combination with the running gear of a vehicle and the body thereof, a casing containing a train of gearing carried by the running gear, a winding shaft connected with the said train of gearing and a winding post also connected with the said train of gearing, and a second winding shaft, both winding shafts being carried by the body of the vehicle, of runners, forwardly curved knees pivotally attached to the axles of the running gear, the said knees being constructed in pivotally connected sections arranged to flex in a rearwardly direction and lock when carried in a forwardly direction and straightened spreaders pivotally connected with the lower sections of transversely opposing knees, the spreaders being rearwardly arched and constructed in pivotally connected sections, flexing when carried in a rearwardly direction and locking when carried in a forwardly direction, tension devices connected with the forward edges of the spreaders at each side of their centers and with the winding post of the said train of gearing, tension devices acting independently of the tension devices in the spreaders, connected with the upper sections of the knees at their rear and with the second winding shaft, carried by the wagon body, for the purpose set forth.

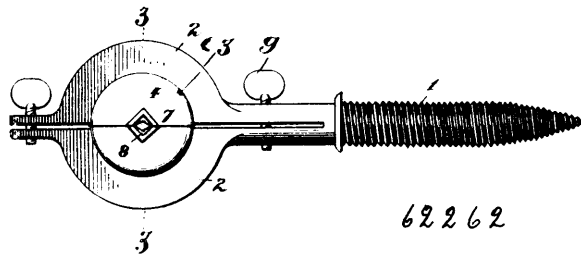
No. 62,261. Bicycle Seat. (Siège de bicyclet.)



Francis T. T. Stainer, Chilliwack, British Columbia, Canada. 9th January, 1899; 6 years. (Filed 7th September, 1898.)

Claim.—1st. A supplemental seat for a bicycle, comprising a bar 10 arranged to lie on the cross-tie *b* of the frame and with its fluted end resting against the frame *c*, and an adjustable tension support 15 secured beneath the seat on the projecting end of the said bar and lying over the saddle-plate *d*, as specified. 2nd. In a supplemental seat for a bicycle, the bar 10 having the widened portion thereon for the seat, clamp-plates 12 and 13 secured beneath the bar 10 by the bolt 14, corrugations on the facing surfaces of the said plates, a wire 15 looped and with its opposite ends arranged between the said plates, and means for adjusting the length of the said loop and for securing it at the desired length, as and for the purposes specified. 3rd. A bar 10 having a fluted end to lie against the upward rear projecting frame *c* of a bicycle, the said bar to pass between the rear frames of same, a clamping-plate 17 on the upper side of said bar, and a bolt passing through a longitudinal slot in the bar and a slot in said plate, whereby the plate may be secured to connect with the opposite forks *a* of the frame, and means for supporting the projecting end of the bar on which is arranged a seat, as specified.

No. 62,262. Insulator. (Isoloir.)

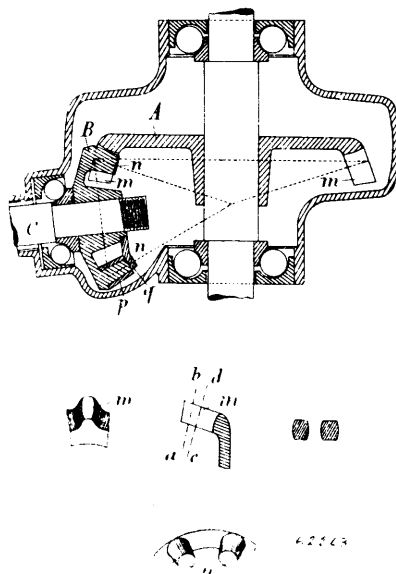


Edward Renault, Waldo, Florida, U.S.A., 9th January, 1899; 6 years. (Filed 28th January, 1898.)

Claim.—An insulator, comprising a pin or support 1, having the clamping members 2, 2, formed integral therewith, an insulating-bulb, formed with the circumferential groove in which the members 2, 2, fit, the said bulb being provided with the interiorly-toothed sleeve through which the wire passes and is held by the teeth, and the set-screws located above and below the bulb for securing the clamping members together, substantially as shown and described.

No. 62,263. Velocipede Driving Gear.

(Engrenage conducteur de vélocipedes.)



Julius Alexander N. Rasmussen and Charles Benton Hart Rasmussen, both of Copenhagen, Denmark, 9th January, 1899; 6 years. (Filed 14th April, 1898.)

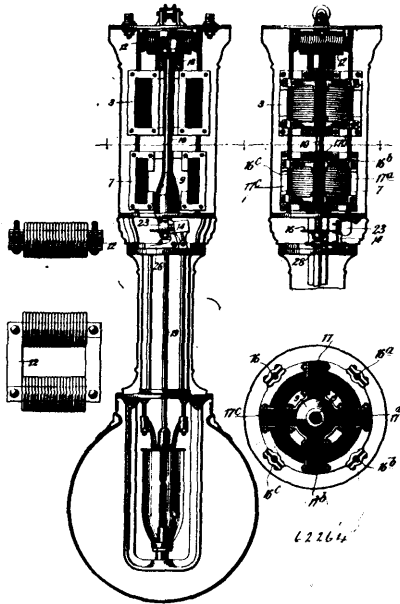
Claim.—1st. An improved driving gear for chainless cycles having a driving wheel A, arranged on the crank-axle, the teeth of said wheel A, being formed so that their transverse section is limited at both ends of their faces by convex curves, pinions B, on the fore end of the driving shaft C, whose teeth *n*, with or without socket *p*, of tempered steel, are formed conical in shape, substantially as described. 2nd. In combination with the driving wheel A, having teeth standing at an angle to the plane of the wheel and so formed that their transverse section is limited at both ends of their faces by convex curves, and pinion B, having sockets *p*, a plate *q*, having a plain surface engaging the ends of the conical teeth and fixed to the wheel move in such a manner that all the sockets *p*, placed over the teeth are kept in their place by a single plate, substantially as described.

No. 62,264. Electric Arc Lamp. (Lampe électrique à arc.)

Thomas Spencer, Philadelphia, Pennsylvania, U.S.A., 9th January, 1899; 6 years. (Filed 26th November, 1897.)

Claim.—1st. The method of operating an alternating current arc lamp consisting in automatically reducing the inductance of the arc circuit when the lamp is starting into action. 2nd. An alternating current arc lamp provided with two paths for current to the electrodes, one of said paths including a cut-out actuated when the arc is sprung, whereby a starting current of abnormal strength is admitted to the electrodes. 3rd. An alternating current arc lamp provided with a regulating coil and a cut-out actuated when the arc is sprung to cut down the current strength, whereby a starting current of abnormal strength is admitted to the electrodes. 4th. An alterna-

ting current arc lamp provided with a regulating coil, an independent branch circuit leading to the arc, an inductance in said branch circuit.



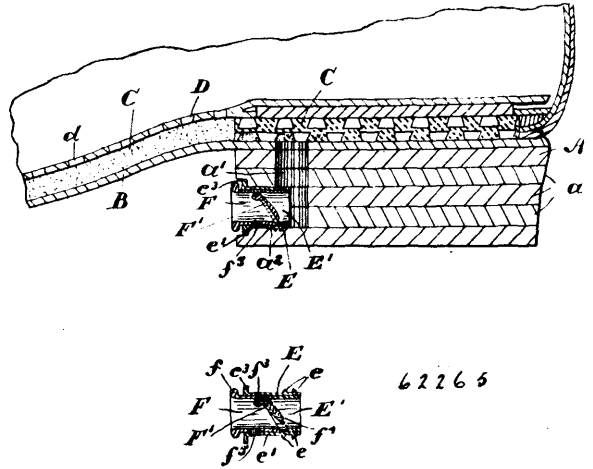
and a cut-out controlled by the lamp mechanism to open the branch when the arc is started. 5th. An alternating current arc lamp provided with a transformer of variable voltage for raising the voltage of the supply current and devices for including more or less of the transformer in circuits. 6th. An alternating current arc lamp provided with a transformer wound to deliver a voltage sufficient to maintain the arc with a current of small amperage, and means for automatically raising the current strength when the arc is being started. 7th. An alternating current arc lamp provided with an arc-regulating coil adjustable relatively to the core, whereby the inductance of the coil may be varied. 8th. An arc lamp provided with a regulating magnet comprising a plurality of bundles of iron laminae embracing the coil, and brackets for spacing the bundles and holding them rigidly together. 9th. An alternating current arc lamp provided with a transformer and arc regulating coil housed within the lamp and supported on a plurality of vertical rods, and means for adjusting the regulating coil on said rods so as to shift it with relation to its core. 10th. An alternating current arc lamp containing two branch circuits, one including the regulating coil which governs the arc and the other a tilting cut-out operated by the carbon holder to close or open the other branch when the carbons are in or out of engagement. 11th. A feed-regulator for an arc lamp comprising a carbon-holder provided with teeth, a dog co-operating with the teeth, and a friction clutch controlled by the regulating coil to feed the carbon-holder, said clutch cooperating with the dog to set the latter after a definite range of movement of the clutch. 12th. A feed-regulator for an arc lamp comprising a dog 24 engaging one side of the carbon-holder, said dog having an extension adapted to engage a fixed part of the lamp to release the holder, and a clutch-shoe 28 impelled into engagement with the other side of the carbon-holder, said clutch-shoe being released after and through the agency of said dog. 13th. A feed-regulator for an arc lamp comprising a dog 24 engaging a rack on one corner of the carbon-holder, said dog having an extension 26 adapted to engage a fixed part of the lamp, and a clutch-shoe adapted to engage the opposing corner of the carbon-holder, said clutch-shoe being controlled by the dog. 14th. A feed-regulator for an alternating current arc lamp comprising regulating coil 7, core 9, a clutch movable therewith comprising dog 24 engaging one corner of the rack 19, link 27, clutch-shoe 27^a engaging an opposite corner of the rack, and projection 26 co-operating with a fixed part of the lamp to release the dog and clutch-shoe when the core descends a determinate distance.

No. 62,265. Valve for Ventilated Shoes.
(*Soupe pour chaussures ventilées.*)

John Ernest Kennedy, Montreal, Quebec, Canada, 9th January, 1899; 6 years. (Filed 17th December, 1898.)

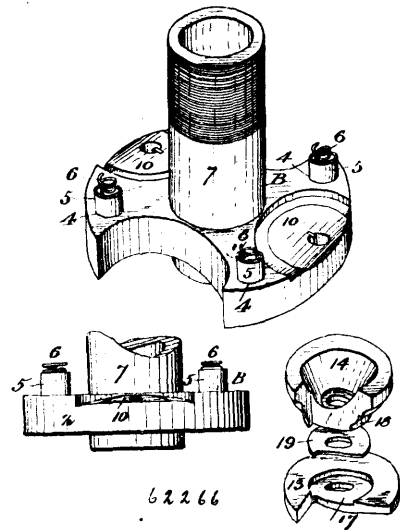
Claim.—1st. An automatic valve for ventilated shoes, comprising the tubular casing open at both ends and situated in the orifice leading to the interior of the shoe and an inclined hinged valve flap situated intermediate of the length of the casing, as and for the purpose specified. 2nd. An automatic valve for ventilated shoes, comprising the tubular casing open at both ends and situated in the orifice leading to the interior of the shoe, an inner casing provided with an inclined inner end, a flap suitably hinged thereto and having

a normal incline, as and for the purpose specified. 3rd. Air automatic valve for ventilated shoes, comprising a tubular casing open at



both ends and situated in the orifice leading to the interior of the shoe, an inner casing provided with an inclined inner end, a flap suitably hinged thereto and having a normal incline and the interior sleeve having an inclined inner end, as and for the purpose specified. 4th. The combination with the shoe having a collapsible inner sole with air spaces therein and perforated insole, of a hole or opening leading through the sole of the boot and the air spaces in the collapsible inner sole, a tubular casing open at both ends extending into the hole or opening and at right angles to it and a hinged flap valve located in the casing, as and for the purpose specified. 5th. The combination with the outer casing having an L-shaped slot, of the inner casing having a flange at the outer end and an inclined inner end provided with a hinged flap and a pin extending from the inner casing into the slot in the outer casing, as and for the purpose specified.

No. 62,266. Cutter Head. (*Porte-outil.*)

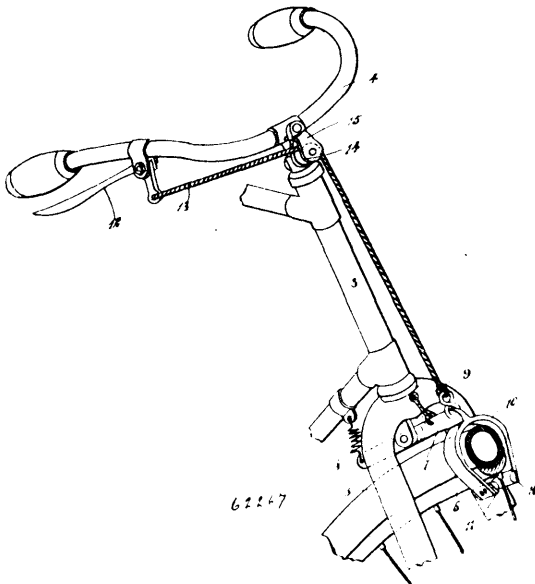


Samuel J. Shimer, Milton, Pennsylvania, U.S.A., 9th January, 1899; 6 years. (Filed 19th December, 1898.)

Claim.—1st. As an improved article, a cutter head formed with a series of alternately and oppositely arranged recessed bit seats, alternately inclined radially in opposite directions, the construction being such that a line drawn radially through the centre thereof will divide the same into two portions symmetrically disposed to the plane of rotation, substantially as described. 2nd. The combination with a cutter head having a flange formed with a series of alternately recessed arranged bit seats on opposite sides and said seats alternately inclined radially so that a line drawn through the centre thereof radially will divide each seat into two portions symmetrically disposed to the plane of rotation, of the circular bits overlapping the centre line of the cut and working in different planes beyond the

limit of the flange, substantially as described. 3rd. In an expanding cutter head for wood working machines, the combination of the movable sections, each formed with a flange provided with outwardly sloping or inclined and alternately arranged recessed bit seats in the outer faces, the construction being such that a line drawn radially through the centre of said seats will divide the same into two portions symmetrically disposed to the plane of rotation, substantially as described. 4th. The combination with an expanding cutter head provided with a flange formed with inclined bit seats in the outer faces, of the circular bits made in two parts or sections formed respectively with a recess and a boss fitting therein and a single bolt holding said sections to the flanges, substantially as described. 5th. In an expanding cutter head for wood working machines, the combination with the movable sections, each formed with a flange provided with radially sloping or inclined and alternately arranged recessed bit seats in the outer faces, and so constructed that a line drawn radially through the centre of said seats will divide the same into two portions symmetrically disposed to the plane of rotation, of the two part bits formed in their adjoining faces with a socket and recess and a boss respectively, and a single bolt holding said bits to their seats, substantially as described. 6th. As an improved article, a two-part circular bit for a rotary cutter head, comprising the grooving section formed with a recess or socket, and the moulding section having a boss fitting in said recess or socket and said sections adapted to be connected with a cutter head by a single bolt in such manner that the cutting edge of said sections work in different planes, substantially as described.

No. 62,267. Bicycle Brake. (Frein de bicyclet.)

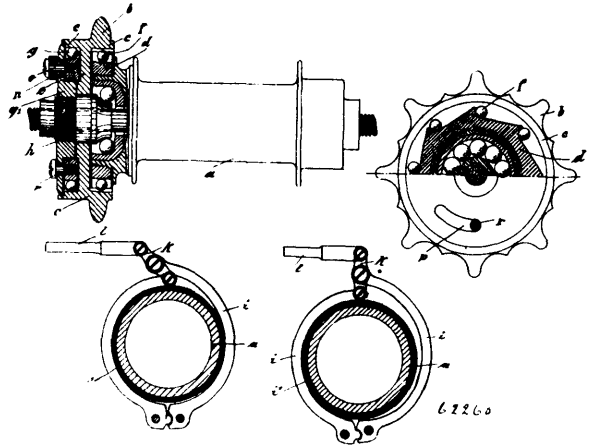


Joseph Francis Ambrose Farfan, Port of Spain, Trinidad, British West Indies, 9th January, 1899; 6 years. (Filed 13th June, 1898.)

Claim—1st. In a brake, the combination of two pivoted arms having brake shoes attached, and a spring attached to and extending between the arms, so that by drawing laterally on the spring the arms are moved together to apply the brake shoes. 2nd. The combination with the steering-head, the handle-bar and the pilot-wheel of a velocipede, of a lever fulcrumed to the handle-bar, a second lever fulcrumed at the base of the steering-head directly above the pilot-wheel, a flexible connection between the two levers, a brake shoe attached to the second-named lever and co-acting with the pilot-wheel, and a spring normally keeping the brake shoe inactive. 3rd. The combination with the steering-head, the handle-bar and the pilot-wheel of a bicycle, of a bent lever fulcrumed to the handle-bar, an idler pulley carried by the handle-bar, a cord attached to the lever and running over the idler pulley, a second lever fulcrumed at the base of the steering-head and directly over the pilot-wheel, to which second lever a cord is connected, a spring serving to throw the front end of the second lever downward, a yoke attached to the front end of the second lever and embracing the tire and rim of the pilot-wheel, and wear blocks attached to the lower ends of the arms of the yoke and bearing against the inner face of the rim, to apply the brake. 4th. The combination with a support, of a lever fulcrumed thereon, a spring connected to one end of the lever, a yoke attached to the other end of the lever, and capable of embracing the rim and tire of a bicycle-wheel, and means, in connection with the last-named end of the lever, by which the lever is swung against the action of the spring. 5th. A bicycle brake having a yoke capable of embracing the rim and tire of a bicycle-wheel, the lower ends of the arms of the yoke being bent inward, so that outward movement of the yoke

will cause said arms to move toward the inner face of the rim of the wheel to apply the brake thereto. 6th. A bicycle brake, having a lever mounted on the frame of the machine in the vicinity of one of the wheels, a yoke carried by and moving bodily with the lever, the yoke embracing the rim of the said wheel, wear blocks or shoes attached to the arms of the yoke and adapted to engage the inner face of the rim of the said wheel and means for moving the lever.

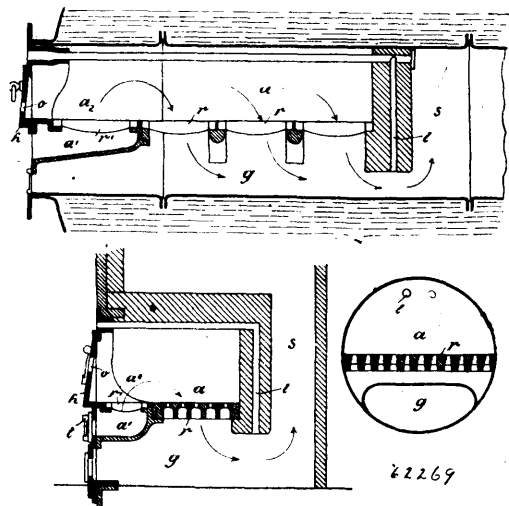
No. 62,268. Bicycle Gear. (Engrenage de bicyclet.)



James Borchering, Bremen, Germany, 9th January, 1899; 6 years. (Filed 11th July, 1898.)

Claim—1st. Mechanism for driving cycles, characterized by the fact that the chain-wheel *b*, which is mounted so as to revolve loose on the axle of the hind wheel, jams or locks when it moves forward, through the medium of braking bodies (rollers or balls), the grooved disc *d* which is arranged on the hub of the hind wheel, whilst when the said chain-wheel moves backwards it releases this disc but locks the disc *c* which is connected by means of rods with a band-brake that embraces the hub of the hind wheel, constructed and arranged substantially as hereinbefore described. 2nd. In a bicycle, the combination of driving mechanism characterized by the fact that one chain-wheel is arranged loose, and encloses with its box or case-like part *c*, jamming bodies, balls or rollers, which when the chain-wheel rotates in one direction get jammed between the inner surface of the case or box part and the inclined surfaces which are formed on the edge of a disc that is fixed to the axle or hub to be rotated, whilst when the chain-wheel is at rest or revolves in the opposite direction the said bodies or balls drop into the deeper places of the edge of the disc and then allow the axle or wheel hub to run independently of the loose chain-wheel, and a brake consisting of lever *m*, bar *l*, link *k*, and band *i* encircling the hub *a*, substantially as shown and described.

No. 62,269. Smokeless Furnace. (Fournaise sans fumée.)

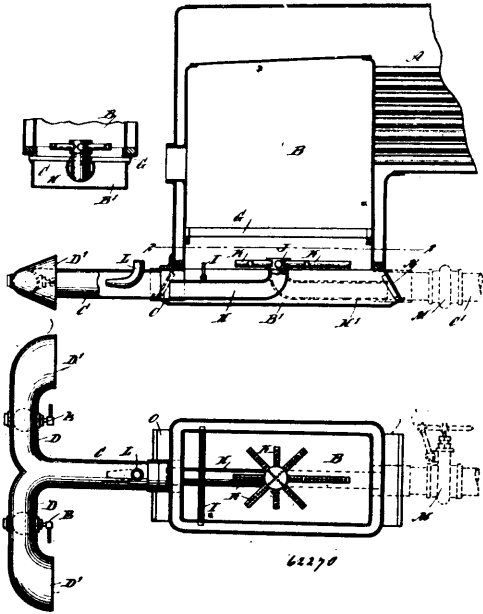


Edward Gessner, No. 60 Kröna Brunn, Austria, 10th January, 1899; 6 years. (Filed 19th December, 1898.)

Claim—1st. In a fire-grate or furnace, the combination of a fire-box and a flue, and a fire-grate intersecting communication between

the said fire-box and the flue, and means for feeding air to the fire above the grate and causing the said feed air to pass downwards through the burning fuel and grate to the flue, substantially as described. 2nd. In a fire-grate or furnace, the combination of a fire-box having a grate therein and a flue divided off from said fire-box by the said grate, and means for causing the air-feed to pass from the fire-box through the grate to the flue, substantially as described. 3rd. In a fire-grate or furnace, the combination of a fire-box *a* and a flue *s*, means for passing the feed-air from the fire-box through the grate to the flue, a front or igniting grate *r*¹, means for feeding air to the same from the lower side and for conducting the air thus fed to the upper side of the grate separating the fire-box and flue, where it passes with the feed-air for the latter grate through the said main fire-grate to the flue, substantially as described.

No. 62,270. Draft Devices for Locomotives.
(Appareil d'attelage de locomotives.)



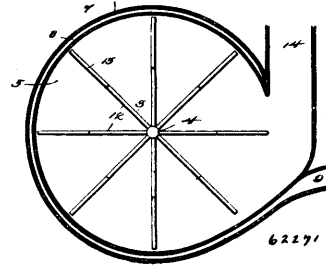
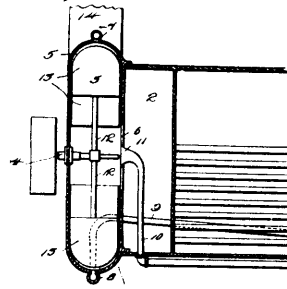
Michael Kelly, Bloomington, McLean Co., Ill., U.S.A., 10th January, 1899; 6 years. (Filed 17th August, 1898.)

Claim.—1st. A draft device for a locomotive, comprising a closed ash-pan, a pipe opening at one end into the ash-pan and terminating at its other end in a funnel which faces forward and is located to catch the air unobstructedly, a second smaller pipe beneath the grate having one end opening into the end of the first pipe, and a series of perforated pipes extending from the other end and discharging air beneath the grate. 2nd. A draft device for locomotives, comprising a closed ash-pan, a pipe leading from the ash-pan and forking, with one branch leading to each side of the engine and terminating in forwardly-facing funnels located to receive the air unobstructedly, and a series of perforated pipes beneath the grate and connected with the air supply. 3rd. A draft device for locomotives, comprising a closed ash-pan, a pipe leading from the ash-pan and forking, with one branch leading to each side of the engine and terminating in forwardly-facing funnels which receive the air unobstructedly, a series of perforated pipes beneath the grate and connected with the air supply, and a steam jet in the supply pipe pointing towards the funnels. 4th. A draft device for a locomotive, comprising a closed ash-pan, a pipe opening at one end into the ash-pan and terminating at its other end in a funnel which faces forward and is located to catch the air unobstructedly, a steam jet discharging into this pipe toward the funnel end thereof, a second smaller pipe beneath the grate and having one end opening into the end of the first pipe, and a series of perforated pipes extending from this other end and discharging air beneath the grate. 5th. A draft device for a locomotive, comprising a closed ash-pan, a pipe opening at one end into the ash-pan and terminating at its other end in a funnel which faces forward and is located to catch the air unobstructedly, a second smaller pipe beneath the grate having one end opening into the first pipe, a series of perforated pipes extending from its other end and discharging air beneath the grate, and a deflector plate located above the smaller pipe and in front of the open end of the larger pipe.

No. 62,271. Locomotive Attachment.
(Attache de locomotives.)

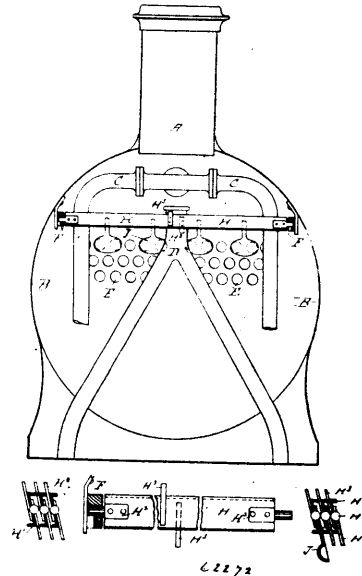
Charles Humphrey, Almond, New York, U.S.A., 10th January, 1899; 6 years. (Filed 23rd August, 1898.)

Claim. 1st. The combination with an engine having a smoke-box, of a fan mounted therein and surrounded by a casing, an



exterior passageway communicating with said casing, an exhaust steam-pipe leading to the eye of the fan, and means for conveying the smoke, particles of combustion and gases away from the said fan, substantially as described. 2nd. The combination with a locomotive engine having a smoke box, of a fan located in the front of the said smoke-box and surrounded by a casing, a passageway exterior of said casing having communication therewith, an exhaust steam-pipe leading to the eye of said fan, a pipe or analogous device for conveying the smoke and particles of combustion back to the fire-box or ash-pan, and an exhaust-pipe for hot air and exhaust steam, substantially as described.

No. 62,272. Spark Arrester. (Arrête-étincelle.)

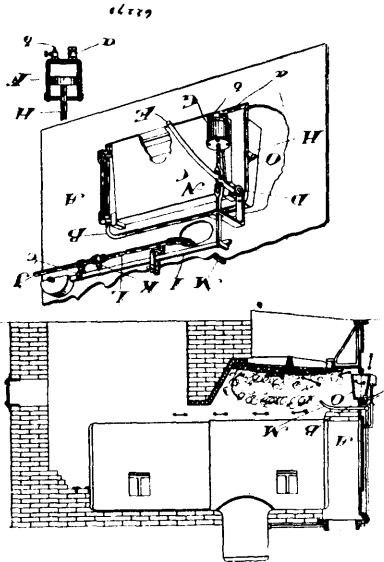


William Rufus and Sophus Henry Krichauff, both of King William Street, Adelaide, Australia, 10th January, 1899; 6 years. (Filed 23rd August, 1898.)

Claim.—1st. In an improved spark arrester, a series of Z-section louvres (such as H) provided with pivots (such as H²), and space bars H³, arranged substantially as described and illustrated. 2nd. In an improved spark arrester comprising the louvres, pivots, and space bars above claimed, the spoon-ended levers J, attached to such louvres, substantially as described and illustrated and for the purposes set forth. 3rd. In an improved spark arrester and in combination with the louvres, pivots, and space bars above claimed, a support or frame (such as F), preferably built up in sections, for the

purpose of engaging the ends of the said louvres as hereinbefore described. 4th. In an improved spark arrester as above claimed and in combination therewith, a centre ridge bar (such as G), as and for the purposes set forth. 5th. The herein described improved spark arrester comprising the louvres with their pivots and space bars, the spoon-ended levers, the frame and the centre ridge-bar, arranged substantially as described and illustrated, as and for the purposes set forth, as a combination of parts.

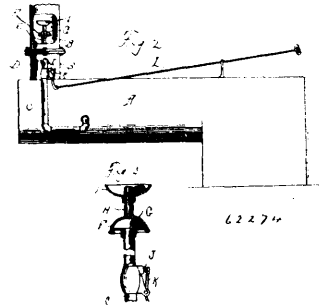
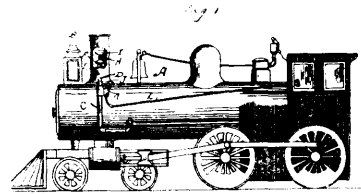
No. 62,273. Smoke Consumer. (Four fumivore.)



John Thomas Ellis, Toronto, Ontario, Canada, 10th January, 1899; 6 years. Filed 13th September, 1898.)

Claim.—1st. In a smoke consumer an injector extending into a furnace, a valve controlling the discharge of steam in the said injector, a lever controlling the movement of said valve, in combination with a suitably guided bar adapted to engage with the said lever, and a cylinder or dash pot the piston rod of which controls the movement of the said vertical bar, the cylinder or dash pot being provided with a tight fitting piston, an inwardly opening valve for the admission of air through its bottom, and a pet-cock for controlling the air exit, substantially as and for the purpose specified. 2nd. In a smoke consumer an injector or steam pipe extending into a furnace, a valve controlling the discharge of steam into the said injector or steam pipe, and a lever controlling the movement of said valve, in combination with a suitably guided vertical bar adapted to engage with the said lever, a door having an opening therein, a shutter journaled upon the door for controlling the admission of air from the said opening, a bar connected to one of the journals or pivots of the said door to which bar the said vertical bar is pivoted, and a cylinder or dash pot the piston of which is also pivoted to the said bar, substantially as and for the purpose specified. 3rd. In a smoke consumer an injector or steam pipe extending into a furnace, a valve controlling the discharge of steam into the said injector or steam pipe, a lever controlling the movement of said valve, in combination with a suitably guided vertical bar adapted to engage with the said lever, a door having an opening therein, a shutter journaled upon the door for controlling the admission of air from the said opening, a bar connected to one of the journals or pivots of the said door, to which bar the said vertical bar is pivoted, and a cylinder or dash pot the piston of which closely fits the interior of the dash pot, while its piston rod is pivoted to the said bar, an inwardly opening valve being provided in the bottom of the dash pot, and a pet-cock for the exit of air, substantially as specified. 4th. In a smoke consumer an injector or steam pipe extending into a furnace, a valve controlling the discharge of steam through said steam pipe and a lever controlling the movement of said valve, in combination with a dash pot adapted to control the said lever, a door having an opening therein, a shutter journaled from the door for controlling the admission of air from the opening, and connections for operating the dash pot by the opening of the shutter, substantially as and for the purpose specified. 5th. In a smoke consumer a door having an opening therein, and a shutter journaled upon the door for controlling the admission of air from the said opening, in combination with a fender formed on or connected to the inside of the door over the opening, forming a chamber open at the bottom, substantially as and for the purpose specified. 6th. In a smoke consumer a door having an opening therein, and a shutter journaled upon the door adapted, normally to close the said opening, except a small portion at or near the bottom, in combination with a fender formed on or connected to the inside of the door over the opening, forming a chamber open at the bottom, substantially as and for the purpose specified.

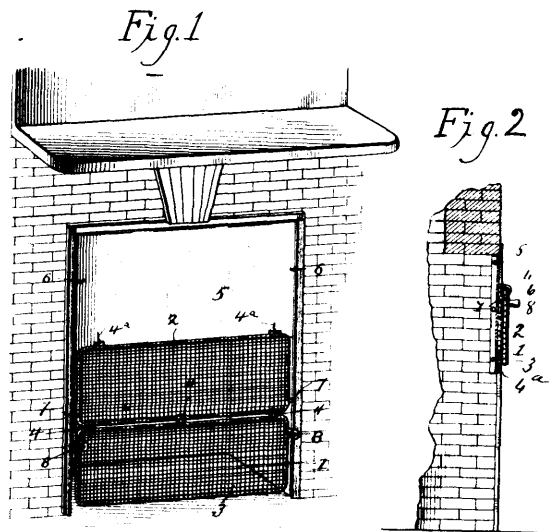
No. 62,274. Spark Arrester. (Arrête-étincelle.)



John Robert Allen, Idlewood, Illinois, U.S.A., 10th January, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. The combination with a boiler and smoke-stack, of a pipe leading from the boiler below the water-line into the smoke-stack and extended vertically therein, an inverted cup upon the top of said pipe, having perforations in its upper surface, and a deflector adjustably mounted above these perforations, whereby the ejected water is deflected in all directions, substantially as described. 2nd. The combination with a boiler and smoke-stack, of a pipe leading from the boiler the water-line into the smoke-stack and extended vertically therein, an inverted cup upon the upper end of said pipe, provided with perforations in its upper surface, a threaded stem projecting centrally and vertically from said cup, and a second cup threaded upon said stem with its curved side downward, whereby it performs the functions of a spreader or deflector for the water ejected through the perforations of the lower inverted cup, substantially as described. 3rd. The combination with a boiler and smoke-stack, of a pipe leading from the boiler below the water-line into the smoke-stack and extended vertically therein, an inverted cup forming the top of said pipe, a central, vertical, threaded stem leading from said inverted cup, a curved or cup-shaped deflector threaded upon said stem, a spring-closing valve in the pipe, a pivoted lever bearing at one end upon the stem of said valve, and a rod reaching from the opposite end of said lever into the cab of the engine, substantially as described.

No. 62,275. Fire Screen. (Ecran à foyer.)

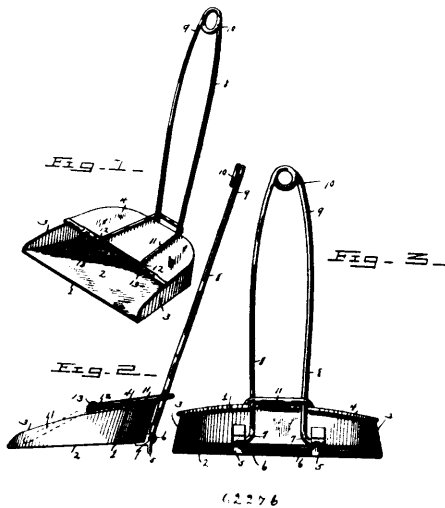


Joshua Huffman, Noah, Tennessee, U.S.A., 10th January, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. A device of the class described comprising a supporting device designed to be arranged over an open fire-place, and a

folding rectangular screen hinged at its upper horizontal edge at the top of the fire-place and composed of hinged sections arranged to fold flat on each other, said screen being adapted to be swung upward and arranged flat against the wall at the top of the fire-place and to be held in such position by the said supporting device, substantially as described. 2nd. A device of the class described comprising a rectangular screen hinged at its upper edge at the top of a fire-place and composed of the upper and lower rectangular sections hinged together at their adjacent horizontal edges and adapted to fold flat against each other, said screen being adapted to be swung upward and arranged flat against the wall at the top of the fire-place when the sections are folded, and means for retaining the screen in such folded position, substantially as described. 3rd. A device of the class described comprising a vertical plate or shield designed to be mounted at the top of an open fire-place, a rectangular screen hinged at its upper edge to the plate or shield at the bottom thereof, and composed of hinged leaves or sections arranged to fold flat against each other, said screen being adapted to swing upward flat against the plate or shield when the sections or leaves are folded, and means for securing the screen in its folded position, substantially as described. 4th. A device of the class described comprising a screen hinged at its upper edge to the top of the fire-place and composed of upper and lower sections hinged together at their adjacent edges, the lower section being adapted to fold flat against the upper section and the screen being adapted to fold flat against the wall at the top of the fire-place when the sections are folded, hooks located above the screen at opposite sides thereof and forming supports, and projections 7 extending from the ends of the upper section of the screen and arranged to engage the hooks, whereby the screen is maintained in its folded position, substantially as described.

No. 62,276. Dust Pan. (Porte-ordure.)



Mary L. Standish, Coolidge, Kansas, U.S.A., 10th January, 1899; 6 years. (Filed 21st December, 1898.)

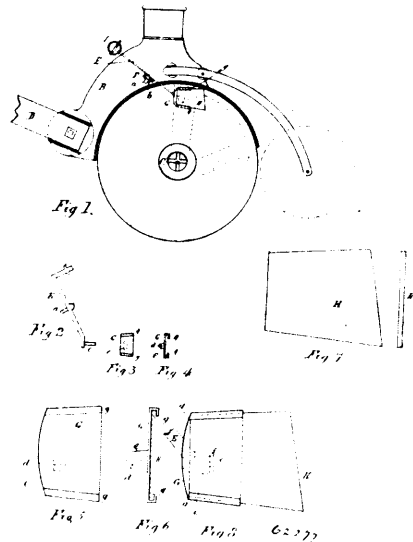
Claim.—1st. The combination of a pan provided at its back with eyes, a loop extending from the back of the pan and located above the eyes, and a detachable handle extending through the loop and provided with opposite compressible lugs or projections engaging the eyes, substantially as described. 2nd. The combination of a pan provided at its back with eyes, a loop extending from the back of the pan and located above the eyes, and a substantially U-shaped handle provided at its top with a spring-coil, and having projections or lugs at the lower ends of its sides for engaging the eyes, substantially as described. 3rd. The combination of a pan, a loop hinged to the top of the pan, extending rearward beyond the back of the same and adapted to swing forward, and a detachable handle extending through the loop and engaging the pan below the same, substantially as described. 4th. The combination of a pan provided at its back with eyes and having eyes at opposite sides of its top or hood at the front thereof, a substantially U-shaped loop having the terminals of its sides bent outward and detachably engaged with the eyes at the top of the pan, and a substantially U-shaped handle extending through the loop and having the terminals of its sides bent outward and engaging the eyes at the back of the pan, substantially as described.

No. 62,277. Scraper for Disc Seed Drills.
(*Grattoir pour semoirs en ligne à disques.*)

William Stephenson, Morris, Manitoba, 10th January, 1899; 6 years. (Filed 21st December, 1898.)

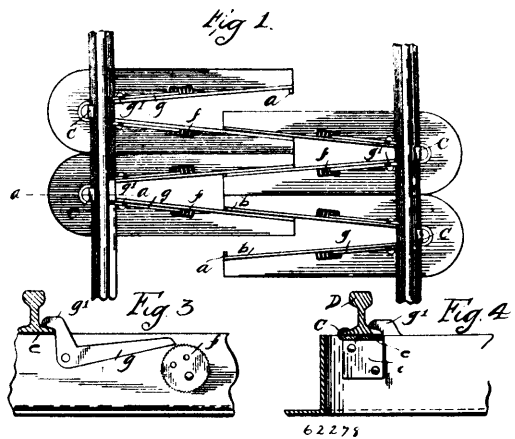
Claim.—1st. In combination with a seeder disc, a side scraper formed of glass and devices for holding and causing it to impinge

on the disc, for the purpose specified. 2nd. In combination with a seeder disc, a self adjusting hinged scraper holder, and devices for



holding it to carry a scraper plate, for cleaning the discs. 3rd. In combination with a seeder disc, a self adjusting hinged scraper holder constructed with a lug to pivot it to devices for holding it, and grooves at the top and bottom, to receive and hold a glass scraper, for the purpose specified. 4th. The combination with a seeder drill shoe, of scraper arms or levers pivoted to the grain spout, a spring to press their lower ends inwards, adjustable scraper holders pivoted to the arms or levers, and side scrapers of glass attached to the adjustable scraper holders, for the purpose specified. 5th. The combination with a seeder drill shoe, of scraper levers E, pivoted to the grain spout B, a spring I connecting the top of the levers, adjustable scraper holders G, formed with grooves g, g, pivoted to the lower ends of the levers E and movable side glass scrapers attached to the adjustable scraper holders, for the purpose specified.

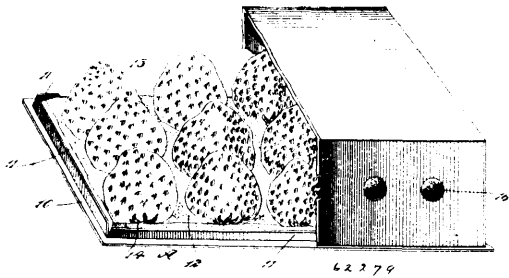
No. 62,278. Railway Tie and Clamp.
(*Traverse et lien de chemin de fer.*)



Chas. A. Cole, Clarendon, New York, 10th January, 1899; 6 years. (Filed 21st December, 1898.)

Claim.—1st. A railroad tie comprising a series of V-shaped angular iron pieces, having their bends arranged alternately in opposite directions, and each tie-piece having its arm connected to a different tie-piece at opposite sides thereof, substantially as described. 2nd. The combination with a rail, of a series of railroad ties formed of angular iron in approximately V-shape, and a fastening device comprising a ratchet cam wheel and a pivoted dog or pawl on the tie, said pawl having a head to engage the rail and an arm to engage said cam ratchet-wheel, substantially as described.

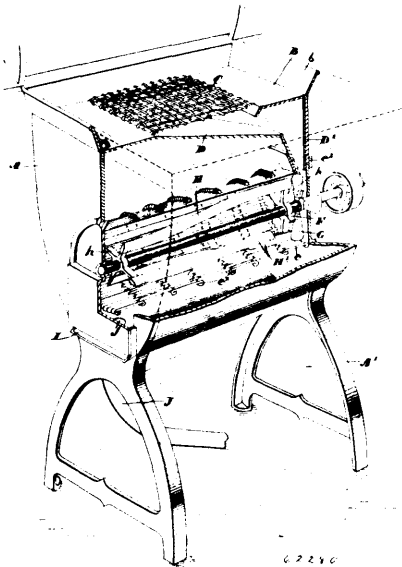
No. 62,279. Methods of and Devices for Preserving Fruit from Damage in Shipment. (*Méthode d'appareil pour préserver les fruits pendant le transport.*)



Silas Reynolds Devine, Lock Sheldrake, Sullivan, Co., N. Y., 10th January 1899; 6 years. (Filed 21st December, 1898.)

Claim.—1st. The herein described method of packing fruit for transportation, which consists in embedding each stem, calyx or cap of the fruit in a plastic compound capable of hardening, for the purpose set forth. 2nd. The herein described method of transporting fruit, which consists in providing a base, covering said base with a plastic compound capable of hardening, and introducing each stem, calyx or cap of the fruit in the plastic compound while yet moist, whereby the said compound when set will hold the stems, calyxes or caps, and consequently the fruit, in the position in which it may have been placed, as and for the purpose specified. 3rd. The combination, of a tray provided with a plastic bed, which plastic bed is adapted to receive the stems, calyxes or caps of the fruit, and a cover for the said bed, substantially as described. 4th. The combination of a bed, a plastic compound carried by the said bed, fruit, the stems, calyxes or caps whereof are introduced into and held by the plastic compound, and a ventilated cover for the said bed, substantially as described.

No. 62,280. Fruit Dresser. (*Appareil à peler les fruits.*)



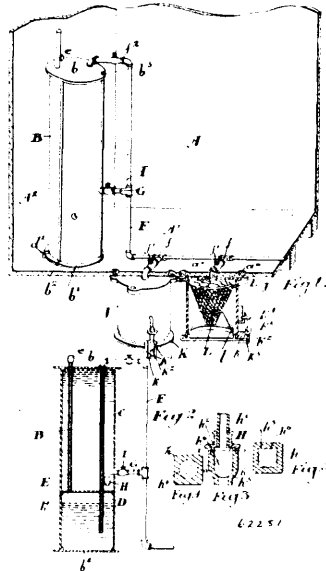
Walter Northrop, Toronto, Ontario, Canada, 10th January, 1899; 6 years. (Filed 22nd December, 1898.)

Claim.—1st. In a fruit dresser, the combination with the sieve and water supply, of the inclined chute, the open wire cylinder having an opening at the top communicating with the chute, the convolute blades connected to the shaft and rotating therewith and a suitable exit spout for the fruit, as and for the purpose specified. 2nd. In a fruit dresser, in combination the perforated cylinder provided with an opening at the top at one end thereof to receive the fruit and water, the main shaft, the convolute blades connected to the shaft and extending throughout the major portion of the length thereof and rotating therewith, and suitable exit spouts for the fruit and water, as and for the purpose specified. 3rd. In a fruit dresser, in combination the perforated cylinder provided with an opening at the top at one end thereof to receive the fruit and water, the main shaft, the fan secured to the shaft and located beneath the opening, the convolute blades connected to the shaft and extending throughout the major portion of the length thereof and rotating therewith, and suitable exit spouts for the fruit and water, as and

for the purpose specified. 4th. In a fruit dresser, in combination the perforated cylinder provided with an opening at the top at one end thereof to receive the fruit and water, the main shaft, the spiral and straight blades secured to arms on the shaft and alternately arranged and suitable exit spouts for the fruit and water, as and for the purpose specified.

No. 62,281. Acetylene Gas Making Machine.

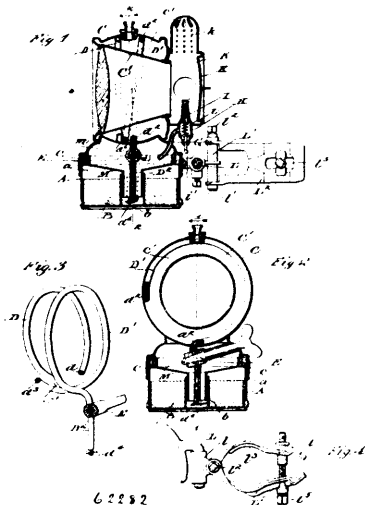
(*Machine à gaz acétylène.*)



Andrew Holland, Ottawa, Ontario, Canada, 10th January, 1899; 6 years. (Filed 9th November, 1898.)

Claim.—1st. In a machine of the class described, the combination with the generator, of a cylinder having closed ends, an upper and lower chamber and dividing partition, a pipe leading from the lower chamber and from above the surface of the water contained therein, a pipe also leading from the lower chamber from below the surface of the water contained therein and having its opposite end connected to the generator, and means for automatically feeding and cutting off the flow of water between the upper chamber and the generator, all arranged as and for the purpose specified. 2nd. In a machine of the class described, the combination with the generators, of a cylinder with closed ends, an upper and lower chamber and dividing partitions, a pipe leading from the lower chamber from above the water contained therein, a pipe F also leading from the water chamber from below the surface of the water contained therein, the branch pipe f leading to the generators, with suitable cocks therein and means for automatically cutting off the water to the generator, as and for the purpose specified. 3rd. In a machine of the class described, the combination with cylinder having closed ends, an upper and lower chamber and dividing partition, of a pipe leading from above the surface of the water in the lower chamber, and a pipe leading from below the surface of the water in the lower chamber, a pipe connecting the upper chamber and exterior portion of the pipe F, a suitable check valve therein designed so as to open by outward pressure of the water and close by inward pressure of the gas, as and for the purpose specified. 4th. In a machine of the class described, the combination with the generator of a cylinder having closed ends, an upper and lower chamber and dividing plate, a pipe leading from above the surface of the water in the lower chamber and having a suitable cock therein, a pipe leading from the surface of the water and having a suitable cock therein, a pipe connecting the upper chamber and exterior portion of the pipe F, a suitable check-valve therein, and a cock designed to cut off the water supply to the generator, as and for the purpose specified. 5th. In combination with the gas-holder and connecting pipe of a generator comprising a cylindrical cup, lugs at the upper end thereof designed to be bolted to the floor of the car, a hinged lid for the lower end thereof, a pair of lugs on said lid, a lever having a circular end eccentrically pivoted between said pair of lugs, a lug formed on the body of the generator and extending between said pair of lugs on the lid, and the means for locking the lever in place, as and for the purpose specified. 6th. The combination with the gas-holder and connecting pipe of a generator comprising a cylindrical cup, a suitable lid therefor, a conical perforated basket, and supporting legs therefor, as and for the purpose specified. 7th. In combination with the water supply-pipe, of a check-valve comprising a casing, upper and lower outlet, a concave valve-seat, a ball therefor, a rectangular interior portion designed to allow the water to pass around the ball, as and for the purpose specified.

No. 62,282. Acetylene Gas Lamp. (*Lampre à gaz acétylène.*)

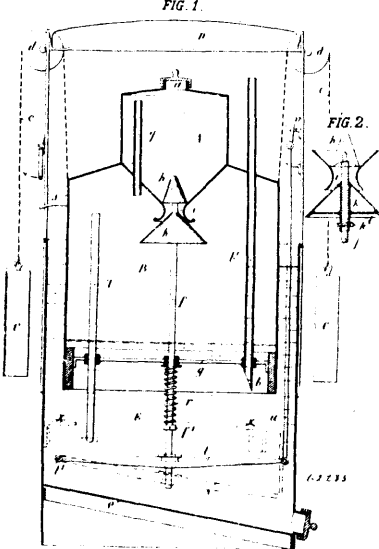


annular absorbent portion, a ring of reticulated material forming the inner wall to hold the absorbent material in place, a perforated cylinder or tube provided with radial extending arms or wings and adapted to hold the calcium carbide out of contact with the absorbent material, and a ring of absorbing material adapted to be removed from and inserted into position between the carbide of calcium and the outer ring of the first named absorbent material, substantially as described. 11th. In a lamp for generating and burning acetylene and similar gases, the combination of a receptacle provided with a generating chamber in the lower portion thereof and a liquid-holding chamber above the generating chamber, and a feed pipe or passage connecting the liquid and generating chambers to permit the passage of gas either way and prevent the flow of water therethrough, substantially as described. 12th. In a lamp for generating and burning acetylene gas, the combination of a receptacle provided with a generating chamber in the lower portion thereof, and a chamber above the same provided with an annular liquid chamber, the inner walls forming the reflectors of the lamp, substantially as described. 13th. A lamp for generating and burning acetylene gas, in which there is combined a base portion provided with a generating chamber, an upper portion provided with a liquid-holding chamber, a feed tube or pipe for conveying the liquid by force of gravity from the liquid chamber to the generating chamber, a valve in the feed tube adapted to open and close the same and be operated by manual force, and a burner connected with the generating chamber and having a free and unobstructed conduit between the generating chamber and the burner opening so that the gas may be formed under low pressure and consumed or passed to the atmosphere, substantially as described.

No. 62,283. Acetylene Gas Machine. (*Machine à gaz acétylène.*)

John Zimmerman, Chicago, Illinois, U.S.A., 10th January, 1899; 6 years. (Filed 20th December, 1897.)

Claim.—1st. The process of forming acetylene gas from carbide of calcium or similar gas-producing material, which consists in using such gas-producing material in combination with moisture, holding such material normally out of physical contact with each other, and interposing between the water and the calcium carbide a moisture-absorbing material out of contact with the calcium carbide, substantially as described. 2nd. In an apparatus of the class described, the combination of a base portion provided with a generating chamber, an upper portion provided with a liquid-holding chamber, and a coil or pipe inserted in such liquid-holding chamber so as to provide for and feed a limited supply of moisture to the generating chamber by means of a siphonic action, substantially as described. 3rd. In an apparatus of the class described, the combination of a base portion for forming a generating chamber, an upper portion provided with an annular liquid-holding chamber, a feed coil or pipe in such liquid-holding chamber having an independent section extending into the generating chamber, and a valve portion securing such coil and its extension together close to the end of the generating chamber, substantially as described. 4th. In an apparatus of the class described, the combination of a base portion forming a generating chamber, an upper portion provided with an annular liquid-holding chamber, a primary siphon-feeding coil, a secondary feeding coil connected to the primary feeding-coil and forming a part of its channel provided with a wick or other capillary substance, both of such coils arranged largely in the liquid holding chamber, a valve or cock on the lower end of the capillary coil, and an independent tubular extension of the secondary coil connected with the valve and extending into the generating chamber, substantially as described. 5th. In an apparatus of the class described, the combination of a base portion provided with a generating chamber and a liquid-holding chamber, a burner connected therewith, and a movable needle in such burner for cleaning the burner opening, substantially as described. 6th. In an apparatus of the class described, the combination of a main portion provided with a generating chamber and a liquid-holding chamber, with a burner connected with the generating chamber having a needle located in the duct of such burner, and spring mechanism to hold the needle in its retracted position, substantially as described. 7th. In an apparatus of the class described, the combination of a lamp or main portion provided with a cylindrical hook and a bracket portion provided with a tubular sleeve engaging with a cylindrical hook and having a set-screw to hold it in proper engagement, a second tubular portion connected with the first portion at right angles therewith, a set of clamping screws in such second tubular portion and means for connecting the second tubular portion with a frame of a vehicle, substantially as described. 8th. In an apparatus of the class described, the combination of a main portion provided with a ring of moisture absorbing material, and an inner perforated ring adapted to hold calcium carbide out of contact with the moisture-holding material, substantially as described. 9th. In an apparatus of the class described, the combination of a main portion provided with a layer of absorbent material, and a perforated piece of material arranged to hold the gas producing material away from the moisture-holding absorbent material so that the gas is generated by the gas producing material drawing the moisture or vapour out of the absorbent material, substantially as described. 10th. In an apparatus of the class described, the combination of a main portion provided with an



Paul Philippe Honoré Macé and Louis Léon Hector Gérard, both of Paris, France, 10th January, 1899; 6 years. (Filed 8th March, 1898.)

Claim.—1st. In an apparatus for the production of acetylene gas, comprising a water reservoir and a bell or gasometer surmounted by a receptacle containing crushed carbide, the method of feeding the carbide in two successive periods consisting of the use of two cones or valves acting in opposite directions on the feed opening and mounted on a rod caused to descend by means of a spring or weight, this rod being provided with an adjustable stop which on each lowering of the bell encounters a bar or lever arranged in the water reservoir, substantially as hereinbefore described and shown. 2nd. In an apparatus for the production of acetylene gas, comprising a water reservoir, a bell or gasometer surmounted by a receptacle containing crushed carbide and a feed valve actuated by a rod, which, when the bell descends, is encountered by a movable stop or lever, the method of rendering the bell immovable and facilitating the introduction of carbide into the reservoir, and which consists first in displacing this stop or lever in order to suspend its action on the said valve and secondly, in discharging a certain quantity of the water of the reservoir, in order that the bell may be lowered and may rest on fixed catches and thirdly in continuing the discharge of the water until the pressure of gas contained in the bell which has been rendered immovable becomes equal to that of the atmosphere, substantially as hereinbefore described. 3rd. In an apparatus for the production of acetylene gas, comprising a water reservoir and a bell or gasometer surmounted by a receptacle containing crushed carbide, an arrangement serving for rendering the bell immovable

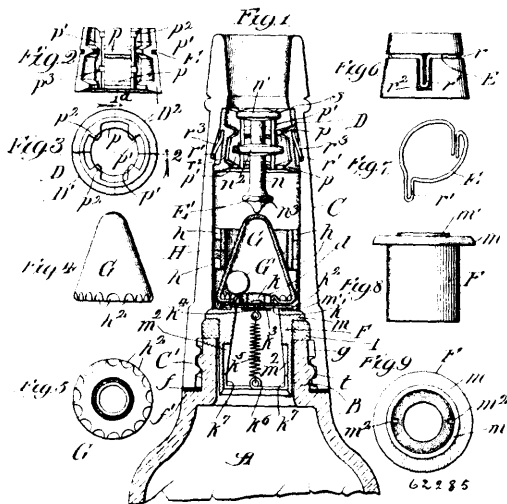
when desired, consisting in the use of projecting catches such as *s* fixed to the bell and which engage automatically in rings pivoted or hinged on the framework when the said bell is raised sufficiently, substantially as hereinbefore described. 4th. An apparatus for the production of acetylene gas comprising a water reservoir *E*, a bell or gasoneter *B* partially counterbalanced by means of a counterweight *C*, a receptacle *A* containing crushed carbide, two cones or feed valves *h* and *k* arranged one above and the other below the opening *i* of the receptacle *A*, a rod *f* carrying the two cones *h* and *k* and induced to descend by means of a spring or an additional weight, and adjustable stop *f'* fixed on the rod *f*, a lever *l* pivoted on a spindle arranged in the water reservoir and serving as stop for the rod *f*, a rod *u* serving to regulate the position of the lever *l* and catches serving to maintain the bell immovable, the whole in the manner and with the object hereinbefore set forth.

No. 62,284. Pneumatic Tire Puncture Repairing Compound. (*Composé pour fermer automatiquement les piqûres dans les bandages pneumatiques.*)

George John Betts and Frederick Theodore Bower, both of St. Kilda, assignees of Edward Thurlow, Albert Park, near Melbourne, and Percy Norman Hignett, St. Kilda, all in the Colony of Victoria, Australia. 11th January, 1899; 6 years. (Filed 12th May, 1898.)

Claim.—The herein described elastic viscous composition, consisting of melted india-rubber, chalk, meal and glycerine, in about the proportions, as and for the purpose specified.

No. 62,285. Non-Refillable Bottle. (*Bouteille non-réplissable.*)



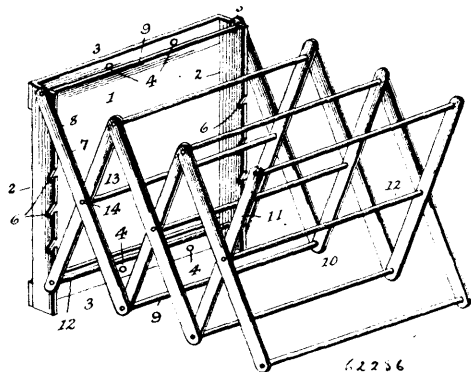
The Woods Non-Refillable Bottle Company, Chicago, assignee of Francis Armstrong Woods, Chicago, Illinois, U. S. A., 11th January, 1899; 6 years. (Filed 12th December, 1898.)

Claim.—1st. Valve-mechanism, comprising, in combination, a valve-chamber provided with an ingress and an egress opening, and at the ingress opening with a valve-seat, a tilting tapering valve-seating at its base against said seat and operating when tilted to unseat said ingress, and means for tiltably holding the valve in position relative to said valve-seat, whereby said valve operates to admit liquid to the valve-chamber through said ingress and check the flow in the reverse direction, substantially as described. 2nd. Valve-mechanism, comprising a valve-chamber provided with an ingress and an egress opening and at the ingress opening with a valve-seat, a hollow tapering tilting-valve seating at its base against said seat and operating to unseat said ingress when tilted, a shifting weight within said valve, and means for tiltably holding the valve-base in contact with the valve-seat, substantially as set forth. 3rd. Valve-mechanism, comprising a valve chamber provided with an ingress and an egress opening and at the ingress opening with a valve-seat, a hollow tapering tilting-valve seating at its base against said seat, a shifting weight within said valve, and a spring attached to the under side of the valve-base and to a part connected with the valve-seat, substantially as described. 4th. Valve-mechanism, comprising a valve-chamber provided with an ingress and an egress opening and at the ingress opening with a valve-seat, a hollow conical tilting-valve seating at its base against said seat and operating when tilted to unseat said ingress, a ball within said valve, and means for tiltably holding the valve-base in proper relation with the valve-seat,

substantially as set forth. 5th. Valve-mechanism, comprising a valve-chamber provided with an ingress and an egress opening and at the ingress opening with a valve-seat, a hollow conical valve-seating at its base against said seat, a ball within said valve, and a spring attached to the under surface of the valve-base, and to a part connected with the valve-seat, substantially as described. 6th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a tapering tilting valve seated at its base against said valve-seat and operating when tilted to unseat said ingress, and means for tiltably holding the valve in correct relationship with its seat, substantially as and for the purpose set forth. 7th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a hollow conical tilting valve seated at its base against said valve-seat, a spring attached to the under surface of the valve-base, and to the valve-seat, and means for tilting said valve, substantially as and for the purpose set forth. 8th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a hollow conical tilting valve seating at its base against said seat and operating when tilted to unseat the passage at the valve-seat, a ball within said valve and means for tiltably holding said valve-base in proper relation with the valve-seat, substantially as and for the purpose set forth. 9th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a hollow conical valve seating at its base against said seat with apex upturned, a ball within said valve, and spring attached to the valve-base and to the valve-seat, substantially as set forth. 10th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a hollow tapering valve seating at its base against said valve-seat, a shifting weight within the valve, and a shifting ring-like lock-device encircling the tapering portion of said valve, substantially as set forth. 11th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a hollow tapering valve seating at its base against said valve-seat and operating when tilted to unseat the passage at the valve-seat, a shifting weight within the valve, means for tiltably holding the valve in contact with the valve-seat, and a guard device located with a small clearance above said valve and serving to limit its longitudinal movement, substantially as set forth. 12th. In a non-refillable bottle, the combination with the bottle-neck of a valve-seat toward the base thereof, a hollow conical valve seating at its base against said valve-seat, means for maintaining the valve in correct relation with its seat, a shifting weight within the valve, a valve-guard above said valve and means connected with the valve and in communication with the interior of the valve to be acted upon by the air from within to change the normal condition of the valve when the air pressure on the exterior of the valve is reduced by an effort to refill the bottle through the creation of a vacuum, substantially as and for the purpose set forth. 13th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a hollow tilting valve seated at its base against said valve-seat, a spring for tiltably holding the valve against its seat, means for attaching said spring to said valve-base in communication with the interior of the valve and capable of being acted upon by a change in the relation of the exterior to the interior air pressure, and means for tilting said valve, substantially as and for the purpose set forth. 14th. A non-refillable bottle-neck, comprising two or more longitudinal sections welded together and forming a valve-chamber, the junction surfaces being non-concentric with relation to the outer surface of the bottle-neck, substantially as and for the purpose set forth. 15th. The combination of a non-refillable bottle-neck comprising two or more longitudinal sections welded together and forming a valve-chamber, the junction-surfaces being non-concentric with relation to the outer surface of the bottle-neck, and valve-mechanism within said chamber, substantially as described. 16th. In a non-refillable bottle, the combination of a neck comprising longitudinal sections welded together and having junction surfaces non-concentric with relation to the outer surface of the bottle-neck, valve-mechanism within the neck, and a valve-guard above the valve-mechanism, substantially as and for the purpose set forth. 17th. In a non-refillable bottle-neck, the combination of two or more permanently joined longitudinal neck-sections provided on their inner surfaces with integrally formed raised valve-guard portions, and a separately formed valve-guard device interlockingly joined to said integrally formed portions, substantially as and for the purpose set forth. 18th. In a non-refillable bottle-neck, the combination of two permanently joined longitudinal neck-sections each provided on its inner surface with an integrally formed half annular flange and longitudinal bosses flanking said flange provided with recesses, and a separately formed guard-device, comprising a stem provided with disc fitting the recesses in said flanges, substantially as and for the purpose set forth. 19th. In a non-refillable bottle, the combination with the bottle-neck of a valve-seat toward the base thereof, a tilting valve seating at its base against said valve-seat and left unattached at its periphery, a spring attached to the centre of the under surface of the valve-base and to a stationary part connected with the valve-seat, and means for tilting said valve, substantially as and for the purpose set forth. 20th. In a non-refillable bottle, the combination with the bottle neck, of a valve-guard part *D* having an annular flange and longitudinal bosses flanking said flange provided with recesses, and a separately formed guard device, comprising a stem provided with discs fitting said recesses, substantially as and for the purpose set forth. 21st. In a non-refillable bottle, the com-

bination of the bottle-neck, of a sleeve-like valve-guard D, formed integrally with or attached to the bottle-neck and provided on its interior with the raised surfaces described, and a valve-guard part E¹, interlockingly joined to said part D, substantially as and for the purpose set forth. 22nd. In a non-refillable bottle, the combination with the bottle-neck, of a separately formed valve-guard part D, the interlockingly held part E¹, inclosed therein, and a spring E, for holding the guard against removal, substantially as described. 23rd. In a non-refillable bottle, the combination of a bottle-body having a shank provided with a thread, a bottle neck provided with a co-acting thread, one of said parts being provided with a ratchet, and a spring carried by one part and provided with means for engaging said ratchet, substantially as and for the purpose set forth. 24th. In a non-refillable bottle, the combination with the bottle-neck, of a valve-seat toward the base thereof, a tiltable valve resting at its base upon said seat, a spring attached to the valve-base centrally thereof, means connecting the spring adjustably to the valve-base, and means for tilting the valve, substantially as and for the purpose set forth. 25th. In a non-refillable bottle, the combination of a body-portion, a neck attached thereto provided with a valve-chamber and toward its base with a valve-seat, a valve within said chamber, a valve-leather for the valve-base, and a spring attached to the valve-base by means destructible by the action of heat or acid, said spring being connected with the valve-seat, substantially as and for the purpose set forth.

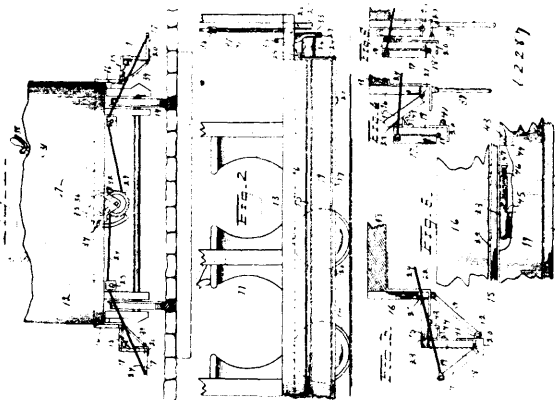
No. 62,286. Clothes Rack. (Ratier à linges.)



George W. Hall and Charles A. Hall, both of West Peru, assignee of Augustin F. Casey, Peru, all of Maine, U.S.A., 11th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—In a rack, the combination of a supporting-frame having side slats with notches in the upper ends thereof inclining downwardly and forwardly and other notches in the front edges inclining downwardly and rearwardly, a hanger-frame having a bar pivotally and removably mounted in the upper ends of the side slats of the said supporting frame, and a foldable rack movably attached to the said hanger-frame and having an inner lower bar adapted to engage the notches in the front edges of the said side slats of the supporting-frame, the end slats of the hanger-frame and of the foldable frame being outside the plane of the outer surface of the end slats of the supporting-frame.

No. 62,287. Car Step. (Marche de chars.)

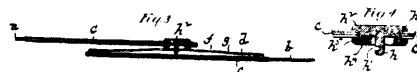
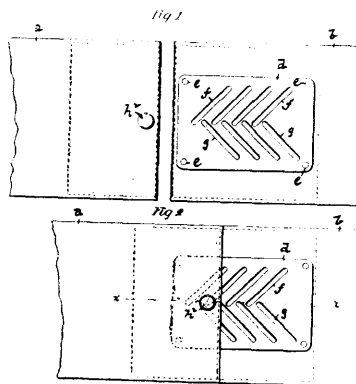


Frank M. Bickelberger, Hyde Park, Ohio, U.S.A., 11th January, 1899; 6 years. (Filed 10th December, 1898.)

Claim.—1st. A car-step hingedly connected to the riser to permit it of being folded up, brackets rigidly connected to and projecting from the latter on which it rests when in position or use and means to turn such step to an elevated position. 2nd. A car step hingedly connected to permit of it being folded up, means to support it when

in position for use, a winding-drum mounted on the car, a flexible connection between it and the step, a ratchet-wheel so mounted as to rotate with the drum, an operating-lever to rotate the two, a pawl on said lever to engage the ratchet-wheel, a locking-pawl to prevent the drum from unwinding and means to release the latter from the engagement with such pawl. 3rd. A car having two steps on one side, each step having a riser to which is hingedly secured, brackets on each riser to support the steps thereon when in position for use, hinges whereby the riser of the lower step connects to the upper step, braces to prevent the lower step from swinging on the upper step when in position for use and means to fold steps and risers up against each other and against the side of the car. 4th. A car having two steps on one side, each step having a riser to which it is hingedly secured, brackets connected to and projecting forwardly from each riser and upon which the steps rest when in position for use, hinges whereby the riser of the lower step connects to the upper step, means to fold steps and risers against each other and against the side of the car and means for acting automatically between the two steps, to hold the lower one rigid on the upper one when in position for use and release the same to permit closing up. 5th. A car having two steps on one side, each step having a riser to which it is hingedly secured, brackets on each riser to support the steps thereon when in position for use, hinges whereby the riser of the lower step connects to the upper step, the adjoining ends of the two sections of such hinges being inclined as shown at 45 to cause them to slip apart when one turns on the other, whereby the riser of the lower step receives a corresponding lengthwise adjustment, the hinge-pins of such hinges being of sufficient length to permit such separation of the hinge-sections, a spring 46 to draw them together, means to fold steps and risers up against each other and against the sides of the car, a bracket 43 on the upper step and a pin 44 on the riser of the lower step, the two adapted to engage or disengage each other by the longitudinal movement of the lower step due to the separation of the hinge-sections, as and for the purpose described.

No. 62,288. Belt Fastener. (Attache de courroie.)



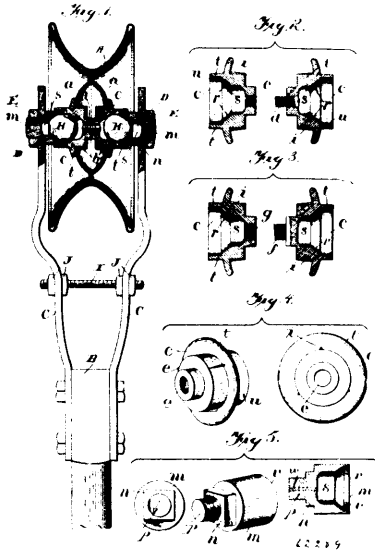
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Edgar L. Bailey, Middleton, Connecticut, U.S.A., assignee of Erastus N. Parker, Springfield, Massachusetts, U.S.A., 11th January, 1899; 6 years. (Filed 5th December, 1898.)

Claim.—1st. A fastener for belts, etc., composed of two members secured to the meeting ends of a belt or similar article, one of said members having two series of slots therein which terminate at their front ends at the transverse centre line of the said member, and the other of said members comprising a stud adapted to make a locking engagement with the aforementioned slots, substantially as described. 2nd. A fastener for belts, etc., composed of two members, each being provided with means whereby it may be secured to one of the meeting ends of a belt or similar article, one of said members having a plate containing two series of slots which terminate at their front ends at the transverse centre line of the plate, and the other of said members comprising a hook or stud adapted to make a locking engagement with the slots in said plate, whereby the said meeting ends may have a free pivotal movement upon each other, substantially as described. 3rd. A fastener for belts, etc., composed of two members, one of said members being composed of a backing plate and a superimposed plate secured to said backing plate, said superimposed plate containing two series of slots, the slots of each series being parallel with each other and at substantially a right angle to those of the other series and all of said slots terminating at their

front end at the transverse centre line of the plate and at their rear end at points within the side edges of the plate, and the other of said members comprising a hook or stud adapted to make a locking engagement with the slots in said plate, each of said members being provided with means whereby it can be secured to one of the meeting ends of a belt or similar article, substantially as described. 4th. A fastener for belts, etc., one member of which consists of the plate *d*, having therein the slots *f*, and *g*, arranged as described, and the other member of which consists of the notched stud *h*, having its head *h*², provided with the annular shoulder *h*³, and annular flange *h*⁴, and ring *h*⁵, substantially as described.

No. 62,289. Ball Bearing. (*Coussinet à boule.*)



George E. Mittinger, jr., and Frederick J. Schweitzer, both of Cleveland, Ohio, U.S.A., 11th January, 1899; 6 years. (Filed 16th November, 1898.)

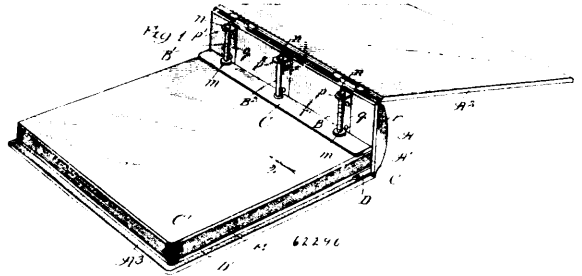
Claim.—1st. A wheel, having at each side a ball cavity situated at the centre of rotation thereof, supporting bearing-blocks having registering ball cavities and a single ball in each pair of cavities, the balls projecting from the wheel cavities into the supporting block cavities, and a connection for the supporting blocks passing around the wheel and adapted to permit it to freely revolve, substantially as described. 2nd. A wheel, having bearing-block cavities at each side of its centre, separate bearing-blocks situated in the cavities, said blocks provided with ball cavities at the centre of rotation, a uniting member for the separate bearing-blocks, supporting bearing-blocks having registering cavities, and a single ball situated in each pair of cavities, substantially as described. 3rd. A sheet-metal wheel having its centre formed of two thicknesses, each part of the centre provided with a separate inwardly projecting bearing-block cavity, separate bearing-blocks situated therein, and each provided with ball-bearing cavities at the centre of rotation, a uniting member passing through the inner walls of the bearing cavities and uniting the bearing-blocks, supporting bearing-blocks having registering openings, and a single ball for each pair of cavities, substantially as described. 4th. A ball-bearing, comprising a shaft provided with concentric ball cavities in the ends thereof, supporting bearing-blocks having ball cavities projecting in the opposite direction to those in the shaft, adjustable supporting arms for the said supporting bearing-blocks, and a single ball situated in each pair of cavities, substantially as described. 5th. A wheel, comprising a shaft having concentric ball-bearing cavities in the ends thereof, supporting arms provided with bearing-blocks at each end of the shaft and having oppositely extending ball-bearing cavities, a single ball situated within each pair of cavities, and an adjustable member passing transversely through the supporting arms at a point beyond the periphery of the wheel and adapted to separate or draw together the said arms and thus adjust the bearings, substantially as described. 6th. A single ball-bearing, comprising a shaft provided at each end with a concentric ball-bearing cavity, supporting bearing-blocks provided with registering ball-bearing cavities, the shaft and the supporting bearing-blocks having overlapping flanges out of contact with the balls, and a single ball in each pair of cavities, substantially as described.

No. 62,290. Temporary Binder. (*Beliur temporaire.*)

Henry Q. Shepard and Ruth A. Faifer, both of Chicago, Illinois, U.S.A., 11th January, 1899; 6 years. (Filed 8th November, 1898.)

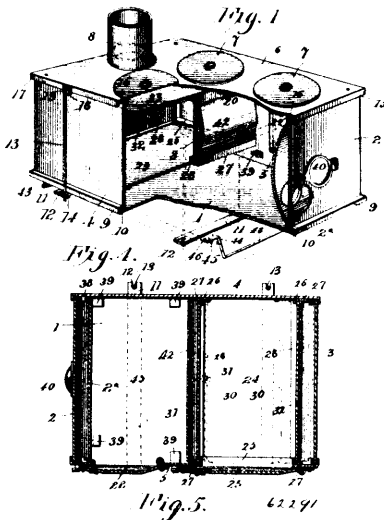
Claim.—1st. In a temporary binder, the combination of transverse bars at intervals on the inner side of the back of the case, perforated

hinged clips and rigid feet extending, respectively, from the opposite ends of said bars, threaded binding-pins extending from said feet



to be engaged at their free ends by said clips and provided at said ends with internally threaded openings, and headed screws passing through said clips into said openings, substantially as described. 2nd. A temporary binder comprising, in combination, a case *A* having a stiff back *A*¹ provided at intervals on its inner side with transverse bars, perforated hinged clips and rigid feet extending, respectively, from the opposite ends of said bars, plain and threaded binding-pins extending from said feet to be engaged at their free ends by said clips and tapped in said ends, clamping-sticks on said pins, nuts on said threaded pins, headed screws passing through said clips into the tapped ends of the pins, and covers flexibly connected with the binding-stick, substantially as described.

No. 62,291. Stove. (*Poêle.*)



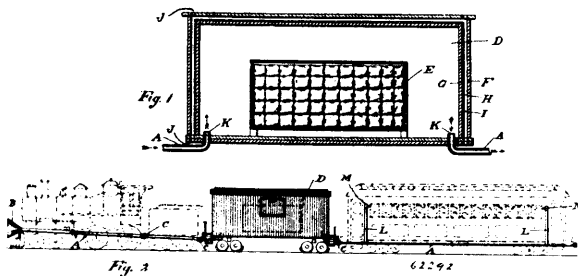
Gus E. Olmstead and William J. Henry, both of Red Cliff, Colorado, U.S.A., 11th January, 1899; 6 years. (Filed 14th November, 1898.)

Claim.—1st. In a portable and knock-down stove, the combination of a bottom having its edges recurved, a top having three of its edges recurved and having its remaining or fourth edge bent about at right angles, end and side plates having their upper and lower edges bent outwardly and interlocking with corresponding edges of the top and bottom and adapted to interlock at their ends, perforated ears applied to the flanged or fourth edge of the top, plates secured to the bottom and projecting therefrom on the same side with the perforated ears, rods having their upper ends hooked and engaging with the perforated ears and having their lower ends threaded and adapted to engage with the projecting notched ends of the plates and thumb-nuts mounted upon the threaded ends of the rods to be turned up against the notched ends of the plates, substantially as and for the purpose set forth. 2nd. In a portable and knock-down stove, the combination with the stove body, of the substantially U-shaped folding legs extending across the stove body and composed of the transverse portions resting upon the floor or supporting surface, and the sides extending upward from the transverse portions and bent at right angles and forming journals arranged in suitable bearings of the stove body and having their terminals extended at an angle and engaging the bottom of the same to limit the outward movement of the legs, substantially as described. In a portable and knock-down stove, the combination with the body portion of the stove capable of being dismembered, of a top adapted to interlock at its edges with the upper edges of the sides and ends, and stiffening and

bracing strips secured to the bottom side of the top, the transverse strip having its end portions bent to engage with the upper edge of the sides to prevent upper displacement thereof, substantially as set forth. 4th. In a portable or knock-down stove, the combination of the stove body, keepers applied to the sides of the stove, transverse rods having their end portions bent and fitted into said keepers and serving to brace the stove laterally, and an oven supported upon the said rods, substantially as set forth. 5th. In a portable and knock-down stove, the combination of the stove body having an opening in a side provided with inner flanges surrounding the said opening, oven plates having side flanges, the front and rear plates being received between the side flanges of the top and bottom plates, and the inner flanges of the aforesaid opening extending within the space enclosed by the said oven plates vertical strips applied to the side of the oven remote from the side having the oven door and engaging with the inner faces of the front and rear plates, and longitudinal strips secured to the side plates and engaging with the upper side of the top plate, substantially as and for the purpose set forth. 6th. A portable and knock-down stove, comprising a stove body, a transversely disposed oven, and the bowed or curved baffle plate 4², arranged at the front side of the oven and forming an intervening air space between it and the same, substantially as described. 7th. A portable and knock-down stove, provided at its front with a curved or bowed plate or lining mounted on the inner face of the front and forming an intervening air space between it and the same, substantially as described. 8th. A portable and knock-down stove having separable sides and ends and provided on the inner face of its top with triangular blocks or plates fitting in the angles formed by the sides and ends of the stove and supporting the same, substantially as described.

No. 62,292. Car Ventilating System.

(*Système de ventilation des chars.*)



James C. Cameron, Montreal, Quebec, Canada, assignee of Matthias B. Eaton, Boston, Mass., 11th January, 1899; 6 years. (Filed 2nd December, 1898.)

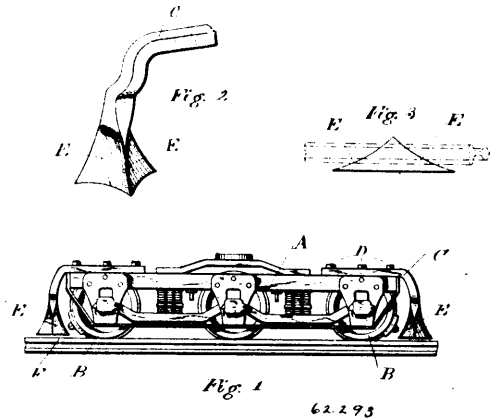
Claim.—1st. The combination with the engine and cars of a railroad train, of a conduit having its forward end terminating at or near the head of the engine, a cooling car interposed in said conduit between the engine and the regular cars, distributing pipes leading through said conduit into the regular cars, and means for coupling and uncoupling the ends of the conduits between the cars. 2nd. The combination with the engine and cars of a railroad train, of a conduit having one end terminating at or near the head of the engine, a cooling car interposed in said conduit, consisting of an outer casing, an inner casing, an air space between said outer and inner casing and openings at the top and bottom through the outer casing into said air space, and means for coupling and uncoupling said conduit between the cars. 3rd. The combination with the engine and cars of a railroad train, of a conduit secured thereto having one end terminating at or near the head of the engine, means for coupling and uncoupling said conduit between the cars, distributing pipes leading from said conduit to the interior of the cars, and means for regulating the delivery of air through said distributing pipes to the cars.

No. 62,293. Track Clearer. (*Nettoyeur de voirs.*)

James C. Cameron, Montreal, Quebec, Canada, assignee of Matthias B. Eaton, Boston, Massachusetts, U.S.A., 11th January, 1899; 6 years. (Filed 2nd December, 1898.)

Claim.—1st. In a track clearer, the combination with a supporting bar and means for securing it to the truck frame, of a double mould board integral with said supporting bar and having a common edge

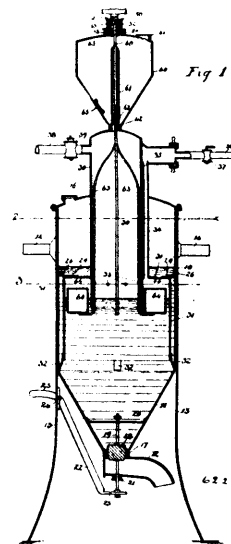
extending at right angles to the track. 2nd. In a track clearer, a double mould board having a common edge extending at right



angles to the rail and terminating outside thereof, the cutting edge lying inside of the rail.

No. 62,294. Acetylene Gas Generating Apparatus.

(*Appareil générateur de gaz acétylène.*)

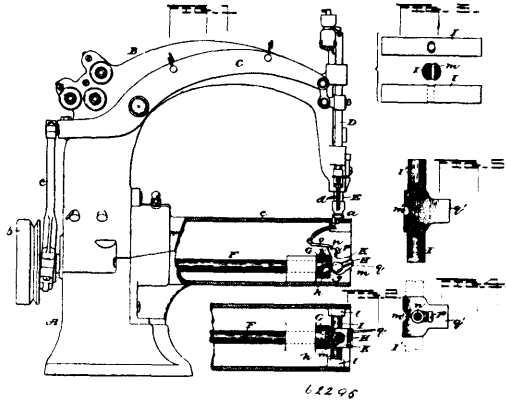


Jean Antoine Plantin and Delphis Reymond, Ottawa, Ontario, Canada, assignee of the Rev. Lucien Tédé, the Convent of the Capuchin, Angers, France, 11th January, 1899; 6 years. (Filed 15th April, 1898.)

Claim.—1st. An apparatus for generating acetylene gas, consisting of a main tank having an inverted conical bottom, a valve situated at the apex of said bottom, means for opening and closing the said valve, a vertical cylinder in the said tank open at the bottom, an annular chamber open at the bottom formed around the bottom of the said cylinder, the outer wall of said chamber being lower than the inner, perforations connecting the said chamber with the interior of said cylinder, an outlet pipe passing out of the said annular chamber, a carbide receptacle secured on the top of said cylinder, an annular float in the said annular chamber, rods secured to the bottom of the said float passing up the said cylinder, a valve stem secured to the said rods and a valve adjustably secured on the said valve stem, adapted to close or open the aperture between the said receptacle and cylinder, substantially as set forth. 2nd. In an apparatus for generating acetylene gas the combination with the main tank having an inverted conical bottom, an outlet pipe secured to the apex of the said conical bottom, a valve seat formed at the outlet of the valve 18 the spindle stem 19 projecting both above and below said valve, a guide 20 for the stem above, a stuffing box 21 where the said stem passes through the said outlet pipe, a lever 22 pivoted to one of the supports of the said tank, a forked lever end of the said lever engaging the projecting lower end of the said valve stem, and a handle 25, substantially as set forth. 3rd. In an apparatus for generating acetylene gas, the combination with the cylinder 30,

annular chamber 66 and carbide receptacle 40 secured to the top of said cylinder 30 of an annular float 64 in said annular chamber, rods connecting said float with a valve stem passing through the aperture, at the connection of said carbide receptacle and cylinder, and a valve 62 adjustably secured on the said valve stem, adapted to close or open the said aperture as the said float rises or falls, substantially as set forth. 4th. In an apparatus for generating acetylene gas, the combination with the stem of a valve adapted to close or open the apertures between the carbide receptacle and the generator, of the casting 53 secured in the top of the said carbide receptacle, centrally over the said valve stem, the said casting being bored its entire length and screw threaded in its upper part, a screw key in its lower portion to receive the said valve stem, and limit its vertical movement, and a stuffing box 54, substantially as set forth.

No. 62,295. Sewing Machine. (Machine à coudre.)

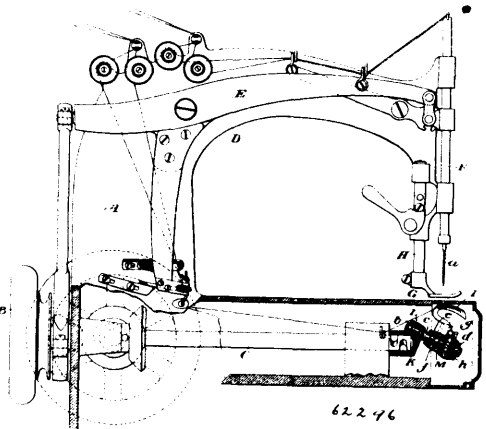


The Union Special Sewing Machine Co., Chicago, Illinois, assignee of Lansing Onderdonk, New York City, New York, both in the U.S.A., 11th January, 1899; 6 years. (Filed 10th October, 1898.)

Claim.—1st. A sewing machine comprising a bed plate and a driving shaft extending lengthwise thereof, a looper carrier supporting a thread carrier supporting a thread carrying looper journaled in the bed plate in advance of the forward end of said shaft, means for oscillating the looper longitudinally and for positively vibrating the same laterally bodily, said means consisting of an inclined crank engaging the looper carrier and connected with the driving shaft, and means for actuating the driving shaft, substantially as described. 2nd. A sewing machine comprising a bed plate and a driving shaft extending lengthwise thereof, a looper carrier supporting a thread carrying looper journaled in the bed plate in advance of the forward end of said shaft and means for oscillating the looper longitudinally and for positively vibrating the same laterally, bodily, said means comprising an inclined crank engaging the looper carrier, eccentrically connected at one end with the driving shaft and having its other end extending inward toward the axis of the driving shaft, whereby said inclined crank gives all the respective looper movements, and means for actuating the driving shaft, substantially as described. 3rd. A sewing machine comprising a bed plate and a driving shaft, a looper carrier comprising a thread carrying looper journaled in the forward end of the bed plate, means on the forward end of the driving shaft for oscillating the looper longitudinally and laterally vibrating the same, said means comprising an inclined crank engaging the looper carrier and eccentrically connected by a universal joint with the driving shaft, and means for actuating the driving shaft, substantially as described. 4th. In a sewing machine a looper operating mechanism comprising a driving shaft, a looper mounted to slide and rock in bearings, one of said movements being bodily in a line across the line traversed by the looper in its other movement, a rod or arm operatively connected with the looper and having a universal joint connection at one end of the driving shaft, substantially as described. 5th. A looper operating mechanism for sewing machines comprising a driving shaft having an eccentrically arranged socket on its outer end, a rigid bar or arm having a ball fitting said socket and held in place therein, a looper carrier mounted on an axis transverse to the axis of the driving shaft and free to slide and rock, said rigid bar or arm operatively engaging the looper carrier, whereby in the rotation of the driving shaft forward and backward and sliding movements are given to the looper carrier, one of said movements being bodily in a right line across the line traversed by said carrier in its other movement, substantially as described. 6th. A sewing machine comprising a driving shaft, a looper carrier with its axis transverse to the axis of the driving shaft, a looper supported by said carrier having its longitudinal axis at an angle to the axis of its carrier, and means comprising an inclined crank on the forward end of the driving shaft extending from its point of connection with said shaft in a direction toward the plane of the central axis of said shaft and operatively connected with the looper carrier for giving a loop taking movement in the direction of the length of the looper and a positive bodily needle avoiding movement in a line at right angles

to the longitudinal axis of said looper, substantially as described. 7th. A looper operating mechanism for sewing machines comprising a driving shaft, a rigid rod or arm eccentrically connected to one end thereof, a looper mounted to slide and to rock in bearings and operated by said rod or arm and means for varying the distance of the point of attachment of said rod or arm from the centre of the driving shaft whereby the amount of throw of said looper may be varied, substantially as described. 8th. In a sewing machine, a looper operating mechanism comprising a driving shaft having flaring sockets, a collar supported on said shaft and having screws passing therethrough into said sockets whereby the position of the collar on the shaft may be shifted circumferentially, and a looper rod eccentrically connected to the collar, substantially as described. 9th. A looper operating mechanism for sewing machines comprising a driving shaft, a head secured to the outer end thereof and having a diametric groove, an annular piece having a tongue adjustable in said groove and looper rod connected at one end to the annular piece, substantially as described. 10th. A looper operating mechanism for sewing machines comprising a driving shaft, a head secured to the outer end thereof and having a diametric groove, an annular piece having a tongue adjustable in said groove and having a socket, a rod or arm having a ball on one end fitting within said socket, a sliding and rocking shaft carrying a looper, and with which sliding and rocking shaft the rod or arm is operatively connected, substantially as described. 11th. A sewing machine comprising a bed plate, a driving shaft, and means for actuating the same, a looper carrier, journaled in the bed plate, a looper supported thereon, means on the driving shaft for oscillating the looper in the direction of its length and for positively vibrating the same laterally, bodily, said means consisting of a single crank connected and inclined with respect to the driving shaft and operatively engaging the looper carrier, substantially as described. 12th. In a sewing machine a looper operating mechanism comprising a driving shaft, a looper carrier, a looper supported thereon, means carried by the driving shaft for oscillating the looper in the direction of its length and for positively vibrating it laterally, said means consisting of an inclined crank eccentrically mounted at one end on the forward end of the driving shaft and directly engaging the looper carrier, substantially as described. 13th. In a double chain-stitch sewing machine, a driving shaft and means for actuating the same, a looper carrier, a looper supported thereon, means on the driving shaft for oscillating the looper in the direction of its length and for positively vibrating the same laterally, said means consisting of a single crank connected and inclined with respect to the driving shaft and operatively engaging the looper carrier, substantially as described. 14th. In a double chain-stitch sewing machine, a driving shaft and means for actuating the same, a looper carrier, a looper supported thereon, means on the driving shaft for oscillating the looper in the direction of its length and for positively vibrating the same laterally, said means consisting of a single crank connected and inclined with respect to the driving shaft and operatively engaging the looper carrier, said crank being carried on the outer end of the driving shaft forward of its front or outer bearing, substantially as described.

No. 62,296. Sewing Machine. (Machine à coudre.)

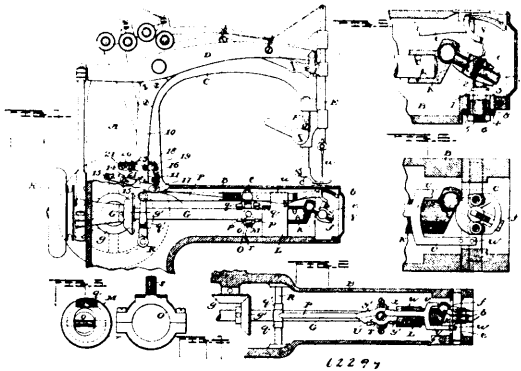


The Union Special Sewing Machine Company, Chicago, Illinois, assignee of Lansing Onderdonk, New York City, New York, 11th January, 1899; 6 years. (Filed 10th October, 1898.)

Claim.—1st. A looper operating mechanism comprising a driving shaft, a straight looper pin rigidly fixed eccentrically to the driving shaft, a looper carrier mounted to slide and rock in bearings and provided with a fork embracing said pin and a block supported by said looper carrier having an opening through which the looper pin passes, substantially as described. 2nd. A looper operating mechanism for sewing machines comprising a driving shaft, a rod or arm driven from the main shaft, a looper carrier having oppositely extending sleeves, journals secured to the machine frame on opposite sides thereof, over which the sleeves fit and upon which they slide and rock and operative connections between the rod or

arm and the carrier, substantially as described. 3rd. A sewing machine, comprising a bed plate and a driving shaft, a looper carrier supporting a thread carrying looper journalled in the forward end of the bed plate, means on the forward end of the driving shaft for oscillating the looper longitudinally and laterally vibrating the same, said means comprising a rigid straight pin, eccentrically connected to the forward end of the driving shaft and engaging the looper carrier for oscillating the latter, and a pivoted block secured to said carrier, with which said pin also engages, whereby the vibratory movement is given the looper and means for actuating the driving shaft, substantially as described. 4th. A looper operating mechanism for sewing machines, comprising a driving shaft, a collar secured to one end thereof, and having an arm projecting from said collar at an angle to the axis of the driving shaft, an inclined looper pin connected with said projecting arm, and a looper carrier having a fork engaged by said pin, substantially as described. 5th. A sewing machine, comprising a bed plate and a driving shaft, a looper carrier supporting a thread carrying looper journalled in the bed plate in advance of the forward end of said shaft, and means for oscillating the looper longitudinally, and for oppositely vibrating the same laterally bodily, said means comprising an arm projecting from the driving shaft on an incline in a direction away from the central axis thereof, and an inclined pin attached to said projecting arm and extending in a direction toward the plane of the central axis of the driving shaft and operatively engaging the looper carrier, substantially as described. 6th. In a sewing machine, a driving shaft, a looper carrier with means for supporting it, and means for operating said looper carrier to give the looper forward and backward movement in the direction of its length and bodily sidewise movement across the line traversed by said looper in its other movements, said means comprising a rigid straight inclined pin mounted on the forward end of the driving shaft, and a fulcrum block secured to the looper carrier with which said pin engages.

No. 62,297. Sewing Machine. (Machine à coudre.)

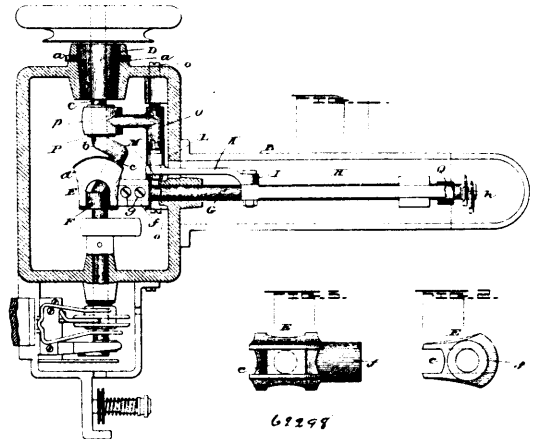


The Union Special Sewing Machine Company, Chicago, assignee of Lansing Onderdonk, New York City, New York, both in the U.S.A., 11th January, 1899; 6 years. (Filed 10th October, 1898.)

Claim.—1st. A sewing machine comprising a driving shaft, a feed dog carrying bar or frame arranged parallel therewith, connections between the driving shaft and feed dog carrying bar whereby the latter is given the usual four motions, and a shaft arranged transversely of the driving shaft and adapted to slide and rock in bearings on the machine frame, a looper carrier supported on said shaft, a looper on said carrier arranged with its longitudinal axis at an angle to the axis of said transverse shaft, and a rod operatively connected with said looper carrier or shaft for giving it an oscillatory movement in the direction of the length of the looper and a sliding movement across the line traversed by said looper in its oscillating movement, said rod being eccentrically connected at its inner end to the driving shaft, substantially as described. 2nd. A sewing machine comprising a bed plate, a driving shaft arranged longitudinally thereof, a feed dog carrying bar arranged parallel with the driving shaft and reciprocating longitudinally of the bed plate, with connections between the driving shaft and the feed dog carrying bar for giving the latter said longitudinal as well as its vertical movement, a looper operating mechanism comprising a shaft arranged transversely to the bed plate and mounted to slide and rock in its bearings, a looper supported on said shaft and having its longitudinal axis parallel with the longitudinal axis of the feed dog carrying bar, and a rod operatively connected with the looper carrier, and eccentrically and universally mounted at one end of the driving shaft, substantially as described. 3rd. In a sewing machine having a cylindrical casing and a driving shaft extending lengthwise thereof, a feed dog carrying bar arranged parallel with said driving shaft, an eccentric adjustably inclined on said driving shaft, a strap embracing said eccentric, a universal joint connection between the strap and the feed dog carrying bar, and a looper operatively connected with the driving shaft and having an oscillating movement on an axis at an angle to the axis of the driving shaft, substantially as described. 4th. In a sewing machine having a cylindrical casing

and a driving shaft extending lengthwise thereof, a feed dog carrying bar arranged parallel with said driving shaft, an eccentric adjustably inclined on said driving shaft, a strap embracing said eccentric, a universal joint connection between the strap and the feed dog carrying bar, and a looper operatively connected with the driving shaft and with its longitudinal axis arranged substantially longitudinally of the bed plate, substantially as described. 5th. The herein described looper operating mechanism for sewing machines comprising a looper carrier having oppositely extending trunnions, a fulcrum pin set therein, and means for adjusting said pin, and a looper rod fulcrumed on said pin, substantially as described. 6th. The herein described looper operating mechanism for sewing machines and the like, comprising a looper carrier having oppositely extending trunnions mounted to slide and rock in fixed bearings, its sliding movements being bodily in a right line across the line traversed by it in its rocking movements, an operating rod for said carrier, and an adjustable post or pin on which the operating rod is fulcrumed, substantially as described. 7th. A looper operating mechanism comprising a looper carrier mounted to slide and rock, the socket piece set therein, the looper rod passing therethrough, said looper rod being slotted and a pin or post adjustable on the machine frame engaging the slot in the looper rod, substantially as described. 8th. A looper operating mechanism comprising a looper, a carrier therefor, a rod driven from the main shaft and an adjustable fulcrum therefor, comprising a post extending down through an opening in the bed plate, a sleeve surrounding the same, and means for holding the post and sleeve in position, substantially as described. 9th. A looper operating mechanism comprising a looper, a carrier therefor, a rod driven from the main shaft and an adjustable fulcrum therefor, comprising a post extending down through an opening in the bed plate, a sleeve surrounding the same, having a head resting on the casing and having its lower part extending below the casing and screw threaded to receive a nut, said having a shoulder resting on the head of the sleeve and a nut on its lower end, substantially as described. 10th. A sewing machine comprising a plate, a feeding mechanism moving in a defined path longitudinally thereof and a looper carrier, a thread carrying looper thereon, said looper being arranged with its longitudinal axis approximately parallel with the line of feed, and means for giving said looper an oscillatory movement in the direction of its length and a bodily sliding movement transverse to the line of feed and also across the line transversed by said looper in its oscillating movement, substantially as described. 11th. A sewing machine comprising a bed plate, a feeding mechanism moving in a defined path longitudinally thereof, a looper carrier, a thread carrying looper thereon, said looper being arranged with its longitudinal axis approximately parallel with the line of feed, and means for giving said looper an oscillatory movement in the direction of its length and a sliding movement across the line traversed by said looper in its oscillating movement, said means comprising a driving shaft also extending longitudinally of the bed plate and an inclined pin eccentrically connected to the driving shaft, and operatively engaging the looper carrier, substantially as described.

No. 62,298. Sewing Machine. (Machine à coudre.)



The Union Special Sewing Machine Company, Chicago, Illinois, U.S.A., assignee of Lansing Onderdonk, New York City, New York, 11th January, 1899; 6 years. (Filed 10th October, 1898.)

Claim.—1st. A sewing machine, comprising a main shaft, a looper-supporting-shaft extending at a right angle thereto, a suitable bed-plate enclosing the same, a feeding-device working longitudinally thereof, a frame to which one end of the looper-supporting-shaft is connected, having wings and a yoke, said main shaft having a crank working between said wings to vibrate the looper-shaft and an eccentric working in the yoke to give longitudinal sliding movement to the looper-supporting-shaft, substantially as described. 2nd. In a sewing machine, a main shaft formed at one portion with an inclined crank and having also an eccentric combined with a looper-supporting-shaft extending longitudinally of the bed-plate of the

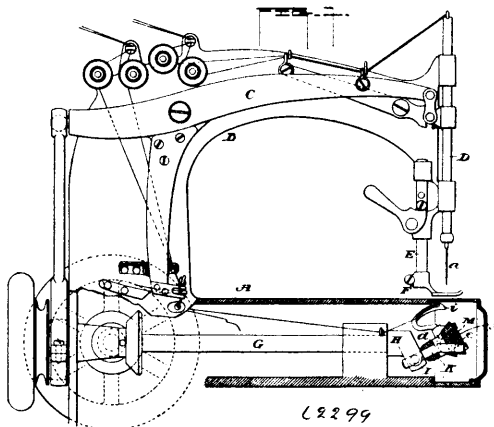
machine, a looper-rocking-frame to which the looper-supporting-shaft is connected at its rear end, and having wings embracing the inclined crank, and having rearward of the wings an opening constituting a yoke in which the eccentric on the main shaft works, whereby in the rotation of the main shaft a rocking and reciprocating movement is given to the looper-supporting-shaft, substantially as described. 3rd. In a sewing machine, the combination with the needle and operating mechanism of a looper-carrier comprising a shaft extending lengthwise of the machine bed-plate and carrying near its outer end a looper, and having at its rear end wings and a yoke, and a rotating-shaft having means for engaging the yoke and wings, substantially as described. 4th. A sewing machine, comprising a bed-plate and stitch-forming mechanism, the latter including a sliding and rocking looper-carrier, comprising a long shaft extending longitudinally of the bed-plate and carrying the looper and having the rocking-frame at the other end provided with a yoke, substantially as described. 5th. In a sewing machine having a cylindrical bed-plate, a transverse main shaft, having a crank and an eccentric thereon, a looper-carrier having wings and a yoke engaging respectively the crank and eccentric, and having a rigid portion extending longitudinally of the bed-plate, and a looper secured thereto, substantially as described. 6th. In a sewing machine, a main shaft, having a crank and an eccentric thereon, a looper-rocking-frame having wings and a yoke engaging respectively the crank and eccentric, and having a laterally extending tubular portion, and a looper-supporting-shaft carrying a looper and removably and adjustably secured within said tubular portion, substantially as described. 7th. In a sewing machine, a rotating-shaft having suitable supporting bearings and having an inclined crank and an eccentric, a looper-carrier having wings and a yoke, which engage respectively the inclined crank and eccentric, and having a rigid laterally projecting portion on one side only, and a looper secured to said rigid projecting portion, substantially as described. 8th. In a sewing machine, the main shaft, the looper-supporting-shaft with connections between the two for reciprocating and oscillating the latter, a feed-dog carrying-bar, a rocking frame to which the same is attached, and a cam reciprocating and oscillating with the looper-supporting-shaft and engaging the feed-dog carrying-bar for raising the same, and means for oscillating the said rocking-frame, substantially as described. 9th. A sewing machine comprising a rear transverse standard, a main shaft supported thereon, a feed-rocking frame also entirely supported within said standard, a looper-rocking-frame within the same and operatively connected to the main shaft, a bed-plate or casing extending at right angles to the rear standard and enclosing a feed-dog carrying bar and a reciprocating and oscillating looper-supporting shaft which, at their rear ends, extend into the rear standard and are operatively connected to the feed-rocking-frame and looper-rocking-frame respectively, substantially as described. 10th. A sewing machine comprising a driving-shaft, a bed-plate, and a looper-operating-device comprising a shaft extending longitudinally of the bed-plate and having at its inner end a frame, an inclined crank operatively engaging the frame to give an oscillating motion to the shaft and means for reciprocating said shaft, substantially as described. 11th. A sewing machine comprising a driving-shaft, a looper-supporting shaft journaled in bearings on the machine frame and having a reciprocating and oscillatory motion, a frame to which the looper-supporting shaft is attached, and a rigid crank and eccentric connection between the rocking-frame and the driving shaft, substantially as described. 12th. A sewing machine comprising a driving-shaft, a bed-plate and a looper-operating device comprising a shaft extending longitudinally of the casing, and having at its inner end a frame, and means carried on the driving-shaft directly engaging said frame to give said oscillatory and reciprocating movements, substantially as described. 13th. In the herein described sewing machine, the driving-shaft provided with a rigid integral inclined crank and an eccentric, both arranged between the bearings thereof, the looper-supporting-mechanism having a rocking-frame connected with the crank and with the eccentric for reciprocating and oscillating the looper, substantially as described. 14th. A sewing machine comprising a driving-shaft, a bed-plate and a looper, operating device comprising a shaft extending longitudinally of the bed-plate and having at its inner end a frame, and an inclined crank and eccentric operatively engaging the frame, and operated from the driving-shaft, substantially as described.

No. 62,299. Sewing Machine. (Machine à coudre.)

The Union Special Sewing Machine Company, Chicago, Illinois, assignee of Lansing Onderdonk, New York City, New York, 11th January, 1899; 6 years (Filed 10th October, 1898.)

Claim.—1st. A sewing machine comprising a driving-shaft, a looper-carrier having sliding and rocking movement, and provided with rearwardly and forwardly extending wings, an inclined pin or rod mounted on the forward end of the driving-shaft and embraced by the rearwardly extending wings and a member engaged by the forwardly extending wings, substantially as described. 2nd. In a sewing machine, a looper support having rearwardly and forwardly extending wings and means for operating the same to give loop taking, loop leaving and needle avoiding movements to the looper, said means comprising an inclined rod or pin embraced by the rearwardly extending wings, a member engaged by the forwardly extending wings and means for giving rotary movement to the inclined

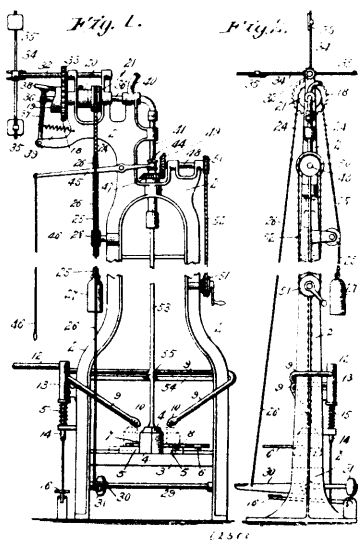
rod or pin, substantially as described. 3rd. A looper operating mechanism comprising a driving-shaft, a rigid rod or pin eccentric-



ally connected at one end with said driving-shaft, and having its outer end bent to lie in a plane approximately parallel with the axis of the driving-shaft and a looper-carrier to which said rigid bent rod or pin is operatively connected, said looper-carrier being supported in fixed bearings, and having oscillating and sliding movements at right angles to each other, the oscillating movement of the looper being imparted to it by means of the eccentric connection of the pin or rod with the driving-shaft, and the sliding sidewise movement of the looper being imparted to it by that portion of the pin or rod which is approximately parallel with the axis of the driving-shaft, substantially as described. 4th. A looper operating mechanism for sewing machines comprising a driving-shaft, a looper-carrier having oppositely extending journals mounted to slide and rock in fixed bearings, a rigid bar or rod having an inner portion inclined at an angle to the axis of the driving-shaft, and eccentrically connected thereto, and having an outer portion lying in a plane approximately parallel with the axis of the driving-shaft, and means for adjusting the outer portion with relation to the axis of the driving-shaft, said rigid bar or rod being operatively connected with the looper-carrier, substantially as described. 5th. A looper operating mechanism for sewing machines comprising a driving-shaft having a collar thereon with an inclined projection, a rod or pin having an inclined portion adjustably secured to said projection and having an outer portion arranged with its axis substantially parallel with the axis of the driving-shaft, a looper-carrier mounted to slide and rock in fixed bearings, to which carrier said rod or pin is operatively connected, substantially as described. 6th. A looper operating mechanism comprising a carrier having oppositely extending journals mounted to slide and rock in fixed bearings, a rigid bent pin or rod operatively connected with the driving-shaft and operatively connected to the looper-carrier, with means for adjusting the bent pin to vary the amount of sliding movement of the looper-carrier journals, substantially as described. 7th. A looper operating mechanism comprising a driving-shaft, a looper-carrier having journals mounted to slide and rock in fixed bearings, a rigid bent pin eccentrically connected with the driving-shaft and adjustable axially with respect thereto, and operatively connected with the looper-carrier, and means for adjusting the looper-carrier circumferentially on its supporting axis to bring it nearer to or further from the needle, substantially as described. 8th. A looper operating mechanism for sewing machines, comprising a shaft mounted to slide and rock in fixed bearings on the machine frame, said shaft being provided with a screw-threaded shoulder, a looper-carrier arranged on said shaft and a screw-threaded collar for holding said looper-carrier in position, substantially as described. 9th. A looper operating mechanism, comprising a shaft having projecting portions with screw-threaded openings therein, a looper-carrier on said shaft, said looper-carrier being provided with projections and adjusting screws passing through said projecting portions and bearing against the projections on the looper-carrier, whereby the latter is adjusted radially with respect to the axis of the shaft, substantially as described. 10th. A looper operating mechanism for sewing machines, comprising a shaft mounted to slide and rock in fixed bearings on the machine frame, a looper-carrier on said shaft capable of circumferential movement around the same, and screws, one above and one below the central longitudinal axis of the shaft on which the carrier is supported, said screws bearing on the carrier, and means for supporting said screws, substantially as described. 11th. A looper operating mechanism, comprising a sliding and rock carrier, a driving shaft, an inclined crank pin eccentrically connected with the driving shaft and operatively engaging the carrier, and means for adjusting said crank pin in the direction of its length, substantially as described. 12th. A sewing machine comprising a bed-plate and a driving shaft, a looper-carrier supporting a thread-carrying looper journaled in the forward end of the bed-plate, means on the forward end of the driving shaft for oscillating the looper longitudinally and vibrating it laterally, said means comprising a crank pin having an inclined

portion engaging the looper carrier and a substantially straight portion also engaging the looper carrier, and means for actuating the driving shaft, substantially as described. 13th. A sewing machine comprising a bed plate and a driving shaft, a looper carrier supporting a thread-carrying looper journalled in the forward end of the bed plate, means on the forward end of the driving shaft for oscillating the looper longitudinally and vibrating it laterally, said means consisting of a crank pin eccentrically connected with the driving shaft and having an inclined portion engaging the looper carrier and a substantially straight portion also engaging the looper carrier, and means for actuating the driving shaft, substantially as described. 14th. A looper operating mechanism for sewing machines comprising a looper carrier, a shaft to which the looper carrier is attached having oppositely extending pivot points, and screws, one above and one below the central axis of the shaft, and means for supporting said screws adjacent the carrier to bear upon the same whereby it is adjusted, substantially as described.

No. 62,300. Glass Blowing Machine.
(*Machine à souffler le verre.*)

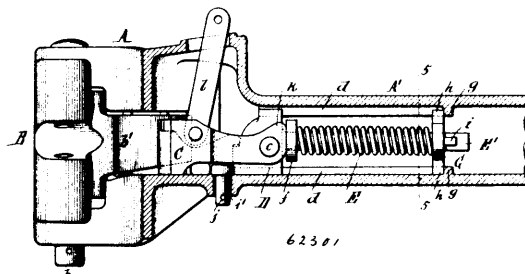


The Toledo Glass Company, assignee of Henry Joseph Colburn, and Michael Joseph Owens, all of Toledo, Ohio, U.S.A., 12th January, 1899; 6 years. (Filed 17th November, 1898.)

Claim.—1st. In a glass blowing machine of the class described, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould, and separately organized mechanisms, each subject to the manipulation of the operator of the machine, for independent temporary action for admitting air under pressure to said blow iron, for rotating the blow iron, and for wetting the mould, substantially as set forth. 2nd. In a glass blowing machine of the class described, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould, separately organized mechanisms, each subject to the manipulation of the operator of the machine for independent, temporary action for admitting air under pressure to said blow iron, for rotating the blow iron, for wetting the mould, and mechanism co-operating with that which admits said air to the blow iron whereby the volume of air so admitted is gradually increased during the formation of an article in the mould, substantially as set forth. 3rd. In a glass blowing machine of the class described, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould, separately organized mechanisms each subject to the manipulation of the operator of the machine for independent, temporary action for admitting air under pressure to said blow iron, for rotating the blow iron, for wetting the mould, and mechanism whereby the duration of the air flow through the blow iron is increased or diminished, as required by the quantity of glass in the article being operated upon, substantially as set forth. 4th. In a glass blowing machine, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould, for admitting and controlling the flow of air to, and through the blow iron to the mould, and for increasing and diminishing the duration of said air flow, substantially as set forth. 5th. In a glass blowing machine of the class described, mean co-operating with the glass blowing air supply of the machine, whereby the duration of said air supply for action upon an article being blown is made variable, substantially as described. 6th. In a glass blowing machine of the class described, a sectional mould, a mould table on which the mould sections are supported for movements in a right line from and toward each other, a blow iron, means for supporting the blow iron in operative relation to the mould, means for moving said mould

sections to open and close the mould, separately organized mechanisms, each subject to the manipulation of the operator of the machine for independent temporary action for admitting air under pressure to said blow iron and mould, for rotating the blow iron, and for wetting the mould, substantially as set forth. 7th. In a glass blowing machine of the class described, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould and gravity actuated mechanism for admitting air under pressure to said blow iron, substantially as set forth. 8th. In a glass blowing machine of the class described, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould, and manually operated mechanism for rotating said blow iron, substantially as set forth. 9th. In a glass blowing machine of the class described, a mould, consisting of two disconnected sections, a table on which said mould sections are supported for movements in a right line from and toward each other, means for manually sliding said sections to open and close the mould, conducting pipes conveying and applying water to said mould sections, a valve in said pipes, and a foot lever connected with said valve for operating the same, whereby the flow of water through said pipes to the mould sections is controlled, substantially as set forth. 10th. In a glass blowing machine of the class described, a mould, a blow iron, means for supporting the blow iron in operative relation to the mould, and gravity actuated mechanism for admitting air under pressure to said blow iron, and for varying the volume of air admitted, whereby said volume is increased or diminished during the blowing of an article in the mould, substantially as set forth.

No. 62,301. Car Coupler. (*Attelage de chars.*)



The Gould Coupler Company, New York City, New York, assignee of Willard Fillmore Richards, Buffalo, New York, U.S.A., 12th January, 1899; 6 years. (Filed 20 December, 1898.)

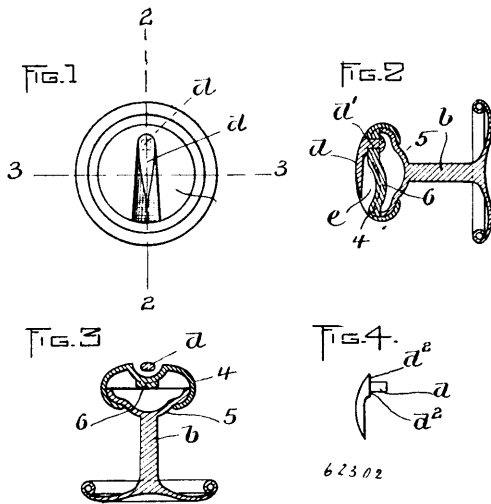
Claim.—1st. The combination with the drawhead, the drawbar and the knuckle, of a block or support capable of moving lengthwise in the drawbar, a vertically swinging lock pivoted to said block and a spring operating to force said block and the lock forwardly for holding the lock in engagement with the knuckle, substantially as set forth. 2nd. The combination with the drawhead, the drawbar and the knuckle of a block or support arranged to move lengthwise in the drawbar, a vertically swinging lock pivoted to said block and provided above the plane of its pivot and adjacent thereto with a lug or nose, and a spring, operating against said lug or nose, whereby the spring tends to move the lock and its supporting block forwardly at the same time resists the upward swing of the lock, substantially as set forth. 3rd. The combination with the drawhead, the drawbar and the knuckle, of a block or support arranged to slide lengthwise in the drawbar and provided with a rearwardly extending stem, an abutment arranged in the drawbar in rear of said block, a vertically swinging lock pivoted to said block and provided at its rear end, above the plane of its pivot, with a lug or nose, and a spring applied to said stem between said lug or nose and said abutment, substantially as set forth. 4th. The combination with the drawhead, the drawbar and the knuckle of a removable abutment arranged in the drawbar, a sliding block or support arranged removably in the drawbar in front of said abutment and provided with a rearwardly extending stem, which is guided in said abutment, a vertically swinging lock pivoted at its rear end to said block, and a spring surrounding said stem between said abutment and the rear end of the lock, substantially as set forth.

No. 62,302. Collar Button. (*Bouton de col.*)

Herbert Eugene Loveland, assignee of Frank Atwell Loveland, both of Boston, Massachusetts, U.S.A., 12th January, 1899; 6 years. (Filed 19th December, 1898.)

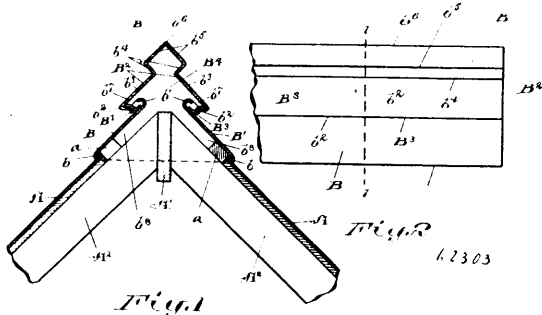
Claim.—1st. A collar-button having a groove or recess in its head, and a hook or pin secured to the head at one end of the groove and extending lengthwise thereof, the groove being wider than the diameter of the pin, and the pin having a pointed end separated from the bottom and sides of the groove by a space adapted to receive a part of a neck-tie, said pointed end being guarded by the sides of the groove. 2nd. A collar-button comprising a head having a groove or recess in and extending across its outer face, and a hook or pin having a shank inserted in an orifice in the bottom of the groove near one end thereof, and a pointed end projecting from said shank and separated from the bottom and sides of the groove by a space adapted to receive a part of the neck-tie. 3rd. A collar-

button comprising a head having a groove or recess in and extending across its outer face, a hook or pin having a shank inserted in an



orifice in the bottom of the groove near one end thereof, shoulders at opposite sides of the shank, bearing on the bottom of the groove, and a pointed end projecting from said shank and separated from the bottom and sides of the groove by a space adapted to receive a part of the neck-tie. 4th. A collar-button having a groove or recess in its head, and a hook or pin secured to the head at one end of the groove and extending lengthwise thereof, the groove having a seat near one end supporting the base of the pin, and a deeper and wider portion below said seat, and the pin having a pointed end projecting over the deeper and wider portion of the groove and separated from the bottom and sides of said portion by a space adapted to receive a part of the neck-tie, said pointed end being guarded by the sides of the groove.

No. 62,303. Ventilator. (Ventilateur.)

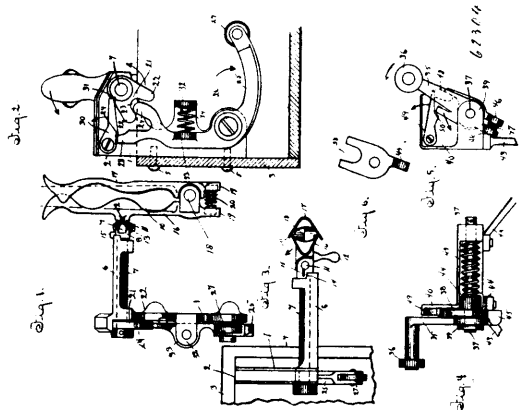


John H. Reynolds and Stephen J. Brown, both of Troy, New York, assignees of Edwin A. May, Chicago, Illinois, all in the U.S.A., 12th January, 1899; 6 years. (Filed 19th December, 1898.)

Claim.—1st. In a ventilating-ridging, the combination with the side base-plates B^1 , B^1 , having inwardly-curved lower edges b , b , and outwardly-curved flanges b^1 , b^1 at their upper edges and open between said flanges, of an upper member or cover having sloping sides B^{11} , B^{11} , provided with inwardly and downwardly curved lower edges b^{11} , b^{11} , extending over said flanges b^1 , b^1 , on the said plates B^1 , B^1 , and end plates B^2 , B^2 , secured upon the ends of said ridging, and closing said ends, substantially as described. 2nd. In a ventilating-ridging, the combination with the side base-plates B^1 , B^1 , having inwardly-curved lower edges b , b , and outwardly-curved flanges b^1 , b^1 , at their upper edges, with openings between said flanges, guides mounted upon the underside of said base-plates, an inverted V-shaped slide mounted in said guides and adapted to open or close said openings, and means for operating said slide, of an upper member or cover having sloping sides B^{11} , B^{11} , provided with inwardly and downwardly curved lower edges b^{11} , b^{11} , extending over said flanges b^1 , b^1 , on the said plates B^1 , B^1 , and mounted upon struts B^3 , said struts being mounted upon said plates B^1 , B^1 , and end plates B^2 , B^2 , secured upon the ends of said ridging, and closing said ends, substantially as described. 3rd. In a ventilating-ridging, the combination of the stringers a projecting

above the plane of the roof, the side base-plates B^1 , B^1 , having inwardly-curved lower edges b , b , and outwardly curved flanges b^1 , b^1 , at their upper edges, and open between said flanges, of an upper member or cover having sloping sides B^{11} , B^{11} , provided with inwardly and downwardly curved edges b^{11} , b^{11} , extending over said flanges b^1 , b^1 , on the said plates B^1 , B^1 , and mounted on struts B^3 , said struts being mounted upon said plates B^1 , B^1 , and end plates B^2 , B^2 , secured upon the ends of said ridging, and closing said ends, substantially as described. 4th. In a ventilating-ridging, the combination of the stringers a projecting above the plane of the roof, the side base-plates B^1 , B^1 , having inwardly-curved lower edges b , b , and outwardly curved flanges b^1 , b^1 , at their upper edges, with openings between said flanges, guides mounted upon the underside of said base-plates, an inverted V-shaped slide mounted in said guides and adapted to open or close said openings, and means for operating said slide, of an upper member or cover having sloping sides B^{11} , B^{11} , provided with inwardly and downwardly curved lower edges b^{11} , b^{11} , extending over said flanges b^1 , b^1 , on the said plates B^1 , B^1 , and mounted upon struts B^3 , said struts being mounted upon said plates B^1 , B^1 , and end plates B^2 , B^2 , secured upon the ends of said ridging, and closing said ends, substantially as described.

No. 62,304. Whip Socket. (Porte-fourc.)



Oliver E. Seymour and James H. Shepard, Dallas, Texas, both in the U.S.A., 12th January, 1899; 6 years. (Filed 17th December, 1898.)

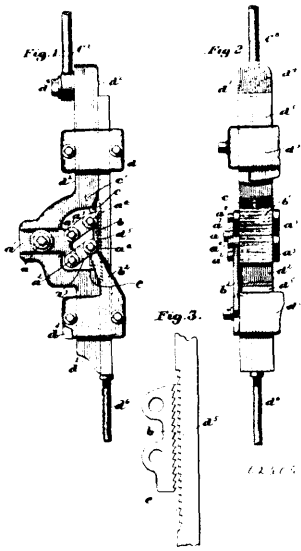
Claim. 1st. A whip-socket, comprising a suitable frame, a socket movably carried by the same, means for oscillating the said socket, and a lock for locking the socket in its normal or vertical position, substantially as described. 2nd. A whip-socket, comprising a suitable frame adapted to be secured to a vehicle-body, an oscillating shaft loosely mounted in the same, a socket fixed to said shaft and oscillated thereby, a spring for operating the shaft in one direction, intermediate mechanism between said lever and shaft, and an automatic lock for holding the socket in a vertical position, substantially as described. 3rd. A whip-socket, comprising a suitable frame, an oscillating shaft mounted in the same, a whip-socket hinged to one end of the shaft and capable of adjustment, and means for oscillating said shaft, substantially as described. 4th. A whip-socket, comprising a suitable frame, an oscillating shaft mounted in the same, a socket fixed to one end of the shaft, a fork fixed to the opposite end of the shaft, a lever pivoted to the frame and adapted to be depressed by the foot, an arm forming a part of the lever and co-operating with said fork, a lock hinged to the frame and provided with a shoulder, an extension also forming a part of the lever and co-operating with said shoulder for elevating the lock, a shoulder formed on the fork against which the free end of the lock comes in contact, and a spring interposed between the frame and the lever for operating the latter in one direction, substantially as described. 5th. A whip-socket, comprising a suitable frame, a socket movably carried by the same, means for oscillating said socket, and an automatic gravity-lock for locking the socket against movement when in its normal position, substantially as described.

No. 62,305. Machine for Inserting Metallic Fastenings. (Machine à insérer des pointes métalliques.)

The McRay Shoe Machinery Company, Portland, Maine, assignee of Louis Amedée Casgrain, Winchester, Massachusetts, both in U.S.A., 12th January, 1899; 6 years. (Filed 17th December, 1898.)

Claim. 1st. In a machine for inserting fastenings, a ratchet toothed bar adapted to be connected with a horn to lower the same, a vertically reciprocating carrier, a plate having a plurality of teeth opposed to the teeth of said bar, a plurality of links to connect said toothed plate and carrier, and means to cause said toothed plate as said carrier is raised to engage the teeth of said toothed bar to thereby raise it and lower the horn, substantially as described. 2nd. In a machine for inserting fastenings, a toothed bar adapted to be con-

nected with a horn to automatically and positively lower the same, a carrier, a plate having a plurality of teeth, a plurality of links to



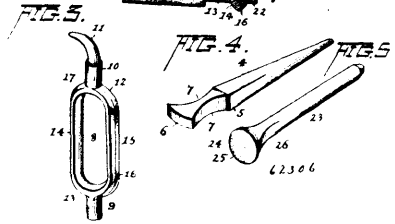
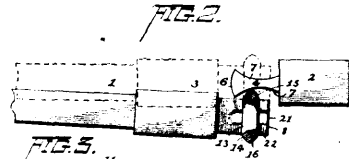
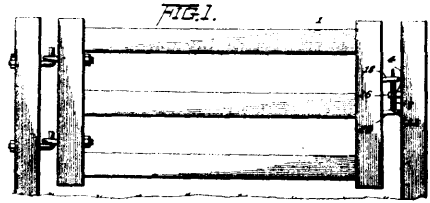
connect said plate with said carrier, guides in which said carrier is adapted to be moved vertically, a stop secured to one of said guides to effect the disengagement of the teeth of said plate from the teeth of said bar when said carrier occupies its lowest position, combined with means to move said toothed plate towards said toothed bar, in order that its teeth may engage the teeth of said bar and lift the same as the said carrier is started in its upward movement, substantially as described. 3rd. In a machine for inserting fastenings, a bar adapted to be connected with a horn to lower the same, said bar having a series of teeth, the points of which are located below the surface of said bar, a vertically reciprocating carrier, a plate having a plurality of teeth opposed to the teeth of said bar, the lower end of said toothed plate engaging the smooth surface of said bar when the horn is put into its lowest position by the thickest stock to be used, the said smooth surface controlling the position of the said plate and preventing the engagement of the teeth of said plate with the teeth of said bar until the lowermost tooth of said plate has come opposite a space in the said bar, substantially as described. 4th. In a machine for inserting fastenings, a ratchet toothed bar adapted to be connected with a horn to lower the same, a reciprocating carrier having a shoulder *c*, a toothed plate having a plurality of teeth opposed to the teeth of said bar, the lowermost tooth of the toothed plate being shorter than the teeth of the said plate above it, links mounted on said carrier and supporting said plate, a stop to arrest the movements of said plate as the carrier descends to effect the disengagement of the teeth of the plate from the teeth of the bar, and means as the carrier is raised, to act upon said plate and put its lower end in contact with the said shoulder, at which time the full and equal engagement of all the teeth of the plate with the teeth of the bar may be effected, substantially as described. 5th. The carrier, its attached adjustable block *a*¹, on which are mounted the links, a toothed plate pivoted on said links, a toothed bar *d*⁵, and a spring pressed pin and a stop finger co-operating with said links, to effect the engagement of the teeth of the plate with the toothed bar, and the disengagement of said plate from said toothed bar, combined with guides in which said carrier and said toothed bar are free to slide, substantially as described. 6th. In a machine for inserting fastenings, a toothed bar adapted to be connected with a horn to automatically and positively lower the same, a plate having a plurality of teeth and jointed to said carrier by a plurality of links, guides to receive both the said bar and said carrier, means to cause the toothed plate to engage the teeth of the bar when the carrier is moved in opposition to the slant of the teeth of the bar to thereby cause the teeth of the toothed plate to engage the teeth of the bar and lift said bar in unison with said carrier, and means to disengage the toothed plate from the teeth of the bar when the carrier reaches substantially its downward position in the said guides, substantially as described.

No. 62,306. Gate Latch. (*Loquet de barrière.*)

Solon Owen Campbell, East Peru, Iowa, and John Hugh Morrison, Savannah, Missouri, U.S.A., 12th January, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—1st. The combination with a free gate end, of upper and lower brackets thereon, a latch-link vertically and pivotally disposed between said brackets, the lower bracket having intersecting grooves in the upper surface thereof and the link formed with upper and lower rounded ends and opposite centrally located exteriorly pro-

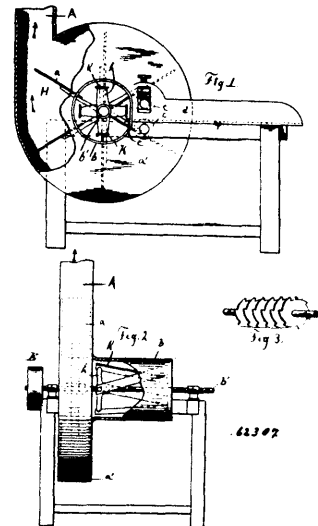
jecting edges, and a fixed post having a striker thereon. 2nd. The combination with a free gate end, of a vertically disposed pivotally



mounted latch-link on the free end thereof, and a fixed post having a stationary striker for said link, said striker being flattened and having a gradually diverging shank with opposite concave edge and an outer convex edge. 3rd. A gate-latch comprising a vertically disposed freely movable link latch having the opposite sides formed with double bevels terminating at central projecting edges, means for supporting said link, and a striker having a flattened diverging shank with opposite concave edges and an outer convex end. 4th. A gate-latch comprising upper and lower horizontally disposed brackets, the upper surface of the lower bracket having intersecting grooves therein, a vertically disposed latch link pivotally confined between said brackets and having upper and lower rounded ends and opposite side bars provided with exterior double bevels terminating in central projecting edges, and a striker having a flattened shank diverging to an outer convex end and provided with opposite concave edges.

No. 62,307. Feed Cutter and Shredder.

(*Coupe et hache-nourriture.*)



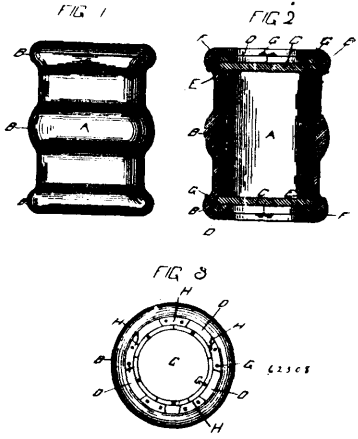
The Wilkinson Plough Company, Toronto, assignee of Oscar E. Bray, Toronto Junction, Ontario, Canada, 12th January, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—1st. In combination with a feed-cutter provided with revolving cutter-knives, a fan and fan-casing, the fan-blades being mounted on the same shaft with the cutter-knives, and the air inlet to the fan being arranged to lead into the eye thereof through a casing surrounding the cutter-knives, substantially as described. 2nd. The combination of a fan with its casing, revolving cutter-

knives on the same shaft, said fan having a central inlet opening in which the cutter-knives revolve, substantially as described. 3rd. The combination of cutting-knives mounted on a rotary-shaft and arranged with their cutting edges lengthwise the shaft, a fan, and a conveyer pipe, the fan being on the cutter-shaft and arranged to receive the cuttings at the eye of the fan to deliver them into the conveyer, substantially as described. 4th. The combination of a fan with its casing, a knife-casing leading into the eye of the fan and adapted to be used interchangeably with cutter-knives on shredding-knives, substantially as described.

lever to the crank and provided with a suitable eye at the crank end, and a rod connecting the end of the treadle foot lever to the

No. 62,308. Package for Holding Liquid.
(*Vaisseau pour liquides.*)

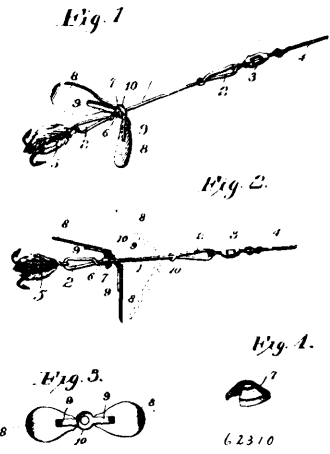
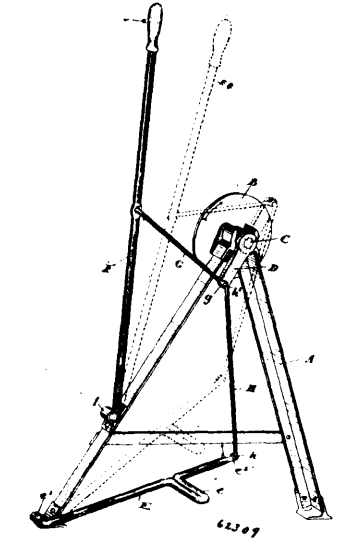


John H. Woodward, assignee of George Henry Ricke, both of Cincinnati, Ohio, U.S.A., 12th January, 1899; 6 years. (Filed 14th December, 1898.)

Claim.—1st. In a package for holding liquids, a cylinder compressed into shape having an annular off-set near the end on the inside on which the head rests, in combination with segmental pieces which enter a groove above said annular off-set and lie partly in said groove and partly on the head, said segmental pieces lying next to one another their ends meeting and when all in place forming a segmental ring and means for holding said pieces in place to form a tight joint, all combined as set forth. 2nd. In a package for holding liquids, a compressed cylinder, an off-set on the inside near the end on which the head rests, a head resting on the said off-set, in combination with segmental pieces which partly enter a groove above said off-set, said segmental pieces lying so that one will connect with the other to form a segmental ring and means for holding said segments in place, all combined as set forth. 3rd. In a package for holding liquids, a cylinder compressed into shape, having an off-set E at the end on which the head rests, head C in combination with segments D, said segments entering a groove above the head and partly resting in said groove and partly in the head, said segments being firmly held in place and holding said head C tightly on the off-set E to form a tight joint, as set forth. 4th. In a package for holding liquids, a cylinder compressed into shape, having an annular off-set on the inside thereof near the end, a head resting on said annular off-set, in combination with segmental pieces which enter a groove above said annular off-set, said segmental pieces lying partly in said groove and partly on the head, forming a segmental ring holding the head firmly down on the annular off-set, the ends of segmental pieces meeting and impinging against each other to form a tight joint, as set forth.

rod of the hand lever and to the crank through both of which such rod extends, as and for the purpose specified.

No. 62,310. Trolling-Spoon. (*Cuiller à trôler.*)



Paul Junod and George Austin, Celina, Ohio, and Edward Taylor, Logan Sport, Indiana, both in the U.S.A., 12th January, 1899; 6 years. (Filed 12th December, 1898.)

Claim.—1st. The combination of a rod, to the opposite ends of which the line and hooks are respectively connected, and a spinner loosely mounted on the rod and extending on both sides thereof and free to rock or tilt sidewise thereon to spin or rotate freely and to slide longitudinally thereof, substantially as described. 2nd. The combination of a rod, to the opposite ends of which the line and hooks are respectively connected, a collar near the lower end of the rod, a washer loosely mounted on the rod above the collar, and a spinner also loosely mounted on the rod above the washer, the said washer and spinner being respectively free to rock sidewise on the rod and also to move longitudinally thereof, substantially as described. 3rd. The combination of a rod, to the opposite ends of which the line and hooks are respectively connected, a collar near the lower end of the rod, a concavo-convex washer loosely mounted on the rod above the collar, and adapted to engage the latter, a spinner also loosely mounted on the rod above the washer, and having a concave face to fit over the convex face of the washer, the said washer and spinner being respectively free to rock sidewise on the rod and also to move longitudinally thereof, substantially as described.

No. 62,311. Corset. (*Corset.*)

George Elie Amyot, Chemin Ste. Foye, Quebec, Canada, assignee of Thomas Smith Gilbert, New Haven, Connecticut, U.S.A., 12th January, 1899; 6 years. (Filed 9th December, 1898.)

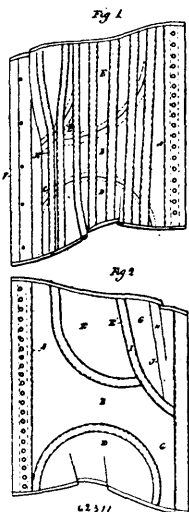
Claim.—In a corset, the combination with the main or body-portion comprising the back, the central and lower front section, of a

No. 62,309. Churn Driver. (*Mécanisme de baratte.*)

David Maxwell & Sons, assignees of David Maxwell, all of St. Mary's, Ontario, Canada, 12th January, 1899; 6 years (Filed 14th December, 1898.)

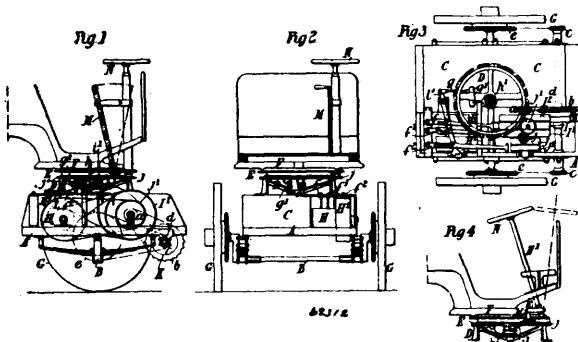
Claim.—1st. The combination with the rotatable part, axle and suitable support for the axle and crank secured on the end of the axle, of the hand lever and treadle foot lever suitably connected and pivoted and a rod or rods connecting them to the crank, as and for the purpose specified. 2nd. The combination with the rotatable part, axle and suitable support for the axle and crank secured on the end of the axle, of the hand lever and treadle foot lever suitably pivoted and rods connecting them to each other and to the crank, as and for the purpose specified. 3rd. The combination with the rotatable part, axle and suitable support for the axle and crank secured on the end of the axle, of the hand lever journaled in a suitable bracket on the frame, a treadle foot lever also journaled in a suitable bracket below the hand lever, the rod connecting the hand

hip section, an upper side section, and a bust-gore secured to the forward edge of the upper side section and extending downward



below the upper edge of the central or body-portion, substantially as described.

No. 62,312. Motor Vehicle. (Vehicule moteur.)



The Prétot Motor Syndicate, Botolph House, Eastcheap, London, assignee of Victor Etienne Prétot, Paris, France, 12th January, 1899; 6 years. (Filed 15th September, 1898.)

Claim.—1st. In a motor carriage or vehicle, a fore-carriage or bogey capable of ready attachment to the vehicle forming the steering portion thereof and carrying the motor driving the wheels thereof, in combination with suitable belt-shifting mechanism arranged as shown and for the purpose specified. 2nd. In a motor carriage or vehicle, a fore-carriage or bogey capable of ready attachment to the vehicle forming the steering portion thereof and carrying the motor driving the wheels thereof, in combination with the steering-shaft-swivel jointed to the body of the vehicle and operatively connected to the speed-varying device and also to the steering mechanism, so that by angular movement of the posts the speed-varying devices are operated, and by rotation of the shaft the steering is effected in all relative positions of the bogey and vehicle, as and for the purposes specified. 3rd. In a motor carriage or vehicle, belt-shifting mechanism comprising belt-guides or levers formed with cam-like slots, a system of fast and loose pulleys, and a transverse lever having pins that work in the said slots so that by one motion of the said transverse lever the belts are shifted successively and independently, substantially as described.

No. 62,313. Branding Composition.

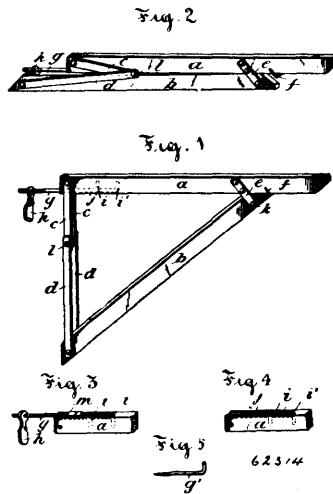
(Composition pour marquer à chaud.)

Harrison Gibson, Nagare, New Zealand, 13th January, 1899; 6 years. (Filed 9th June, 1898.)

Claim.—1st. The improved branding composition, consisting of sulphide of barium, coal-gas tar, American potash, water and spirits of turpentine, mixed together, substantially as and for the purposes set forth herein. 2nd. The improved branding composition, consisting of sulphide of barium and coal-gas tar mixed together in equal quantities by weight, and thinned to the con-

sistency of ordinary coal-gas tar by a mixture of American potash and water in equal quantities by measure, added to spirits of turpentine equal in quantity by measure to the mixture of American potash and water, substantially as and for the purpose set forth herein.

No. 62,314. Staging Bracket. (Console d'échafaudage.)



Albert Harrison Danforth, Manson, Massachusetts, U.S.A., 13th January, 1899; 6 years. (Filed 22nd June, 1898.)

Claim.—1st. The combination in a folding bracket of a top bar a, lower brace b, pivotally secured thereto and vertical connecting-pieces c and d, pivotally united and pivotally mounted on the bar a, and brace b, adjacent to their rear ends and means to secure the bracket to a building, substantially as shown. 2nd. The combination of a horizontally-arranged bar a, a brace b, arranged at an angle pitching downwardly toward the building and pivotally secured to the bar a, connecting-pieces c, pivotally secured to the bar a, at its sides connecting pieces d, pivotally secured to the brace b, at its sides, the connecting-pieces c and d, being pivotally united with each other, substantially as shown. 3rd. The combination of a horizontal bar a, plates e, secured thereto, a stop f, secured to the bar a, brace b, pivotally united to the plates e, and connecting-rods c and d, pivotally united to the bar a, and brace b, pivotally united to each other and means to secure the bracket to the building, substantially as shown. 4th. The combination of a bracket the upper bar a, of which is provided with a groove and one or more openings i, in its lower face and a supporting-rod having an upturned part to enter the openings i, and having its opposite end adapted to engage the wall of a building, substantially as shown. 5th. The combination of a folding bracket of a horizontal bar a, plates e, secured to the sides thereof, and projecting below the lower face, connecting-pieces c, pivotally connected with the bar a, near its rear end, stop f, mounted in the bar a, a brace b, pivotally connected with the plates e, and bearing against the bar a, and brace or stop f, connecting-pieces d, pivotally mounted at the opposite end of the brace b, and pieces c and d, being pivotally connected with each other, a bar a, being provided with a longitudinal groove and one or more recesses i, and a supporting-rod having an upturned end to enter the recesses i, and having its opposite end arranged to engage the building, substantially as shown.

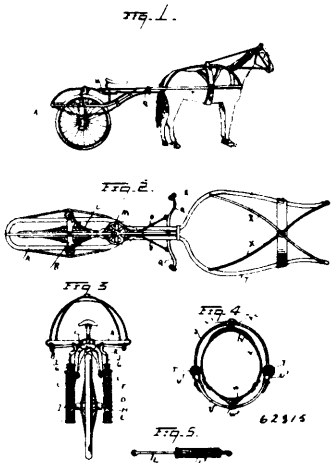
No. 62,315. Single Wheel Sulky.

(Désobligeante à une roue.)

Thomas S. Heath, Cross Timbers, Missouri, U.S.A., 13th January, 1899; 6 years. (Filed 13th September, 1898.)

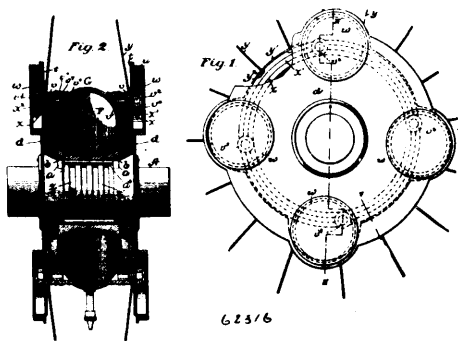
Claim.—1st. The herein described combination of a vehicle frame, a single wheel upon which said frame is mounted, means for varying the relative position of said wheel to the frame, two arches attached to the thills, a girth secured upon the horse, and ball bearings connecting said girth and arches, as specified. 2nd. In combination with a vehicle of the character described, an upwardly curved arch attached to the thills, a corresponding arch extending downward also attached to the thills, a girth adapted to be secured around the body of the horse, a saddle carried by said girth, balls also carried by the girth and fitted to the arches so as to form swiveled points, and means for staying the upper arch, as specified. 3rd. In combination, a vehicle frame, housings projecting downward therefrom, boxes fitted to slide within said housings, springs arranged above and below the boxes, an axle adapted to revolve within the boxes, a single wheel secured to the axle, rods connected to the boxes, bell crank levers to which said rods are attached, a turn disc pivoted to the frame of the vehicle, rods for connecting said turn disc with the bell crank levers, and a foot levers connected by rods to the turn disc, whereby the position of the axle relative

to the vehicle frame may be varied, as specified. 4th. In combination with a vehicle of the character described, a turn disc or lever,



a bell crank lever, rods for connecting the first-named member to said bell crank lever, each of said rods being made in two sections having a spring interposed therebetween, substantially as and for the purpose set forth.

No. 62,316. Vehicle Wheel. (Roue de vehiclé.)

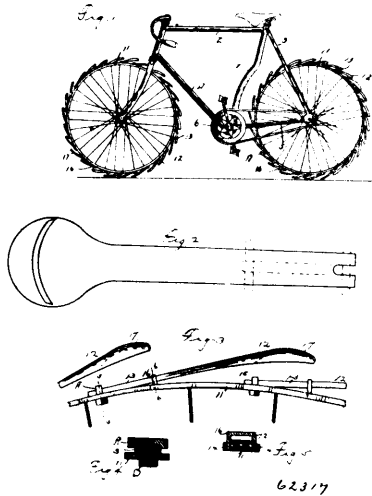


Harry Raymond Collins, Sayre, Pennsylvania, U.S.A., 13th January, 1899; 6 years. (Filed 25th October, 1898.)

Claim.—1st. In a vehicle wheel, the combination of a hub or sleeve with encircling channels or grooves in its central portion and intervening bearing surfaces, an annular series of anti friction rollers on said bearing surfaces, a cushion surrounding said series of rollers, and a spoke ring embracing the cushion. 2nd. In a vehicle wheel the combination of a hub having side flanges, a spoke ring between the same, ring washers between said spoke ring and side flanges and grooved to contain lubricating material, and a cushion interposed between the spoke ring and the hub. 3rd. In a vehicle wheel, the combination of a hub having side flanges, ring washers bearing against the inner surfaces of the same, a cushion surrounding the hub, a spoke ring embracing said cushion and extending over the peripheries of the ring washers, and spokes entered through the portion of the spoke ring extending over the peripheries of the ring washers, substantially as and for the purpose described. 4th. In a vehicle wheel, the combination of a hub, sheet metal discs fastened to the same and pressed out at different points forming a corresponding series of circular recesses in each disc, a spoke ring between said flanges and having roller studs projecting from its sides and occupying said recesses, and a cushion interposed between the spoke ring and hub. 5th. In a vehicle wheel, the combination of a hub, sheet-metal discs fastened to the same and pressed out at different points forming a corresponding series of circular recesses in each disc, bushings in said recesses, a spoke-ring between said flanges and having roller equipped studs projecting from its sides and occupying said recesses, and a cushion interposed between the spoke-ring and the hub. 6th. In a vehicle wheel, the combination of a hub, sheet-metal discs fastened to the same and pressed out at different points forming a corresponding series of circular recesses in each disc, a spoke-ring between said flanges and having roller equipped studs projecting from its sides and occupying said recesses, and ears extending over and constituting covers for portions of the recesses, and a cushion interposed between the spoke-ring and the hub. 7th. In a vehicle wheel, the combination of a hub having recessed side flanges, a spoke-ring between said flanges and having roller equipped studs

projecting from its sides into the recesses of the latter, and having ears extending over portions of the recesses to constitute covers therefor, and a cushion interposed between the said spoke-ring and the hub. 8th. In a vehicle wheel, the combination of a hub having recessed side-flanges, a spoke-ring having roller equipped studs projecting from its sides and occupying said recesses, said spoke-ring and studs being provided with lubricating channels and a cushion interposed between the spoke-ring and the hub. 9th. In a vehicle wheel, the combination of a hub having recessed side-flanges, a spoke-ring between said flanges and having bosses with screw-threaded bores, hollow plugs engaging said bores, studs or screws engaging the plugs and centrally channelled and also formed with radial passages leading out of the channels, rollers on the studs, and a cushion interposed between the spoke-ring and hub.

No. 62,317. Bicycle. (Bicycle.)



John Brown, Providence, Rhode Island, U.S.A., 13th January, 1899; 6 years. (Filed 21st September, 1898.)

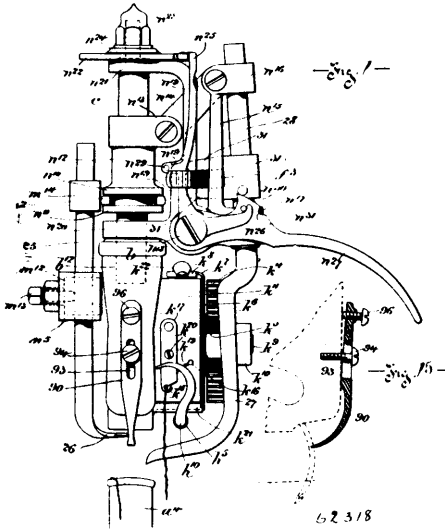
Claim.—1st. A wheel for cycles, having a single rim, a plurality of springs secured upon the outer surface thereof, the outer end of each being free and unconfined and overlapping adjacent springs, and rigid loops surrounding said springs near their fixed ends, substantially as set forth. 2nd. A wheel comprising a rim provided with a plurality of springs secured thereto at one end, loops secured to said rim and through which said springs pass, and enlarged end portions upon said springs overlapping the other ends of the adjacent springs. 3rd. A wheel comprising a rim provided with outwardly-extending lateral flanges, a plurality of springs, each of said springs having a shank fitting between said flanges and secured at its end to the rim by means of a bolt, a loop secured to the rim through which the shank passes, while the outer end of the spring is enlarged and curved on its outer face and overlaps the inner end of the adjacent spring.

No. 62,318. Sewing Machine. (Machine à coudre.)

Elould Duplessis, St. Hyacinthe, Quebec, Canada, 13th January, 1899; 6 years. (Filed 5th November, 1898.)

Claim.—1st. In a wax thread sewing machine, the combination with the frame, a standard thereon, an instrumentality such as a feed device or work guide adapted to act upon the work and carrier mechanism therefor comprising an extension or frame projecting laterally from said standard and a carrier frame pivotally connected with such laterally projecting frame, said instrumentality being located in said carrier frame, and means consisting of a cam lever, slide and link connection for imparting a rocking motion to such carrier frame and a reciprocating movement to the instrumentality therein, of a stationary horn, for the purpose set forth. 2nd. In a wax thread sewing machine, the combination with the frame, the driving shaft, the disc D⁵ having cam groove n and disc D² having cam-groove f, of an instrumentality such as a feed device or work guide adapted to act upon the work, a main lever and a secondary lever fulcrumed to the frame, the main lever having its inner end operatively connected with the cam groove f and its outer end engaging beneath the secondary lever, a yielding connection between the levers, and the secondary lever projecting forward to engage and impart a vertical reciprocating movement to the said instrumentality, a carrier mechanism for said instrumentality, a lever fulcrumed to the frame having its inner end operatively connected with the cam groove n and its outer end connected with said carrier mechanism to impart through said carrier mechanism a horizontal reciprocal movement to said instrumentality. 3rd. A wax thread sewing machine having an oscillating hooked needle, a non-rotatable thread case, an oscillating thread hook, and a threader, with their carrying and operating parts and an oscillating and reciprocating

thread-carrier comprising a carrying part extending at right angles to the plane of its oscillation, a curved part formed integral with



said carrying part and extending at right angles thereto and at right angles to the plane of oscillation of said needle, a lateral projection upon the side of the end of said curved part adjacent to said needle and means for oscillating said carrier and means for reciprocating said carrier in a line parallel to the plane of oscillation of said needle, for the purposes set forth. 4th. In a wax thread sewing machine, the combination with the frame, the driving shaft, the discs D1, having cam groove therein, of a thread carrier formed with a hooked end to temporarily hold the thread, a suitably guided horizontal rod, in the outer end of which such carrier is set and the inner end of which rod is operatively connected with the cam groove in disc D1, to receive a horizontal movement therefrom, a pinion rigidly mounted on said rod, and a lever fulcrumed to the web of the frame, having one end operatively connected with the cam groove in disc D1, and the other end carrying a rack with mesh with the pinion carried by such rod and so impart an oscillatory movement to said rod for the purposes set forth. 5th. In a wax thread sewing machine, the combination with the web or frame and the driving shaft, of a disc mounted on such shaft and having a cam groove in its face, a lever fulcrumed to the web or frame, the inner end of such lever having a working connection with said groove and the outer end thereof being provided with a toothed rack, a supporting ledge formed on the web or frame, a thread case resting on such ledge, said thread cases having one side thereof open and the other side closed and flat and provided with a rise centrally thereof, a bracket arm projecting from said web in front of the thread case and an oscillating hook for carrying the needle thread around said case, said hook being supported by said bracket arm and having a pinion connected therewith and adapted to intermesh with said rack. 6th. In a wax thread sewing machine, the combination with the web or frame, and the driving shaft, of a disc mounted on such shaft and having a cam groove in its face, a lever fulcrumed to the web or frame, the inner end of such lever having a working connection with said groove and the outer end thereof being provided with a toothed rack, a supporting ledge formed on the web or frame, a thread case resting on such ledge, a bracket arm projecting from said web in front of the thread case and an oscillating hook for carrying the needle thread around said case, said hook being supported by said bracket arm and having a pinion connected therewith and adapted to intermesh with said rack. 7th. In a wax thread sewing machine, the combination with the web or frame, and the driving shaft, of a disc mounted on such shaft and having a cam groove in its face, a lever, the inner end of which has a working connection with said groove and the other end of which is provided with a toothed rack, a bracket arm projecting from said web, an oscillating thread carrying hook rotatably mounted on said bracket arm and having a pinion connected therewith to intermesh with said rack. 8th. In a wax thread sewing machine, the combination with the web or frame and the driving shaft, of a supporting ledge formed on same, a thread case resting on such ledge, a bracket arm projecting from said web in front of the thread case, a movable thread carrying hook supported by said bracket arm, a disc mounted on such shaft and having a cam groove in its face, a lever, the inner end of which has a working connection with said cam groove and the outer end of which is provided with a toothed rack, a pinion connected with said thread carrying hook and intermeshing with said rack, and a retaining device in the form of a bell crank lever pivoted to said lever and the other arm thereof partially encircling the thread case, for the purpose set forth. 9th. A needle threader formed to present two thread carrying parts spread apart to receive the needle between them and adjustable to accommodate various

sizes of needles, with means for operating such threader. 10th. A needle threader formed of a pair of yieldingly adjustable thread carrying fingers spread apart to receive the needle between them. 11th. A needle threader formed of a pair of fingers, immovable during the operation relatively to each other, one of which has an eye through which the thread is passed and in which it is permanently retained and the other a hook in which the thread is temporarily retained, for the purpose set forth. 12th. In a wax thread sewing machine, the combination with the frame, the driving shaft, the disc having a cam groove therein and the horn or work support, of the threader located in the nose of said horn, a vertical reciprocating rod operatively connected with said cam groove and suitably guided, a lever pivoted in said horn, with one arm of which said rod is connected, and a single reciprocating bar or section supported in the horn, one end of which bar is connected with the other arm of said lever and the opposite end carrying the threader, as set forth. 13th. In a wax thread sewing machine, the combination with the frame, the driving shaft, the disc having a cam groove therein and the horn or work support, of the threader located in the nose of said horn, a vertical reciprocating rod operatively connected with said cam groove and suitably guided, a lever pivoted in said horn, with one arm of which said rod is adjustably connected, and a single reciprocating bar or section supported in the horn, one end of which bar is connected with the other arm of said lever and the opposite end carrying the threader, as set forth. 14th. In a wax thread sewing machine, the combination with the frame, the driving shaft, the disc having a cam groove therein and the horn or work support, of a vertically reciprocating rod having its upper end directly connected with said cam groove and suitably guided, a single bell-crank lever pivoted in the pedestal of the frame and having one arm slotted and carrying a laterally projecting pin adjustable along such slot, such rod having a perforation at its free end to receive such pin and the other arm carrying a thread sheave, for the purpose set forth. 15th. In a wax thread sewing machine, the combination with the frame, the driving shaft, the disc having a cam groove therein and the horn or work support, of a vertically reciprocating rod having its upper end directly connected with said cam groove and suitably guided, a single bell-crank lever pivoted in the pedestal of the frame and having one arm slotted and carrying a laterally projecting pin adjustable along such slot, such rod having a perforation at its free end to receive such pin, and the other arm being curved to enter and work in such horn and carrying a thread sheave, for the purpose set forth. 16th. In a wax thread sewing machine, the combination with the stitch forming instrumentalities, consisting of a curved needle, a threader, a thread carrier, a thread case and a thread carrying hook, a tension and a take-up and means for operating such instrumentalities, of a clamping device, consisting of a lever having one end fulcrumed in the horn of the machine and the other end yieldingly connected in the pedestal of the machine, such lever having a rise or projection adapted to be acted upon and operated by the take-up mechanism, for the purpose set forth. 17th. In a wax thread sewing machine, the combination with the stitch forming instrumentalities, consisting of a curved needle, a threader, a thread carrier, a thread case and a thread carrying hook, a tension and a take-up, and means for operating such instrumentalities, of a clamping device, consisting of a lever having one end fulcrumed in the horn of the machine and the other end yieldingly connected in the pedestal of the machine, such lever having a rise or projection capable of adjustment along such lever adapted to be acted upon and operated by the take-up mechanism, for the purpose set forth. 18th. In a wax thread sewing machine, the combination with the single integral take-up lever, its actuating mechanism and the thread sheave, of a tension device, of a clamping lever fulcrumed adjacent to such sheave having an adjustable block thereon and exerting a yielding pressure upon said sheave, and a rod or finger carried by and projecting from said take-up lever to act upon said adjustable block and disengage said clamping lever from the thread sheave, and means for causing such clamping lever to exert such yielding pressure, for the purpose set forth. 19th. A wax thread sewing machine, having stitch forming instrumentalities, a work support and a pressure foot, in the form of a bar with lower off-set flattened bearing and horizontally and semi-circularly curved to form an extensive bearing surface extending from a point adjacent to the rear of the needle circularly, rearwardly and laterally, such pressure foot being capable of vertical adjustment and lateral adjustment out of a vertical line with relation to the work. 20th. In combination with the web or the machine head, the main and secondary levers for operating the presser foot, an adjustable yielding support for the inner end of said secondary lever carried by said web and operative connection between said levers, with means for actuating the latter, for the purpose set forth. 21st. In combination with the web or the machine head, the main and secondary levers for operating the presser foot and yielding support for the inner end of said secondary lever, an adjustable screw carried by the web and connected to one end of said flexible support, and an operative connection between said levers with means for actuating the latter for the purpose set forth. 22nd. In combination with the web or frame of the machine head, the driving shaft and disc with cam groove therein, of a main lever having one end operatively connected with said cam groove and its opposite end fulcrumed to the frame, a secondary lever also fulcrumed to the frame, a yielding support for the inner end of the secondary lever carried by said web, an operative connection

between said levers, and the presser foot carried by the outer end of said secondary lever. 23d. In combination with the frame and the lever carrying the presser foot, a swivelling block mounted in the outer carrying end of such lever and perforated to receive the presser foot, a set screw passing through such block to secure the presser foot in place, and means for retaining the parts in position. 24th. In combination with the frame and the lever carrying the presser foot, a swivelling block mounted in the outer carrying end of such lever and perforated to receive the presser foot, a set screw passing through such block to secure the presser foot in place, and an adjustable guide for retaining the parts in position. 25th. In a wax thread sewing machine, the combination with the frame and the standard *c*, thereon, of a feed device, carrier mechanism therefor comprising a horizontally swinging frame pivotally connected with said standard, a carrier frame pivotally connected with such swinging frame and means for setting said swinging frame in a fixed position and freeing it therefrom, the feed device being located in said carrier frame, and means consisting of a sleeve n^{12} , movable upon said standard, a link connection between said sleeve and the carrier frame, a cam operated lever for actuating said sleeve and a cam operated lever with a connection between it and said feed device for respectively imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 26th. In a wax thread sewing machine, the combination with the frame, a standard thereon, feed device, carrier mechanism therefor comprising a horizontally swinging frame pivotally connected with said standards, a carrier frame pivotally connected with such swinging frame and means for setting said swinging frame in a fixed position and freeing it therefrom, the feed device being located in said carrier frame, and means for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, of a stationary horn carrying operating parts, for the purpose set forth. 27th. A wax thread sewing machine, the combination with the frame, a standard thereon, feed device, carrier mechanism therefor comprising a horizontally swinging frame pivotally connected with said standard, a carrier frame pivotally connected with such swinging frame and a notched plate and spring operated latch with operating handle for setting said swinging frame in a fixed position and freeing it therefrom, the feed device being located in said carrier frame, and means for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, of a stationary horn carrying operating parts, for the purpose set forth. 28th. In a wax thread sewing machine, the combination with the frame, a standard thereon, feed device carrier, mechanism therefor comprising a horizontally swinging frame pivotally connected with the said standard, a carrier frame pivotally connected with such swinging frame, and means for setting said swinging frame in a fixed position and freeing it therefrom, the feed device being located in said carrier frame, and means for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, of a stationary horn carrying operating parts, for the purpose set forth. 29th. In a wax thread sewing machine, the combination with the frame, the standard *c* thereon, feed device carrier mechanism therefor comprising a horizontally swinging frame pivotally connected with said standard, a carrier frame pivotally connected with such swinging frame and a notched plate and spring operated latch with operating handle for setting said swinging frame in a fixed position and freeing it therefrom, the feed device being located in said carrier frame, and means for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, of a stationary horn carrying operating parts, for the purpose set forth. 30th. In a wax thread sewing machine, the combination with the frame of the head and the driving shaft, of a presser foot consisting of a shank body portion and an off-set foot portion formed integral with such shank or body portion, the lower edge of such foot portion being diminished in thickness and toothed or serrated and the shank portion being carried by a lever operatively connected with a cam disc mounted on such shaft and means for adjusting such shank or body portion to, and setting same at various angles relatively to the work. 31st. In a wax thread sewing machine, the combination with the frame of the head and the driving shaft, of a presser foot consisting of a shank or body portion and an off-set portion formed integral with such shank or body portion, the lower edge of such foot portion being diminished in thickness and toothed or serrated and the shank portion being carried about midway of its length in the end of a lever operatively connected with a cam disc mounted on such shaft, the upper end of such shank being located in an adjustable sleeve carried by the machine head frame and means for setting such sleeve in any position to which it may be adjusted, for the purpose set forth. 32nd. In a wax thread sewing machine, the combination with the frame, a standard thereon, a rod and carrier mechanism therefor comprising an extension or frame projecting laterally from said standard and a carrier frame pivotally connected with such laterally projecting frame, the rod being located in said carrier frame, of an awl carrier having an awl carrying segment, an awl carried by such awl carrying segment, such awl carrier being operatively connected to such rod and suitably mounted with means for imparting an oscillatory movement to such awl carrier and a rocking movement to such pivoted carrier frame, for the purpose set forth. 33rd. In a wax thread sewing machine, the combination with the frame, a work support, a standard on such frame, a laterally

projecting frame carried by such standard, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said standard, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection to such rocking frame, of an oscillating awl carrier consisting of a sleeve having an awl carrying segment made in one therewith, an awl carried by such awl carrying segment, such sleeve being carried loosely upon a spindle of greater length than such sleeve and mounted in bearings carried by such work support, an operative connection between such awl carrier and such rocking frame, and means for imparting an oscillatory movement to such awl carrier, for the purpose set forth. 34th. In a wax thread sewing machine having needle threading mechanism, a removable stationary work table secured over such needle threading mechanism and having a rigid and immovable channel guide formed in one with the forward edge thereof and having its forward face convex and its rear face concave, and an oblong opening extending in length towards and in close proximity to such channel guide, substantially as and for the purpose set forth. 35th. In a wax thread sewing machine having needle threading mechanism, a stationary work table secured over such needle threading mechanism and having a rigid channel guide formed in one with the forward edge thereof, an oblong opening extending in length towards and in close proximity to such channel guide, a rearward extension and a rearward and lateral extension from the rear side of the table and two upwardly projecting bearings in line with each other and located one at the end of such rearward extension and the other at the end of such rearward and lateral extension, for the purpose set forth. 36th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection, to such rocking frame, of a work guide carried by such rocking frame and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 37th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 38th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection to such rocking frame, of a work guide carried by such rocking frame and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 39th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and carried by such rocking frame and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 40th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and carried by such rocking frame, and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 41st. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 42nd. In a wax thread sewing machine, the combination

with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and its lower end rounded, such work guide being carried by such rocking frame and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 43rd. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and its lower end rounded, such work guide being carried by such rocking frame and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 44th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide carried by such rocking frame and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 45th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and carried by such rocking frame, and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 46th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and carried by such rocking frame, and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 47th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle, on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and carried by such rocking frame, and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 48th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and carried by such rocking frame, and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 49th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and carried by such rocking frame, and a cam-operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 50th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a

work guide consisting of a shank or bar formed with its lower half flattened and off-set and its lower end rounded, such work guide being carried by such rocking frame, and means for imparting a vertical reciprocal movement to such work guide, for the purpose set forth. 51st. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a swinging frame pivotally connected to such guiding spindle, a rocking frame pivotally connected to such swinging frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, of a work guide consisting of a shank or bar formed with its lower half flattened and off-set and its lower end rounded, such work guide being carried by such rocking frame and a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, for the purpose set forth. 52nd. In a wax thread sewing machine, a vertically and horizontally reciprocating work guide consisting of a shank or bar having its lower half fastened and off-set and with its lower end rounded and means for carrying and operating same, for the purpose set forth. 53rd. In a wax thread sewing machine, a vertically and horizontally reciprocating work guide consisting of a shank or bar having its lower half flattened and off-set and having a strip secured at one end to such flattened portion and having its other end turned or bent inward and an adjustable gauge located between such strip and such flattened portion, and means for carrying and operating such work guide, for the purpose set forth. 54th. In a wax thread sewing machine, a vertically and horizontally reciprocating work guide consisting of a shank or bar having its lower half flattened and off-set and having a strip secured at one end to such flattened portion and having its other end turned or bent inward and an adjustable gauge consisting of a piece of wire bent to form a triangle with finger extension located between such strip and such flattened portion with the apex of such triangle fitting around the point of connection of such strip and flattened portion and means for carrying and operating such work guide, for the purpose set forth. 55th. In a wax thread sewing machine, the combination with the frame, the work support, a guiding spindle on such frame, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a work guide carried by such rocking frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, and a cam operated lever for actuating said sleeve to impart a rocking motion through the link connection, to such rocking frame, of an oscillating and reciprocating awl carrier suitably mounted and operatively connected to such rocking frame to receive a reciprocal movement therefrom and means for imparting an oscillatory movement to such awl carrier, for the purpose set forth. 56th. In a wax thread sewing machine, the combination with the frame, a standard thereon, a work guide, a rod and carrier mechanism therefor comprising an extension or frame projecting laterally from said standard and a carrier frame pivotally connected with such laterally projecting frame, the rod being located in said carrier frame, of an awl carrier having an awl carrying segment, an awl carried by such awl carrying segment, such awl carrier being operatively connected to such rod and suitably mounted, means for imparting an oscillatory movement to such awl carrier and a rocking movement to such pivoted carrier frame, for the purpose set forth. 57th. In a wax thread sewing machine, the combination with the frame, a standard thereon, a reciprocating work guide, a rod forked at its lower end and carrier mechanism for such work guide and forked rod comprising an extension or frame projecting laterally from said standard and a carrier frame pivotally connected with such laterally projecting frame, the forked rod being located in said carrier frame, the driving shaft, a cam disc mounted thereon, a lever fulcrumed to the frame of the machine and having its rear end operatively connected with such cam disc and its forward end widened and gear toothed on its forward face, of an oscillating awl carrier consisting of a sleeve having a toothed segment and an awl carrying segment, such segments being located one at each of the opposite ends of and made in one with such sleeve and an awl carried by such awl carrying segment and such sleeve being slotted and mounted loosely upon a spindle of greater length than such sleeve and carried in suitable bearings in a position to allow the slot in such sleeve to receive the lower forked end of the rod carried by the pivoted frame, and to allow the toothed segment to intermesh with the toothed end of the said lever, and means for imparting a rocking motion to such pivoted frame, for the purpose set forth. 58th. In a wax thread sewing machine, a combined reciprocating work guide and feel mechanism, consisting of a guiding spindle on the frame of such machine, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, the work guide being carried by such rocking frame, means for imparting a vertical reciprocal movement to such work guide, an oscillating awl carrier consisting of a sleeve having a toothed segment and an awl carrying segment, such segments being located one at each of opposite ends of and made in one with such sleeve, an awl carried by such awl carrying segment, such sleeve being carried loosely upon a spindle of greater length than such sleeve and mounted in bearings

carried by the work support, an operative connection between suchawl carrier and such rocking frame, a cam operated lever fulcrumed to the frame of the machine and having its forward face and adapted to intermesh with the toothed segment of theawl carrier, for the purpose set forth. 59th. In a wax thread sewing machine, a combined reciprocating work guide and feed mechanism, consisting of a guiding spindle on the frame of such machine, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, the work guide being carried by such rocking frame, means for imparting a vertical reciprocal movement to such work guide, an oscillating awl carrier consisting of a sleeve having a toothed segment and anawl carrying segment, such segments being located one at each of the opposite ends of and made in one with such sleeve, anawl carried by suchawl carrying segment, such sleeve being carried loosely upon a spindle of greater length than such sleeve and mounted in bearings carried by such work support in a position to allow of an operative engagement between such sleeve and the lower end of the rod carried by such rocking frame, and a cam operated lever fulcrumed to the frame of the machine and having its forward end widened and gear toothed on its forward face and adapted to intermesh with the toothed segment of theawl carrier, for the purpose set forth. 60th. In a wax thread sewing machine, a combined reciprocating work guide and feed mechanism, consisting of a guiding spindle on the frame of such machine, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, the work guide consisting of a shank or bar formed with its lower half flattened and off-set and its lower end rounded and such work guide being carried by such rocking frame, means for imparting a vertical reciprocal movement to such work guide, an oscillating awl carrier consisting of a sleeve having a toothed segment and anawl carrying segment, such segments being located one at each of the opposite ends and made in one with such sleeve, anawl carried by suchawl carrying segment, such sleeve being carried loosely upon a spindle of greater length than such sleeve and mounted in bearings carried by the work support, an operative connection between suchawl carrier and such rocking frame, a cam operated lever fulcrumed to the frame of the machine and having its forward end widened and gear toothed on its forward face and adapted to intermesh with the toothed segment of theawl carrier, for the purpose set forth. 61st. In a wax thread sewing machine, a combined reciprocating work guide and feed mechanism, consisting of a guiding spindle on the frame of such machine, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, the work guide being carried by such rocking frame, a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, an oscillating awl carrier consisting of a sleeve having a toothed segment and anawl carrying segment, such segments being located one at each of the opposite ends of and made in one with such sleeve, anawl carried by suchawl carrying segment, such sleeve being carried loosely upon a spindle of greater length than such sleeve and mounted in bearings carried by the work support, an operative connection between suchawl carrier and such rocking frame, a cam operated lever fulcrumed to the frame of the machine and having its forward end widened and gear toothed on its forward face and adapted to intermesh with the toothed segment of theawl carrier, for the purpose set forth. 62nd. In a wax thread sewing machine, a combined reciprocating work guide and feed mechanism, consisting of a guiding spindle on the frame of such machine, a frame projecting laterally from such guiding spindle, a rocking frame pivotally connected to such laterally projecting frame, a sleeve movable upon said guiding spindle, a link connection between said sleeve and the rocking frame, a cam operated lever for actuating said sleeve to impart a rocking motion, through the link connection, to such rocking frame, the work guide consisting of a shank or bar formed with its lower half flattened and off-set and its lower end rounded, and such work guides being carried by such rocking frame, a cam operated lever fulcrumed to the frame of the machine and with its forward end operatively connected with such work guide, an oscillating awl carrier consisting of a sleeve having a toothed segment and anawl carrying segment, such segment being located one at each of the opposite ends of and made in one with such sleeve, anawl carried by suchawl carrying segment, such sleeve being carried loosely upon a spindle of greater length than such sleeve and mounted in bearings carried by such work support in a position to allow of an operative engagement between such sleeve and the lower end of the rod carried by such rocking frame, and a cam operated lever fulcrumed to the frame of the machine and having its forward end widened and gear toothed on its forward face and adapted to intermesh with the toothed segment of theawl carrier, for the purpose

set forth. 63rd. In a machine for doing edge stitching or the like, the combination with a frame and stitch forming instrumentalities, of a presser-foot having a narrowed and flattened foot portion, feed mechanism comprising a carrier frame pivotally connected with the frame of the machine, the feed device being located in said carrier frame, and a perforating device, means for operating such presser-foot, means for operating said perforating device and means for imparting a rocking motion to such carrier frame and means for imparting an independently reciprocating movement to the feed device therein, for the purpose set forth. 64th. In a machine for doing edge stitching or the like, the combination with a frame and stitch forming instrumentalities, of a presser-foot, feed mechanism comprising a carrier frame pivotally connected with the frame of the machine, the feed device being located in said carrier frame, and a perforating device consisting of an oscillating and horizontally reciprocating awl adjustable relatively to the needle, means for operating such presser foot, means for operating said perforating device, means for imparting a rocking motion to such carrier frame, and means for imparting an independently reciprocating movement to the feed device therein, for the purpose set forth. 65th. In a machine for doing edge stitching or the like, the combination with a frame and stitch forming instrumentalities, of a presser-foot having a narrowed and flattened foot portion, feed mechanism comprising a carrier frame pivotally connected with the frame of the machine, the feed device being located in said carrier frame, and a perforating device consisting of an oscillating and horizontally reciprocating awl, means for operating such presser-foot, means for operating said perforating device, means for imparting a rocking motion to such carrier frame, and means for imparting an independent reciprocating movement to the feed device carried by said carrier frame, for the purpose set forth. 66th. In a wax thread sewing machine, the combination with the frame, and stitch forming instrumentalities, consisting of a needle, a thread carrier, a thread case, a thread hook, a needle threader, a tension device, a clamping device, a take-up, of a presser-foot having a narrowed and flattened foot portion, feed mechanism comprising a carrier frame pivotally connected with the frame of the machine, the feed device being located in said carrier frame, and a perforating device, and means for operating such presser-foot, and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 67th. In a wax thread sewing machine, the combination with the frame, and stitch forming instrumentalities, consisting of a needle, a thread carrier, a thread case, a thread hook, a needle threader, a tension device, a clamping device, a take-up, of a presser-foot, feed mechanism comprising a carrier frame pivotally connected with the frame of the machine, the feed device being located in said carrier frame, and a perforating device consisting of an oscillating and horizontally reciprocating awl and means for operating such presser-foot, and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 68th. In a wax thread sewing machine, the combination with the frame, and stitch forming instrumentalities, consisting of a needle, a thread carrier, a thread case, a thread hook, a needle threader, a tension device, a clamping device, a take-up, of a presser-foot having a narrowed and flattened foot portion, feed mechanism, comprising a carrier frame pivotally connected with the frame of the machine, the feed device being located in said carrier frame, and a perforating device consisting of an oscillating and horizontally reciprocating awl, and means for operating such presser-foot, and perforating device, and for imparting a rocking motion to such carrier frame, a reciprocating movement to the feed device therein, for the purpose set forth. 69th. In a machine for doing edge stitching or the like, the combination with a frame, of a presser-foot having a narrowed and flattened foot portion, feed mechanism comprising a standard upon the frame of the machine, an extension or frame projecting laterally from said standard and being without motion during the feeding operation and a carrier frame pivotally connected with such laterally projecting frame, the feed device being located in said carrier frame, and a perforating device, and means for operating such presser-foot and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 70th. In a machine for doing edge stitching or the like, the combination with a frame, of a presser-foot, feed mechanism comprising a standard upon the frame of the machine, an extension or frame projecting laterally from said standard and being without motion during the feeding operation and a carrier frame pivotally connected with such laterally projecting frame, the feed device being located in said carrier frame, and a perforating device consisting of an oscillating and horizontally reciprocating awl and means for operating such presser-foot, and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 71st. In a wax thread sewing machine, the combination with the frame, and stitch forming instrumentalities, consisting of a needle, a thread carrier, a thread case, a thread hook, a needle threader, a tension device, a clamping device, a take up, of a presser foot, feed mechanism comprising a standard upon the frame of the machine, an extension or frame projecting laterally from said standard and being without motion during the feeding operation and a carrier frame pivotally connected with such laterally projecting frame, the feed device being located

in said carrier frame, and a perforating device, and means for operating such presser foot, and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 72nd. In a wax thread sewing machine, the combination with the frame, and stitch forming instrumentalities, consisting of a needle, a thread carrier, a thread case, a thread hook, a needle threader, a tension device, a clamping device, a take-up, of a presser foot, feed mechanism comprising a standard upon the frame of the machine, an extension of frame projecting laterally from said standard and being without motion during the feeding operation and a carrier frame pivotally connected with such laterally projecting frame, the feed device being located in said carrier frame, and a perforating device consisting of an oscillating and horizontally reciprocating awl and means for operating such presser foot, and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 73rd. In a wax thread sewing machine, the combination with the frame, and stitch forming instrumentalities, consisting of a needle, a thread carrier, a thread case, a thread hook, a needle threader, a tension device, a clamping device, a take up, of a presser foot having a narrowed and flattened foot portion provided with a groove along its underside, feed mechanism comprising a standard upon the frame of the machine, an extension or frame projecting laterally from said standard and being without motion during the feeding operation and a carrier frame pivotally connected with such laterally projecting frame, the feed device being connected in said carrier frame, and a perforating device, and means for operating such presser foot, and perforating device, and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 74th. In a machine for doing edge stitching or the like, the combination with a frame and stitch forming instrumentalities, of a readily removable presser foot having a narrowed and flattened foot portion provided with a groove along its under side, feed mechanism comprising a carrier frame pivotally connected with the frame of the machine and a feed device located in said carrier frame, a perforating device consisting of an oscillating and horizontally reciprocating adjustable awl, and a readily removable work table having an adjustable readily removable work guide with off-set bearing surface and means for operating such presser foot and perforating device and for imparting a rocking motion to such carrier frame and a reciprocating movement to the feed device therein, for the purpose set forth. 75th. In a machine for doing edge stitching or the like, the combination with a frame and stitch forming instrumentalities, of a presser foot having a narrowed and flattened foot portion having its lower end horizontally off-set and tapered, feed mechanism and a perforating device and means for operating such presser foot, feed mechanism and perforating device, for the purpose set forth.

No. 62,319. Vehicle Wheel and Processes of Tiring the same. (*Roue de vehicule et procédé pour poser les bandages.*)

Fig. 1

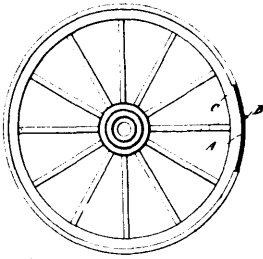
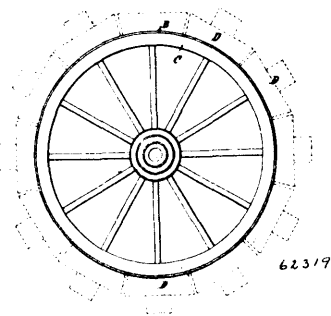


Fig. 5



Howard M. Du Bois, Ashbourne, Pennsylvania, U. S. A., 13th January, 1899; 6 years. (Filed 4th November, 1898.)

Claim.—1st. The process of making cushioned-vehicle-wheels which consists in first inserting, between the wooden felly and the metal tire, an elastic cushion extending around the wheel, second applying

cold compression radially inwardly to the whole tire until the tire is compressed beyond its elastic limit and the woodwork of the wheel is dished slightly (the excess of pressure being taken up by the cushion) and third, removing the pressure to permit the parts to assume their normal positions in the finished wheel, substantially as and for the purposes described. 2nd. An improvement in the art of making wood-felly cushioned wheels, which consists in assembling together a metal channel-tire of excess size, the wood-felly of the wheel, and the elastic cushion, the channel-tire being located around the felly and which the elastic cushion located between said tire and said felly, then reducing said channel-tire by cold-upsetting, thereby first making an annular closed space between the channel-tire and the wood-felly and containing the elastic cushion, next reducing the volume of said closed space by a further reduction of the size of the channel-tire and thereby subjecting said cushion simultaneously at all points of compression, whereby said channel tire is compressed beyond its elastic limit and the woodwork of the wheel is compressed to the required concave or dished formation, the excessive pressure between the point of resistance of said woodwork and the elastic limit of said tire being received by said cushion, and then removing such pressure to permit the tire to return to its normal position in the finished wheel intermediate its original excess-size position and that position which it assumes while under the greatest compression. 3rd. The herein described cushioned wheel, it comprising a metal-tire having a tread with inwardly extending flanges to the edge thereof forming an annular channel within the tire, a wood-felly extending around the wheel and located between the inner edges of said tire flanges, thereby closing said annular channel within the tire, and an elastic cushion of rubber or like cushioning material filling said channel between said tire and said felly, said wheel having its channel-tire first made of excess-size, and then reduced by upsetting first to make the annular closed channel between the said tire and the wood-felly, the next by a further reduction of the size of the channel-tire subjecting said cushion simultaneously at all points to compression, whereby the wheel, when completed, has the pressure of the tire transmitted through the wood-felly and whereby the woodwork of the wheel is during manufacture preserved from destructive compression and the completed wheel made self-adjusting to the variations of its members by changes of heat and moisture, substantially as described. 4th. A vehicle-wheel comprising a rim, a channel-shaped tire cold-compressed on said rim, and forming therewith a closed annular space, and a compressed elastic material in said space, having its volume completely filling said closed annular space on the cold-upsetting of said tire.

No. 62,320. Electrical Extraction of Poisons from the Human Body. (*Extraction électrique des poisons du corps humain.*)



62320

John Bunyon Campbell, Cincinnati, Ohio, U.S.A., 13th January, 1899; 6 years. (Filed 17th October, 1898.)

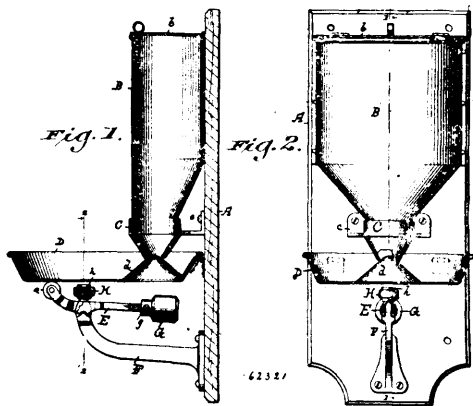
Claim.—The herein described method of extracting poisons from the human body, consisting in providing the negative electrode of an electric battery with interchangeable receivers of animal, vegetable or mineral substance, to extract a poison from the body of a nature or kind corresponding with or to the negative electrode employed, as set forth.

No. 62,321. Live Stock Feeding Device. (*Appareil à nourrir le bétail.*)

William H. Wellsted, Brampton, Michigan, U.S.A., 13th January, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. In feeding apparatus of the class described, the combination with a feed reservoir or supply spout, of a vertically-movable trough adapted to close the discharge opening of said reservoir or spout, and a weighted lever normally holding said trough in position for closing said reservoir or spout, substantially as and for the purposes set forth. 2nd. In feeding apparatus of the class described, the combination with a feed reservoir or spout, of a depressible trough normally closing the discharge opening of said reservoir or spout, and a lever fulcrumed between its ends on a suitable support and having one end engaging said trough and the other provided with a weight, substantially as and for the purposes set forth. 3rd. In feeding apparatus of the class described, the

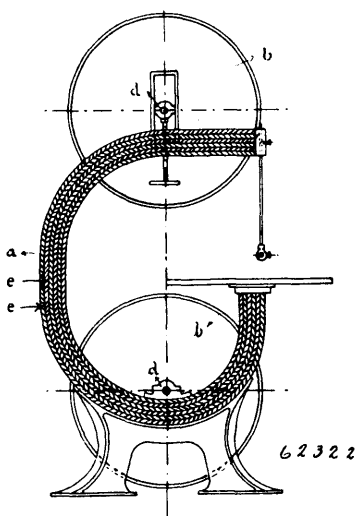
combination with a feed reservoir or spout, and a vertically-movable trough adapted to close the discharge opening of said reservoir or



spout, of a weighted lever normally holding said trough elevated, and an adjustable stop for limiting the downward movement of said trough, substantially as and for the purposes set forth. 4th. In feeding apparatus of the class described, the combination of a depressible trough, a feed reservoir or spout adapted to be closed by said trough, means for holding said trough normally in position for closing said reservoir or spout, and an adjustable stop for limiting the downward movement of said trough and regulating the supply of feed from said reservoir or spout to said trough, substantially as and for the purposes set forth. 5th. In feeding apparatus of the class described, the combination of a feed reservoir or spout, a depressible trough, means for holding said trough normally elevated, an arm or bracket underneath said trough, a recessed nut threaded upon said arm or bracket and provided with a cushion which serves as an elastic stop to limit the downward movement of said trough, substantially as and for the purpose set forth. 6th. In feeding apparatus of the class described, the combination with a suitable support, of a feed reservoir or spout, a depressible trough hinged to said support beneath and adapted to close the discharge opening of said reservoir or spout, an arm or bracket extending from said support underneath said trough and serving as a stop to limit its downward movement, and a weighted lever fulcrumed on said arm or support in engagement with said trough and holding the same normally elevated to cut off the supply of feed from said reservoir or spout to said trough, substantially as and for the purposes set forth.

No. 62,322. Band Saw Machinery.

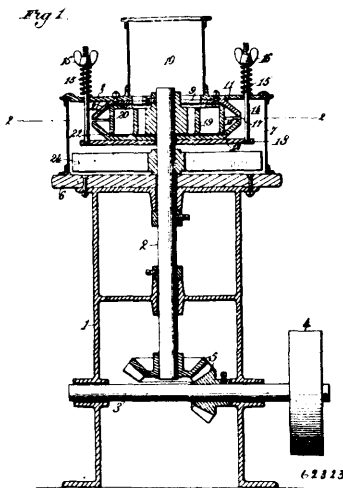
(Appareil de scie à contourner.)



Frans Oskar Zeinwooldt, Kimstad, Sweden, 13th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—A band-saw bow carrying the band-pulley or wheel axes, constructed of layers of wood strips bent and superimposed one upon the other and suitably secured to one another, substantially as set forth.

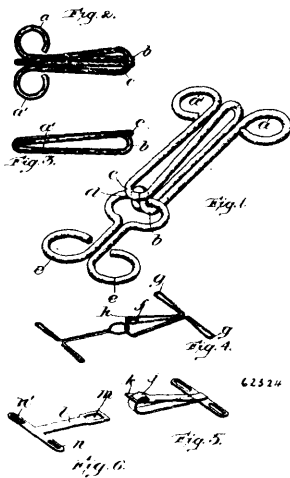
No. 62,323. Grinding Mill. (Moulin à moudre)



John Elvin Mitchell, Jackson, Michigan, U.S.A., 13th January, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. In a grinding-mill, the combination with stationary dished pressure-plates, one inverted over the other with an annular automatically adjustable opening between the adjacent edges of said plates and a central feed inlet through the upper-plate, of rotary spiral blades mounted between said dished-plates to exert a disintegrating action on the layer of material confined between the converging walls of said plates and the rotary spiral blades and force the disintegrated material outward through said annular opening, substantially as described. 2nd. In a grinding-mill, the combination of a stationary casing having in its top a central feed inlet, stationary-dished pressure-plates, one inverted over the other with an annular automatically adjustable opening between the adjacent edges of said plates, the upper plate being provided with an annular opening in communication with the central feed inlet, and rotary spiral blades mounted between said dished plates to exert a disintegrating action on the layer of material confined between the converging walls of said plates and the rotary spiral blades and force the disintegrated material outward through the annular opening between said plates, substantially as described. 3rd. In a grinding-mill, the combination of a stationary vertical cylindrical casing provided at the top with a central feed inlet, a stationary annular upper-dished pressure-plate secured in said casing in an inverted position around the under side of the feed inlet, a stationary lower dished pressure-plate supported in said casing below the annular upper dished-plate with an annular opening between the adjacent edges of said plates, and rotary spiral blades mounted between said dished-plates to exert a disintegrating action on the layer of material confined between the converging walls of said plates and the rotary spiral blades and force the disintegrated material outward through the annular opening between said plates, substantially as described. 4th. In a grinding-mill, the combination of a stationary vertical cylindrical casing having in its top a central feed inlet and provided with a discharge spout at the bottom, a stationary annular upper dished-pressure-plate secured in said casing in an inverted position around the under side of the feed inlet, a stationary lower dished-pressure-plate supported in said casing below the annular upper dished-plate, the said plates having an annular opening between their opposing edges, means for adjusting the said lower plate vertically to vary the width of said annular opening, a vertical rotary shaft extended centrally through said stationary casing and inclosed stationary plates, rotary spiral blades mounted on said shaft between the said pressure-plates to exert a disintegrating action on the material confined between the converging walls of said plates and the rotary spiral blades and force the disintegrated material outward through the annular opening between said plates, and rotary arms carried on the vertical rotary shaft immediately below the lower pressure-plate to convey the reduced material to the discharge spout, substantially as described. 5th. In a grinding-mill, the combination of a vertical rotary shaft, a cylindrical casing supported around a portion of said shaft and having an upper head or cover provided with a central feed inlet, a discharge spout in the bottom of said casing, an annular upper dished-pressure-plate secured in an inverted position in the upper part of said casing around its feed inlet, a lower dished-pressure-plate movable to and from the said upper plate to vary the width of an annular opening between the peripheral edges of said plates, rotary spiral blades mounted to operate in a horizontal plane between said reversely dished-pressure-plates, rods for suspending the lower pressure-plate, springs and adjusting nuts on said rods, and rotary arms mounted below the pressure-plates to convey the disintegrated material to the discharge spout, substantially as described.

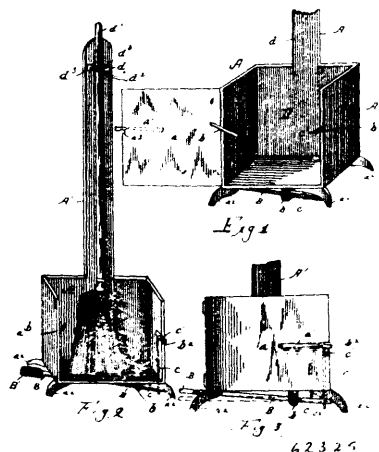
No. 62,324. Hook and Eye. (Crochet et oeillet.)



James Walter Burke, Boston, Massachusetts, U.S.A., 13th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. As a new article of manufacture, a hook member of hooks and eyes, said hook member being made from a single piece of wire, the ends of which are bent to form attaching loops, the part of said wire adjoining one of said attaching loops being doubled upon itself to form a double wire, the free end of which double wire is bent to form a hook having a point downwardly deflected towards the shank of said hook, and the part of said wire adjoining the other attaching loop being bent to form an elongated loop, the bight of which incloses and projects outwardly beyond the upper curved portion of the said hook, the point in the said wire at which the shank of said hook meets the end of said elongated loop being between the attaching loops, which are in juxtaposition. 2nd. As a new article of manufacture, the hook member of hooks and eyes, said hook member comprising a shank terminating in an inward bend the free end of which projects downward between the guard and said shank, a guard for said inward bend, the guard projecting beyond and inclosing the upper curved portion of said inward bend. 3rd. As a new article of manufacture, the hook member of hooks and eyes, said hook member being made from a single wire bent inwardly to form a hook proper of double wire the free end of which is deflected downwardly toward the shank of said hook, wings at the butt-end of the shank of the hook, a guard for the bent portion of the hook, said guard being of wire doubled upon itself at the shank portion open at its free end and inclosing and projecting outwardly beyond the upper curved portion of the hook, the shanks of the hook and guard being coincident. 4th. As a new article of manufacture, a hook member of hooks and eyes, said hook member comprising an inward bend the free end of which is deflected toward the shank of the hook in combination with an exteriorly-acting guard, having a recess opposed to said bend, the free end of the bend being normally within the space between the guard and hook-shank.

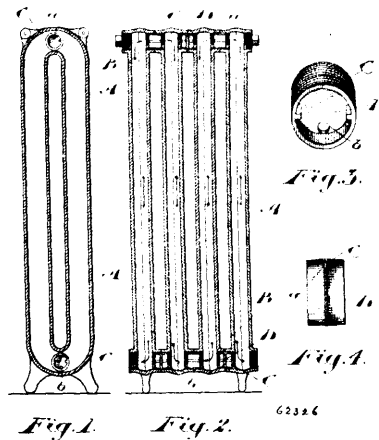
No. 62,325. Broom Case. (Etui de balai.)



George Hacker, Cannonsbury, Pennsylvania, U.S.A., 13th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. A broom-case having a standard extending upwardly therefrom and provided with a clamp to detachably hold the broom-handle, said case having a spring-actuated door, a latch and catch to hold the door closed, a foot-lever pivotally connected to the case, and a device operated by the lever to release the latch, substantially as described. 2nd. A broom-case having a standard extending upwardly therefrom and provided with a spring-clamp to detachably hold the broom-handle, said case having a spring-actuated door, a latch and catch to hold the door closed, a foot-lever pivoted intermediate its ends to the case below the bottom thereof, a rod connected to the end of the lever adjacent to the latch end extending up through the bottom of the case, the upper end of the rod being bent to extend below the latch when the door is closed, and a spring interposed between the case and the lever to normally hold the rod in its lower position, all substantially as and for the purposes specified.

No. 62,326. Radiator. (Calorifere.)



John William Lang, Toronto, Ontario, Canada, 13th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. A radiator comprising two or more sections, in combination with removable diaphragms closing the connections between the sections alternately at the top and bottom of the radiator, substantially as and for the purpose specified. 2nd. A radiator comprising two or more sections, in combination with removable diaphragms closing the connections between the sections alternately at the top and bottom of the radiator, air vents being formed in the upper diaphragms and water passages through the lower, substantially as and for the purpose specified. 3rd. A radiator, comprising two or more sections provided with suitable connections, in combination with nipples joining the connections, and diaphragms closing nipples between the sections alternately at the top and bottom of the radiator, substantially as and for the purpose specified. 4th. A radiator, comprising two or more sections provided with suitable connections, in combination with nipples joining the connections, and diaphragms closing nipples between the sections alternately at the top and bottom of the radiator, air vents being formed in the upper diaphragms and water passages through the lower, substantially as and for the purpose specified. 5th. A nipple for radiators, comprising a tube and a diaphragm closing the interior of the tube, substantially as and for the purpose specified. 6th. A nipple for radiators, comprising a tube and a diaphragm about which the tube is stamped to hold it in place, a small hole being formed in the diaphragm, substantially as and for the purpose specified.

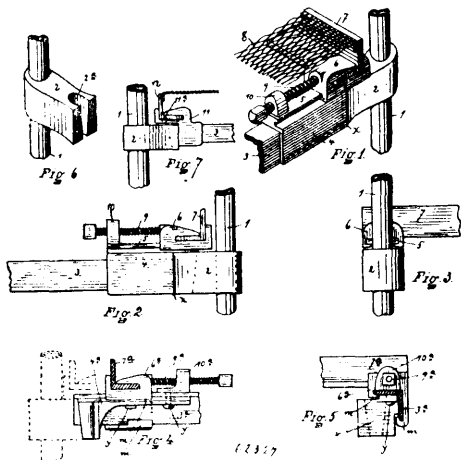
No. 62,327. Bedstead. (Couchette.)

The Foster Bros. Manufacturing Company, assignee of Oscar S. Foster, all of Utica, New York, U.S.A., 14th January, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. The combination in a bedstead of a post, a projecting post fixture, a side rail having means for attachment to the post fixture, a cross-bar and a superposed cross-bar holder on the side rail and overhanging the joint between the rail and post, substantially as set forth. 2nd. The combination in a bedstead of a post, a projecting post fixture, a side rail having means of attachment to the post fixture, and a superposed slideway overlapping the joint between the post fixture and side rail, a cross-bar and a cross-bar holder movable on said slideway, substantially as set forth. 3rd. The combination in a bedstead of a post, a projecting post fixture, a side rail having means of attachment to the end of the post fixture and having a superposed slideway overhanging said joint, a cross-bar, a cross-bar holder movably mounted on said slideway, and means for moving the said holder, substantially as set forth. 4th. The combination of an angular side rail, an angular cross-bar, a

movable cross-bar fastener having an angular base substantially conforming to the shape of the angular side rail and slidingly

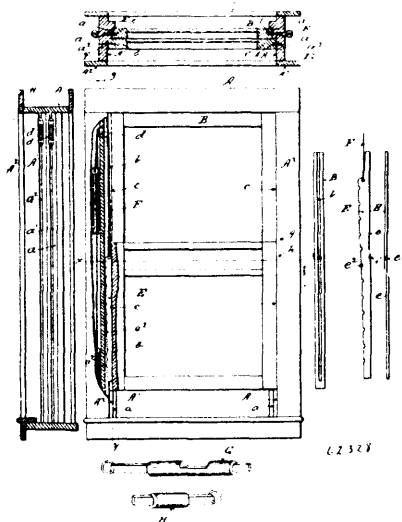
its lower edge spaced from the plane of the floors of said depressions, at the periphery of the disc, to form outlet openings, substantially



mounted thereon, and also having a hook and shoulder for receiving and retaining the angular cross-bar by engagement with the horizontal web thereof, as shown, and a set-screw for moving the fastener, substantially as set forth.

No. 62,328. Window Frame and Sash.

(Croisic et chassis.)



The Erie Safety Window Company, assignee of Clarence A. Aighny all of Erie, Pennsylvania, U.S.A., 14th January, 1899; 6 years. (Filed 21st December, 1898.)

Claim.—1st. The combination of window jambs having vertical grooves therein, window sash having vertical grooves in the edges thereof, removable strips fitting in the grooves of the sash and having notches in both edges thereof, removable pins in the sash engaging a notch in one edge of the strips so as to secure them in the sash, and transversely sliding bolts in the window frame adapted to engage the notches in the other edge of the strips, substantially as and for the purpose set forth. 2nd. The combination of a window frame A having projections a on the face of the jambs A¹ against which the upper sash B in said frame operates, and grooves a¹ a² in said jambs, upper and lower sash B and C having grooves b in the edges thereof, strips E having notches e¹ in the front edges thereof adapted to be engaged by pins b¹ when in place in the grooves b in the sash, and having notches e² in their rear edges and locking bolts G and H in the window frame jambs adapted to engage the notches e² in said strips, substantially as and for the purpose set forth.

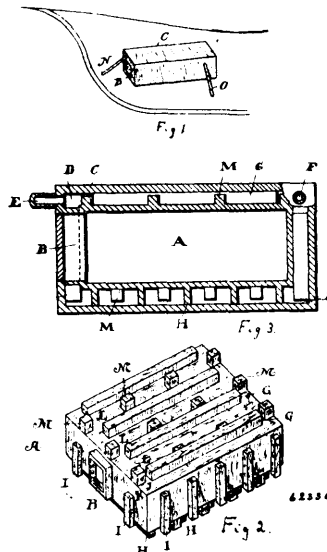
No. 62,329. Churn Dasher. (Barrotte.)

The Chicago Novelty Co., assignee of Edward A. Franklin, all of Austin, Texas, U.S.A., 14th January, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. A churn dasher consisting of a disc provided with radial ribs and intermediate depressions, extending radially to the periphery of the disc, and a cylindrical wall carried by the disc with

as specified. 2nd. A churn dasher consisting of a vessel of which the bottom is provided with interior radial ribs and intermediate depressions with which communicate openings in the wall of the vessel in the plane of said depressions, substantially as specified. 3rd. A churn dasher consisting of a disc provided at its upper surface with a series of radial segmentally curved ribs, and intermediate outwardly enlarged cavities of which the floors decline outwardly, and a cylindrical wall carried by the disc with its lower edges spaced above the plane of the outer portions of the floors of the cavities to form outlet openings, substantially as specified. 4th. A churn dasher consisting of a disc of which the upper surface is provided with a series of radial segmentally curved ribs enlarged at their outer ends to form rests or seats coincident with the periphery of the disc, and the disc also having cavities between said ribs, and a cylindrical wall fitted upon said rests or seats with its lower edge above the plane of the contiguous portions of the floors of the cavities to form outlet slots, substantially as specified. 5th. A churn dasher comprising a disc provided at its upper surface with a series of radially curved ribs which are deflected rearwardly toward their outer ends, and intermediate depressions, enlarged toward the periphery of the disc and having concave front and convex rear walls, the floors of said cavities declining toward the periphery of the disc, and provided at its underside with a series of radial segmentally curved grooves co-extensive with said ribs, and interposed downwardly-convex enlargements co-extensive with said cavities, and a cylindrical wall secured to the outer ends of said ribs and spaced at its lower edge above the plane of the contiguous portions of the floors of the cavities to form outlet openings, substantially as specified.

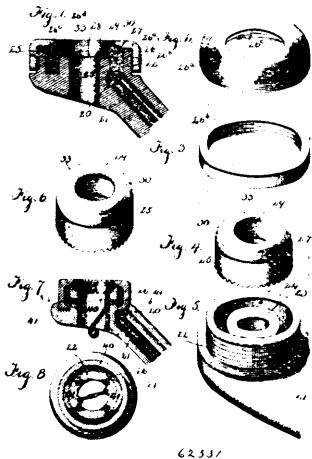
No. 62,330. Cold Storage Apparatus. (Appareil refrigerant.)



James C. Cameron, Montreal, Quebec, Canada, assignee of Matthias B. Eaton, Boston Massachusetts, U.S.A., 14th January, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. In a cold storage apparatus, a receptacle or apartment, a jacket surrounding the same, an intervening open space, a passageway to the apartment or receptacle, means on the outside of the receptacle or apartment to support it out of contact with the jacket and means for introducing and withdrawing a cooling medium into and out of said intervening space. 2nd. In a cold storage apparatus, a receptacle or apartment, a jacket surrounding the same, an intervening open space a passageway through the jacket and intervening space to the receptacle or apartment, a ribbed structure on the outside of the receptacle or apartment to support it out of contact with the jacket and to direct the flow of the medium around all parts of the intervening space and means for introducing and withdrawing the circulating medium into and out of said intervening space. 3rd. In a cold storage apparatus, a receptacle or apartment, a jacket surrounding the same, an open space, a passageway into said receptacle or apartment, a ribbed structure on the outside of the receptacle or apartment to support it out of contact with the jacket, blocks mounted in the spaces between said ribs, said ribs and blocks co-operating to direct the cooling medium around all parts of the intervening space and means for introducing and withdrawing a cooling medium into and out of said intervening space.

No. 62,331. Trimming Attachment for Pegging Machines. (*Attache à rogner pour machines à cheville.*)

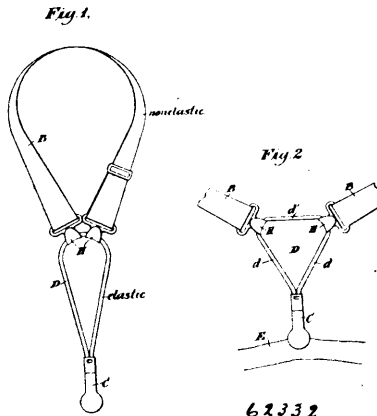


62331

Pierre Larange and Francis Tousignant, both of St. Hyacinthe Quebec, Canada, 14th January, 1899; 6 years. (Filed 20th December, 1898.)

Claim.—1st. A trimming attachment for pegging machines comprising a revolvably mounted support, said support having its interior top face formed with a trimming edge, substantially as described. 2nd. A trimming attachment for pegging machines, comprising a revolvably mounted work support, said support having its interior top face provided with a trimming edge, substantially as described. 3rd. The combination with a pegging machine, having a horn, of a trimming attachment mounted in the end thereof, said attachment comprising a revolvably mounted support, said support having an integral trimming edge, and means, connected to said horn, for removably securing said support in position on said horn, substantially as described. 4th. A trimming attachment for pegging machines, comprising a revolvably mounted support, said support being mounted to have a concentric movement with the downward movement of the awl of the pegging machine, and a trimming edge formed integral with said support, substantially as described. 5th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, said gear having a trimming edge formed integrally therewith, and means for removably holding said gear in position on said support, substantially as described. 6th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, said gear having an integral trimming edge, and an adjustably mounted cap, adapted to hold said gear in position, substantially as described. 7th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, said gear having an integral trimming edge, and an adjustably mounted cap, adapted to hold said gear in position on said support, the upper face of said cap being on an approximate horizontal plane with said trimming edge, substantially as described. 8th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, said gear having an integral trimming edge, and a sectional cap, adjustably mounted on said support, said cap being adapted to hold said gear in position, substantially as described. 9th. A trimming attachment for pegging machines, comprising a support, a gear revolvably and removably mounted thereon, said gear having an integral trimming edge, a cap, adjustably mounted on said support and adapted to hold said gear in position, and means for holding said cap in its adjustable position, substantially as described.

No. 62,332. Hose Supporter. (*Support de retient.*)

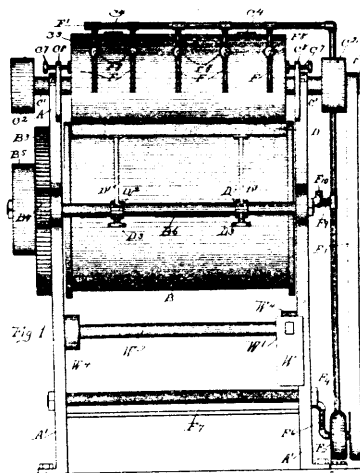


62332

Harold Binney, New York City, New York, as trustee for John J. Nealon, Bayonne, New Jersey, U.S.A., 14th January, 1899; 6 years. (Filed 19th December, 1898.)

Claim.—1st. A hose or garment-supporter, consisting of the non-elastic band portion B, the clasp or retaining device, and the elastic loop or cord secured thereto and adjustably connected to the ends of the said band portion, substantially as set forth. 2nd. A hose or garment-supporter, consisting of the non-elastic band portion, the elastic loop or triangle secured to the two ends of the said non-elastic band portion and forming an elastic continuation of the said band at d^1 , in the interval between the two ends of the said band, and the clasp or retaining device secured to the two ends of the said elastic loop and thereby secured by a yielding connection to each of the two ends of the said non-elastic band B, substantially as set forth.

No. 62,333. Starching Machine. (*Machine à empeser.*)



62333

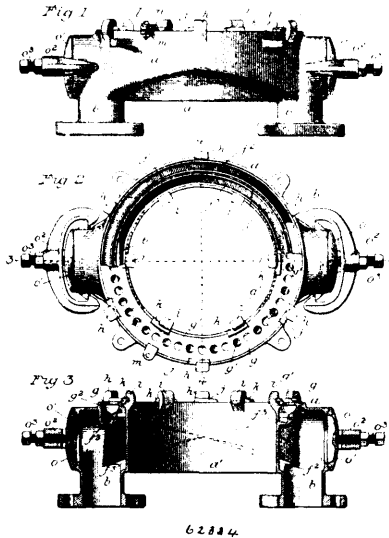
The International Machinery Company, assignee of Wendell Hess, all of Troy, New York, U.S.A., 14th January, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—1st. In a starching-machine, the combination with a movable fabric-carrier having a yielding embedding surface, and means for imparting to the carrier comparatively slow carrying movements, of a co-operative charging roll, means for imparting to the roll a comparatively high rate of peripheral speed, and means for producing and regulating a yielding pressure between the roll and carrier, substantially as described. 2nd. In a starching-machine, the combination with a rotary drum having a yielding embedding surface, and means for imparting to the drum a comparatively low rate of peripheral speed, of a co-operative feed-roll, means for imparting to the feed-roll a comparatively high rate of peripheral speed, and a feed-table for feeding the starch and goods to the roll and drum, substantially as described. 3rd. In a starching-machine, a rotary charging and discharging roll, and means for imparting to the roll a comparatively high rate of peripheral speed, in combination with a rotary embedding drum co-operative with the roll, and means for imparting to the drum a comparatively low rate of peripheral speed, bearings for the drum journals movable toward and from the roll, and means for producing a yielding pressure

between the roll and drum, substantially as described. 1th. In a starching-machine, the combination with a rotary drum having a yielding embedding surface, and means for imparting to the drum a comparatively low rate of peripheral speed, of a feed-roll having an imperforate, smooth polished surface co-operative with the drum, and means for imparting to the roll a comparatively high rate of peripheral speed, substantially as described. 5th. The herein described method of starching fabrics, which consists in charging with a uniform quantity of starch all parts of the fabric, and at the instant of applying the starch heating the fabric-parts to which the starch is applied and the particles of starch inserted therein, successively and to a comparatively high temperature, substantially as described. 6th. The herein described method of starching two-ply goods, which consists in heating some particles of the starch and one ply of the goods to a comparatively high temperature, inserting the superheated starch in the respective plies with a surplus of starch between them, and expelling the surplus from between the plies by pressing the plies together, all in one continuous operation. 7th. In a starching machine, the combination with a starch-feeding roll and means for rapidly rotating the roll, of a removable stationary case for the roll, substantially as described. 8th. In a starching machine, the combination with a supporting bed having end-flanges, and means for slowly moving the bed, of a co-operative feed-roll, means for rapidly rotating the roll, and a stationary case for the roll having end-walls located within the bed-flanges and extending approximately to the bed, substantially as described. 9th. In a starching machine, the combination with the rotary embedding drum and feed-roll, a feed-table, and a starch-reservoir, of a receiving table or box having a bottom outlet communicating with the starch-reservoir, a drum-engaging knife on the inner end of the receiving table, a pump, a supply-pipe leading from starch-reservoir to the pump, and a delivery pipe leading from the pump to the feed-table, substantially as described. 10th. In a starching machine, the combination with a starch-reservoir, a pump, a supply-pipe leading from the starch-reservoir to the pump, and a delivery-pipe provided with a valved nozzle, of a lateral branch extending from the delivery-pipe to the starch-reservoir, and a safety valve in said lateral pipe, substantially as described. 11th. In a starching machine, the combination with a feed-roll having an imperforate smooth metal surface, and means for rapidly rotating the roll, of a co-operative drum having an imperforate smooth rubber surface, and means for slowly rotating the drum, and means for producing uniform pressure between the drum and roll, whereby said smooth metal and rubber surfaces co-operate to charge the goods with a surplus of starch and to discharge the surplus, only, from every part of the goods, substantially as described.

No. 62,331. Smoke Consumer.

(Appareil pour consommer la fumée.)



John Y. Smith, Allegheny, Charles Thomas Schoen, Bryn Mawr, and William Chambers De Armond, Philadelphia, all in Pennsylvania, U.S.A., 14th January, 1899; 6 years. (Filed 7th November, 1898.)

Claim.—1st. An apparatus for the purpose described, comprising a chamber, having a fluid-pressure connection and divided into two compartments by a wall, each compartment having a double inclined bottom branching from and solid with said wall, and a cover for said chamber having a serpentine flange provided with a foot to make a tight joint with the wall and a series of holes or perforations alternately opening into the two compartments on opposite sides of the said flange, substantially as specified. 2nd. An apparatus for the

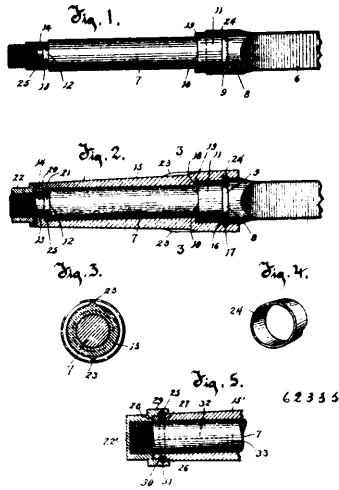
purpose described, comprising a chamber divided into two compartments by a wall, double inclined bottoms for said compartments extending in opposite directions from said wall, a pressure inlet, individual connections between the inlet and the two compartments, and a cover-plate for said chamber removably applied thereto, and having a series of outlets and a flange constructed with pockets for each outlet, the said pockets leading alternately to opposite compartments, and a foot on said flange fitted to the wall and forming a continuation thereof up to the holes in the cover, substantially as specified. 3rd. An apparatus of the character and for the purposes described, comprising a chamber divided into two compartments by a wall, the bottoms of said compartments being formed as double inclines extending laterally or transversely from the said wall and having their highest points at opposite sides of the chamber, pressure inlets arranged adjacent to the highest points of the bottoms, each compartment communicating with its own inlet at the lowest point of its bottom, and a cover-plate applied to said chamber and having a foot-flange fitted to said wall to constitute a continuation thereof, the said plate having a series of holes and the said foot-flange extending from one side of one hole to the other side of the next adjacent hole and between the holes, so as to separate them and cause one hole to communicate with one compartment and the next hole with the other compartment of the chamber and so on continuously throughout the series of holes, whereby upon the admission of pressure to one compartment an outward blast will be produced through said compartment and its communicating holes, and a vacuum will be produced in the other compartment, substantially as specified. 4th. In an apparatus of the character and for the purposes described, a chamber having concentric inner and outer walls, a concentric division wall between them provided with double inclined bottoms, one of which bottoms projects laterally from the outer wall to the division wall, and the other projects from the inner wall to the division wall, individual pressure inlets for the two compartments into which the respective bottoms run out, and a cover-plate applied to the chamber and having holes, each of which has its own pocket formed in and by a foot-flange which is jointed to the division wall and forms a continuation thereof and of the respective compartments and effects communication with the respective compartments through alternate holes, substantially as specified. 5th. In an apparatus of the character and for the purposes described, the combination with a chamber divided into two compartments by a division wall, of a cover-plate provided with a foot-flange which forms a continuation of the division wall, and is provided with a series of holes which alternately communicate with opposite compartments, and means to detachably connect the said cover-plate with the said chamber, substantially as specified. 6th. In an apparatus of the character and for the purposes described, the combination of a chamber divided into two compartments by a division wall having a grooved face, and a cover for said chamber provided with a foot-flange, fitted to the groove in the face of the division wall, the said plate having a series of holes and the foot-flange passing from one hole to another back and forth, so as to put adjacent holes, in communication with opposite compartments, substantially as specified. 7th. An apparatus of the character and for the purposes described, comprising a series of chambers each divided into two independent compartments and means for connecting the several compartments in similar series, and with a pressure apparatus whereby upon the admission of pressure to one series of compartments an outward blast will be produced through said compartments and a vacuum will be produced in the other series of compartments, substantially as specified.

No. 62,335. Axle and Axle Box. (Essieu et boîte d'essieu.)

Miron D. Mack, Nashville Centre, Minnesota, and Eli Bensene, Racine, Wisconsin, U.S.A., 14th January, 1899; 6 years. (Filed 16th September, 1898.)

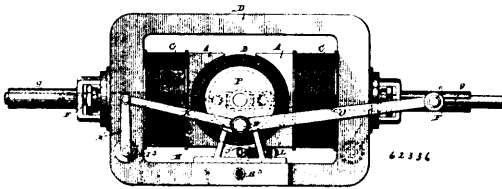
Claim.—1st. In a vehicle axle and box, the combination of an axle provided with a groove therearound, one of the side walls of said groove extending out beyond the grooved surface to form a projecting shoulder, an axle-box provided with an internal groove therearound, one of the side walls of said groove extending inwardly beyond the grooved surface to form a projecting shoulder, said shoulder, when parts are fitted together, being opposed to the shoulder of the axle, and the two grooves of the box and axle registering, and a packing adapted to be compressed into the registering grooves by the action of the opposed shoulders. 2nd. In a vehicle axle and box, the combination of an axle provided near its outer end with a shoulder therearound, and with an encircling groove adjacent to the side of the shoulder, and also provided at a point farther inward with another shoulder, and with a groove adjacent to the side of said shoulder, an axle-box provided with sets of shoulders and with sets of grooves, the shoulders when the parts are fitted together being opposed to the shoulders of the axle, and the grooves registering with the grooves of said axle, and packings adapted to be compressed into the registering grooves by the action of the opposed shoulders, when the parts are fitted together. 3rd. In a vehicle axle and box, the combination of an axle provided with a shoulder therearound and with an encircling groove adjacent to the side of the shoulder, said axle also provided with another shoulder at a point nearer the end of the axle, an axle-box provided with a shoulder and with a groove adjacent to the side of the shoulder, and also provided with another shoulder,

the shoulders of the box, when the parts are fitted together, being opposed to the shoulders of the axle, and the grooves registering



with the grooves of said axle, and a packing adapted to be compressed into registering grooves by one set of the opposed shoulders. 4th. In a vehicle axle and box, the combination with an axle, an axle-box, and an end nut, one of said parts being provided with a shoulder therearound, and with a groove adjacent to the side of the shoulder, and another of said parts with a shoulder, and with a groove adjacent to the side thereof, the shoulders, when the parts are fitted together, being opposed, and the grooves registering, of a packing adapted when the parts are fitted together, to be compressed into the registering grooves by the opposed shoulders.

No. 62,336. Electric Engine. (Machin électrique.)

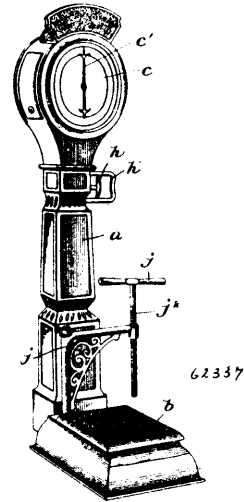


Marcy Leland Whitfield, Chicago, Illinois, and Charles Clifton Cowan, Memphis, Tennessee, U.S.A., 14th January, 1899; 6 years. (Filed 19th September, 1898.)

Claim. 1st. A field-magnet or pole-piece of a dynamo or motor said field-magnet or pole-piece having its interior hollowed so as to constitute a piston chamber, and having valve passages formed within said field-magnet or pole-piece, in combination with a piston and suitable valve mechanism, substantially as described. 2nd. A field-magnet or pole-piece of a dynamo, said field-magnet or pole piece being of relatively large mass and having its interior hollowed so as to constitute a relatively small piston chamber, whereby the heat produced by steam within said chamber will be radiated by said pole-piece, and an armature rotatable with respect to said pole-piece, in combination with a piston, suitable valve mechanism, and connections between said piston and armature, substantially as described. 3rd. The combination with an armature, of field-magnets hollowed so as to constitute piston chambers, having valve passages also formed within the same, a yoke holding said field-magnets in line with each other on opposite sides of said armature and also completing the magnetic circuit through said field-magnets, pistons within said piston chambers, valve mechanisms for controlling ingress to and egress from said piston chambers, and mechanism for connecting said pistons to said armature and thereby rotating said armature, substantially as described. 4th. The combination with an armature, an armature shaft, discs on both ends thereof, and field magnets hollowed so as to constitute piston chambers, having valve passages also formed within the same, of a frame adapted to hold said field-magnets in line with each other on opposite sides of said armature and also to complete the magnetic circuit through said field-magnets, pistons within said piston chambers having valve passages also formed within the same, valve mechanism for controlling ingress to and egress from said piston chambers, and driving rods connecting said pistons and said discs, said driving rods being on opposite sides of said field-magnets and being quartered with relation to each other, substantially as described. 5th. The combination with an armature, of field-magnets hollowed so as to con-

stitute piston chambers, having valve passages also formed within the same, a frame holding said field-magnets in line with each other on opposite sides of said armature and also completing the magnetic circuit through said field-magnets, pistons within said piston chambers, valve mechanisms for controlling ingress to and egress from said piston chambers, mechanism for connecting said pistons to said armature and thereby rotating said armature, and means operated by each piston chamber for operating the valve mechanism of the opposite piston chamber, substantially as described.

No. 62,337. Coin Controlled Weighing Machine. (Balance actionnée par une pièce de monnaie.)

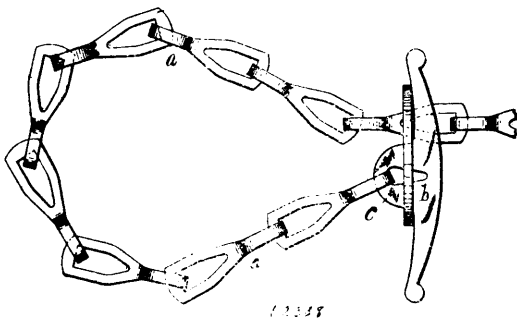


The Automatic Weighing, Lifting and Grip Machine Company, Portland, Maine, assignee of George Gregory Murray, Boston, Massachusetts, both in the U.S.A., 14th January, 1899; 6 years. (Filed 31st August, 1898.)

Claim.—1st. In a coin-controlled weighing-scale, a rotary index-shaft, a coin-released locking mechanism therefor, and a second locking mechanism operated subsequently by the action of the same coin. 2nd. In a coin-controlled weighing-scale, the combination of a spring-scale balance, a rotary index-shaft, a gravity device for actuating said shaft, the movement of which is determined by said scale mechanism, and a spring for returning said gravity device. 3rd. In a coin-controlled weighing-scale, the combination of a spring-scale balance, a rotary index-shaft, a coin-released locking mechanism for the shaft, a gravity device for actuating the shaft when released, the movement of which is determined by the scale mechanism, and a device for locking said shaft after rotation, released by the action of same coin. 4th. In a coin-controlled weighing-scale, a rotary index shaft, in combination with a coin-actuated member normally locking said shaft, a member adapted to lock said shaft after rotation, and a coin-actuated member adapted to release the last said member. 5th. In a coin-controlled weighing-scale, the combination of the shaft carrying the toothed wheels, the coin-actuated locking member engaging one of said wheels, the locking-pawl adapted to engage the other wheel, the member holding said pawl from engagement with its wheel and releasing the latter when actuated by the coin, and mechanism for rotating said shaft when released from the first said locking member. 6th. In a coin-controlled weighing-scale, a spring-scale balance comprising the rod b^1 , and the return springs, in combination with an index-shaft carrying a pinion, a gravity rack in mesh with said pinion and provided with a spring-cushioned extension in position to be engaged by said bar on its return and thereby compressed, whereby at a predetermined point in said return said rack may be actuated to return said shaft. 7th. In a coin-controlled weighing-scale, the combination of the shaft carrying the toothed wheel f^{20} , coin-released means for normally locking said shaft, and means for locking said shaft after rotation, comprising the lever f^{15} carrying a plurality of pivoted pawls f^{18} adapted to engage the toothed wheel, and a coin-actuated member adapted to release said lever and allow the pawls to fall upon said toothed wheel. 8th. In a coin-controlled weighing scale, the combination of the index-shaft, coin-released means for normally locking said shaft, a locking lever for locking said shaft after rotation, the lever f^{19} , adapted to sustain said locking lever, the coin-actuated trip f^{22} , and the connection f^{23} , between said trip and the lever f^{19} , whereby the latter is moved to release the locking lever upon the passage of a coin. 9th. A coin-controlled weighing and lifting-machine, comprising a dial, an index, and coin-controlled mechanism arranged to actuate said index to indicate the force expended in each of the two operations independently on said dial. 10th. A coin-controlled weighing, lifting, and grip-testing machine, comprising a dial, an index, and coin-controlled mechanism arranged to actuate said index to indicate the force expended in

each of these three operations independently. 11th. A coin-controlled lifting and grip-testing machine, comprising a dial, an index, and coin-controlled mechanism arranged to actuate said index to indicate the force expended in each of these two operations independently on said dial. 12th. A coin-controlled weighing, lifting, and grip-testing machine, comprising a case provided with a single dial and index therefor, two coin-chutes in said case, mechanism controlled by a coin in one chute for actuating said index to indicate the weight applied, and by a coin in the other chute to indicate either the lifting or grip power applied. 13th. The case, a lifting handle secured thereto, the spring-balance, comprising the platform, in combination with the index, and a coin-controlled mechanism, for actuating said index when said platform is depressed by the lifting strain. 14th. The case, a grip-handle thereon, and a spring-scale balance, comprising a platform, in combination with an index, and a coin-controlled mechanism adapted to actuate said index to indicate when the grip power is applied. 15th. In a machine of the class described, a reciprocating member actuated by the operator, a swinging frame carrying a sliding rack which is thrown into connection with said member by the action of a coin, an index-shaft, a pinion meshing with the rack, and means operated by the retraction of the reciprocating member for automatically separating the latter and the rack. 16th. In a machine of the class described, an index-shaft and coin-controlled actuating mechanism therefor, in combination with the friction-brake roll g^{22} , the releasing-lever g^{23} , the spring-scale mechanism carrying the ratchet-bar, and a projection on said bar for engaging the lever and releasing the brake at a predetermined point in the passage of said bar. 17th. In a machine of the class described, a spring-scale mechanism carrying a ratchet-bar, an index-shaft, a sliding rack adapted to actuate said shaft and having a pawl adapted to engage the ratchet-bar, a swinging frame carrying the rack and normally actuated in a direction to cause the engagement of the same with the ratchet-bar, a coin-operated latch for holding the latter two out of engagement, and an eccentric member carried by the rack and adapted to be moved by the retraction of the ratchet-bar, so as to automatically disengage said rack and ratchet-bar and latch the former. 18th. In a machine of the class described, the case and platform h , in combination with the swinging frame j pivoted on said case, and a handle mounted on said frame and vertically adjustable thereon. 19th. In a machine of the class described, the spring tensioned grip-actuated sliding rod, in combination with the index-shaft, and a coin-actuated mechanism adapted to be projected into the path of said rod, whereby said shaft may be rotated. 20th. In a machine of the class described, the coin-operated swinging frame, and the shaft-actuating rack carried thereby, in combination with the grip-actuated sliding rod arranged to operate said rack. 21st. In a machine of the class described, the swinging frame carrying the shaft-actuating rack and the coin-operated latch therefor, in combination with the grip-actuated bar adapted to operate said rack when the latter is unlatched. 22nd. In a machine of the class described, the grip-actuated sliding bar, in combination with the swinging frame carrying the shaft-actuating rack, the coin-operated latch therefor, means for producing engagement between the sliding bar and the rack when said frame is unlatched and means operated by the retraction of the bar, for disengaging said bar and rack. 23rd. In a machine of the class described, a coin-chute, in combination with a register for recording the number of coins deposited in said chute, and an arm projecting into the chute and arranged to operate the register upon the passage of a coin. 24th. The case having a single dial and index, separate coin-controlled mechanism for operating said index independently, and two coin-chutes pertaining to the respective mechanism, in combination with a register for recording the total number of coins deposited in the two chutes, and arms projecting into said chutes and arranged to operate said register upon the passage of coins therethrough.

No. 62,338. Chain. (*Chain.*)

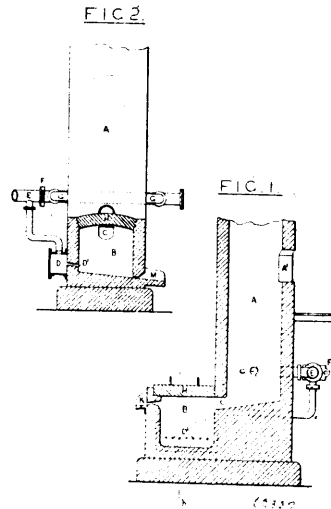


The Oneida Community, Kenwood, assignee of Amos Gillett Reeve, Niagara Falls, both in New York, U.S.A., 14th January, 1899; 6 years. (Filed 20th May, 1898.)

Claim.—1st. A chain provided with a T, which has the central portion of its inner edge adapted to fit in the sliding link, combined with the sliding link, which is adapted to fit over one of the links of

the chain and the central portion of the T, substantially as shown. 2nd. A chain composed of links which are thicker at one end than the other, and which is provided with a T upon one end, and which T has a slot extending at right angles to its length, and in which one of the links of the chain catches, the T, being also provided with an enlargement at the centre of its inner side, combined with the sliding link having a longitudinal slot or opening made therethrough, the slot being larger at one end than the other, so as to allow the thickened end of the link to pass through, substantially as set forth.

No. 62,339. Steel Manufacture. (*Fabrication d'acier.*)



Thomas James Hesketh, and Henry Jones, both of 50 North Terrace, and Victoria Street, Adelaide, South Australia, 14th January, 1899; 6 years. (Filed 25th September, 1897.)

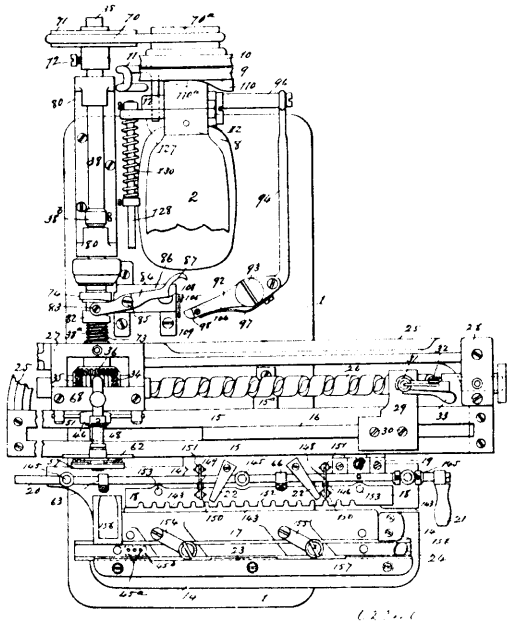
Claim.—1st. The process of producing steel which consists, first, in melting iron in a cupola under the action of an air blast, second, in conveying the molten iron by a closed passageway to a closed converter, and third, in subjecting the molten iron to an air blast in the said converter, substantially as described. 2nd. Apparatus for producing steel comprising a cupola and a converter in immediate proximity to one another, in combination with a closed passageway connecting the two, the cupola being provided with the usual feed opening and tuyeres and the converter with tuyeres, slag-hole and taphole, substantially as and for the purpose specified. 3rd. Apparatus for producing steel comprising a cupola and a converter in immediate proximity to one another, in combination with a closed passageway connecting the two, the cupola being provided with the usual feed opening and tuyeres and the converter with tuyeres, slag-hole and taphole, and a removable cover, substantially as and for the purpose specified.

No. 62,340. Sewing Machine for Honeycombing Work. (*Machin à coudre.*)

Arthur & Co., assignees of Alexander Wood, both of Glasgow, Scotland, 14th January, 1899; 6 years. (Filed 23rd October, 1897.)

Claim.—1st. In combination, in a sewing machine for doing honeycombing work, the sewing mechanism, holding means for the material, means for allowing the holding means to be laterally shifted for the purpose of spacing the stitches of one row in intermediate relation to those of the preceding row, and means for regulating this lateral adjustment to one half the space between two consecutive tacking stitches, substantially as described. 2nd. In combination, in a sewing machine for doing honeycombing work, the sewing mechanism, means for holding the material in plaited form, means for traversing the material while so held under the sewing mechanism in either direction to make lines of stitches, and means for securing a relative adjustment between the sewing mechanism, and plait holding means at the end of each line of stitches equal to one half of the space between two stitches, whereby the stitches of one row will be spaced intermediate of those of the preceding row, substantially as described. 3rd. In combination, in a sewing machine, a sewing mechanism, a frame, a clamp having a series of holes, said frame being capable of a step by step traversing movement to make a line of stitches through every second hole and for making a second line through the intermediate holes, substantially as described. 4th. In combination, in a sewing machine for doing honeycombing work, sewing mechanism and holding means for retaining the material in plaited form, said holding means being capable of a step by step movement and of an adjustment at the end of each line of stitches equal to one half the space between

two tacking stitches, so as to space the stitches of one row intermediate of those of the preceding row, substantially as described.



5th. In combination, in a machine for doing honeycombing work, the sewing mechanism, means for holding the material in plaited form, and means for traversing the material while so held back and forth under the sewing mechanism, with means for permitting the spacing of the stitches of one row intermediate of those of the preceding row, substantially as described. 6th. A honeycombing attachment for sewing machines, having in combination a travelling frame, a pleating device secured to the frame, means for automatically traversing the frame, means for reversing the direction of the traverse of the frame, and means for throwing the traversing mechanism into and out of gear at the proper times so as to regulate the feed, substantially as set forth. 7th. In a honeycombing attachment for sewing machines, the combination of a frame, a pleating knife secured to the frame, means for actuating the pleating knife, a locking strip for catching the pleats and means for opening and closing the locking strip, substantially as set forth. 8th. In a honeycombing attachment for sewing machines, the combination of a frame, a pleating knife secured to the frame, means for actuating the pleating knife, a serrated locking strip for catching the pleats, springs for depressing the locking strip, and a rock shaft provided with means for raising the locking strip, substantially as set forth. 9th. In a honeycombing attachment for sewing machines, a frame working in conjunction with a guiding slide, means for permitting a slight longitudinal movement of the frame independently of the movement of the slide, and means for locking the frame in position when moved, substantially as described. 10th. In combination, the frame 14, the slide 16, working in guides, connected with the frame, a plate 135, secured to the slide, and slots 133, 133^a, and pieces 132, 132^a, for allowing a slight relative movement of the frame and the slide, substantially as set forth. 11th. In combination, the frame 14, the slide 16, working in guides, connected with the frame, a plate 135, secured to the slide, and slots 133, 133^a, and pieces 132, 132^a, for allowing a slight relative movement of the frame and the slide, slots 140, 140^a, made in the plate, a slot 141, made in the frame, and a spring locking pawl 137, which is capable of entering into engagement with one or other of the slots 140, 140^a, substantially as set forth. 13th. In combination, the travelling frame, the pleating device, the mechanism for clamping the pleats, the slide connected with the frame, guides for the slide, a screw for traversing the frame, means for actuating the screw, a block attached to the slide, and means for bringing the block into engagement with the screw, substantially as set forth. 14th. In combination, the travelling frame, the pleating device, the mechanism for clamping the pleats, the slide connected with the frame, guides for the slide, a screw for

traversing the frame, means for actuating the screw, an attachment between the screw and the slide, a clutch for reversing the action of the screw, and means operated by the rock-shaft 20, for actuating the clutch, substantially as set forth. 16th. In combination, the travelling frame, the pleating device, the mechanism for clamping the pleats, the slide connected with the frame, guides for the slide, a screw for traversing the frame, means for actuating the screw, an attachment between the screw and the slide, a clutch reversing gear for the screw, a slide and rock-shaft arranged for shifting the clutch, and means for actuating this arrangement, substantially as set forth. 17th. In combination, the travelling frame, the pleating device, the mechanism for clamping the pleats, the slide connected with the frame, guides for the slide, a screw for traversing the frame, means for actuating the screw, an attachment between the screw and the slide, a clutch reversing gear for the screw, a slide and rock-shaft arranged for shifting the clutch, and tappets on the rock-shaft 20, for operating the slides of the arrangement, substantially as set forth. 18th. In combination, the sliding frame with its pleating device thereon, the feed screw for feeding the frame, the reversing gear for the feed screw, and a countershaft 38 operated from the loose pulley of the machine for driving the feed screw, substantially as set forth. 19th. In combination, the sliding frame with its pleating device thereon, the feed screw for feeding the frame, the reversing gear for the feed screw, a countershaft for driving the feed screw, a pulley 71 on the countershaft, and a belt passing round the pulley 71, and driven from the loose pulley of the machine, substantially as set forth. 20th. In combination, the sliding frame with its pleating device thereon, the feed screw for feeding the frame, the reversing gear for the feed screw, a shaft made in two parts for driving the feed screw, means for actuating the shaft, a clutch on the shaft for throwing the two parts into and out of working connection, and means for operating the clutch, substantially as set forth. 21st. In combination, the sliding frame with its pleating device thereon, the feed screw for feeding the frame, the reversing gear for the feed screw, a shaft made in two parts for driving the feed screw, means for actuating the shaft, a clutch box on one part of the shaft, a clutch piece on the other part, a grooved cam connected with the clutch piece, a spring pressing the clutch piece and box into engagement, a pin working in the groove of the cam, and means for altering the position of the pin, substantially as set forth. 22nd. In combination the sliding frame with its pleating device thereon, the feed screw for feeding the frame, the reversing gear for the feed screw, a shaft made in two parts for driving the feed screw, means for actuating the shaft, a clutch box on one part of the shaft, a clutch piece on the other part, a grooved cam connected with the clutch piece, a spring pressing the clutch piece and box into engagement, a pin attached to a lever, working in the groove of the cam, a spring pin for locking the lever in position and means for throwing the spring pin out of engagement with the lever, substantially as set forth. 23rd. In combination, the sliding frame with its pleating device thereon, the feed screw for feeding the frame, the reversing gear for the feed screw, a shaft made in two parts for driving the feed screw, means for actuating the shaft, a clutch box on one part of the shaft, a clutch piece on the other part, a grooved cam connected with the clutch piece, a spring pressing the clutch piece, and a box into engagement, a pin attached to a lever, working in the groove of the cam, a spring pin for locking the lever in position, a projection 105 at its end and connected with the stop lever of the machine, for depressing the projection 105 and the spring pin, thereby releasing the cam lever, substantially as set forth.

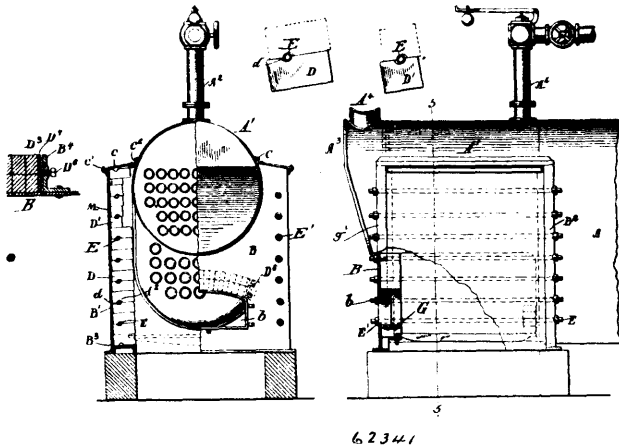
No. 62,341. Steam Boiler Furnace.

(*Fourmise de chaudière a vapeur.*)

George Nesbett Robinson, Brooklyn, and Lewis Frederick Lyne, Jersey City, New Jersey, U.S.A., 14th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. A rectangular furnace having the walls comprising a vertical metallic casing and a corresponding vertical lining of rectangular fire bricks, the several bricks being set inclined relatively to the plane of the wall, with their inner edges the highest, and presenting at their outer edges a series of pockets triangular in cross section adapted to receive corresponding angular portions of plastic packing moulded in place to aid in holding up the same without requiring special forms of brick, all substantially as herein specified. 2nd. In a steam boiler furnace, a wall comprising a vertical plate or casing B¹ of metal, and a vertical series of fire bricks within such casing laid with the lengths transverse to the wall and inclined from the inner end outward so that notwithstanding the vertical position of the wall, the gravity of the bricks shall urge them into contact with the casing, all substantially as herein specified. 3rd. A furnace wall comprising a vertical metallic casing and a corresponding vertical lining of rectangular fire bricks the several bricks being set inclined relatively to the wall, with their inner edges the highest, and presenting at their outer edges a series of triangular pockets, in combination with a correspondingly inclined shelf attached to the inner face of the casing and supporting said bricks, all substantially as herein specified. 4th. In a steam boiler furnace, the combination with a vertical casing B¹, of a perpendicular lining wall composed of fire bricks D, set inclined relatively to the wall, the inner ends the highest, the bricks being

set on edge and notched as indicated by *d d*, arranged to have the notches partially coincide when in place, and adapted to receive



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a filling or key, substantially as herein specified. 5th. In a steam boiler furnace, the combination with a vertical casing *B*¹, of a corresponding vertical lining wall composed of fire bricks *D* set inclined relatively to the wall, the inner ends being the highest, and with a packing *M* of non-conducting material interposed in a plastic state so as to fill and take the form of the space between said lining and casing, the bricks being set on edge and notched as indicated by *d d*, arranged to have the notches partially coincide when in place and adapted to receive a filling or key, all arranged to serve substantially as herein specified. 6th. In a steam boiler furnace, a vertical casing *B*¹ and corresponding vertical lining wall composed of notched fire bricks *D*, *d d*, set on edge and inclined relatively to the wall, the inner ends the highest, in combination with horizontal keys of metal lying in the notches and extending each through a number of adjacent notches, and with nuts *E*¹ therein so that the said keys serve the double function of locking the bricks against displacement laterally and tying them longitudinally of the wall, all substantially as herein specified. 7th. In a furnace having a metallic casing and an interior wall of fire-brick, a pair of abutments formed by angle-plates *B*², fixed on the inner face of the front portion *B* of the casing near the top of the fire-door opening *b* on each side thereof, and a series of arch-bricks *D*² extending across between such abutments, all substantially as herein specified. 8th. In a furnace having a metallic casing and an interior wall of fire-brick, a pair of abutments formed by angle-plates *B*² on the inner face of the front portion *B* of the casing near the top of the fire-door opening *b* on each side thereof, a series of arch-bricks *D*² extending across between such abutments and means *D*³ for adjusting the bearing of one of such abutments, all arranged to serve, substantially as herein specified. 9th. The combination with a steam-boiler furnace, having a cast-iron front, of a dead-plate or hearth *G* having deep notches in its back edge rounded at their bottoms to reduce liability or cracking, said plate or hearth being located to protect the front below the door-opening therein, all arranged to serve substantially as herein specified. 10th. The combination with a steam-boiler furnace, having a cast-iron front provided with a rearwardly extending lip or flange around the door-opening therein, of a separately-formed dead-plate or hearth *G*, with deep notches in its back edge rounded at their bottoms, said plate being located contiguous to the lower part of the flange, and means as shown for detachably connecting said dead-plate or hearth *G*, substantially as herein specified. 11th. A boiler-furnace having a vertical casing in combination with a lining-wall comprising a perpendicular series of fire-bricks, and a top plate *C* detachably secured in position, substantially as herein specified. 12th. The combination in a boiler-furnace supporting the cylindrical boiler portion *A*¹, of a lining-wall comprising a perpendicular series of fire-bricks, those bricks adjacent to the portion *A*¹, being of shorter length, to present an effective heat-space in the upper part of the furnace and at the side of said boiler portion *A*¹, substantially as specified. 13th. A boiler-furnace having a lining-wall of parallel-sided bricks laid in a self-supporting wall with the adjacent faces of said bricks sloped upward inwardly, substantially as described.

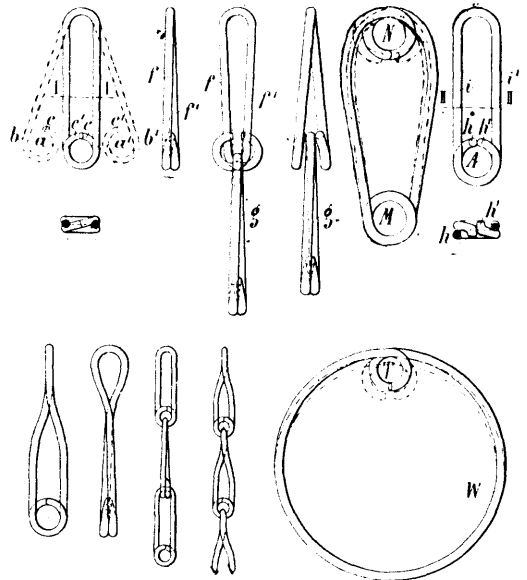
No. 62,342. Chain-Link, Hook and Ring.

(*Chainon anneau, etc.*)

Gustav Wilke, Grüne, Westfalia, Prussia, Germany. 16th January, 1899; 6 years. (Filed 27th May, 1898.)

Claim.—1st. In combination with a link made of a piece of wire, bent in the middle of its length to form a loop, eyes *a* and *a*¹ forming each three quarters of a circle or approximately so, the end of the wire forming the one eye *a*, being turned leftways, the other *a*¹, to the right and the first one pressed at the same time upwards the other one downwards to form three-fourths of a complete (circular) screw-thread with a rise or pitch of half the thickness of the wire,

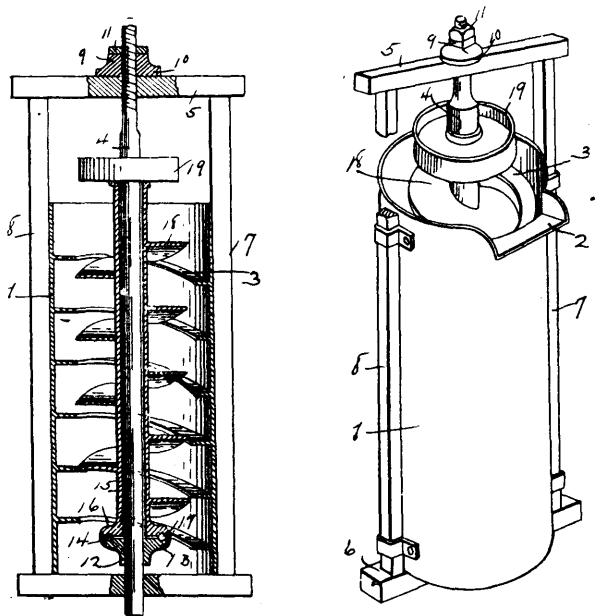
so that, when both eyes are approached so much as to cover each other, the ends of the wire meet flush and abut against each other



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and form together a completely closed circular eye. 2nd. In combination with a link made of a piece of wire bent in the middle to form a loop, an eye *A*, the ends *b*, *b*¹ of the wire forming said eye being bent outwards in opposite directions and forming short hooks but touching each other at the bend to form a closed eye. 3rd. In combination with a link made of a piece of wire bent double in the middle of its length to form a closed eye *M*, an eye *N* made by bending the ends of the wire in opposite directions so as to form three-fourths of a circle each, and that the end face of the wire abut against each other. 4th. In combination with a ring *W* an eye *T* made by bending the ends of the wire of the ring in opposite directions, so as to form half a circle each and so that the end faces of the wire abut against each other, the whole as described and illustrated and for the purpose set forth.

No. 62,343. Pump. (Pompe.)



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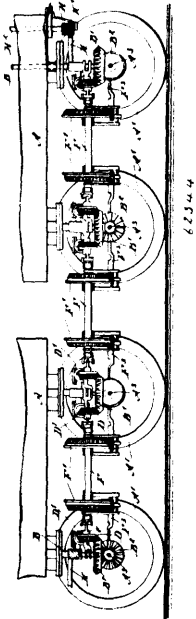
Allen B. McCoskey, Lincoln, Nebraska, U.S.A., 16th January, 1899; 6 years. (Filed 31st August, 1898.)

Claim.—1st. A pump comprising a stationary cylinder provided with a female Archimedean screw-thread, in combination with a

central vertically-adjustable shaft provided with a bearing-collar upon which revolves a sleeve provided with a male Archimedean screw and means for rotating the same, substantially as and for the purpose set forth. 2nd. A pump comprising the frame, the stationary cylinder 1 provided with the spiral flange 3, in combination with the central stationary shaft 4, provided with the adjustable nut 9 and the stationary collar 12, the sleeve 15 journalled on said shaft 4 and formed with a bearing-flange 16, a driving pulley 19, and a spiral flange 18, the pitch of which rises in the opposite direction to the rise or pitch of the spiral flange on the stationary cylinder, substantially as and for the purpose set forth.

No. 62,344. Waggon Steering and Driving Mechanism.

(Moteur et mécanisme à gouverner pour wagons.)



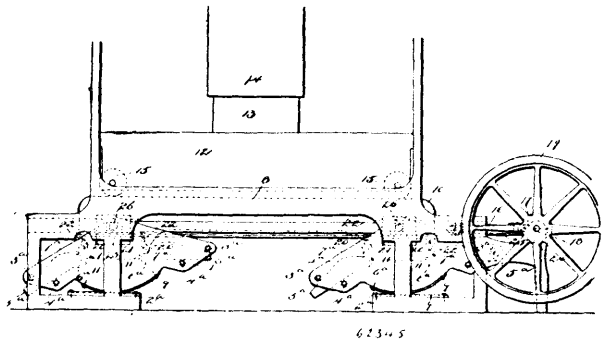
Leigh Watkins, Denver, Colorado, U.S.A., 16th January, 1898; 6 years. (Filed 9th April, 1898.)

Claim.—1st. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles, and extending horizontally toward each other, and a horizontal shaft having a gear slidably keyed upon each end and meshing with the segment gears, substantially as described. 2nd. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles and extending horizontally toward each other, a horizontal shaft having a gear slidably keyed upon each end and meshing with the segment gears, and means for holding the segment gears and sliding gears in contact, substantially as described. 3rd. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles and extending horizontally toward each other, and a horizontal shaft having a gear slidably mounted on each end thereof and meshing with the segment gears, said sliding gears and segment gears having one, a rib and the other a groove, which engage to lock the two and prevent relative movement longitudinally of the shaft, substantially as described. 4th. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles and extending horizontally toward each other, a horizontal shaft having a gear slidably keyed upon each end and meshing with the segment gears, a bracket supported from the shaft, and a roller carried by the bracket and engaging the opposite side of the segment and maintaining contact between the segment and slidable gears, substantially as described. 5th. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles and extending horizontally toward each other, a horizontal shaft having a gear slidably mounted on each end thereof and meshing with the segment gears, said sliding gears and segments having one a rib and the other a groove which engage to lock the two and prevent relative movement longitudinally of the shaft, a bracket supported from the shaft, and a roller carried thereby and engaging the opposite side of the segment and maintaining contact between the segment and slidable gears, substantially as described. 6th. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles and extending horizontally toward each other, a horizontal shaft having a gear slidably keyed upon each end and meshing with the segment gears, and also having similar segment gear, gear wheel and shaft upon the outer side of the axle by which two similar waggons may be connected and simultaneously controlled, substantially as described. 7th. A waggon gearing having axles mounted to swing horizontally, segment gears attached to the axles, and extending

horizontally toward each other, a horizontal shaft having a gear slidably keyed upon each end and meshing with the segment gears, a steering segment fixed to one of said axles, a pinion meshing therewith, and a hand wheel connected to said pinion, substantially as described. 8th. A waggon steering device, comprising axles mounted to swing horizontally, and connections between adjacent axles upon different waggons, comprising segment gears fixed to the axles longitudinal shafts, gears upon each end of said shafts and meshing with the segment gears, and hand-controlled means for turning one of said axles, substantially as described. 9th. A waggon driving mechanism, comprising wheels locked to the axles, each axle having a bevel gear secured thereto and alternately upon opposite sides of the centre of the axles, and a bevel gear mounted upon a vertical shaft and meshing with the axle gear, said gear being double and having a toothed section upon each side, a shaft extending lengthwise of the waggon between the axles and having gears on each end meshing with the gear upon the vertical shaft, and means for applying power to one of said axles, substantially as described. 10th. A waggon driving mechanism, comprising wheels locked to the axles, each axle having a bevel gear secured thereto and alternately upon opposite sides of the centre of the axles, a bevel gear mounted upon a vertical shaft and meshing with the axle gear, said gear being double and having a toothed section upon each side, a yoke pivoted concentric to said vertical shaft, a horizontal shaft journalled in said yoke and having a gear wheel meshing with the gear on the vertical shaft, horizontal shafts extending lengthwise of the waggons, and universal couplings connecting said horizontal shafts, substantially as described. 11th. A waggon having axles mounted to swing horizontally, clutches upon the axles adapted to normally lock each wheel to the axle, a reach connecting front and rear axles, and connections from the reach to the clutches, whereby one wheel is automatically disconnected from the axle when turning a curve, and connected thereto when the waggon is straightened out, substantially as described. 12th. A waggon having axles mounted to swing horizontally, clutches upon the axles adapted to normally lock each wheel to the axle, means connecting the axles to swing them together, pivoted levers controlling the clutches, cams adapted to engage said levers to disengage the clutches, and links connecting said cams with the steering mechanism to automatically disengage the inner wheels when turning a curve, substantially as described.

No. 62,345. Mechanical Movement.

(Mouvement mécanique.)



Arthur Lee Heglar, Wheat, Tennessee, U.S.A., 16th January, 1899; 6 years. (Filed 9th September, 1898.)

Claim.—In a mechanical movement, the combination of a rocker mounted upon a supporting surface, and provided at points remote from the point of bearing upon said supporting surface with spaced bearing-points, a wedge-shaped converting-lever disposed in the interval between said spaced bearing-points with its opposite rearwardly-divergent bearing-faces respectively in contact with the bearing-points, and a plunger seated upon said converting-lever at a point in rear of the spaced bearing-points and in front of the bearing-point of the rocker upon the supporting surface, substantially as specified.

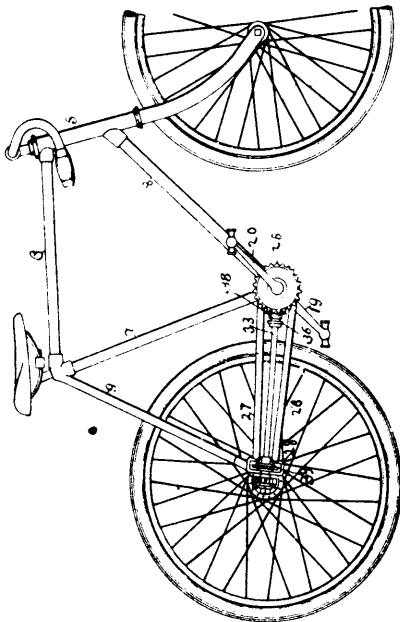
No. 62,346. Bicycle. (Bicycle.)

Charles Herman Metz, Waltham, Massachusetts, U.S.A., 16th January, 1899; 6 years. (Filed 19th September, 1898.)

Claim.—1st. In a bicycle, the combination with a crank hanger, of means adapted to carry the crank and its bearings, adjustable on the hanger independently of such bearings. 2nd. In a bicycle, the combination with the hanger sleeve of two frame members extending rearwardly therefrom, one above the other, and an enlarged yoke connecting said members at their rear ends. 3rd. In a bicycle, a pair of frame members arranged one above the other, an exposed drive-shaft located between said members, and means connected with the frame for rotatably supporting the drive-shaft. 4th. In a bicycle, the combination with a rearwardly extending bearing adjacent to the crank-hanger, a frame member having a screw-threaded collar adjacent to the support for the driven wheel

and a screw bearing in said collar, of a drive-shaft, rotatably mounted in the bearings. 5th. In a bicycle, the combination with

valve, substantially as described. 2nd. In a pump, the combination of a barrel, a foot valve at the lower end thereof, a hollow pump rod



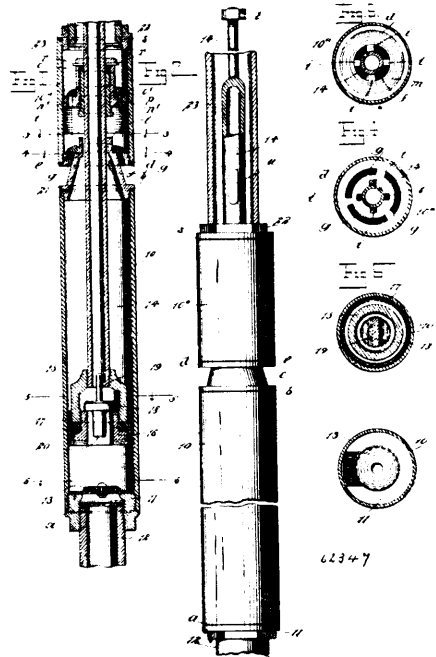
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a frame comprising upper and lower members and a yoke connecting the members at their rear ends and furnished with a screw-threaded collar, a forward bearing between said members, and a screw-cone in said collar, of a drive-shaft journalled in said bearings. 6th. In a bicycle, the combination with the drive-shaft furnished with an enlarged screw-threaded portion, of a sleeve having internal and external threads, mounted on said enlarged portion, and a gear having a sliding fit on said shaft and furnished with an internally-threaded collar in engagement with the sleeve. 7th. In a bicycle, a shaft for the rear wheel provided with a sliding cone and furnished with a screw adapted to bear on the cone. 8th. In a bicycle, the combination with a suitable frame, of a shaft for the rear wheel screw-threaded at one end and having a clamping frame at the other end, a cone adapted to screw on to the threaded end of the shaft, a cone sliding on the opposite end of the shaft, means mounted in the clamping frame for adjusting the sliding cone, and a connection between said frame and the general frame of the bicycle whereby the clamping frame may be adjusted thereon. 9th. In a bicycle, a wheel-hub having a cup-shaft flange and a sleeve disposed within said flange, a gear secured to said sleeve, and a ball way also secured to the sleeve. 10th. The combination with the hanger sleeve 11, of the frame comprising the members 26 and 27, and the yoke 28. 11th. The combination with the hanger sleeve 11, the bearing cup 30, with its bearing secured thereto, the collar 29, at the rear of the frame, and the screw-cone 32, adjustable in said collar, of a drive-shaft mounted between said cone and bearing. 12th. The combination with the crank-hanger, the cup 30, thereon, the bearing 31, the members 26 and 27, extending from the hanger, the yoke 28, connecting said members and having the threaded collar 29, the cone 32, in the collar, and a drive-shaft journalled between the cone and the bearing 31, and having gears, of a crank-shaft journalled in said hanger and having a gear engaging one of the gears on the drive-shaft, and a gear rotatably in the bicycle frame and having a gear engaging with another gear on the drive-shaft, as described. 13th. The combination with the yoke 28, having the collar 29, and the screw-cone 32, mounted on the collar, of the shaft 40, having the frame 42, clamped to said cone by the bolt 44, passing through the ears 43, the said frame having the members 45, in which the bolt 46, works on the ears 48, the screw 49, working in said ears, and the sliding cone 51, on said shaft against which the screw 49, bears, as and for the purpose described.

No. 62,347. Double Acting Pump. (Pompe à double effet.)

Mathais Tile Koogler, De Graff, Ohio, U.S.A., 16th January, 1899; 6 years. (Filed 26th September, 1898.)

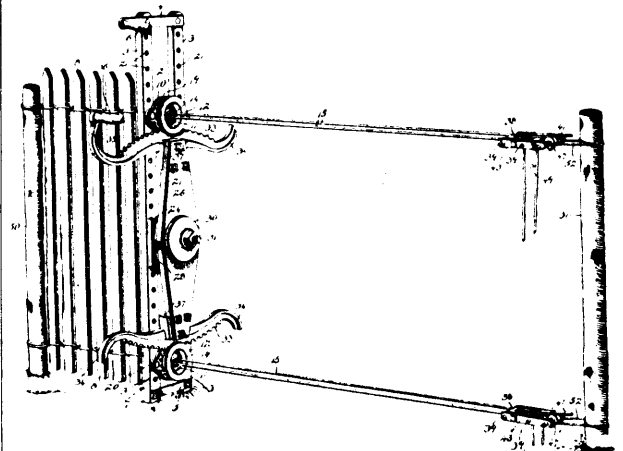
Claim.—1st. The combination with a pump barrel, a foot valve on the lower end of said barrel, a hollow pump rod, and a plunger valve on the lower end of the pump rod, adapted to pass liquid into said rod when the plunger valve is depressed, of a pump barrel extension, a coniform connection secured by one end on the top of the pump barrel and having an apertured circumferential valve seat, secured on the lower end of the pump barrel extension, an annular valve engaging said seat, guides holding the valve spaced from the hollow pump rod to provide a liquid passage around said rod, and a check valve in the barrel extension above the annular



62347

working in the barrel, a piston carried by the pump rod, a lifting valve commanding the lower end of the pump rod, a barrel extension located above the barrel, a coniform connection between the barrel and the barrel extension, through which connection the pump rod, passes, the combination serving to permit communication between the barrel and barrel extension, a joint ring carried by the connection and having orifices communicating with the exterior of the barrel, a valve seated on the jointed ring to command the orifices, and a check valve mounted in the barrel extension above the first named valve of said extension. 3rd. In a pump the combination of a barrel, a hollow pump rod working in the barrel and serving to lift a column of water through the pump rod, a barrel extension located above the barrel and having the pump rod passed therethrough, a conical connection between the barrel and barrel extension, the connection permitting communication between the barrel and the barrel extension, a joint ring at the lower end of the barrel extension and having orifices communicating with the exterior of the barrel, a valve seat on said ring to command the orifices thereof, and a check valve mounted in the barrel extension above the first-named valve thereof.

No. 62,348. Fence Machine. (Machine à cloture.)



62348

William Fontaine Seargeant, Marshall, Missouri, U.S.A., 16th January, 1899; 6 years. (Filed 27th December, 1898.)

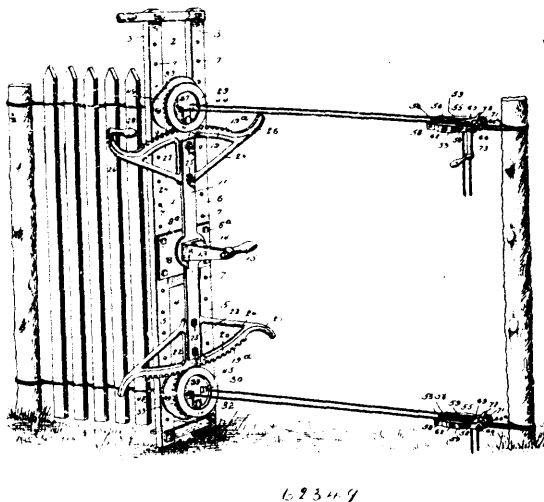
Claim.—1st. In a fence-machine, the combination of a pair of wire-twisters, and an oscillating lever fulcrumed intermediate of its ends between the wire-twisters and provided at its extremities with transversely-disposed toothed segments, intermeshing with correspondingly-toothed portions of the wire-twisters, substantially as

and for the purpose set forth. 2nd. In a fence-machine, the combination of a pair of wire-twisters, and an oscillating lever fulcrumed between the said twisters, and having transversely-disposed toothed segments at its ends, intermeshing with toothed portions of the said wire twisters, and having stops at the ends of the transversely-disposed toothed segments, to engage with the wire-twisters, and limit the throw of the oscillating lever in each direction, substantially as set forth. 3rd. In a fence-machine, the combination of a pair of wire-twisters, and an oscillating lever operating between the said wire twisters and having toothed segments at its ends, intermeshing therewith, the terminal portions of the toothed segments being curved in opposite directions to engage with the sides of the wire-twisters and limit the movement of the lever, substantially as and for the purpose set forth. 4th. In a fence-machine, the combination of a frame, wire-twisters having adjustable connection with the frame, and an oscillating lever adjustably mounted upon the frame, intermediate of the wire-twisters and movable therewith, and provided at its ends with toothed segments intermeshing with the said wire-twisters, substantially as specified. 5th. In a fence-machine, the combination of a frame, wire-twisters adjustable upon the frame, a plate provided with a journal, means for adjustably connecting the plate with the frame, and an oscillating lever mounted upon the journal of the plate and provided with toothed segments at its ends, intermeshing with correspondingly-toothed portions of the wire-twisters, substantially as and for the purpose described. 6th. In a fence-machine, the combination of a frame having separated parts, a bearing adjustable in the space formed between the said separated parts and comprising a ring and a flange, the latter having apertured ears, means for adjustably connecting the bearing with the separated parts of the frame, a wire-twister journaled in the said bearing and having a toothed portion and an outer flange, the toothed portion coming between the flange of the bearing and the flange of the wire-twister, and actuating means for the wire-twister operating jointly with the toothed portion thereof and between the flange of the bearing and wire-twister, substantially as described. 7th. A fence-machine, comprising a frame of substantially H form, having a series of openings along its edges, wire-twisters adjustable in the spaces or slots provided at the ends of the frame, and having positive connection with the parallel arms, a plate having adjustable connection with the middle portion of the frame and provided with a journal, an oscillating lever mounted upon said journal, toothed segments at the ends of the oscillating lever intermeshing with toothed portions of the wire-twisters, and provided at their ends with curved terminals forming stops, and a handle applied to an extension of one of the curved stops, substantially as set forth and for the purpose described. 8th. In a fence-machine, a tension device for the strands or companion wires of a cable, comprising a frame having lateral extensions, tension-bars applied to the sides of the frame and adapted to grip the strands or companion wires between them and the sides of the frame, a tension bolt for connecting the tension-bars, and means for securing the tension device to a post or support, substantially as set forth. 9th. In a tension device for fence-machines, the combination of a frame, tension-bars co-operating with side-bars of the frame for gripping the fence wires, and having one end extended, a windlass journaled in the extended ends of the tension bars, and provided with a spur-wheel at an intermediate point and a latch having connection at one end with the frame and adapted to engage with the spurs of the spur-wheel to hold the windlass against rotation, substantially as and for the purpose set forth. 10th. A tension device for wire-fence machines, comprising an approximately rectangular shaped frame, having laterally-extending studs, tension-bars disposed at the sides of the frame and having openings to receive the said studs, a clamp-bolt for connecting tension-bars, and causing them to grip the fence-wires with a greater or less degree of pressure, a windlass journaled in extensions of the tension-bars and provided at an intermediate point with a spur-wheel, and a latch pivoted to the frame and adapted to make positive engagement with any one of the spurs of the spur-wheel, substantially as set forth for the purpose specified. 11th. In a fence-machine, a tension device for the strands or companion wires of a cable, comprising a frame having lateral extensions, tension-bars applied to the sides of the frame and adapted to grip the strands or companion wires between them and the sides of the frame, and a tension-bolt for connecting the tension-bars and having its head countersunk in one of the tension-bars so as to prevent it from turning, substantially as and for the purpose set forth. 12th. In a fence-machine, the combination with a frame of bearing-rings seated therein, wire-twisters having cylindrical portions journaled in and extending through said bearing-rings, keys or keepers extending through openings in said cylindrical portions, and washers interposed between said keys or keepers and the ends of the bearing-rings, substantially as described. 13th. In a fence machine, the combination with a frame having its upper and lower ends bifurcated, said frame supporting wire-twisters and operating mechanism therefor, of bars connecting the arms of said bifurcations and located, respectively, at the upper and lower ends of said frame, the lower bar having a projecting plate affording a support for the bottom of the picket to be wired, substantially as described. 14th. In a fence-machine, the combination with a frame having its upper and lower ends bifurcated, said frame supporting wire-twisters and operating mechanism therefor, of bars connecting the arms of said bifurcations and located, respectively, at the upper and lower ends of said frame, the upper bar having one end extended and provided

with a handle, and the lower bar having a projecting plate affording a support for the bottom of the picket to be wired, substantially as described.

No. 62,349. Slat and Wire Fence Machine.

(Machine à clôture de fil de fer.)

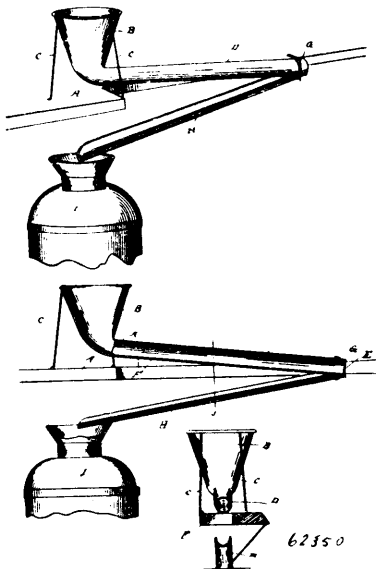


William Fontaine Sergeant, Marshall, Missouri, 16th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. In a fence-machine, the combination with an upright and twister-heads journaled thereon, of a fulcrum-plate rigidly clamped to said upright, a lever journaled on said fulcrum-plate and carrying means for engagement with the twister-heads to operate the latter, and a carrying-handle clamped to the fulcrum-plate to hold the operating-lever against displacement thereon and for moving the machine lengthwise along the wires, substantially as described. 2nd. In a fence-machine, the combination with an upright, and twister-heads, carried thereby, of a fulcrum-plate clamped to said upright and provided with a hollow boss, an operating-lever journaled on said boss and having means for engaging with the twister-heads to rotate the latter, a carrying-arm fitted against the boss to confine the operating-lever in place thereon, and a bolt having a head seated in said boss, and a nut bearing on said carrying-arm whereby to hold the latter rigidly in place on the fulcrum-plate, substantially as described. 3rd. In a fence-machine, the combination with a twister-head, of interchangeable spacing-jaws adapted to be removably mounted there-in, substantially as described. 4th. In a fence-machine, the combination with a twister-head, of interchangeable jaws adapted to be mounted therein for spacing the wires, and means for clamping said jaws removably in place in said twister-head, substantially as described. 5th. In a fence-machine, a tubular twister-head provided with an interior web, spacing-jaws mounted on said web within the twister-head and arranged to form wire-passages therein, and means for clamping said jaws removably in place in the twister-head, substantially as described. 6th. In a fence-machine, a tubular twister-head provided with a transverse web, spacing-jaws seated removably on said web and within the twister-head, and a plug detachably secured to the web within the twister-head and engaging with said jaws to hold them rigidly in place, substantially as described. 7th. In a fence-machine, a tubular twister-head provided with a transverse web arranged therein to form an opening, a segment-shaped plug removably fitted in said opening of the twister-head, saws seated on the web to form wire-openings through the twister-head and clamped in place removably therein by said plug, and a clamping-screw engaging with said plug and the web of the twister-head, substantially as described. 8th. In a fence-machine, a tubular twister-head provided on its interior with a transverse web having a central tongue, removable spacing-jaws fitted upon said web upon opposite sides of the tongue thereof and arranged to form wire-passages in the twister-head, a clamping-plug fitted in the head upon the web and engaging the removable jaws, and a clamping-screw engaging said web and plug to hold the latter and the jaws removably in place, substantially as described. 9th. In a fence-machine, the combination with an upright, slotted to form parallel arms, of an angular journal-block fitted in said upright between its arms provided with an off-standing flange secured removably to the arms of the upright, a twister-head journaled in said journal-block and protruding from the rear side thereof, a pin passing through the twister-head to hold the same from endwise displacement in the journal-block, and a keeper for securing said pin in place, substantially as described. 10th. In a fence-machine, an operating-lever, segment-gears provided with recessed tangs and having braces joining the segments and tangs, and bolts adapted to secure the opposite ends of said lever firmly in the recesses of said tangs, substantially as described. 11th. In a fence-machine a

tension device consisting of clamping-plates, a shaft journalled in said plate, a disc on the shaft provided with radial notches and with a loop-receiving notch which is deeper than said radial notches, a frame within the clamping-plates and loosely connected thereto, a bolt for drawing the clamping-plates toward the sides of the frame, and a pawl pivoted in said frame and provided with a lip adapted to engage with the notched disc, substantially as described.

No. 62,350. Milk Strainer. (*Coiloir pour le lait.*)

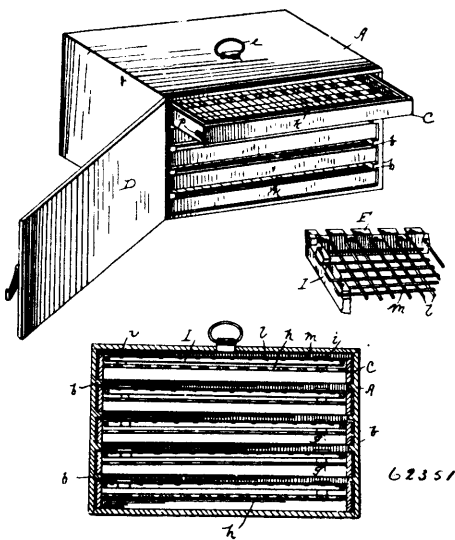


62350

John N. Wright, Luverne, Minnesota, U.S.A., 16th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—A milk-strainer, comprising a bowl or receptacle for the milk, having its sides inclined downwardly toward the centre, a pipe leading from the bottom thereof laterally and slightly downward, having its outer end closed and provided with perforations in its lower side extending throughout the length of the pipe, and a trough below the perforated pipe in the same vertical plane but inclined downward in the opposite direction to receive the milk passing through the perforations in the inclined pipe, substantially as described.

62.351. Egg Case. (*Boite à œufs.*)



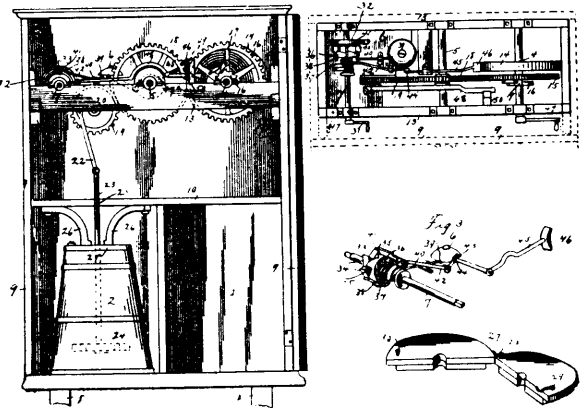
62351

Alvin J. Branham, Springfield, Missouri, U.S.A., 16th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—An egg-holding drawer comprising in its construction a fixed tray having a bottom provided with seats for the eggs, a lid-frame hinged thereto and provided around the upper edge thereof

with a series of retaining lugs or projections, and a meshing consisting of a series of longitudinally and transversely extending elastic bands stretched across the opening of said frame and secured to said lugs, the longitudinal elastic bands being adapted to bear against opposite sides of the eggs and the transverse bands upon the upper portions or sides thereof, substantially as described.

No. 62,352. Churn Mechanism. (*Mécanisme de baratte.*)

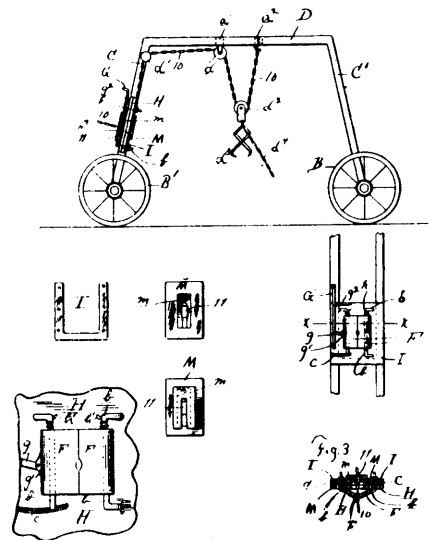


62352

Lincoln Reed, Tabor, Iowa, U.S.A., 16th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. In a churn-operating mechanism, the combination with a suitable casing, of a spring-actuated power mechanism, mounted therein, a plunger-rod connected to said mechanism, a bell mounted in said casing, a spring-actuated shaft carrying a fast clutch-wheel and a loose clutch-wheel, pins mounted on the loose clutch-wheel, a bell-clapper adapted to be struck by said pins, a pawl for engaging the fast clutch-wheel, and a trip adapted to be engaged by the spring of the lower mechanism to release the pawl, substantially as described. 2nd. In a churn-operating mechanism, the combination with a suitable containing-casing, of a spring actuated mechanism mounted therein, a pitman, a churn-dasher on the lower end of said plunger-rod, a bell, a spring-actuated shaft, a clapper adapted to engage projections upon said shaft, a ratchet-wheel mounted on said shaft, a pawl for engaging said ratchet-wheel, and a trip adapted to be engaged by the spring of the power mechanism to operate said pawl and release the bell-operating shaft, substantially as described.

No. 62,353. Cable-Stopper. (*Arrête-cable.*)



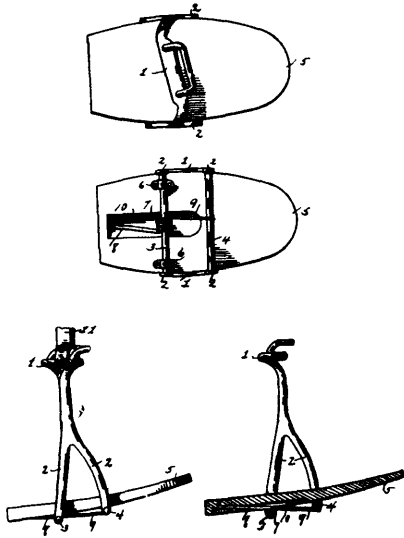
62353

Roy Simot, Holton, Michigan, U.S.A., 16th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. In a cable-stopper, gripping-jaws, one adapted to have lateral movement at its lower end in a direction opposite that

of the grip, and a hand-lever connected to said laterally-movable jaw and adapted to be automatically returned with said jaw to its original position, substantially as shown. 2nd. In a cable-stopper, the combination of the opposed jaws hung upon pintles suitably secured in position, springs applied to said pintles and adapted to hold said jaws under pressure, said jaws adapted to automatically grip the lifting chain or cable, substantially as described. 3rd. In a cable-stopper, the combination jaws hung upon pintles suitably secured in position, one of said pintles arranged in a lateral slot, and the spring-held hand-lever connected by a link to a clasp compassing or sleeved upon the pintle arranged as aforesaid, substantially as specified. 4th. In a cable-stopper, the combination of the opposed jaws arranged on pintles, springs attached to the pintles adapted to exert pressure upon said jaws, one of said pintles arranged in a lateral slot, a hand-lever, a link-connection between the hand-lever and a clasp sleeved upon the pintle, and the spring adapted to automatically return said hand-lever with the laterally-movable pintle and jaw to its normal position, substantially as specified. 5th. In a cable-stopper, opposing jaws, springs for normally forcing said jaws together, and means for moving one of said jaws laterally in a direction opposite that of the tension of the springs to separate the jaws, substantially as described. 6th. In a cable-stopper, spring-actuated opposing jaws hung upon pintles suitably secured in position, an off-set at the end of one of said pintles engaging a slot to permit of the lateral movement of one of the jaws, and means for separating the jaws, substantially as described. 7th. In a cable-stopper, the combination of opposing jaws, springs forcing said jaws together, bearings for one of said jaws whereby it may have movement in a direction opposite that of the tension of the springs, and means for operating said jaws, substantially as described.

No. 62,354. Stirrup. (Etrier.)



62354

John W. Thorn, Crandon, Virginia, U. S. A., 16th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. A stirrup, consisting of a yoke, a rearwardly-tilting foot-piece, and a spring engaging between said yoke and foot-piece and adapted to return to said foot-piece to its substantially horizontal position with relation to the yoke when displaced therefrom, substantially as set forth. 2nd. A stirrup, consisting of a supporting-yoke bifurcated at its lower ends, cross-bars connecting said bifurcated ends, a foot-piece supported by said cross-bars and pivotally attached to the rear one thereof, and a spring engaging between said foot-piece and the forward cross-bar and adapted to return said foot-piece into contact with said cross-bars when displaced therefrom, substantially as set forth. 3rd. A stirrup, consisting of a supporting yoke bifurcated at its lower ends, the forward arms of the bifurcated portions being slightly shorter than the rear arms thereof, cross-bars connecting said bifurcated ends, and a pivoted foot-piece supported by said cross-bars, the construction being such that the forward end of said foot-piece is raised slightly above its rear end, substantially as set forth.

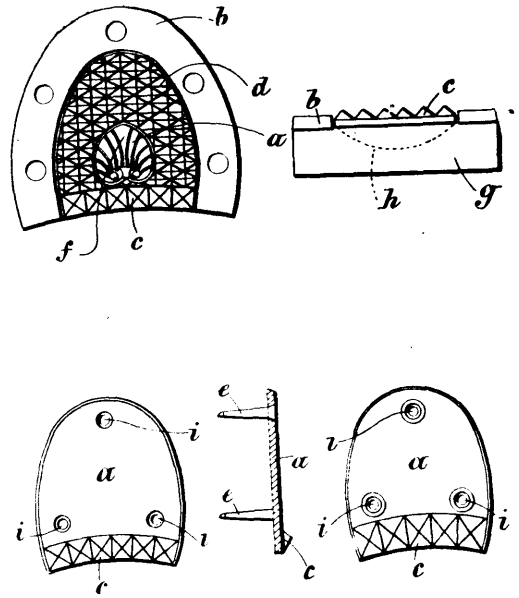
No. 62,355. Boot and Shoe Protector.

(Protecteur de chaussures.)

Edmond James Smith, Clifton Boot Factory, Ystalyfera, Glamorganshire, England, 16th January, 1899; 6 years. (Filed 12th December, 1898.)

Claim.—1st. A tip filling or heel centre protector with a dogs-tooth bridge and ornament projections formed on the surface, substantially

as herein described and according to Fig. 1, of the accompanying drawings. 2nd. A tip filling or heel centre protector with a dogs-

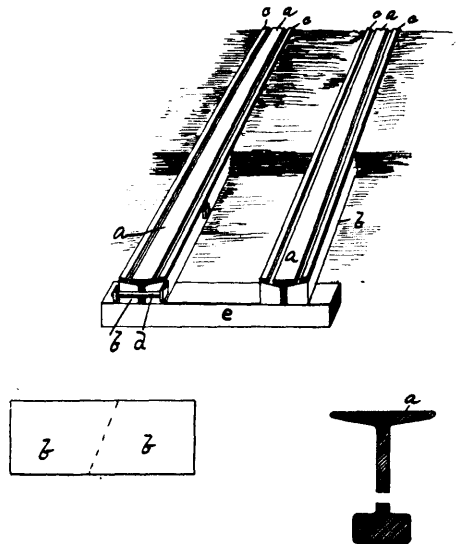


62355

tooth bridge and ornamental projections formed on the surface and a returned end or lip, substantially as herein described and according to Fig. 2, of the accompanying drawings. 3rd. A tip filling or heel centre protector having dogs-tooth bridge and ornamental projections formed on the surface with prongs at the back, substantially as herein described and according to Fig. 4, of the accompanying drawings. 4th. A tip filling or heel centre protector having a dogs-tooth bridge and ornamental projections formed on the surface with counter sunk holes, substantially as herein described and according to Figs. 3, 5 and 6, of the accompanying drawings. 5th. A tip filling or heel centre protector with raised pyramid or plain bar ridge across the front to protect the breast of heel of boots, shoes or the like, such raised pyramid ridge, or plain bar ridge to be higher than any other portion of the filling, substantially as herein described.

No. 62,356. Flat-Railed Railway.

(Chemin de fer à rail plate.)



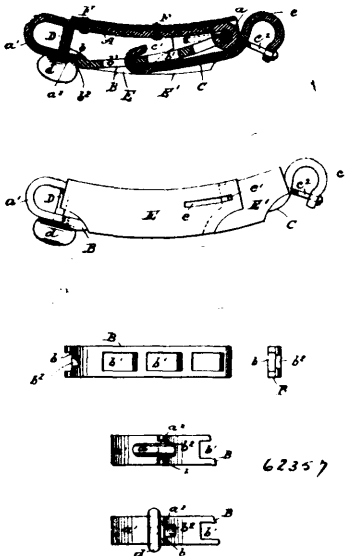
62356

Herbert Lee Stillman, Charlestown, Rhode Island, U. S. A., 16th January, 1899; 6 years. (Filed 21st December, 1898.)

Claim.—The improved highway-railway herein described, consisting of compound stingers with their tops bevelled inclining toward each other so as to form a concave surface together combined with a

rail of the T-form having the head bevelled on the underside to fit the concavity of said stringers, and the inclined guard-plates located at one or both sides of the rail, as specified.

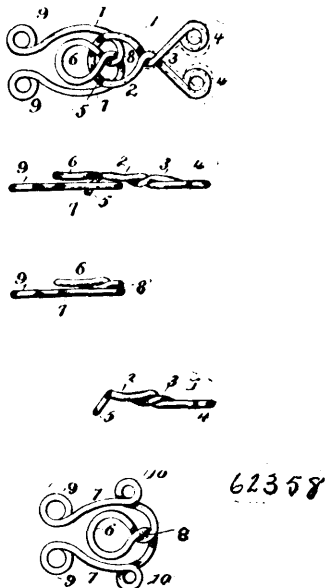
No. 62,357. Hame Fastening. (*Coupliere d'atteltes.*)



Joseph Elie Lemyre, Manchester, New Hampshire, U.S.A., 16th January, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. In a hame fastening of the character described, means for connecting the free end of the locking frame with the upper hooked curved bar, consisting of a swivelled button secured to said bar and adapted to support the frame. 2nd. In a hame fastening of the character described, means for connecting the free end of the locking frame with the upper locked bar, consisting of a button formed upon a stud threaded to said bar and adapted to support the frame. 3rd. In a hame fastening of the character described, means for connecting the free end of the locking frame with the upper hooked bar consisting of a swivelled button having an integral stud threaded to said bar and adapted to engage a groove in the free end of said frame, substantially as and for the purpose set forth.

No. 62,358. Hook and Eye. (*Crochet et oeillet.*)

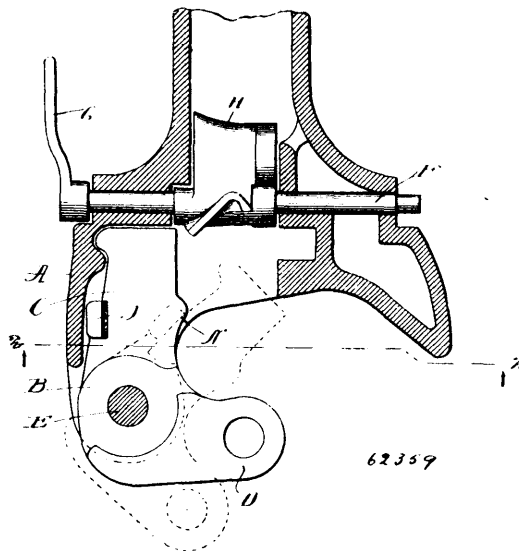


Benjamin Franklin Oreioiler, Shelby, Ohio, U.S.A., 16th January, 1899; 6 years. (Filed 26th October, 1898.)

Claim.—1st. A garment-fastening, consisting of an eye constructed of a single length of wire bent upon itself, forming a ring or circle and having its side portions brought together and inter-

locked by half-twists, and having the end portions diverging and terminating in attaching-eyes, and a hook formed of a single length of wire bent to provide a ring or circular bill having its external diameter slightly greater than the internal diameter of the ring of the eye, and having the side portions interlocked by half-twists, and having the end portions exterior and conforming to the circular bill and terminating in attaching-eyes, the front portion of the ring of the eye being deflected to occupy a position between the shanks of the hook when the parts of the fastening are engaged, substantially as set forth. 2nd. In a garment-fastener, an eye constructed of a length of wire doubled upon itself and bent to provide a ring, the front portion of which is deflected, and having the side portions brought together and interlocked by half-twists to permit the contraction and expansion of the ring in the manner and for the purpose described and the end portions diverging and bent inward, forming attaching-eyes, substantially as set forth. 3rd. In a garment-fastening, a hook constructed of a length of wire doubled upon itself and bent to provide a ring or circular bill, and having the end portions interlocked by intermeshing half-twists to provide for the contraction and expansion of the circular bill and extended, forming shanks which curve around the circular bill so as to leave spaces and terminating in attaching eyes, substantially as set forth.

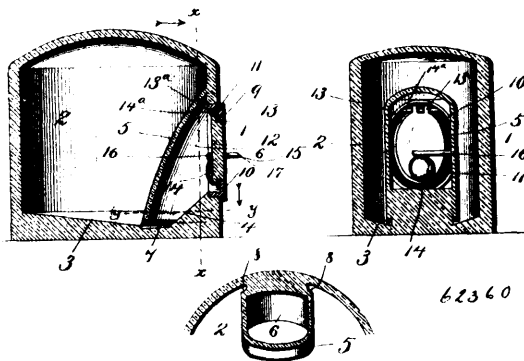
No. 62,359. Car Coupler. (*Attelage de chars.*)



Philip Hien, Chicago, Illinois, U.S.A., 16th January, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. In a car coupler, a horizontally swinging knuckle provided on the tail thereof with one or more projections, adapted to engage the coupler head, substantially as described. 2nd. In a car coupler, a horizontally swinging knuckle provided on the tail thereof, with one or more projections extending vertically from said tail and adapted to come into contact with the head to limit the movement of the tail of the knuckle, substantially as described.

No. 62,360. Ink Well. (*Encrier.*)

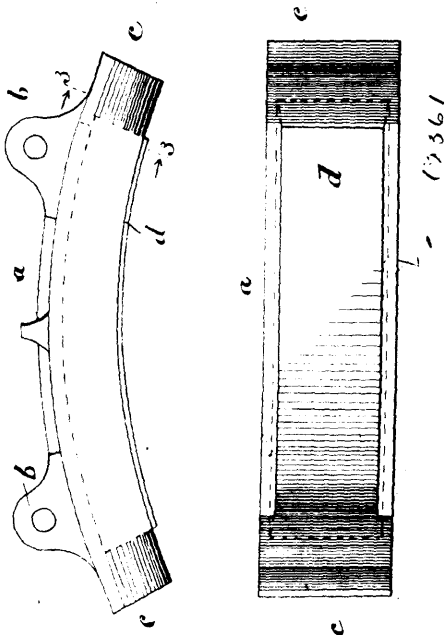


Charles Austen Prescott, Victoria, British Columbia, Canada, 16th January, 1899; 6 years. (Filed 11th November, 1898.)

Claim.—1st. An ink well comprising a casing, having a closed chamber, a dip well formed within said casing, a channel between

said dip well and said chamber, whereby the ink will be automatically fed from said chamber to said dip well in regulated quantities, and a valved opening formed in said casing leading to said dip well, whereby said opening will be kept closed excepting when in use, substantially as described. 2nd. An ink well comprising an ink reservoir, a dip well communicating with said reservoir, and a valved opening leading to said dip well, said opening being held automatically closed excepting when in use, substantially as described. 3rd. An ink-well, comprising an ink reservoir, a dip well communicating with said reservoir, an open leading to said dip well, and a controllable valve located within said opening, whereby said opening will be held closed except when being used, substantially as described. 4th. An ink well, comprising an ink reservoir, a dip well communicating with said reservoir, an opening leading to said dip well, a valve located within said opening, said valve being normally held in its closed position, and means for securing said valve in either closed or open position, substantially as described. 5th. An ink well, comprising an ink reservoir, a dip well communicating with said reservoir, an opening leading to said dip well, a valve located within said opening, said valve being adapted to automatically close said opening, excepting during the use of said dip well, and an angular lever, movable into and out of the path of movement of said valve, whereby said valve will be held secure in both open and closed positions, substantially as described.

No. 62,361. Brake Shoe. (Sabot de frein.)



Andrew Jackson Allen and James Francis Morrison, and James Francis Hill, all of Chicago, Illinois, U.S.A., 17th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. A composition for brake-shoes, consisting of comminuted iron, asphaltum and wahsatch rock intermixed in substantially the proportions specified. 2nd. The combination with the shell of a brake-shoe having enlarged taper chilled ends, the inner surfaces of the walls of the shell sloping from the back to the front thereof, of a composition contained within the shell comprising comminuted iron, asphaltum and wahsatch rock intermixed in substantially the proportions specified. 3rd. The combination with the shell of a brake-shoe, having enlarged taper chilled ends, the inner surfaces of the walls of the shell sloping back to the front thereof, of a frictional body conforming to the interior of the shell, the frictional area of the body being enlarged as the shoe is worn away to compensate for the decreasing hardness of the chilled ends of the shoe. 4th. A composition for brake-shoes, consisting of comminuted iron, asphaltum and an ingredient to counteract the elasticity of the asphaltum, substantially as described.

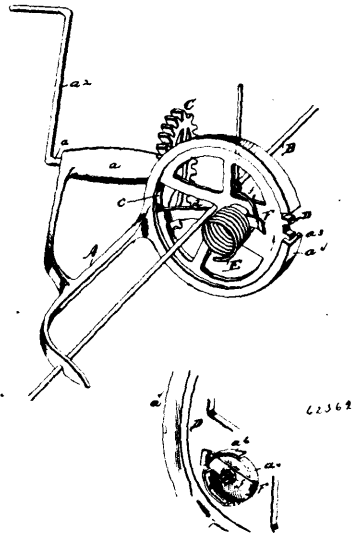
No. 62,362. Fence Making Machine.

(Machine à fabriquer des clôtures.)

William McCloskey, Essex, and James Dixon, Maidstone, both in Ontario, Canada, 17th January, 1899; 6 years. (Filed 30th December, 1898.)

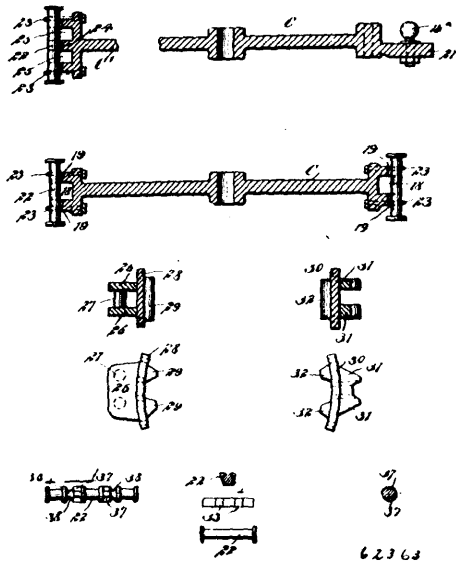
Claim.—1st. In a fence machine the combination of the frame, the wheel carrying the coil of wire, the housing, and means for turning the wheel in the housing. 2nd. In a fence machine the combination of the frame provided with a housing, the gear-wheel carrying the coil mounted in the housing and the crank and

gear for turning the gear in the housing, substantially as described. 3rd. In a fence machine, the combination of the wheel pro-



vided with a slot to receive the line wire and further provided with the rim to receive the coil, and the spring, substantially as described. 4th. In a fence machine, the combination of the gear-wheel carrying the coil, provided with the slot, and the gear-wheel provided with a double tooth to fit the slot, substantially as described. 5th. In a fence machine, the combination of the gear-wheel provided with a slot to receive the line wire and further provided with a rim to receive the coil, a U-shaped spring within said rim adapted to project beyond the rim and come in contact with the coil of wire, and a screw threaded bolt and nut for adjusting the same, substantially as described.

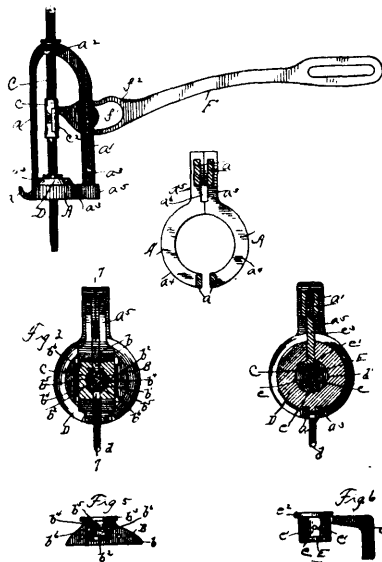
No. 62,363. Pump. (Pompe.)



The Adams Bros. Co., assignee of Joseph J. Kwis, all of Findlay, Ohio, U.S.A., 17th January, 1899; 6 years. (Filed 23rd September, 1898.)

Claim.—1st. In a power device for pumping wells and for similar purposes, the combination, with a drive-wheel having a toothed rim, brackets attached to said rims and pivot-pins adapted to receive surface rods or like devices, secured in the spaces between the teeth on the rim of said wheel and in the said brackets, for the purpose set forth. 2nd. In a power device for pumps, the combination of a drive-wheel having a toothed periphery, a bracket having teeth adapted to mesh with the teeth of the drive-wheel, a pin held by the bracket, and a surface rod having pivotal connection with the pin.

No. 62,364. Pump Top. (*Dessus de pompe.*)

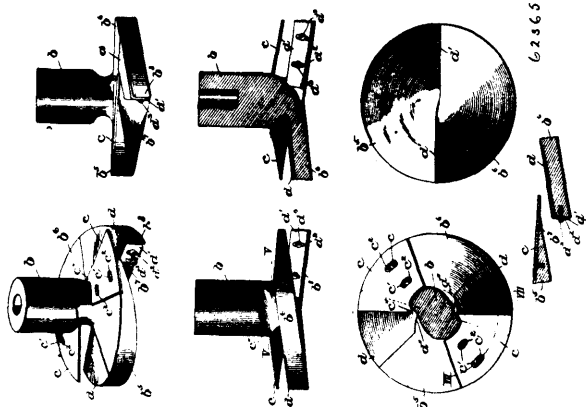


62364

John W. Weddel, William L. Taylor, and Thomas A. Jewett, all of Oregon, Illinois, U.S.A., 17th January, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. The combination with a pump-top having a suitable opening, of a guiding-block fitted to said opening and having a slot for the pump-rod, said block having upon its outer surface a depression or cavity and an opening connecting said cavity with the slot whereby the depression together with the adjacent portions of the pump top forms an oil-well for the reception of oil and waste and the opening therefrom conveys the oil to the pump-rod, substantially as described. 2nd. The combination with a pump-top having an opening therefor, of a guide-block fitted to said opening and having a horizontal flange above the same adapted to rest upon the pump-top, said block having a slot for the pump-rod, a depression or cavity in its side and an opening connecting the two, whereby when the block is in position said cavity together with the adjacent wall of the pump-top forms a closed oil-well adapted for the reception of waste and oil and the opening between the cavity and the slot conveys the oil to the pump-rod, substantially as described. 3rd. The combination with the pump-top A, having the standards *a'*, adapted for the support of a pivoted handle, of the detachable bracket G, fitted between said standards and adapted to be secured thereto and the shaft *h*, journaled therein and removable therewith having at one end suitable connections for reciprocating a pump-rod at the other suitable gearing for connection with a mechanical motor, substantially as described.

No. 62,365. Packing Auger. (*Tarière à empaquetage.*)



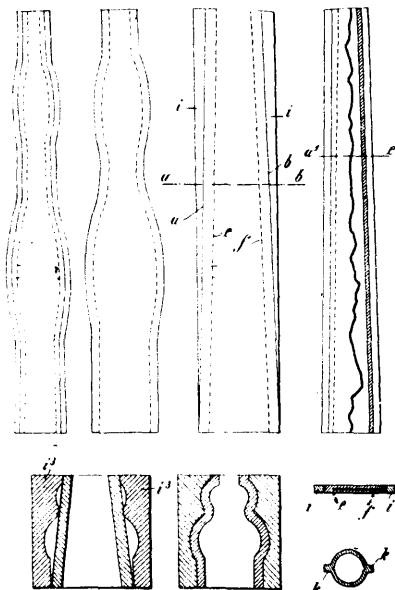
62365

Ballard and Ballard Company, assignee of John Koeler, all of Louisville, Kentucky, U.S.A., 17th January, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. In a packing auger, a blade-end attachment adjustable to vary the amount of opening between the blade-ends, together with means for fixing the attachment at different adjustments. 2nd. A packing auger having blade-ends, one overlying the

other, between which the material is taken in, and a plate adjustable to vary the area of opening between the blade-ends, together with means for fixing said plate at different adjustments. 3rd. A packing auger having blade-ends, one overlying the other and their upper surfaces in divergent planes, and a longitudinally adjustable plate on one of such surfaces for varying the amount of opening between the blade-ends by the position of the edge of the plate relative to the opposed blade-surface. 4th. A packing auger having blade ends, one overlying the other with correspondingly sloping confronting surfaces, and a plate on one of such surfaces and adjustable toward and from the same to vary the amount of opening between the blade-ends. 5th. A packing auger having blade-ends, one overlying the other with correspondingly sloping confronting surfaces and the upper blade-end having an upper surface inclined toward the upper surface of the lower blade-end, together with a longitudinally adjustable plate on the said upper surface of the upper blade-end and a plate on the upper surface of the lower blade-end adjustable toward and from the latter. 6th. A packing auger having blade-ends, one overlying the other and the lower one having a square end-face, together with a plate on the upper surface of the lower blade-end having a flange taking over the end-face of the latter and slotted, and one or more screws fastening the plate in place through its slotted flange. 7th. A packing auger having blade-ends, one overlying the other and the lower end having a squared end-face, together with a resilient plate on the upper surface of the lower blade-end, having a flange taking over the end-face of the latter and slotted, the normal angle of the plate being more acute than the angle formed by the squared blade-end and the upper surface adjacent thereto, and one or more screws fastening the plate in place through its slotted flange.

No. 62,366. Tube Manufacture. (*Fabrication de tubes.*)



62366

Franz Josef Leyfried Mulheim, Prussia, German Empire, 17th January, 1899; 6 years. (Filed 5th July, 1897.)

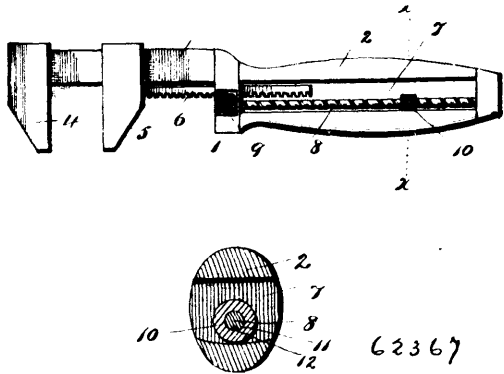
Claim.—The process of manufacturing tapering or suitably profiled tubes by rolling out hollow blocks into hollow strips, and a successive widening of these strips, characterised by the hollow blocks being made externally and internally tapered, or roughly shaped or profiled, and being then rolled out in combination with one or more shaping pieces or one or more other hollow blocks, directly into externally and internally tapered or suitably profiled double strips with a view to the said double strips being further widened out to externally and internally tapered or suitably profiled tubes, constructed and arranged substantially as hereinbefore described.

No. 62,367. Wrench. (*Clé à écrou.*)

William V. Chisholm, Ashdale, Nova Scotia, Canada, 17th January, 1899; 6 years. (Filed 19th August, 1898.)

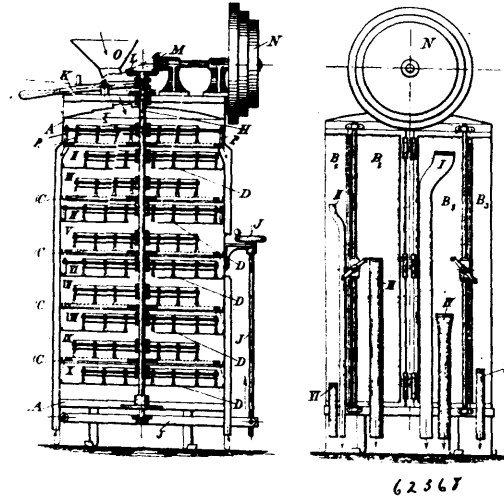
Claim.—1st. A wrench comprising a fixed jaw having a shank a jaw movable longitudinally of said shank mechanism, operatively connected to said movable jaw for imparting movement thereto, said mechanism being secured to said shank, and means, operated by pressure exerted longitudinally of said shank, for imparting a rotary movement to said mechanism. 2nd. A wrench comprising a fixed jaw having a shank, a jaw movable longitudinally of said shank, said movable jaw being provided with a rack portion,

mechanism rotatively mounted in the handle of said wrench and having an operative connection with said rack portion, for imparting



a movement to said movable jaw, and means operated by pressure exerted longitudinally of said shank, for imparting a rotary movement to said mechanism. 3rd. A wrench comprising a fixed jaw having a shank, a jaw movable longitudinally of said shank, said jaw being provided with a rack portion, a spirally-grooved rod pivotally mounted in said shank portion, said rod having a worm secured thereto, said worm being adapted to engage with and operate in the teeth of said rack portion, and a nut mounted on said rod, said nut being adapted to impart a rotary movement to said rod when pressure is exerted thereon longitudinally of said shank portion. 4th. A wrench comprising a fixed jaw having a shank, a movable jaw, mechanism operatively connected to said movable jaw for imparting movement thereto, said mechanism being operated by pressure exerted longitudinally of said shank, and means for locking said movable jaw in its adjusted position, said means being connected to and forming a part of the operating mechanism, substantially as described.

No. 62,368. Meal Sifting Machine. (*Tamis à gruen.*)



Franz Xavier Griesser, Konstanz, Baden, Germany, 17th January, 1899; 6 years. (Filed 26th November, 1898.)

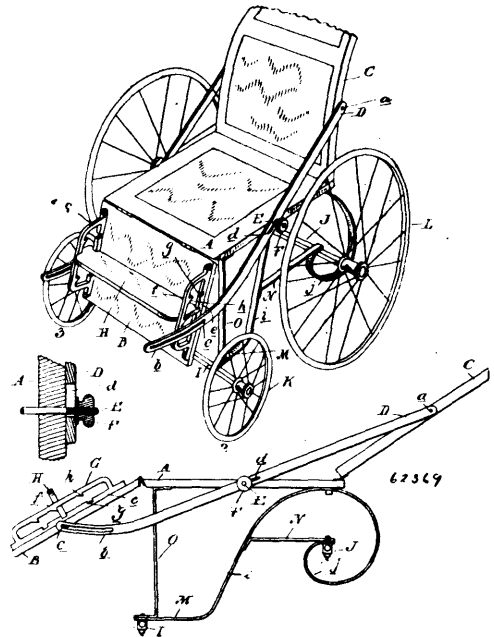
Claim.—A vertical sifting or bolting machine with spiral brushes in floors, distinguishable by its automatic sifting of grist in floors one above the other, effected by the employment of spiral shaped brushes, which are worked by a common central shaft and which moves partly over stationary horizontal sieves and partly over carrying or transport plates, whereby they perform besides the sifting also the radial carriage or transport of the grist which is put through hoppers at the top and led out through lateral delivery shoots constructed on the doors.

No. 62,369. Wheeled Chair. (*Fauteuil roulant.*)

William J. Streng, Detroit, Michigan U.S.A., 17th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. The combination with the seat section having the back and foot rest sections hinged thereto, of a side connecting bar D pivotally secured at its upper end to the back section and having the central longitudinal slot *d* and the curved and slotted and section

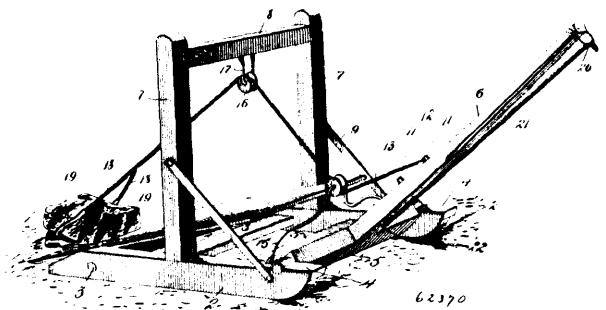
b, a pin *c* on said foot rest section with which said slotted section *b* engages and a clamping pivot on said seat section engaging with said



slot *d* and adapted to hold the parts in any position of adjustment. 2nd. The combination with the seat section having back and foot rest sections hinged thereto of bars D pivotally secured at their upper ends to said back section on opposite sides thereof, each having a central, longitudinal slot *d* and a curved and slotted end section *b*, a rod D passing transversely across seat section and the slots *d* of the bars and clamping nuts F engaging with the opposite ends of said rod. 3rd. The combination with the foot rest section, an adjustable foot board therefor, of brackets G on opposite sides of said sections, comprising parallel bars between which the ends of said board projects, one of said bars being provided with a series of notches *g* and the opposite bar with a corresponding series of lugs or shoulders *h* for the purpose described. 4th. A wheeled chair comprising a seat, the forward and rear wheeled axles and a supporting frame comprising the bars M, each attached at one end to the forward axle and having the upwardly and rearward extending section *i*, secured to the bottom of the seat near its rear edge, and the spiral spring portion *j* passing around the rear axle and secured thereto, the reach members N connecting said rear axle with the portions *i* of the bars M and the posts O supporting the forward edge of the seat.

No. 62,370. Stump Extractor and Conveyor.

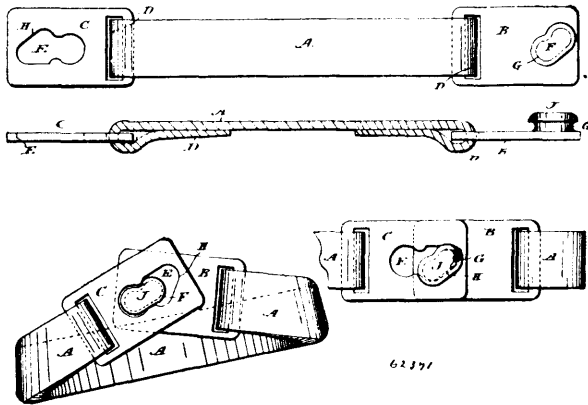
(*Arrache-souché*)



Norbert Champagne, Ste Monique, Quebec, Canada, 17th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—A stump extractor, comprising a sled portion, a platform pivotally mounted thereon, a tongue or lever pivotally mounted in said sled, said tongue forming the lever for raising the object and also forming the draught power, and a chain or rope, adjustably connected to said tongue, said chain or rope being provided with grappling hooks, substantially as described.

No. 62,371. Clasp and Buckle. (*Agrafe et boucle*)

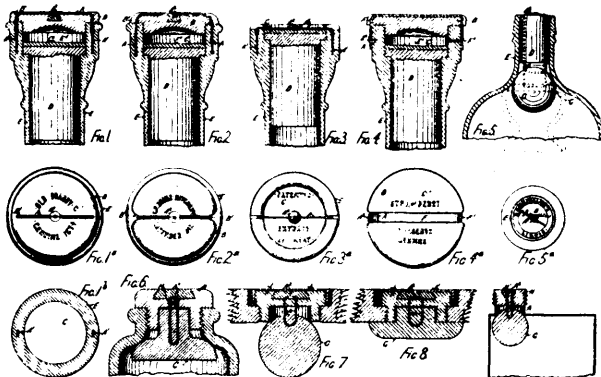


Charles Wills Rendell, Perth, Western Australia, 17th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. A buckle, fastener, clasp, or such like article having one end or portion as B, formed with a button-shaped projection as F, substantially as and for the purposes herein set forth and explained and as illustrated in the accompanying drawings. 2nd. A buckle, fastener, clasp or such like article having one end or portion as C, formed with a peculiar or irregular shaped opening as E, substantially as and for the purposes herein set forth and explained and as illustrated in the accompanying drawings. 3rd. A buckle, fastener, clasp, or such like article consisting of companion ends as B and C, which ends are formed respectively with a button as F, and an opening as E, which latter engage and lock with each other and so their two ends B and C, as is more particularly shown in figures 3 and 4, of the accompanying drawings and substantially as and for the purposes herein set forth and explained and as illustrated in all the figures of the accompanying drawings.

No. 62,372. Stopper for Bottles, Jars, Casks, etc.

(*Bouchon de bouteilles, jarres, etc.*)



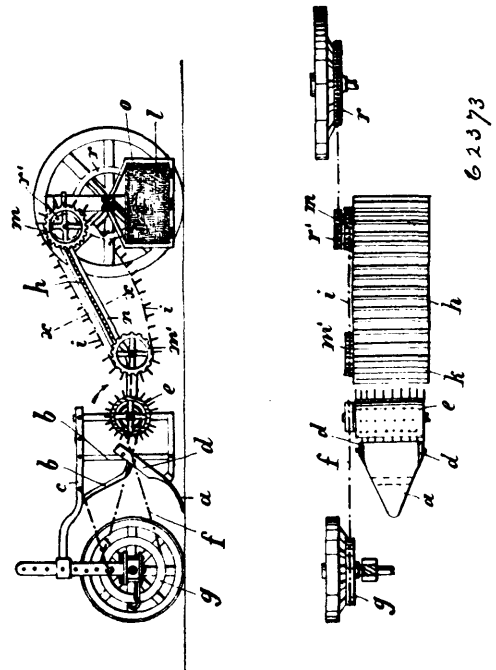
James Johnson Shuttleworth, Ryde, Sydney, New South Wales, Australia, 17th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. Improved stoppers and fastenings for bottles, jars, casks and other vessels having as their essential feature wire ends or two or more wires or indestructible cords (immovably fixed to the vessel or to an object irremovably within said vessel) and adapted to be knotted together over the stopper or a keeper of said stopper cut-off as closely as possible to said knot and sealed or cemented or flattened to said stopper or keeper, substantially as herein described and explained. 2nd. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged as and for the purposes set forth, substantially as herein described and explained and as illustrated in figures 1, 1^a and 1^b of the drawings. 3rd. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged as and for the purposes set forth substantially as herein described and explained

and illustrated in figures 2 and 2^a of the drawings. 4th. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged, as and for the purposes set forth, substantially as herein described and explained and as illustrated in figures 3 and 3^a of the drawings. 4th. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged as and for the purposes set forth, substantially as herein described and explained and as illustrated in figures 4 and 4^a of the drawings. 6th. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged as and for the purposes set forth, substantially as herein described and explained and as illustrated in figures 5 and 5^a of the drawings. 7th. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged as and for the purpose set forth substantially as herein described and explained and as illustrated in figures 6 and 9 of the drawings. 8th. Improved stoppers and fastenings for bottles, jars, casks and other vessels having parts constructed and arranged as and for the purposes set forth substantially as herein described and explained and as illustrated in figures 7 and 8 of the drawings.

No. 62,373. Potato Harvester.

(*Machine à arracher les pommes de terre.*)



Adolf Tarnow, Runowo, Wirsitz, Prussia, 17th January, 1899; 6 years. (Filed 28th December, 1898.)

Claim.—1st. In a machine for harvesting potatoes and other root crops, the combination of a share for the reception of the roots from the ground, a cleansing drum provided with ribs or tines, and an elevator for conveying the cleaned roots to the collecting receptacle, said drum and elevator being preferably driven independently from each other, substantially as hereinbefore described and illustrated by the drawings. 2nd. In a machine for harvesting potatoes and other root crops, an elevator consisting in an inclined perforated plane or one of bars with spaces between them, and an elevator chain consisting of flat iron pieces connected on both sides to pitch-chains running above it and over corresponding sprocket wheels, substantially as described and illustrated. 3rd. In a machine for harvesting potatoes and other root crops, the ploughshare fastened to the main frame by means of stays or bars, one pair of which supports the share on both sides of it, the other pair the back of the share on both sides of it, the other pair the back of the share to which they are likewise fastened, substantially as described and illustrated.

No. 62,374. Oil-Can Top. (*Dessus de bidon à huile.*)

Fred Lied, Columbus, Ohio, U.S.A., 17th January, 1899; 6 years. (Filed 28th December, 1898.)

Claim.—A top for a can, comprising a top proper, a delivery-spout for the same, filling aperture, closing-cap over the same, a hinged valve at the lower end of the spout, an arm connected to said valve, a pivoted lever mounted upon the under side of said top and engaging said arm, a vertically reciprocating rod pivotally connected to said lever, a head mounted on said rod, an aperture-guide surround

Résumé.—1° Un système de commutateur téléphonique automatique, dans lequel le poste de chaque abonné est relié à un commutateur de poste central divisé en autant de secteurs qu'il y a de groupes d'abonnés, et dans lequel chaque secteur du dit commutateur de poste central est relié à un chariot qui passe sur des poutres reliées respectivement aux fils de ligne des abonnés, et est disposé pour se mettre en communication électrique avec toute poutre donnée suivant sa position, le poste central étant ainsi divisé en groupes, dans chacun desquels il y a autant de chariots que d'abonnés et autant de poutres qu'il y a d'abonnés dans ce groupe, ainsi qu'il est essentiellement décrit. 2° Un appareil pour un poste d'abonné, comprenant (outre les instruments téléphoniques proprement dits) un commutateur disposé pour envoyer au fil de lignes des courants positifs, un second commutateur disposé pour envoyer des courants négatifs au fil de ligne, un compteur composé d'un certain nombre de roues, et un électro-aimant disposé dans un branchement qui est fermé par ce second commutateur et dont l'armature est reliée au dit compteur, en combinaison avec un commutateur de poste central répondant aux courants négatifs et positifs, et disposé pour relier le fil de ligne de l'abonné aux fils qui partent des différentes divisions du dit commutateur de poste central, ainsi qu'il est essentiellement décrit. 3° Un appareil au poste d'abonné, comprenant (outre les instruments téléphoniques proprement dits) un commutateur disposé pour envoyer au fil de ligne des courants positifs, un second commutateur disposé pour envoyer des courants négatifs au fil de ligne, un compteur composé d'un certain nombre de roues, et un électro-aimant disposé dans un branchement qui est fermé par ce second commutateur et dont l'armature est reliée au dit compteur, en combinaison avec un commutateur de poste central répondant aux courants négatifs et positifs et disposé pour relier le fil de ligne de l'abonné aux fils qui partent des différents secteurs, et des dispositifs électriques répondant aux courants négatifs, et disposés pour mettre les dits fil, en communication électrique avec d'autres fils de ligne d'abonnés, ainsi qu'il est essentiellement décrit. 4° En combinaison avec les autres parties d'un système automatique de commutateurs téléphoniques, dans lequel le poste central divisé en autant de secteurs qu'il y a de groupes d'abonnés, et dans lequel chaque secteur du dit commutateur est relié à un chariot qui passe sur des poutres reliées respectivement aux fils de ligne des abonnés et est disposé pour se mettre en communication avec toute poutre donnée suivant sa position—un compteur d'un poste d'abonné disposé pour contrôler le chariot appartenant à ce poste de façon qu'il l'arrête sur la poutre correspondant à l'abonné qu'on doit appeler, il se dit compteur étant composé d'une série de roues avec des bras pour représenter le numéro de l'abonné qu'on doit appeler, et qui, étant transportés avec les roues agissent conjointement pour envoyer au fil de ligne un courant pour arrêter le chariot au poste central, ainsi qu'il est essentiellement décrit. 5° Un compteur composé d'une série de roues munies de bras ajustables, des pointes de commutateur et une connexion pour compléter un circuit par les bras, en tension, et un dispositif actionnant un électro-aimant pour faire tourner les roues, ainsi qu'il est essentiellement décrit. 6° Un compteur composé d'une série de roues munies de bras ajustables, des pointes de commutateur et d'une connexion pour compléter un circuit par les bras, en tension, et d'un dispositif actionnant un électro-aimant pour faire tourner les roues, en combinaison avec un appareil à commutateur automatique au poste central disposé pour envoyer des courants au poste de l'abonné pour faire tourner les dites roues, et destiné à être arrêté par un courant envoyé sous l'action conjointe des dites séries de bras, ainsi qu'il est essentiellement décrit. 7° Un commutateur ayant deux électro-aimants pour faire tourner son bras, et deux séries de pointes de commutateur (une série de pointes étant disposée pour établir le circuit par l'un des dits électro-aimants, et l'autre pour établir les communications avec des dispositifs en dehors du commutateur), et des ferme-circuit mobiles en contact avec un élément de chaque série de pointes de commutateur dans une position, et avec un élément d'une série seule de pointes de commutateur dans une autre position, de façon que le circuit soit fermé simultanément par un des dits électro-aimants et des dits dispositifs extérieurs dans l'une des positions des ferme-circuit, et par les dits dispositifs extérieurs seulement dans l'autre position, ainsi qu'il est essentiellement décrit. 8° Un commutateur ayant deux électro-aimants pour faire tourner son bras, et deux séries de pointes (une série de pointes étant disposée pour établir le circuit par l'un des dits électro-aimants, et l'autre pour établir les communications avec des dispositifs en dehors du commutateur), en combinaison avec des commutateurs réglés par des électro-aimants répondant à des courants de polarité contraire à ceux qui actionnent ce dernier électro-aimant, et disposés dans les branchements qui sont reliés à cette dernière série de pointes de commutateur, ainsi qu'il est essentiellement décrit. 9° En combinaison avec les autres parties d'un système automatique de commutateurs téléphoniques, dans lequel le poste de chaque abonné est relié à un commutateur de poste central divisé en autant de secteurs qu'il y a de groupes d'abonnés et dans lequel chaque secteur du dit commutateur de poste central est relié à un chariot qui passe sur des poutres reliées respectivement aux fils de ligne des abonnés et est disposé pour se mettre en communication électrique avec toute poutre donnée suivant sa position, un commutateur de poste central ayant un bras relié au fil de ligne des abonnés et deux électro-aimants polarisés répondant respectivement aux courants positifs et négatifs pour faire tourner le dit bras, le dit commutateur étant muni d'un secteur de repos et de deux séries supplémentaires de pointes dont l'une est reliée à l'électro-

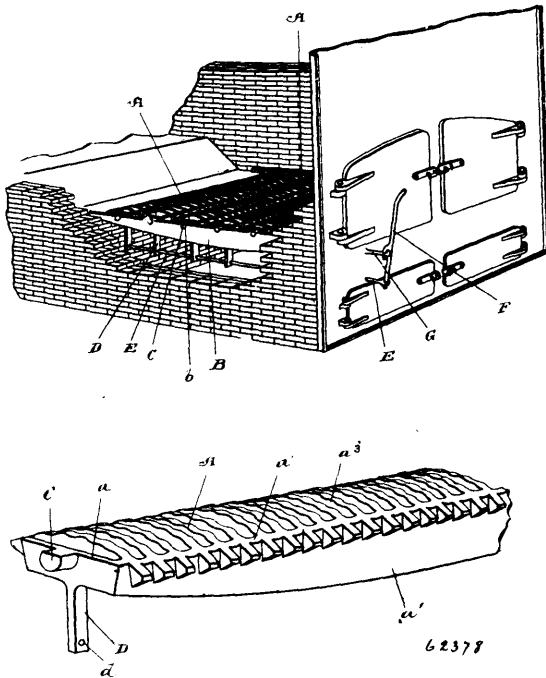
aimant positif mentionné plus haut, et l'autre aux électro-aimants respectifs qui règlent le chariot appartenant à l'abonné dans les divers groupes, ainsi qu'il est décrit en substance. 10° Dans le système automatique de commutateurs téléphoniques ci-dessus décrit, dans lequel chaque abonné est pourvu au poste central d'un chariot mobile pour établir les communications voulues, le commutateur de poste central pour chaque abonné, relié au poste des abonnés par des fils passant respectivement par le bras du dit commutateur et par deux électro-aimants de polarité contraire dont les armatures actionnent des roues à rochet qui font tourner le dit bras la plaque du dit commutateur portant deux anneaux métalliques concentriques, dont l'un est relié au dit électro-aimant négatif, et dont l'autre—divisé en dix secteurs isolés formés en deux parties et en un secteur ayant un tiers de la largeur—a une partie isolée de chacun des dits secteurs reliée au dit électro-aimant positif, et l'autre partie isolée reliée à l'un ou l'autre des électro-aimants qui règlent les mouvements des chariots correspondants, le troisième commutateur étant muni de deux balais, dont l'un est relié au fil de ligne et frotte sur les secteurs, et dont l'autre est isolé et frotte sur l'anneau et une partie des secteurs, ainsi qu'il est essentiellement décrit. 11° Un système de chariot comprenant un électro-aimant disposé pour régler un système de roues coniques sur un arbre tournant continuellement, de façon qu'elles soient toutes deux hors de contact d'avec une troisième roue ou qu'elles engrèment séparément avec celle-ci suivant leur position, une vis reliée à cette troisième roue et portant un écrou qui constitue le chariot ou en forme une partie, un bras du dit chariot, et des poutres qui sont abaissées par le dit bras en passant et s'élèvent lorsqu'il a passé le dit chariot n'étant pas arrêté par le contact des dits bras avec les poutres, mais continuant à avancer, et portant un balai qui, pendant les abaissements des poutres arrive en contact avec une série de pointes métalliques en nombre égal à celui des poutres de façon à fermer chaque fois le circuit d'une batterie et à envoyer un courant positif, ainsi qu'il est essentiellement décrit. 12° En combinaison avec les autres parties d'un système automatique de commutateurs téléphoniques dans lequel le poste de chaque abonné est relié à un commutateur de poste central divisé en autant de (secteurs qu'il y a de groupes d'abonnés, et dans lequel il y a un compteur à chaque poste d'abonné), un système de chariot correspondant à chaque secteur des commutateurs respectifs et comprenant un électro-aimant disposé pour régler un système de roues coniques sur un arbre tournant continuellement, de façon qu'elles soient toutes deux hors de contact d'avec une troisième roue ou qu'elles engrèment séparément avec celle-ci suivant leur position, une vis reliée à cette troisième roue et munie d'un écrou qui constitue le chariot ou en forme une partie, un bras du dit chariot, et des poutres qui sont abaissées par le dit bras en passant et s'élèvent lorsqu'il a passé, le dit chariot n'étant pas arrêté par le contact des dits bras avec les poutres, mais continuant à avancer et portant un balai, qui pendant les abaissements des poutres, arrive en contact avec une série de pointes métalliques en nombre égal à celui des poutres, de façon à fermer chaque fois le circuit d'une batterie et à envoyer un courant positif au poste de l'abonné pour y actionner le compteur ainsi qu'il est essentiellement décrit. 13° Un système automatique pour commutateur téléphonique—dans lequel l'appareil à chaque poste d'abonné est composé d'une série de roues avec des bras de commutateur ajustables—un dispositif à l'aide duquel un courant peut être envoyé au fil de ligne par l'action conjointe de la série de bras, un électro-aimant polarisé pour actionner les dites roues, et un dispositif à l'aide duquel des courants positifs, à un moment, et des courants négatifs, à un autre moment, peuvent être envoyés au poste central indépendamment des dits bras ajustables, et à l'aide duquel le dit électro-aimant polarisé peut être relié en circuit à un moment particulier, l'appareil au poste central, composé de groupes de poutres reliés à différents fils de ligne d'abonnés, les chariots pour tous les abonnés (un pour chaque), disposés pour passer sur les poutres de chaque groupe pour établir une communication électrique avec toute poutre voulue dans chaque groupe, un dispositif à l'aide duquel le dit chariot peut être réglé par des courants arrivant du poste d'abonné et peut envoyer des courants au dit poste pour actionner la dite série de roues et de bras de commutateur, et un commutateur électro-magnétique pour mettre de fil de ligne de l'abonné en communication avec le chariot dans l'un ou l'autre des dits groupes suivant la position du dit commutateur, ainsi qu'il est essentiellement décrit.

No. 62,378. Furnace Grate. (*Grille de fournaises.*)

Henry Truesdell, Toronto, Ontario, Canada, 17th January, 1899; 6 years. (Filed 28th December, 1898.)

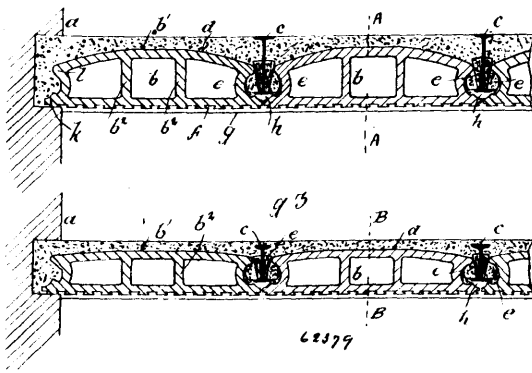
Claim.—1st. A grate bar embracing in its construction a frame and a series of sections detachably connected to the frame, substantially as specified. 2nd. A grate bar embracing in its construction a substantially rectangular frame consisting of two ends and two opposite sides of a truss-shape, and a series of sections removably fitted to the sides, substantially as specified. 3rd. A grate bar embracing in its construction a substantially rectangular frame consisting of two ends and two opposite sides of a truss-shape, and a series of sections removably fitted to the sides, the sides intermediate the sections grooved to provide air passages, substantially as specified. 4th. A grate bar embracing in its construction a substantially rectangular frame consisting of two ends and two opposite sides of a truss-shape, and a series of sections removably fitted to the sides,

the top faces of the sections corrugated, substantially as specified.
5th. A grate bar embracing in its construction a substantially rec-



taular frame consisting of two ends and two opposite sides of a truss shape, and a series of sections removably fitted to the sides, the sides intermediate the sections grooved to provide air passages, the top faces of the sections corrugated, substantially as specified.
6th. A grate bar embracing in its construction a substantially rectangular-shaped frame, consisting of two ends and two opposite sides integrally formed with the ends each of the opposite sides of a truss-shape formation to resist compression, each of the sides provided with a series of vertical notches at equi-distant intervals, and a series of bar-shape sections, the under sides of each of which is notched to engage the notched parts of the sides of the frame, the sides of the frame intermediate the sections grooved to provide air spaces, substantially as specified.
7th. A grate bar embracing in its construction a substantially rectangular-shaped frame, consisting of two ends and two opposite sides integrally formed with the ends, each of the opposite sides of a truss-shape formation to resist compression, each of the sides provided with a series of vertical notches at equi-distant intervals, and a series of bar-shaped sections, the under side of each of which is notched to engage the notched parts of the sides of the frame, the sides of the frame intermediate the sections grooved to provide air spaces, the sides of the sections converging towards the under side of the grate bar, substantially as specified.

No. 62,379. Fire-Proof Floor.
(Plancher à l'épreuve du feu.)

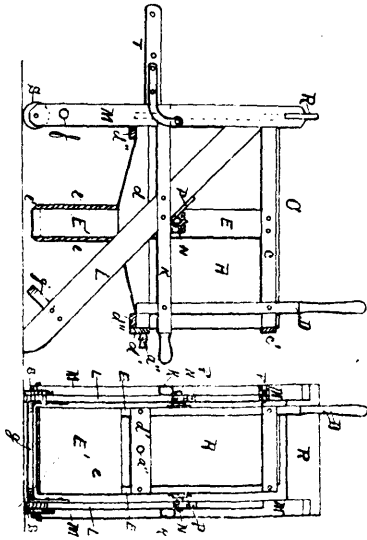


Alexander Hunter Crawford, 39 York Place, Edinburg, Scotland,
17th January 1899; 6 years. (Filed 29th December, 1898.)

Claim.—A fire-resisting floor, wherein the tubes are temporarily supported and adjusted in position between and below the joists by

means of cement, fire-clay, or such like fire-resisting wedges, and permanently supported by means of the concrete, which is allowed to set about the wedges, substantially as hereinbefore described with reference to the drawings annexed. 2nd. The general arrangement and combination of the parts constituting the fire-resisting floor, all substantially as hereinbefore described and shown on the drawings annexed.

No. 62,380. Washing Machine. (Machine à laver.)



Delmar E. Wellman, Chatham, Ontario, Canada, 17th January 1899; 6 years. (Filed 29th December, 1898.)

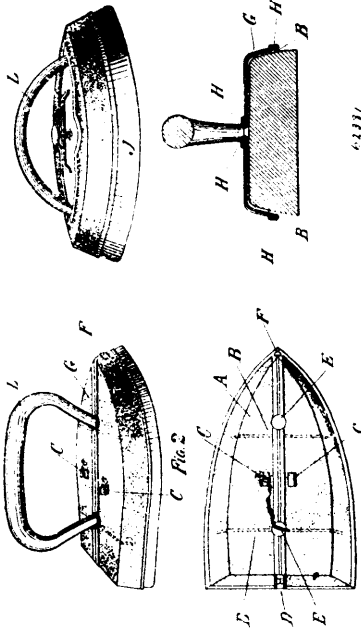
Claim.—1st. The combination in a washing machine of the tank A, having one-half of the inclined top a^1 corrugated similar to a wash-board, substantially as set forth. 2nd. The combination, in a washing machine, the tank A, having the movable buckets B at each end, substantially as specified. 3rd. The combination of the tank A, the buckets B being constructed and shaped as follows: the sides b having the rounded ends, the angular buckets b^1 , and the closed back b^2 , all substantially as and for the purposes specified. 4th. The combination in a washing machine of the tank A, containing the movable buckets B, with the oscillating and balanced frame C, substantially as specified. 5th. The combination of the tank A, the oscillating frame C being constructed with the weighted pendulum E^1 , as shown, or having an adjustable weight on a rod, for the purpose hereinbefore set forth. 6th. The combination in a washing machine of the tank A, the oscillating and balanced frame C, with the frame or carriage G, all substantially as specified and described. 7th. The combination of the oscillating and balanced frame C, the frame or carriage G being constructed with the upright legs M, the diagonal legs L, the side bars K, the ends of which extend and are shaped for handles, the wheels S, and the hinged rack T, all substantially as shown and for the purpose specified. 8th. The combination in a washing machine of the tank A, having one half of the inclined top a^1 corrugated and containing the buckets B, the oscillating and balanced frame C, and the frame or carriage G, all substantially as specified and hereinbefore described and set forth.

No. 62,381. Smoothing Iron Shield.
(Protecteur de fer à repasser.)

John Ballard Miller, Brooklyn, N. Y., U.S.A., 17th January, 1899;
6 years. (Filed 30th December, 1898.)

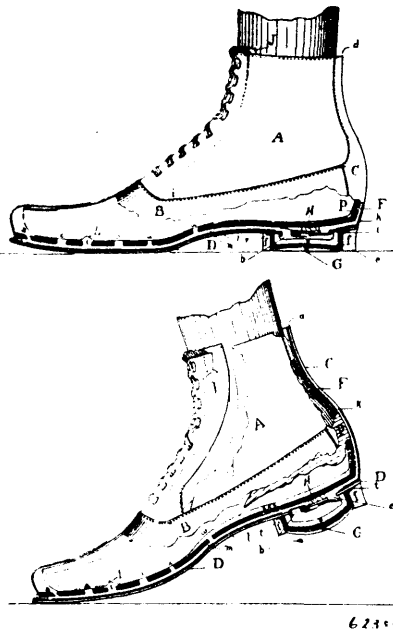
Claim.—1st. A protecting shield for smoothing irons, consisting of a metal body adapted to fit upon the iron, an asbestos covering therefor and means for detachably securing the same in place upon the iron, substantially as and for the purposes described. 2nd. A protecting shield for smoothing irons, consisting of a metal body provided with internal ribs which fit closely upon the iron, a non-conductive covering for the metal body, and means for detachably securing the same in position upon the smoothing iron, substantially as and for the purposes described. 3rd. In a protecting shield for smoothing irons, the combination of a metal body divided in two lengthwise, the parts being hinged together at one end and adapted to be fastened at the other end, each of said parts having a series of ribs upon its interior and a non-conducting covering, substantially as and for the purposes described. 4th. In combination with a smoothing iron, a projecting shield surrounding the upper part

thereof, means for detachably securing the said shield to the smoothing iron, the shield being adapted to provide an air-space between



itself and the smoothing iron, substantially as and for the purposes described.

No. 62,382. Shoe. (*Chaussure.*)



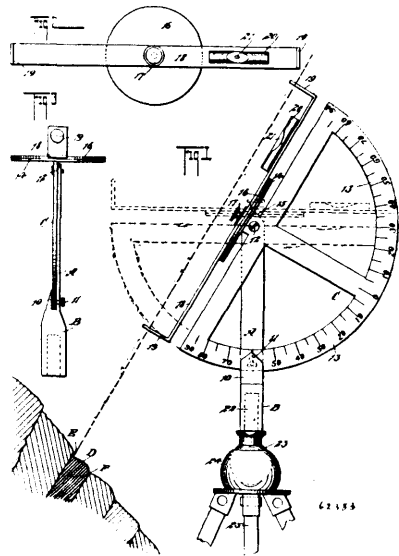
William Allan Greab Odell, Montreal, Quebec, Canada, 17th January, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—1st. The combination in shoes having perfect fitting tongues providing facings for eyelets, and making shoes waterproof at lacings or vertical openings, as described. 2nd. The combination in shoes ventilated by a forced draught of air by means of a flexible semi-bulb, located in a hollow heel for the purpose of drawing in, and forcing air into interior of shoe, and being held in place by a flange, and having two longitudinal ribs, one on the inner side acting as a spring, the other on the bottom and outer side protecting the bottom of the semi-bulb from wear, all as substantially as set forth. 3rd. An air-channel at outside back part of upper of shoe, having an inlet at extreme top of said upper, and communicating with a hollow heel, and being enclosed by a casing, substantially as set forth. 4th. A hollow heel of pliable material, containing a flexible semi-bulb, and having facilities for removal and readjustment, and elasticity to lessen the jar to the body, and deaden the sound in walking, substantially as described. 5th. Automatic

valves, and flexible linings for the purposes specified. 6th. The combination in ventilated shoes having a perforated insole affording a maintained equal distribution of air in interior of shoe, substantially as set forth.

No. 62,383. Mineral Lode Tracer.

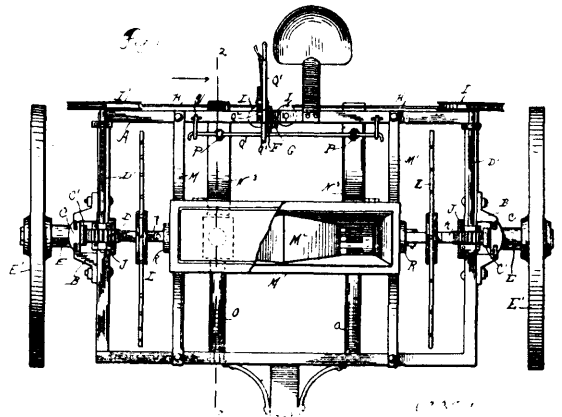
(*Compas pour couche de mines.*)



Alfred Rowley Heyland and John Hamilton Gray, both of Kaslo, British Columbia, Canada, 17th January, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—1st. A lode tracer, comprising an adjustable arc, and a sight mounted to revolve upon the arc. 2nd. A lode tracer, consisting of a support, an arc pivoted on said support and provided with a scale of degrees, and a sight arm mounted to turn on the said arc, for the purpose set forth. 3rd. A lode tracer, consisting of a support, an arc adjustably mounted on said support, the arc being provided with a scale of degrees, a locking device for the arc, and a sight arm mounted to revolve upon the arc, as set forth. 4th. A lode tracer, consisting of a support, an arc pivoted upon said support and provided with a scale of degrees, a locking device for the arc, and a sight arm mounted to revolve upon the arc, and a levelling instrument carried by the sight arm, as and for the purpose specified. 5th. In a lode tracer, the combination with an adjustable standard provided with a pointer, and an arc pivoted to the said standard, the arc being provided with a scale of degrees, the scale surface of the arc being adapted to travel adjacent to the pointer, of a plate centrally mounted on the arc at the central portion of its straight surface, a second plate mounted to revolve upon the fixed plate, a sight arm carried by the revolving plate, the sight arm being adapted to carry a levelling instrument, and a locking device for the arc, as described.

No. 62,384. Corn Planter. (*Semoir à blé d'inde.*)

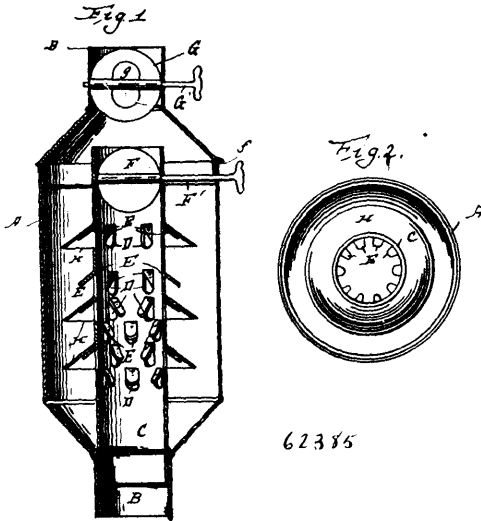


Louis O. Sonde, Northwood, North Dakota, U.S.A., 17th January, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—In a corn planter, the combination with the frame, the plates B at the ends thereof and forming cross-heads, vertical rack

members mounted to work in said cross-heads, the pinions D engaging the rack members, the shafts D' carrying said pinions and journaled in bearings in the ends of the frame, the stub-shafts E carried by the rack members and carrying the wheels, the boxes J on the inner faces of the ends of the frame, and the shaft K in boxes with their bearing-points circular and the shaft rectangular for the remainder of its length, of the rods radiating from hubs on the shaft K to engage in the ground to rotate said shaft, the shells on the shaft K and the telescopic shells slidingly mounted on said shaft, all substantially as shown and described.

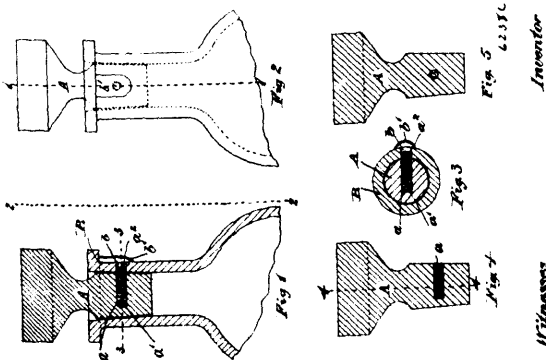
No. 62,385. Heater and Radiator.
(*Chauffeur et calorifere.*)



Carl Ellingsen, Ashby, Minnesota, U.S.A., 17th January, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—1st. In a heating drum and radiator, the combination with an outer shell or cylinder having an inlet at one end portion, and an outlet at the other end portion, of the inner tube or cylinder open at both ends and communicating respectively with the said inlet and outlet, said tube having portions of its metal partially cut out to form openings, a number of said portions being bent outwardly, and the rest inwardly, and a series of deflector-plates supported on the outwardly-bent portions, substantially as specified. 2nd. In a heating-drum and radiator, the combination with an outer shell or cylinder having an inlet at one end portion, and an outlet at the other end portion, of an inner tube or cylinder open at both ends and communicating respectively with the said inlet and outlet, said tube having portions of its metal partially cut to form openings, a number of said portions being bent outwardly and the rest inwardly, and a series of deflector-plates supported on the outwardly-bent portions together with dampers one in the outlet to the outer cylinder, and a second in the upper portion of the inner tube or cylinder, above its said openings, substantially as specified.

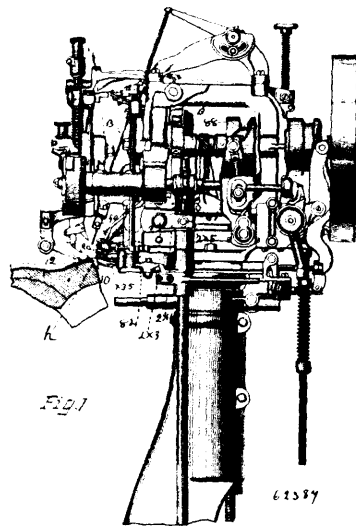
No. 62,386. Bottle Stopper. (*Bouchon de bouteille.*)



William John Crowe, St. Catharines, Ontario, Canada, 17th January, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—The application of the spring *a*¹ and the bolt *a*² in the glass delf or metal stopper A adjusted so that it will enter the hole *b*, of the neck B of the bottle or jar, forming a complete lock, and the hollow glass bulb *b*¹, the breaking only of which allows the stopper to be removed.

No. 62,387. Lasting Machine. (*Machine à enformer.*)



Sherman W. Ladd, Beverly, Massachusetts, U.S.A., 18th January, 1899; 18 years. (Filed 3rd January, 1899.)

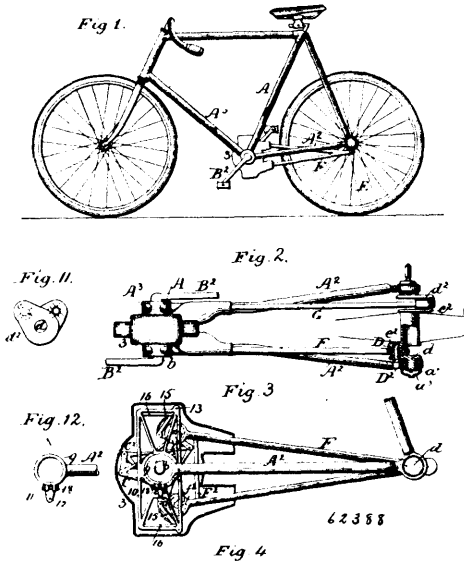
Claim.—1st. A lasting machine, having means for pressing the upper in the angle of union of the shoe inner-sole and channel-lip thereof, combined with means for supplying a non-yielding fastening medium, and a fastener inserting mechanism for securing the upper to the inner-sole, said mechanism operating to insert the fastener through the upper in said angle of union, substantially as described. 2nd. A lasting machine, having means for pressing the upper in the angle of union of the shoe inner-sole and channel-lip thereof, combined with a fastener inserting mechanism for securing the upper to the inner-sole, said mechanism operating to insert the fastenings through the overturned upper in said angle of union and obliquely towards the middle of the shoe, each of the inserted fasteners being independent of the others, substantially as described. 3rd. A lasting machine, having appliances for delivering and driving tacks, or like fasteners, including a part with a fastener receiving pocket in which the fasteners are deposited preparatory for the driving operation, and means for resting the shoe for receiving the fastener with the fastener receiving plane of the shoe inner-sole oblique to the axis of the said pocket, substantially as described. 4th. The combination, with the rest for gauging the position of the last and means for pulling the upper over the inner-sole, of a fastener inserting mechanism arranged with relation to said rest as described whereby the fastener is inserted through the edge of the pulled over upper in a direction oblique to the plane of the fastener receiving surface of the inner-sole, each of the inserted fasteners being independent of the others, substantially as described. 5th. A lasting machine, having a fastener inserting mechanism, and a shoe edge and bottom rests, the same being relatively disposed for resting the shoe, for receiving the fastener, with the fastener receiving plane of the shoe inner-sole oblique to the line of movement of the ingoing fastener, substantially as described. 6th. A lasting machine, having a fastener inserting mechanism, and a shoe resting mechanism, said mechanism being relatively disposed for resting the shoe, for receiving the fastener with the plane of the fastener receiving part of the shoe inner-sole oblique to the line of movement of the ingoing fastener, substantially as described. 7th. A lasting machine, having a fastener inserting mechanism, in combination with a shoe resting mechanism, the combination operating for resting the shoe with the plane of the fastener receiving part of the shoe inner-sole oblique to the line of movement of the ingoing fastener, the fastener being inserted towards the central plane of the shoe, substantially as described. 8th. A lasting machine of the character indicated, comprising means for operating upon different parts of the upper at different times by repeating operations of the machine, having a work-presser adapted for movement towards the shoe, in a line oblique to the central horizontal plane of the machine, substantially as described. 9th. A lasting machine of the character indicated, comprising means for operating upon different parts of the upper at different times by repeated operations of the machine, having a work-presser and rocking part in which the presser is supported for movement towards and from the upper combined with means for moving the presser to pass the upper, and means for moving the rocking part to vary or shift the plane of forward movement of the work-presser, substantially as described. 10th. A lasting machine, having lasting appliances movable for lasting the upper over the last and differentially movable for fulling or crimping the upper, a work-presser adapted for movement in different planes towards the shoe upper and means for moving the presser to pass

the upper, combined with means wherethrough a shift in the operative movements of the lasting appliances operates to vary or shift the plane of forward movement of the work-presser, substantially as described. 11th. A lasting machine, having a work-presser adapted to move inward over the edge of the upper in a direction inclined towards the surface of the material operated upon combined with means for actuating said work-presser, substantially as described. 12th. A machine of the character indicated, comprising means for operating upon different parts of the upper at different times by repeated operations of the machine, having a work-presser and means for moving the presser to press the upper combined with means to vary or shift the plane of forward movement of the work-presser, substantially as described. 13th. A lasting machine, comprising means for operating upon different parts of the upper at different times by repeated operations of the machine, having a work-presser, and means for moving the presser to press the upper combined with means controllable by the workman to vary or shift the line of forward movement of the work-presser when desired, substantially as described. 14th. A lasting machine having a work-presser and means moving the presser to press the upper, combined with a part for resting the shoe, said part having its contact or bearing face in a plane oblique to the plane of forward movement of the work-presser, substantially as described. 15th. A lasting machine having a movable work-presser and shoe edge and bottom rests for resting the shoe, the same being relatively disposed for resting the shoe with the presser receiving part or plane of the shoe inner-sole oblique to the plane of forward movement of the work-presser, and means for moving the presser to press the shoe upper, substantially as described. 16th. A lasting machine, having a movable work-presser and a shoe resting mechanism, said resting mechanism being relatively disposed for resting the shoe with the presser receiving plane of the shoe inner sole oblique to the plane of forward movement of the work-presser, and means for moving the presser to press the shoe upper, substantially as described. 17th. A lasting machine, having a movable work-presser and a shoe resting mechanism, the resting mechanism being relatively disposed for resting the shoe with the presser receiving plane of the shoe inner-sole oblique to the plane of the forward movement of the work-presser, combined with means for moving the presser to press the shoe upper, and securing mechanism for securing the upper to the inner-sole, substantially as described. 18th. A lasting machine, having a movable work-presser, combined with a shoe resting mechanism and a fastener inserting mechanism, said mechanism being relatively disposed for resting the shoe for receiving the fastener with the plane of the fastener receiving part or section of the shoe inner-sole oblique to the line of movement of the ingoing fastener, and means for moving the work-presser to press the shoe upper, substantially as described. 19th. A lasting machine, having a movable work-presser, a fastener inserting mechanism, and a shoe resting mechanism, said mechanism being relatively arranged for resting the shoe with the part or section of the shoe inner-sole to be acted upon oblique to the plane of forward movement of the work-presser and also oblique to the line of movement of the ingoing fastener, and means for moving the presser to press the upper, substantially as described. 20th. A lasting machine of the character indicated, having a work-presser arranged at an altitude above the bottom of the shoe inner-sole, and movable towards the central plane of the shoe in a line oblique to the presser receiving surface of the shoe inner-sole, combined with means for moving the presser to press the shoe upper, substantially as described. 21st. A lasting machine having upper lasting appliances adapted for working the upper over the last, combined with a fastener driving mechanism, and a shoe resting mechanism, said mechanism being relatively disposed for resting the shoe with the plane of the fastener receiving surface of the shoe inner-sole oblique to the line of movement of the ingoing fastener, the fastener being driven through the overturn upper towards the central plane of the last, substantially as described. 22nd. A lasting machine having upper holding devices and means for pulling the upper held thereby combined with a movable work-presser and a shoe resting mechanism, the same being relatively arranged for resting the shoe with the presser receiving plane of the shoe inner sole oblique to the plane of forward movement of the work-presser and means for moving the presser to press the upper, and means for securing the upper to the inner sole, substantially as described. 23rd. A lasting machine having upper holding devices, and means for pulling the upper held thereby, and a presser and means for moving the presser to press the upper upon the inner-sole preparatory for the securing operation, combined with a fastener inserting mechanism, and a shoe resting mechanism, the combination operating for resting the shoe with the plane of the fastener receiving part or section of the shoe inner-sole, oblique to the line of movement of the ingoing fastener, substantially as described. 24th. A lasting machine having upper lasting appliances for working the upper over the last and in to the angle of union of the shoe inner-sole and channel-lip thereof, combined with a securing mechanism comprising means adapted for feeding and delivering tacks or like fasteners and driving connections adapted for causing a limited or partial insertion of the fastener relatively to the surface penetrated by the body part thereof and means for resting the shoe for receiving the fastener, the combination operating to rest the shoe for receiving the fasteners with the plane of the fastener receiving part of the shoe inner-sole oblique to the line of movement of the ingoing fastener, the fasteners

being located in said angle of union of the shoe inner-sole and channel-lip thereof, substantially as described. 25th. A lasting machine, having a plurality of work-pressers, and means for moving the pressers to press the upper, combined with means for shifting the relative positions of the pressers, whereby different pressers are at different times presented for pressing the upper with their work-bearing faces in approximately the same position, substantially as described. 26th. A lasting machine having a plurality of pressers, and means for moving the pressers to press the upper, combined with means under control of the workman for shifting at will the relative positions of the pressers, whereby different pressers are at different times presented for pressing the upper with their work-bearing faces in approximately the same position, substantially as described. 27th. A lasting machine having a plurality of work-pressers, and means for moving the pressers to press the upper, combined with means for shifting the relative positions of the pressers, whereby different pressers are at different times presented for pressing the upper with their work-bearing faces in approximately the same position, and means wherethrough a presser is automatically suspended or removed from operating in the common position during the operation of another presser in said position, substantially as described. 28th. A lasting machine having a plurality of work-pressers, and means for moving the pressers to press the upper, combined with means for shifting the relative positions of the pressers, whereby different pressers are at different times presented for pressing the upper with their work-bearing faces in approximately the same position, and means wherethrough the shifting of a presser to begin operation in the common position simultaneously operates the suspension or removal of a presser from said position, substantially as described. 29th. A lasting machine having a plurality of work-pressers and means for moving the pressers to press the upper, combined with means for shifting the relative positions of the pressers whereby different pressers are at different times presented for passing the upper with their work bearing faces in approximately the same position, and means to suspend or remove a presser from the common position during a number of repeated operations by another presser in said position, substantially as described. 30th. A lasting machine having a plurality of work-pressers arranged one above another in different horizontal planes, combined with means for moving the pressers to press the upper and means for changing the relative positions of the pressers whereby said pressers are adapted for pressing the upper with their work-bearing faces in approximately the same plane, substantially as described. 31st. A lasting machine comprising means for operating upon different parts of the upper at different times by repeated operations of the machine, having a plurality of work-pressers and means for presenting a presser at varying inclinations to the work, substantially as described. 32nd. A lasting machine having a plurality of work-pressers adapted for pressing the upper with their work-bearing faces in approximately the same locality or place, and means for moving the pressers to press the upper, substantially as described. 33rd. A lasting machine having a work-presser provided at its work bearing and with a notch or recess, combined with a fastener inserting mechanism adapted for inserting fasteners at a distance to one side of said notch or recess, substantially as described. 34th. A lasting machine having a fastener inserting mechanism and means at a distance from the fastener inserting mechanism adapted for engagement with a fastener inserted thereby, the combination operating to fix the distance from the engaged fastener to the fastener inserted by the next operation of the fastener inserting mechanism, substantially as described. 35th. A lasting machine having a work-presser with means for engaging a tack or other securing device, combined with upper crimping devices for crimping the section of upper next adjacent to the presser and a securing mechanism arranged to one side of the presser for securing the upper to the inner-sole, substantially as described. 36th. A lasting machine having a plurality of work-pressers for pressing the upper over the inner-sole arranged with an opening there between for passage of tacks or other suitable upper securing medium, and a securing mechanism adapted for putting the securing medium through said opening, into the upper and inner-sole, substantially as described. 37th. A lasting machine having means for delivering tacks or like fasteners, and driver connections for causing limited or partial insertion of the fasteners, combined with a presser having a recess or cavity for receiving the raised part of an inserted fastener, and appliances for lasting the upper at one side of the presser, substantially as described. 38th. A lasting machine having a presser adapted for holding the upper in the angle of union of the shoe inner-sole and channel-lip thereof, combined with appliances for lasting a section of the upper at one side of the presser, and means for securing said section of the upper to the inner-sole, said means operating to locate the securing medium in the angle of union of the shoe inner-sole and channel-lip, substantially as described. 39th. A lasting machine having means for delivering tacks or like fasteners, and driver connections for causing a limited or partial insertion of the fasteners, combined with means for resting the shoe for receiving the fasteners, the combination operating to locate the fasteners in the angle of union of the shoe inner-sole and channel-lip thereof, and a presser having a recess or cavity for receiving the raised part of an inserted fastener, and appliances for lasting a section of the upper at one side of the presser, substantially as described. 40th. In a lasting machine, the combination of

rests to gauge the work, with a fastener holding device holding and directing the fastener obliquely towards the middle of the shoe, and obliquely also to the plane of the fastener receiving part of the shoe inner-sole, and mechanism for driving the fasteners, substantially as described. 41st. In a lasting machine a fastener holding device, holding and directing the fastener obliquely towards the middle of the shoe and obliquely also to the fastener receiving part of the shoe inner-sole and mechanism for driving the fastener, substantially as described. 42nd. In a lasting machine a wiper, and mechanism for presenting a wiper at varying inclinations to the work, substantially as described.

No. 62,388. Mechanical Movement.
(*Mouvement mécanique.*)

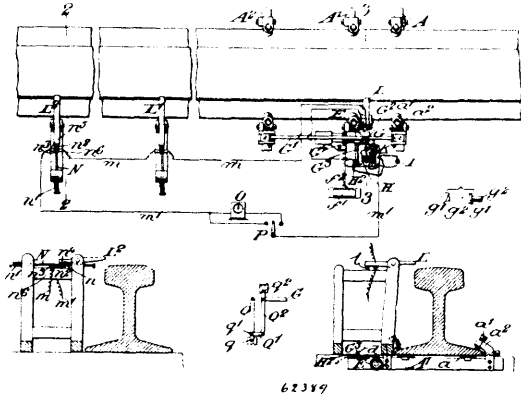


Hosmer Tuttle, Cedar Rapids, Iowa, and Shelley Tuttle, Salt Lake City, Utah, both in the U.S.A., 18th January, 1899; 6 years. (Filed 8th September, 1898.)

Claim.—1st. In a bicycle, the combination of an axle carrying two crank-pins, a forked connecting-rod mounted at one end upon each crank-pin and having at the opposite end open jaw connections pivotally mounted thereon, a frame and links supporting said connections, and sprocket wheels having friction rollers for engagement with the jaws of said connections, substantially as described. 2nd. In a bicycle, the combination of the axle of one of the carrying wheels, two crank-pins carried by said axle, two branched connecting rods mounted at one end upon each crank-pin and having at the opposite end two open jaw connections pivotally mounted thereon, each jaw connection having a segmental outer periphery, guide plates having their edge serving as a track for the segmental periphery of the jaw to rock upon, and a frame carrying said guide-plates, substantially as described. 3rd. In a bicycle, the combination of the axle of one of the carrying wheels, two crank-pins carried by said axle, two branched connecting rods mounted at one end upon each crank-pin and having at the opposite end two open jaw connections having a segmental outer periphery longer in its centre than on its cheeks, guide-plates having their inner faces guiding the sides of the jaw connections and their edges guiding the edges of the cheeks of the jaw connections, and a frame carrying said guide-plates, substantially as described. 4th. In a bicycle, the combination of the axle of one of the carrying wheels, two crank-pins carried by said axle, two branched connecting rods mounted at one end upon each crank-pin and having at the opposite end an open eye, ball-bearings in said eyes, consisting of outer cones, inner cones and interposed balls, and an open jaw connection having a side arm secured to one of the inner cones, substantially as described. 5th. In a bicycle, the combination of the axle of one of the carrying wheels, two crank-pins carried by said axle, two branched connecting rods mounted at one end upon each crank-pin and having at the opposite end an open jaw connection pivotally mounted upon each branch of said rods, the pedal crank-shaft, a sleeve mounted upon said shaft, and a pair of sprocket wheels mounted upon said sleeve centrally of its length, substantially as described. 6th. In a bicycle, the combination of the axle of one of the carrying wheels, two crank-pins carried by said axle, two branched connecting rods mounted at one end upon each crank-pin, an open jaw connection pivotally mounted upon each branch of said rods, the pedal crank-shaft, a sleeve mounted upon said shaft, and a pair of sprocket wheels mounted upon said sleeve centrally of its length, substantially as described. 7th. In a bicycle, the combination of the axle of the rear carrying wheel, two crank-pins carried by said axle, two

branched connecting rods mounted at one end upon each crank-pin, the pedal crank-shaft, its sleeve, a pair of sprocket wheels upon said sleeve, the frame of the machine, a secondary frame on each side of a pair of sprocket wheels, rods connecting together the secondary frames, links pivotally mounted upon said rods, and open jaw connections mounted upon said links, substantially as described. 8th. In a bicycle, the combination of the axle of the rear wheel carrying two crank-pins, two divergent connecting rods mounted at one end upon said crank-pins, each having at the opposite end an open jaw connection pivotally mounted thereon, a frame supporting said connections, the pedal crank-shaft, a sleeve the whole length thereof, and a sprocket wheel centrally thereof having friction rollers for engagement with the jaws of said connections, substantially as described. 9th. In a bicycle, the combination of the axle of one of the carrying wheels, two crank-pins carried by said axle, two divergent connecting rods mounted at one end upon each crank-pin, each having at the opposite end an open eye, ball-bearings in said eye, consisting of outer cones, inner cones and interposed balls, and an open jaw connection having a side arm secured to the inner cone, substantially as described. 10th. In a bicycle, the combination of the pedal crank-shaft, a sleeve mounted thereon the whole length thereof, a pair of sprocket wheels mounted upon the said sleeve centrally of its length, an inner cone ball-bearing mounted upon each end of said sleeve, a series of balls, outer-cone ball-bearings and washers therein, and the frame of the bicycle having eyes receiving said outer cone, said eyes carrying two parallel arms A² and two forked arms A and A², substantially as described.

No. 62,389. Instrument for Determining the Amount of Elongation and Compression of Railway Rails under Moving Trains. (*Instrument pour déterminer le montant d'élongation et compression des rails de chemin de fer sous les trains en mouvement.*)



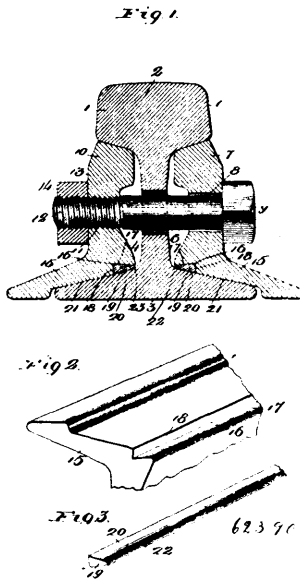
Plimmon Henry Dudley, New York City, New York, 18th January, 1899; 6 years. (Filed 15th January, 1898.)

Claim.—1st. An instrument for testing rails under moving trains comprising a scriber, means for securing the scriber to the rail to move in consonance with the elongation and compression of the rail, a record receiver and means for moving the record receiver continuously along in engagement with the point of the scriber in a direction transverse to that in which the scriber moves, substantially as set forth. 2nd. The combination with a scriber and means for securing it to the rail to move in consonance with the elongation and compression of the rail, of a cylindrical record receiver in position to engage with the point of the scriber, means for rotating the cylindrical receiver bodily simultaneously with its rotary movement and in a direction at an angle thereto, substantially as set forth. 3rd. The combination with a record receiver and means for moving it continuously, of a plurality of scriber arms and means for securing the scriber arms to the rail to move in consonance with the elongation and compression of the rail with their points in engagement with the record receiver, substantially as set forth. 4th. The combination with a scriber and means for attaching it to the rail to move in consonance with the elongation and compression of the rail, of a cylindrical record receiver, a hollow spindle on which the receiver is mounted, the said spindle being provided with an interior screw thread, means for rotating the hollow spindle and a fixed screw threaded stud engaged with the interior of the hollow spindle whereby the rotary movement of the hollow spindle causes the spindle to move bodily along the screw, substantially as set forth. 5th. The combination with a scriber, a record receiver and means for securing them in position to record the elongation and compression of the rail, of a second scriber secured in position to form a reference line on the record receiver, substantially as set forth. 6th. The combination with a scriber, a record receiver and means for securing them in position to record the elongation and compression of the rail, of a second scriber and means under the control of the first-named scriber for operating the second named scriber to

distinguish the record of elongation from that of compression, substantially as set forth. 7th. The combination with a scriber, a record receiver and means for securing them in position to record the elongation and compression of a rail, of a second scriber, electro-magnets for operating the second scriber, an electric circuit including a source of electric energy for energizing the magnets and a circuit maker and breaker under the control of the first named scriber to operate, by means of the said electro-magnet, the second scriber to distinguish the record of compression from that of elongation, substantially as set forth. 8th. The combination with a scriber, a record receiver and means for securing them to a rail to record the elongation and compression of the rail, of a second scriber, an electro-magnet for operating the said second scriber, and electric circuit including a source of electric energy for energizing the magnet and a track treadle located in the neighborhood of said recording mechanism for making and breaking the circuit to operate the second scriber and thereby indicate the particular wheel of the passing train corresponding to any particular record of elongation or compression of the rail, substantially as set forth. 9th. The combination with mechanism for recording the elongation and compression of a rail under a moving train, of a scriber arranged to operate in connection with the aforesaid mechanism, an electric circuit including a source of electric energy for operating the said scriber, track treadles located at a predetermined distance apart along the track for interrupting the electric circuit, and a clock interposed in said circuit for interrupting the circuit at predetermined intervals of time, whereby the said scriber is caused to make a record to determine the speed of the passing train, substantially as set forth. 10th. The combination with recording mechanism for determining the elongation and compression of the rail, of auxiliary scribers working in connection with said recording mechanism, one to distinguish the record of compression from that of elongation and another to make a record of speed of the passing train and of the particular wheel of the passing train corresponding to a particular record of elongation or compression, substantially as set forth. 11th. The combination with the record receiver and means for operating it, of a scriber arm, means for connecting the scriber arm to the rail to move in consonance with the elongation and compression of the rail, an auxiliary scriber arm carrying the scriber and pivoted to a fixed support and a connection between the primary and auxiliary scriber arms for increasing the movement of the scriber relative to the movement of the primary scriber arm, substantially as set forth. 12th. The combination with the scriber arm, means for connecting it to the rail to move in consonance with the elongation and compression of the rail and a record receiver, of a scriber consisting of a semi-disc having a stem projecting laterally therefrom, substantially as set forth.

No. 62,390. Electric Track Circuit Rail Joint.

(Joint de rail pour circuits de voies électriques.)

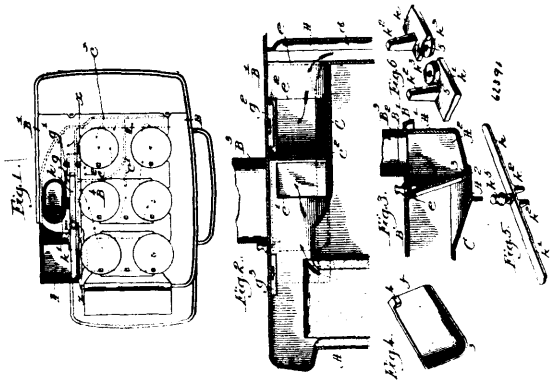


William H. Talley, Waco, Texas, U.S.A., 18th January, 1899; 6 years. (Filed 2nd May, 1898.)

Claim.—1st. A rail joint, comprising a suitable rail having a base angle bars located on either side of said rail, and having basal flanges normally in contact with the base of the rail, angular shaped grooves formed in the basal flanges of the angle bars, and triangular conducting bars located in said grooves throughout their entire length and in direct contact with the upper surfaces of the base of the rail, substantially as described. 2nd. A rail joint, comprising a suitable rail having a base and web, angle bars located on either side of said rail, and having basal flanges, angular shaped grooves formed on the

lower surface of the basal flanges of the angle bars, angular conducting bars having rounded edges, said conducting bars being located in said grooves throughout their entire length and in direct contact with the upper surface of the base of the rail, and located with their rounded edges adjacent to the web of the rail, substantially as described.

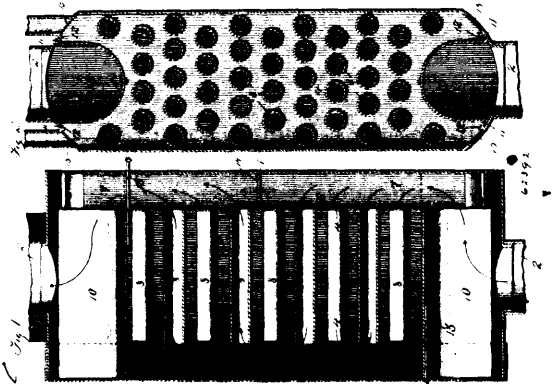
No. 62,391. Cooking Stove. (Poêle de cuisine.)



Arthur Willis Walker, Malden, Massachusetts, U.S.A., 18th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. In a stove, a wall interposed in the path of the smoke from the fire to the smoke pipe and provided with two openings, combined with one damper to substantially cover either or both said openings, substantially as described. 2nd. In a stove, an inclined partition or wall located in the path of the smoke from the fire to the smoke pipe, and provided with a direct shaft opening and a baking draft opening, combined with one damper co-operating with both said openings, substantially as described. 3rd. In a stove, an inclined partition or wall located in the path of the smoke from the fire-box to the smoke pipe, said wall being provided with a direct draft opening and a baking draft opening and having a groove at the base of said partition or wall, combined with a damper, the lower edge of which enters and slides in said groove, said damper resting by its gravity on and being free to slide on said partition or wall, substantially as described. 4th. The combination with a stove provided with a slot for a damper knob, and a damper located below said slot, of a damper operator composed of a jointed two-part bar co-operating with said damper to move it and at the same time keep said slot closed, substantially as described. 5th. The combination with a stove, of a damper having a lug, combined with a damper operator made as a sliding bar having two fingers embracing said lug, substantially as described. 6th. A stove having a straight longitudinal partition or wall provided with a direct draft opening and a baking draft opening arranged side by side, and other walls c^1 and c^2 , to form flues, combined with a damper moving against one side of said partition, and means to move it in a straight line to cover or to uncover the direct draft opening and uncover more or less of the baking draft opening, substantially as described.

No. 62,392. Heater. (Calorifere.)

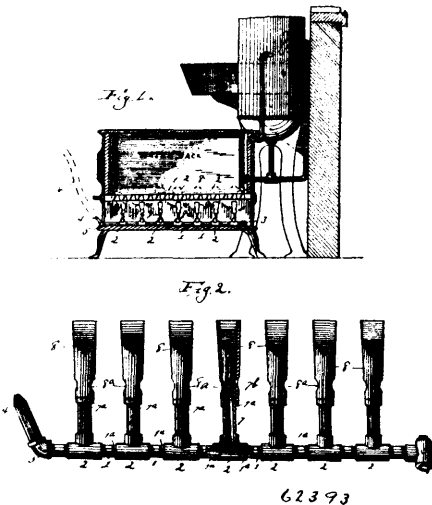


John A. Markle, Birtle, Manitoba, Canada, 18th January, 1899; 6 years. (Filed 31st December, 1898.)

Claim.—1st. A heating drum for stove-pipes, comprising a series of separate compartments for the passage of the smoke and air, smoke-flues connecting said smoke compartments, and means for regulating the passage of the smoke through said smoke flues, substantially as described. 2nd. A heating drum for stove-pipes, comprising a casing removably connected to the smoke-pipe, par-

titions secured vertically therein forming compartments, smoke-flues connected to said partitions, said flues connecting alternate compartments, and means for regulating the passage of the smoke through said flues and said drum, substantially as described. 3rd. A heating drum for stove-pipes, comprising a casing removably connected to the smoke-pipe, partitions secured vertically therein forming compartments, smoke-flues connected to said partitions, said flues connecting alternate compartments, and shields slidably mounted in said drum, whereby the passage of the smoke through said drum may be regulated, substantially as described.

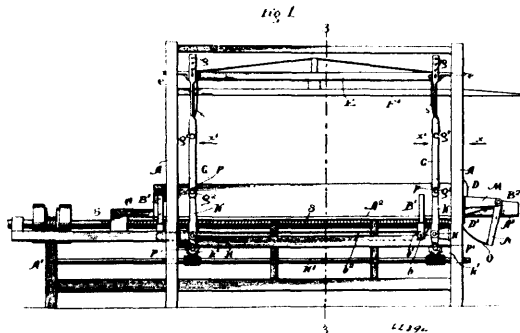
No. 62,393. Heater. (Calorifere.)



John W. Hoppert, Baltimore, Maryland, U.S.A., 18th January, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—As a new article of manufacture, a portable heater for water-back stoves, comprising a main feed-pipe formed of a series of pipe-sections joined by T-couplings, one end section having an adjustable T-shaped closure member, said T shaped couplings having the right-angle member detachably connected and terminating at the outer end in a conical pin-discharge, burners detachably secured over the conical ends of the T-laterals, said burners being in the nature of tubes having their outer or discharge ends flattened, and having oppositely-disposed air-tight openings adjacent the coupling-laterals, and an adjustable nipple secured to the front section of the feed-pipe, all being arranged substantially as shown and described, whereby by turning the T-closure at right-angles to the projection of the tube-laterals the device can be supported in the ash-pit with its burner-tubes projected toward or between the grate-bars, and when turned in line with such tubes admit of the device being laid flatwise on the top of the grate-bar with its nipple projected down through the grate-bottom, as and for the purposes specified.

No. 62,394. Mattress Stuffing Machine. (Machine a remplir les matelas.)

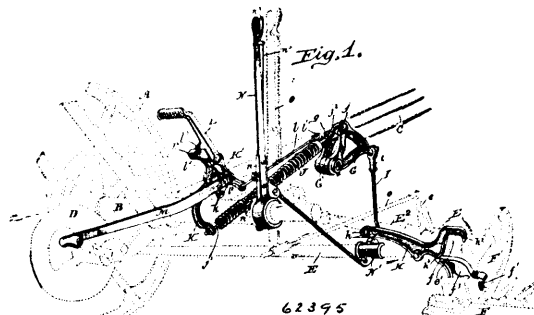


Robert R. Thompson, Bloomington, Illinois, U.S.A., 18th January, 1899; 6 years. (Filed 27th December, 1898.)

Claim.—1st. The combination with a frame work and top vertically guided therein, of a series of approximately vertical supporting bars pivoted to the top and having a series of shoulders upon one side, a series of operating levers pivotally mounted upon the frame and having means of engagement with said shoulders, means for

retaining said bars in engagement with said lever and means for disengaging one of said shoulders from the lever at about the time at which said lever engages with the next succeeding shoulder, substantially as described. 2nd. The combination with a frame work and the press-box having laterally adjustable-sides supported therein, of extensions upon said sides provided with arc-shaped slots, brackets upon the frame work and a segmental gate pivoted by means of suitable radial arms upon said brackets and adapted to swing in said slots whereby the press-box may be contracted laterally without adjustment of said gate, substantially as described. 3rd. In a mattress-stuffing machine, the combination with a supporting frame and a press-box having a suitable bottom and sides of a top guided vertically in the frame, approximately vertical bars supporting the top, shafts journaled in the frame and provided with means for their rotation, and levers mounted on the ends of said shafts and each projecting on both sides of the shaft on which it is mounted, each of said levers being provided at both its ends with means for detachably engaging the corresponding supporting bar and each bar and lever, at each point of mutual engagement being provided with means whereby the rotation of the lever may slightly vary the point of support of the bar upon the lever. 4th. The combination with the frame, the press-box and the vertically movable cover, of the bars G*G*, the shafts H*H*, the levers K*K*, and the cams and eccentrics L*L*, U*U*, K*K*, the ends of each lever being adapted to detachably engage the corresponding bar at points contiguous to the cams L*L*, U*U*, and the cams being adapted to rest upon the eccentrics in suitable positions of the levers, thereby slightly shifting, in each case, the point of support of the bar upon the lever.

No. 62,395. Mowing Machine. (Faucheuse.)



John Fletcher Stewart, Chicago, Illinois, U.S.A., 18th January, 1899; 6 years. (Filed 31st December, 1898.)

Claim.—1st. In a mowing-machine, a bar-lifting and bar-locking device consisting of the following mechanical elements in combination with the main supporting frame, and finger-bar, namely the swivel E¹ pivotally supported upon the grain end of portion E² of the coupling frame, said swivel connected to the shoe of the finger-bar by a pivot pin f³, by which means the finger-bar may be rock'd and also permitted to be raised to a vertical position, a gag-lever pivoted to said swivel and adapted to press upon an arm extending from the shoe, a lifting-lever linked to the free end of the said gag-lever, the said gag-lever also having a catch formed as one piece upon it, the inner end of the finger bar having a part formed upon it adapted to be engaged by the catch on the said gag lever, all of these parts so arranged that when the finger-bar is folded to a substantially vertical position the catch h² is formed to a position of engagement with the co-operating catch upon the shoe of the finger-bar, all combined, substantially as described. 2nd. The combination with the main frame, coupling-frame, and finger-bar, the latter pivotally connected to the former and thus adapted to be folded to a substantially vertical position, a gag-lever pivoted to the said coupling-frame and adapted to press upon an arm formed upon the shoe of the finger-bar when the latter is in its working position, a catch formed upon the said gag-lever and a co-operating catch formed upon the shoe of the finger-bar, a lifting mechanism connecting to the free end of said gag-lever, a stop against which the lifting mechanism may strike and prevent upward movement to a further extent than desirable, and a supplemental lifting-lever as N, connected to the coupling frame, whereby by means of the said supplemental lifting-lever the coupling frame can be raised to a still higher position than that to which it is brought to the lifting mechanism which operates through the gag-lever, and the catch of the gag-lever thus forced out of engagement with the co-operating catch on the shoe, and the cutting apparatus thus be permitted to be lowered to its horizontal position, substantially as described. 3rd. The combination with the main frame, coupling frame and finger-bar, the latter pivotally connected to the former and thus adapted to be folded to a substantially vertical position, a gag-lever pivoted to the said coupling-frame and adapted to press upon an arm formed upon the shoe of the finger-bar when the latter is in its working position, a catch formed upon the said gag-lever and a co-operating catch formed upon the shoe of the finger-bar, a sustaining mechanism connecting to the free end of said gag-lever, a stop against which the sustaining mechanism may strike and prevent upward movement to a further extent than desirable,

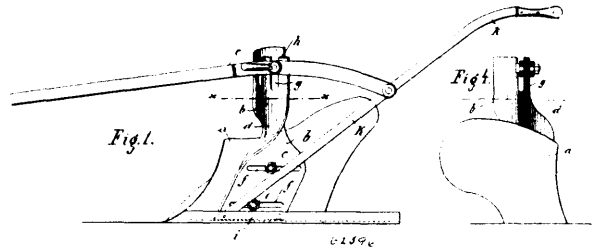
and a lifting-lever as N, connected to the coupling-frame whereby by means of the said lifting-lever the coupling-frame can be raised to a still higher position than that to which it is brought by the sustaining mechanism which operates through the gag-lever, and the catch of the gag-lever thus forced out of engagement with the co-operating catch on the shoe and the cutting apparatus thus be permitted to be lowered to its horizontal position, substantially as described. 4th. The combination with the main supporting-frame, coupling-frame and finger-bar of the gag-lever pivoted to the coupling-frame and provided with the part h^3 and the hook h^2 , the shoe of the finger-bar provided with the arm f and the catch f^1 as one part therewith, the free end of said gag-lever connected to suitable lifting apparatus, or arranged and combined so that the gag-lever may have the effect of lifting the finger-bar at its outer end simultaneously with the act of lifting the inner end, and by movement on its fulcrum be made to engage with the catch on the finger-bar to sustain the latter in its vertical position and to unlatch when the latter is to be lowered, substantially as described. 5th. The combination with the main supporting-frame, the coupling-frame and the finger-bar of a mowing machine, the latter pivoted to the coupling-frame on a substantially horizontal axis, of a gag-lever pivoted to the said coupling-frame, its free end supported from the main frame, its working end adapted to engage an arm on the finger-bar adjacent to its joint, said gag-lever also having a part as one piece therewith adapted to engage the finger-bar at a point adjacent to its joint and hold it when folded to a substantially vertical position, said part adapted to engage said finger-bar and be disengaged therefrom by a movement of the fulcrum of said lever, substantially as described. 6th. The combination with the main supporting-frame, coupling-frame and finger-bar of a mowing machine, the latter pivoted to the said coupling-frame on a substantially horizontal axis, of a gag-lever pivoted to the said coupling-frame, its working end adapted to engage an arm on the finger-bar adjacent to the joint which connects the latter to the coupling-frame, said gag-lever having a catch adapted to engage a co-operating catch on the finger-bar and hold it in its folded position and means for forcing the catch of the gag-lever from engagement with the catch on the finger-bar by moving the said gag-lever on its fulcrum, and thus permit the finger-bar to be lowered, substantially as described. 7th. The combination with the main supporting-frame, the coupling-frame and the finger-bar of a mowing-machine, of a gag-lever pivoted to the said coupling-frame, its free end supported from the main frame, its working end adapted to engage an arm on the finger-bar adjacent to the joint which connects the latter to the coupling-frame, said gag-lever having a catch adapted to engage a co-operating catch on the finger-bar and hold the latter in its folded position, a stop for preventing the free end of said gag-lever from being raised beyond a definite height, and means for raising the coupling frame to a still higher position whereby the catch of the gag-lever is forced from engagement with the co-operating catch on the finger-bar, all combined, substantially as described. 8th. The combination with the main supporting-frame, the coupling-frame and the finger-bar, the said finger-bar hinged to the said coupling-frame by a substantially horizontal pivot, a gag-lever pivoted to said coupling-frame and having the part h^3 , and the hook h^2 , the shoe of said finger-bar having the arm f and the catch f^1 , suitable lifting mechanism to the said coupling-frame whereby it is rocked and forced to release its catch h^2 from the said catch f^1 upon the shoe of the finger-bar, and thus allow the finger-bar to be lowered to a substantially horizontal position, substantially as described. 9th. The combination with the main supporting-frame, the coupling-frame and the finger-bar, the latter connected to the said coupling-frame by means of a swivel having transverse joints whereby the cutting apparatus may be rocked upon one joint and folded to a substantially vertical position on the other joint, of a locking-lever fulcrumed on said swivel and having one end connected to the main frame by a supporting linking mechanism with a stop to prevent a greater upward movement of the said locking-lever than desired, said locking-lever provided with a catch, the shoe of the finger-bar provided with a co-operating catch, locking-lever adapted to strike the coupling-frame when the swivel is rocked and its catch thus forced to disengage the co-operating catch on the finger-bar, a tilting lever O connected to the swivel so as to rock it upon the coupling-frame and force said disengagement, and also a lifting device, as N, connected directly to the coupling-frame and adapted to raise the said coupling-frame so high that the said supporting link may strike its stop and by further upward movement of the coupling-frame force the catch of the locking-lever from engagement with the co-operating catch on the shoe of the finger-bar, all arranged substantially as described so that the operator may use whichever lever is in most convenient reach from his position, whether sitting on the machine or standing on the ground, substantially as described.

No. 62,396. Manure Distributing Device for Ploughs.
(Appareil à distribution d'engrais pour charrues.)

Johann Friedrich Witthold, Döhlen, German Empire, 18th January, 1899; 6 years. (Filed 31st December, 1898.)

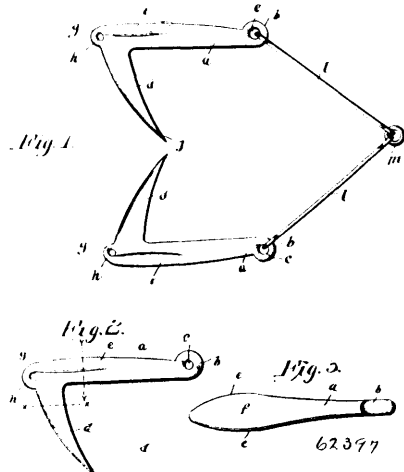
Claim.—1st. A plough-share holder, the part above the plough-share a of which has an approximately wedge-like form for the purpose of distributing the manure raised by the share a , constructed

and arranged, substantially as hereinbefore described. 2nd. A device as set forth in claim 1, in which bolts c secured to the share



a for the purpose of attaching the same to the plough-share holder b , are guided in slots f for the purpose of enabling the adjustment of the share to the share-holder to produce a different distributing action, constructed and arranged, substantially as hereinbefore described.

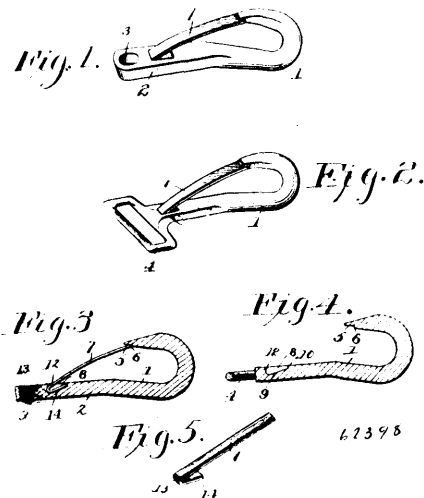
No. 62,397. Grab Hook. (Grappin.)



David H. Langan, Leetonia, Pennsylvania, U.S.A., 18th January, 1899; 6 years. (Filed 1st December, 1898.)

Claim.—In a device of the class described, a grab hook consisting of a shank having an eye at its front end and provided at its rear end with a projecting perforated ear, and angularly disposed driving tooth located immediately in front of the perforated ear of its shank, the latter being widened above the tooth, substantially as and for the purpose described.

No. 62,398. Snap Hook. (Crochet à ressort.)

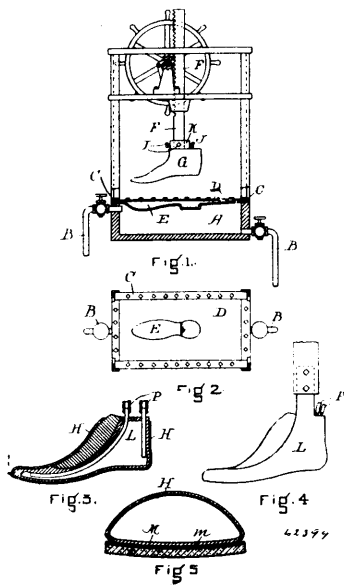


George Rothar, Oliver's Mills, Pennsylvania, U.S.A., 18th January, 1899; 6 years. (Filed 3rd January, 1899.)

Claim.—A snap hook comprising a hook provided in its body with a pocket or recess which extends partly through the body and is arranged in line with the bill of the hook, and an overhanging flange

at the end of the recess farthest from the bill, a flat spring disposed longitudinally of the hook and having its free end engaging under the bill of the hook and held thereby against outward movement, the other end of the spring being doubled upon itself to provide a heel which is arranged wholly within said pocket or recess, with the bend of the heel fitting under the overhanging flange, so as to be held from springing outward, and means for engaging the heel of the spring to hold the same against longitudinal movement, substantially as described.

No. 62,399. Method of Uniting Rubber Soles to the Bottoms of Leather Boots and Shoes.
(Méthode d'assujettir les semelles de caoutchouc aux chaussures.)



George Franklin Butterfield, Stoneham, Massachusetts, U.S.A.
18th January, 1899; 6 years. (Filed 3rd January, 1899.)

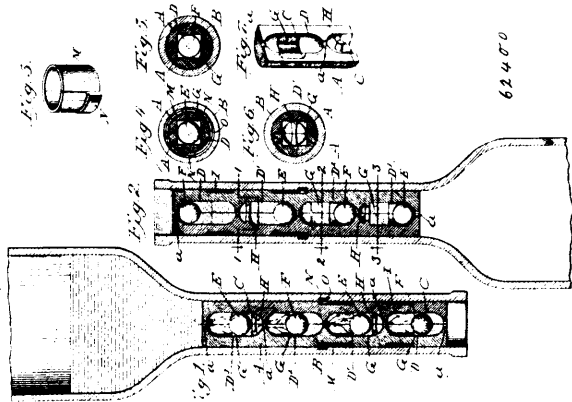
Claim.—1st. In an apparatus for uniting rubber soles to the bottoms of leather boots and shoes, a steam chamber provided with a flexible top which top is adapted to receive and hold the rubber sole, in combination with suitable means for pressing a shoe thereon, substantially as set forth. 2nd. In an apparatus for uniting rubber soles to the bottoms of leather boots and shoes, a steam chamber having a flexible top with a sole or heel shaped mould or bed therein, in combination with a last, a vertically movable shaft or bar to engage the last to press the shoe against the sole held in said mould, and means for applying and maintaining such pressure, substantially as set forth. 3rd. In an apparatus for uniting rubber soles to the bottoms of leather boots and shoes, a steam chamber having a flexible top with a sole shaped mould therein, in combination with a vertically movable shaft and pressure mechanism therefor and with shoe-holding devices carried on said shaft, substantially as set forth. 4th. In an apparatus for uniting rubber soles to the bottoms of leather boots and shoes, a steam chamber having in its top section a sole-shaped mould or recess, a vertically movable shaft above such recess, and mechanism for raising and lowering such shaft and for maintaining pressure thereon, in combination with a hollow metallic last connected to the foot of said shaft, and with water inlet and outlet passages for admitting cold water to traverse the last, substantially as set forth. 5th. A semi-vulcanized rubber sole having its upper surface less cured than its interior or its lower surface and adapted to combine with the cement-coated shoe bottom, substantially as set forth. 6th. A leather boot or shoe having a layer of rubber-coated cotton duck secured to its sole bottom, and provided with a rubber outer sole permanently vulcanized thereon, substantially as set forth.

No. 62,400. Bottle-Stopper. (Bouchon de bouteilles.)

Carl O. Roskoten, Peoria, Illinois, U.S.A., 18th January, 1899;
6 years. (Filed 3rd January, 1899.)

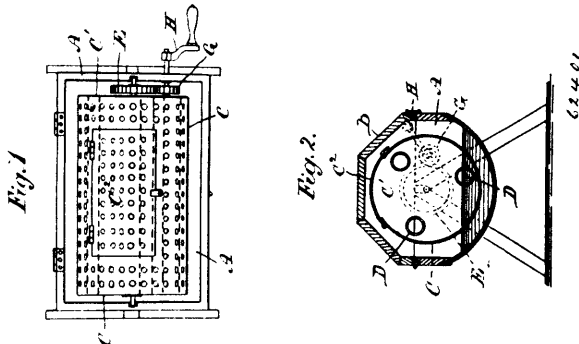
Claim.—1st. A stopper for bottles, comprising two longitudinally separable sections of like form, designed to be placed together and to form a complete closure for the bottle, and a device, independent of said sections, comprising means for holding the same together and means for securing them within the bottle-neck, substantially as described. 2nd. A stopper for bottles, comprising a body-portion secured within the neck of the bottle, a series of connected cylindrical pockets therein, the pockets being formed with polygonal recesses throughout a portion of their length, the polygonal portion being of greater cross area than the cylindrical portion, and valves

in said pockets. 3rd. A stopper for bottles, comprising a body-portion secured within the bottle-neck, a series of connected pockets



therein, said pockets being cylindrical in cross-section at their ends and polygonal intermediate said ends, said polygonal portions being of greater cross area than the cylindrical portions, and valves placed in said pockets. 4th. A stopper for bottles, comprising a body-portion secured within the bottle-neck, a series of connected pockets therein, said pockets being cylindrical in cross-section at their ends and provided with rounded valve-seats, the central portion of the pockets being of a diameter larger than the end portions, and valves placed in said pockets. 5th. A stopper for bottles, comprising a body-portion secured within the bottle-neck, a series of connected pockets formed therein, the alternating pockets being provided with studs or projections across one end, and valves seated in said pockets, operating substantially as described. 6th. A stopper for bottles, comprising a body-portion formed of two separate sections secured within the bottle-neck, a pocket formed therein provided with a curved seat at one end and with studs or projections extending into the pocket from the sections near the opposite end, and with a polygonal portion intermediate said curved seat and studs or projections, and a valve placed in said pocket, substantially as described. 7th. A stopper for bottles, comprising a series of longitudinally separable sections, a recess formed in the outer face of said sections, and a split spring collar designed to fit within said recess and secure said parts together. 8th. A stopper for bottles, comprising a series of longitudinally separable sections, a recess formed in the outer face of said sections, and a split spring collar designed to fit within said recess, said collar being provided with a spring finger designed to engage with a recess formed in the bottle neck. 9th. The combination with a bottle, of a stopper formed with a series of longitudinally separable sections provided with a recess in their outer face, a spring designed to encircle said parts and fit within the recess, a finger formed integral with the body of the spring, and a recess formed in the interior face of the bottle-neck designed to receive said finger. 10th. The combination with a bottle, provided with a narrow groove or channel formed on the inner side of its neck, of a stopper formed with a series of longitudinally separable sections provided with an annular recess upon their outer face, a spring collar M designed to encircle said parts and fit within the recess, a finger N formed integral with the body of the spring and designed to enter the groove in the neck of the bottle when the parts are in position, whereby the separable sections are locked together and the stopper as a whole locked within the bottle-neck against longitudinal movement therein.

No. 62,401. Washing Machine. (Machine à laver.)

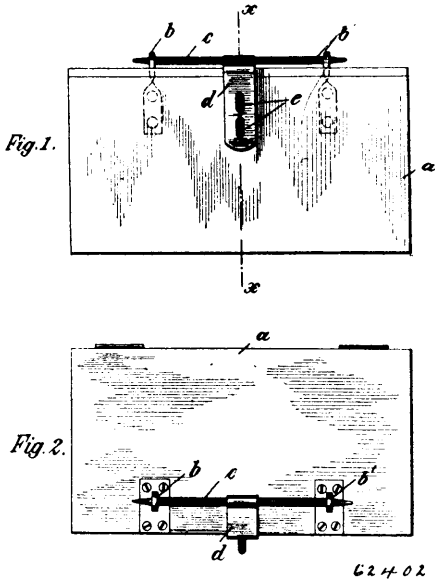


Daniel Wilhelm, New Hamburg, Ontario, Canada, 18th January,
1899; 6 years. (Filed January 4th, 1899.)

Claim.—A washing machine comprising a suds-box A, a perforated drum or hollow cylinder C, journaled in said box and provided

with a door C², in the circumference, perforated tubes D, longitudinally within the drum and extending through the ends, and gear-wheels and a crank-handle to rotate the drum in the suds-box, as set forth.

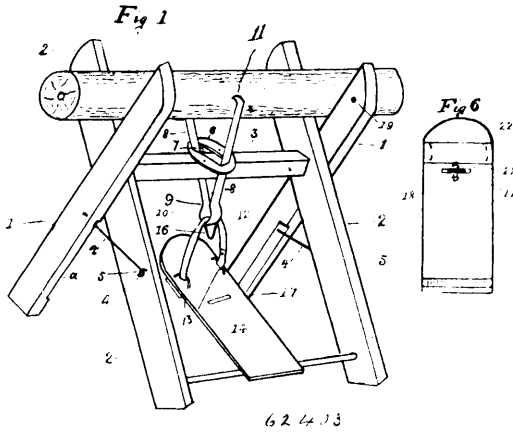
No. 62,402. Locking Device for Boxes.
(*Serrure pour boîtes.*)



Heinrich Brogsitter, Rudesheim, a Rh., Geisenheimerstrasse, Germany, 18th January, 1899; 6 years. (Filed 3rd January, 1899.)

Claim.—In improvements in locking devices for boxes, the arrangement of a rod which is pushed into eyes or rings extending through the lid, moving in hinges and which rod has attached to it a flattened piece bent right angular to the same and which is provided with slits which, when said piece is moved down it can be pushed over the rings or eyes arranged on the front side of the box, so that after applying a lock to the rings the rod can make no lateral movement and the lid remains securely closed.

No. 62,403. Saw Horse. (*Chevalet.*)

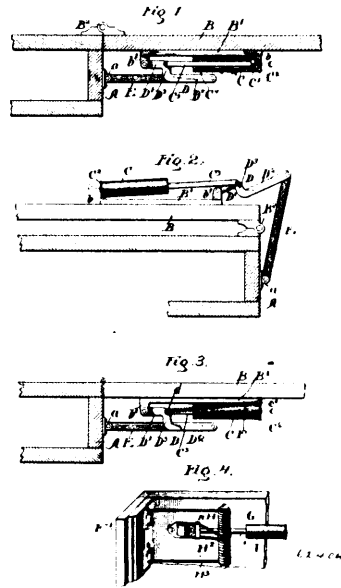


Harry Mitchell, Neepawa, Manitoba, Canada, 18th January, 1899; 6 years. (Filed 4th January, 1899.)

Claim.—1st. In a saw-buck, the combination with the cross-bar thereof, of the sliding spring jaws, the pivoted foot-lever or treadle for operating the same, and a suitable connection between said sliding jaws and a foot-lever, substantially as described. 2nd. In a saw-buck, the combination with the cross-bar thereof, of the folding legs, the slotted plate on said cross-bar, the sliding clamping arms moving in said slotted plate, and the foot-lever or treadle connected to said clamping arms for operating them, substantially as described. 3rd. In a saw-buck, the combination with the folding legs thereof, of the cross-bar, the slotted plate secured to said cross-bar, the spring clamping arms operating through said slotted plate, and a foot-lever or treadle connected to said clamping arms for depressing said arms, said arms being adapted to be retracted for releasing the stick or log by their spring tension, when the weight on the treadle is removed, substantially as described. 4th. In folding the saw-

buck, the cross-bar thereof, provided with a slotted transverse plate, the spring clamping arms moving within the slot in said plate, the foot-lever to which said arms are connected for operating them provided on the under side with a bolt, and a link connected to the looped end of the clamping arms for engaging said bolt for holding the spring securely to the treadle when the buck is folded for transportation, substantially as described. 5th. The combination with the leg of the buck, of an angular clip for holding the saw when not in use, substantially as described. 6th. In a saw-buck, the opposing legs thereof, provided one with a recess to receive a pivoted and folding link brace, and the other with an eye, through which said link passes, in combination with a link pivoted to said recessed leg, having a hooked end for engaging said eye, and adapted to fold within the recess, substantially as described. 7th. In a saw-buck, the combination with the folding legs thereof, of round-headed nails driven into either outer or inner legs intermediate the cross-bar and the upper ends of the legs, and of round recesses in opposing legs to receive the nail-heads when the buck is folded for transportation, substantially as described.

No. 62,404. Door Check. (*Arrête-porte.*)

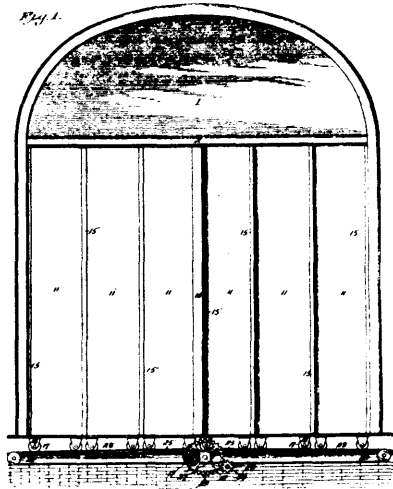


George W. Warner, Freeport, Illinois, U.S.A., 18th January, 1899; 6 years. (Filed 3rd January, 1899.)

Claim.—1st. A door-check, comprising a cylinder pivotally connected with the door with its longitudinal axis substantially parallel with the plane of the door when the latter is closed, a piston in said cylinder which stands at the inner end of the cylinder when the door is closed, a link pivotally attached to the inner face of the door-jamb and a lever pivoted at its inner end to the door and connected at its outer end with the outer end of said link, said lever being pivotally connected between its ends with said piston and being pivoted to the door in such manner that its outer end will swing away from the door when the latter is being opened and will project beyond the inner edge of the door when the latter is fully opened. 2nd. A door-check, comprising a cylinder pivotally connected with the door, a piston in said cylinder which stands at the inner end thereof when the door is closed, a link pivoted to the inner face of the door-jamb, a lever pivoted at one end to the door and at its opposite end to the free end of said link, said lever being provided between its ends with an offset portion and a rod connecting said piston with the lever, said rod being connected with the lever between said offset portion and the end of the lever which is pivoted to the door. 3rd. A door-check, comprising a cylinder pivotally connected with the door, a piston in the cylinder which stands at the inner end thereof when the door is closed, a link pivotally secured at one end to the door-frame at a point at a greater distance from the plane of the door than the axis of the cylinder, a lever pivoted at its inner end to the door and at its outer end to the free end of said link, and a rod connecting said piston and lever and pivotally connected with the lever between the ends of the latter, said lever being so located on the door that it will project at its outer end beyond the inner edge of the door when the latter is open. 4th. A door-check, comprising a cylinder pivotally connected with the door, a piston in said cylinder which stands at the inner end thereof when the door is closed, a link pivotally connected with the inner face of the door jamb, a lever pivoted at one end to the door and at its opposite end to the free end of the said link, said lever comprising two parallel longitudinal portions and a transverse intermediate connecting part and a piston rod connecting said piston with said lever and engaging the latter at its longi-

tudinal part which is nearest the door, said parts being so located and arranged that when the door is closed said piston rod will be in alignment with the inner longitudinal part of the lever and the link will be parallel to the outer longitudinal part of said lever, and when the door is open the lever will project beyond the inner edge of the door. 5th. A door-check, comprising a cylinder which is pivotally connected with the door with its longitudinal axis substantially parallel with the plane of the door when the latter is closed, a piston in said cylinder which is located at the inner end thereof when the door is closed, a link pivotally attached to the inner face of the door-jamb, a lever pivoted at its inner end to the door and at its outer end to said link and connected between its ends with said piston, said link being pivoted to the door in such manner that its outer end will swing away from the door when the latter is being opened and will project beyond the inner edge of the door when the latter is fully opened, and an expansive, coiled spring connected at one end with the door and at its opposite end with said lever.

No. 62,405. Fire-Proof Door. (*Porte à l'épreuve du feu.*)

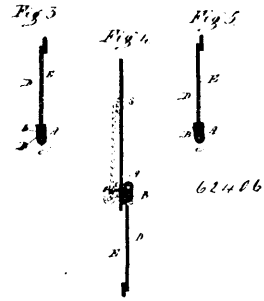
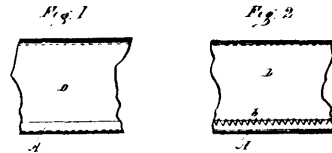


Frederick S. Steward, Kansas City, Missouri, U.S.A., 18th January, 1899; 6 years. (Filed 3rd January, 1899.)

Claim.—1st. A folding fire-proof door, comprising two members each consisting of a plurality of sections provided with overlapping parts, whereby it is impossible to move one section independent of its adjacent section beyond a predetermined distance, and means to cause said members to move inward or outward synchronously, substantially as described. 2nd. A folding fire-proof door, comprising a suitable track, a pair of members mounted upon wheels upon said track, each member consisting of a series of sections provided with overlapping parts, whereby it is impossible to move one section independent of the adjacent section beyond a predetermined distance, substantially as described. 3rd. A folding fire-proof door, comprising a suitable track, a pair of members mounted upon wheels upon said track, each member consisting of a series of sections provided with overlapping parts, whereby it is impossible to move one section independent of its adjacent section beyond a predetermined distance, a pair of shafts, drums mounted thereon, a pair of pulleys arranged at opposite sides of the door opening, a pair of cables extending around the said pulleys and under and secured to a pair of the drums, and having their opposite ends attached to the innermost sections of the door-members near their inner edges, a pair of cables attached at their outer ends to said sections near their outer edges, and extending over and secured to the remaining pair of drums, and means to operate said shafts, substantially as and for the purpose described. 4th. A folding fire-proof door, comprising a suitable track, a pair of members mounted upon wheels upon said track, each member consisting of a series of sections provided with overlapping parts, whereby it is impossible to move one section independent of its adjacent section beyond a predetermined distance, a pair of shafts, drums mounted thereon, a pair of pulleys mounted at opposite sides of the door opening, a pair of cables extending around the said pulleys and under and secured to a pair of the drums, and having their opposite ends attached to the innermost sections of the door-members near their inner edges, a pair of cables attached at their outer ends to said sections near their outer edges, and extending over and secured to the remaining pair of drums, intermeshing gear-wheels mounted upon said shafts, and a driven shaft geared to one of said shafts whereby a synchronous movement is imparted to both, substantially as described. 5th. A folding fire-proof door for

proscenium-arch openings, comprising two members, each consisting of a plurality of sections provided with overlapping parts, whereby it is impossible to move one section independent of its adjacent section beyond a predetermined distance, brackets secured to said sections and depending through parallel slots in the floor, rollers journaled in said brackets, a bracket-support for said rollers, pockets or chambers to receive the sections of the door-members when the latter are open, and means to cause said rollers to travel back and forth upon said track-support, substantially as described.

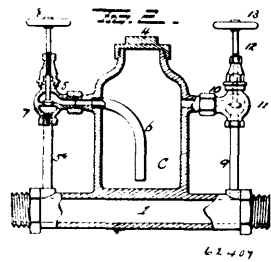
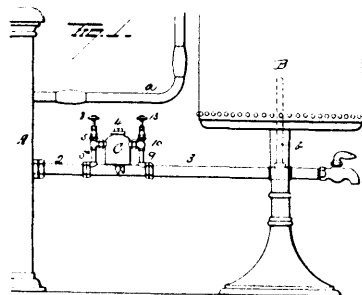
No. 62,406. Facing Strip and Edge Protector for Dress Skirts. (*Protecteur de jupes de robes.*)



Aaron Morris Weber, Oshkosh, Wisconsin, U.S.A., 18th January, 1899; 6 years. (Filed 4th January, 1898.)

Claim.—A combined dress-facing and edge-protector comprising a facing-strip of bias-cut water-proof cloth having along its lower edge a longitudinally folded bias-cut water-proof binding, the lower edge of the facing-strip being within the folded binding and extending down to a point near the bottom of the fold of the binding, and a cord arranged between the lower edge of the facing strip and the fold of the binding, substantially as described.

No. 62,407. Apparatus for Cleaning Water Heaters. (*Appareil pour nettoyer les calorifères.*)

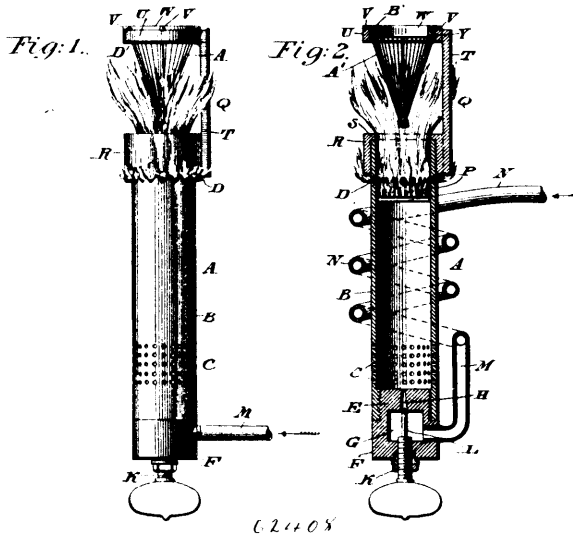


George John Dehn, Iron Mountain, Michigan, U.S.A., 19th January, 1899; 6 years. (Filed 5th January, 1899.)

Claim.—1st. In an apparatus for preventing the accumulation of foreign matter in water heaters, the combination with a pipe

section adapted to be connected in the feed pipe of a water heater and a receptacle on said pipe section and provided with a removable cover, of vertical pipes removably secured to said pipe section and communicating therewith at respective sides of said receptacle, nipples at respective sides of the receptacle and communicating with the interior thereof, couplings connecting said nipples with the vertical pipes, a valve seat in each coupling a valve stem passing upwardly through each coupling, valves at the lower ends of said stems and adapted to bear on the seats in the couplings and hand wheels secured to the upper ends of said stems, substantially as set forth. 2nd. The combination with a pipe section, a receptacle located thereon and a drain cock at the lower end of said receptacle, of couplings removably secured to said receptacle and communicating therewith, a valve in each coupling, a removable pipe in said receptacle and communicating at one end with one of said couplings and terminating at its other end near the bottom of the receptacle and pipes communicating with said couplings and with the first-mentioned pipe section at respective sides of the receptacle, substantially as set forth.

No. 62,408. Burner for Illuminating Purposes.
(*Bruleur pour éclairage.*)

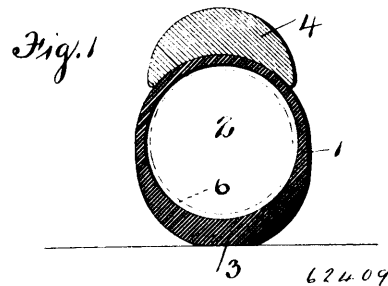


Harry McMillen Hamrick and William Sieger Miller, both of Philadelphia, Pennsylvania, U.S.A., 19th January, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. A burner consisting of a tube, a series of perforations located in the upper portion of said tube, a gauze located below said perforations, a chamber for the reception of the hydrocarbon, means for enabling said burner to generate its own gas by its own heat and a mantle suitably supported above said tube. 2nd. A burner consisting of a tube, a series of perforations in the upper portion thereof, a gauze located below said openings, other openings in the lower portion of said tube, a collar supported upon the latter, a standard arising from said collar, a laterally-extending member attached to said standard, a ring supported upon said member, and a mantle depending from said ring. 3rd. In a burner, a tube, having perforations at the upper and lower portions thereof, gauze located transversely in said tube below the upper series of perforations, a chamber having a needle-valve therein, secured to the lower portion of said tube, a collar supported upon the upper portion of said tube, the lower edge of said collar terminating above the upper series of perforations in said tube, a standard arising from said collar and a mantle supported from said standard. 4th. A burner consisting of a tube, a series of perforations in the upper portion thereof, a gauze located below said perforations, a standard supported upon said tube, said standard having a laterally-extending member, a mantle supported upon said member, and means for enabling said burner to generate its own gas by its own heat, in combination with a casing or covering of suitable non-conducting material, and a casing inclosing said burner. 5th. A burner consisting of a tube, a chamber for the reception of the hydrocarbon, openings in said tube, a standard supported upon the latter, a mantle suitably supported above said tube, and a pipe leading to said chamber and coiled about said tube, said burner being adapted to generate its own gas by its own heat. 6th. A burner consisting of a tube having perforations in the upper and lower portions thereof, gauze located transversely in said tube below the upper perforations, a collar supported upon the upper end of said tube and having an inwardly-extending flange whereby said collar is held in position, a standard arising from said collar, a ring having a mantle projecting therefrom, and supporting devices

common to said ring and standard. 7th. In a burner, a tube, having perforations therein, a chamber for the reception of the hydrocarbon, means for enabling the burner to generate its own gas by its own heat and a standard sustained upon said tube, in combination with a mantle supported from said standard, said mantle consisting of a ring having a groove therein, whereby a lower flange is formed, recesses in said flange, wire having their upper ends seated in said recesses, and deflected into said groove and a fastening device seated in the latter, the lower ends of said wires being converged. 8th. A burner consisting of a tube, a chamber for the reception of the hydrocarbon at the lower portion thereof, openings located at the upper and lower portions of said tube, a mantle suitably supported above said tube, a gauze in said tube adjacent the outlet thereof, and a pipe leading to said chamber and coiled about said tube, said burner being adapted to generate its own gas by its own heat. 9th. A burner, consisting of a tube having openings in the upper and lower portions thereof, a gauze supported below said upper openings, a collar supported upon the upper end of said tube, and having an inwardly-extending flange engaging said tube, a standard arising from said collar and having a laterally-projecting member, a ring having a mantle depending therefrom, supporting devices common to said ring and to said laterally-extending member a chamber for the reception of the hydrocarbon, means for enabling said burner, to generate its own gas by its own heat, and a suitable non-conducting casing or covering inclosing said burner. 10th. In a burner, a tube, having perforations at the upper and lower portion thereof, gauze located transversely in said tube below and in proximity to the upper series of perforations, a collar supported upon the upper end of said tube and having an inwardly-extending flange whereby said collar is held in position, a standard arising from said collar, a supporting lateral band projecting from said standard, a ring having projections thereon sustained upon said band, and a mantle depending from said ring. 11th. A mantle consisting of a ring having projections extending therefrom, an annular groove in said ring below said projections, whereby a lower projecting flange is formed, a plurality of recesses or cuts in said lower flange, a series of wires having their upper ends seated in said recesses said ends being bent into said groove, and a rod seated in the latter, the lower ends of said wires converging and being suitably secured together in assembled position. 12th. A burner consisting of a tube, means for introducing gas into said tube, a mantle suitably supported above said tube and a gauze in said tube below the outlet thereof, so that the flame heats said tube, in combination with perforations in said tube below said gauze.

No. 62,409. Bicycle Tire. (*Bandage de bicycles.*)



William Bruce Morris, Altamont, Manitoba, Canada, 19th January, 1899; 6 years. (Filed 11th October, 1898.)

Claim.—A bicycle tire, comprising a tube having a thickened tread portion, the outer face of said tread portion being flattened, substantially as described.

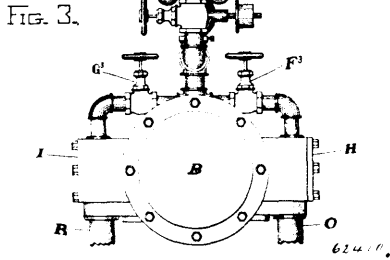
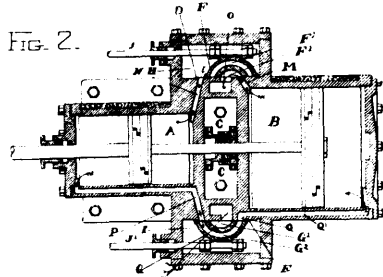
No. 62,410. Compound Steam Engine.

(*Machin à vapeur à deux cylindres.*)

Joseph Hardell, Stratford, Ontario, Canada, 19th January, 1899; 6 years. (Filed 20th May, 1898.)

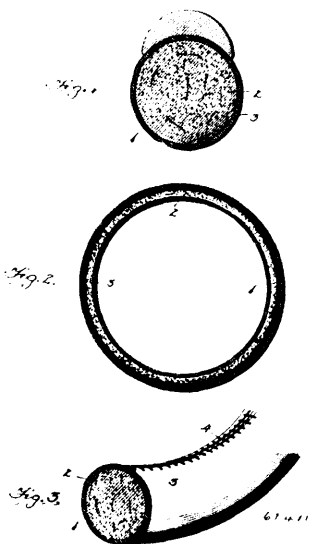
Claim.—1st. In a double acting compound engine a cylinder section comprising a high pressure and low pressure cylinder connected by a bulkhead having valve seats located upon opposite sides thereof, ports therein communicating with the inner and outer ends of the said cylinders and valves for controlling the port openings, substantially as described. 2nd. In a double acting compound engine the combination with a high pressure cylinder, a low pressure cylinder at one end thereof, a bulkhead having intermediate ports, valve seats at opposite sides of the cylinders and two side valves adapted to move in opposite directions, the said valves being set to admit steam to the inner and outer ends of the high pressure cylinder and also to conduct steam therefrom to the inner and outer ends of the high pressure cylinder and also to conduct steam therefrom to the inner and outer ends of the low pressure cylinder, substantially as described. 3rd. In a double acting compound engine the combination with the two cylinders of an intermediate port and valve seat containing bulkhead for separating said cylinders, having a central chamber therein, substantially as described. 4th. In a double

acting compound engine the combination with the two cylinders of an intermediate port and valve seat containing bulkhead having a



central chamber therein to give access to the chamber from outside the cylinder, substantially as described. 5th. In a double acting the combination with the two cylinders of an intermediate double walled bulkhead a piston rod passing through the walls of the said bulkhead and pistons secured thereto and two oppositely disposed stuffing boxes fitted within the chamber of the bulkhead, substantially as described. 6th. In a double acting compound engine the double cylinder having an intermediate bulkhead, valve seats located upon opposite sides of the cylinder upon said bulkhead parts connecting the inner ends of the two cylinders with the valve seat upon one side of the cylinder ports and steam ports and channels connecting the outer ends of the cylinders and slide valves having steam passages therein bringing the face of the valve seats to operate in connection with said cylinder ports and steam passages, substantially as described. 7th. In a double acting compound engine having steam chests on both sides connected by branch pipes from the main pipe, the aforesaid branch pipes having globe valves placed thereon that either one of the aforesaid steam chests may be shut off changing the engine from double-acting to single acting compound according to power required, substantially as described.

No. 62,411. **Bicycle Tire.** (*Bandage de bicyclet.*)

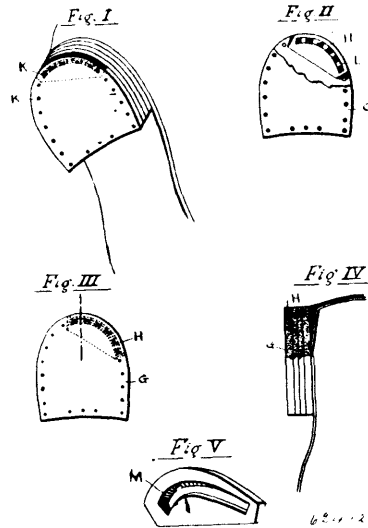


Joseph Pierre Marchand, Lowell, Massachusetts, U.S.A., 19th January, 1899; 6 years. (Filed 3rd October, 1898.)

Claim.—A bicycle tire comprising a cork roll or filler, substantially circular in cross-section, and an outer covering adapted to

closely fit said roller filler, said covering being formed of a flat section of rubber, placed around said filler and laced on its inner side, whereby said tire may be removed from the wheel entire, yet allowing of a ready removal of the filler from its cover, substantially as described.

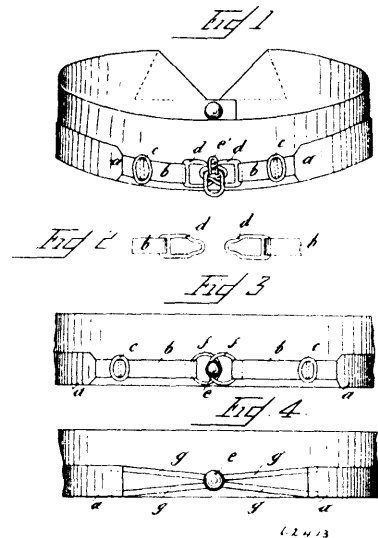
No. 62,412. **Boot and Shoe Heel.** (*Talon de chaussures.*)



Maximilian Ford and George Burrows Starr, both of San Francisco, California, U.S.A., 19th January, 1899; 6 years. (Filed 26th October, 1898.)

Claim.—A boot and shoe heel protector comprised of a wedged and curved-shaped metallic quarter lift, having a bevelled slot M, wider at its upper side than at its under side, substantially as and for the purpose hereinbefore set forth.

No. 62,413. **Necktie Fastener.** (*Attache de cravate.*)

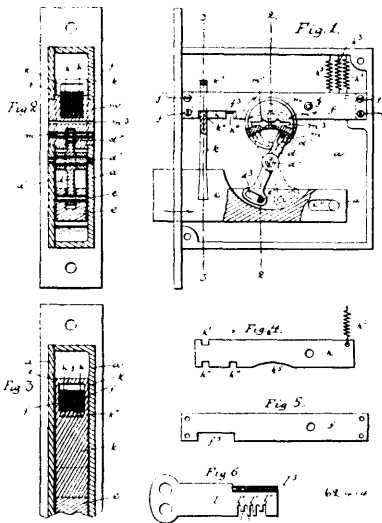


Karl Sykora, New Strakonice, Austria, 19th January, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. A necktie-fastener consisting of two suitably shaped loops d secured to the ends of the tie-bands a through the agency of two elastic adjusting strips b, said loops being adapted to be readily and easily slipped over the rear button attaching the collar to the neck-band of the shirt, substantially as set forth, with reference to figures 1 and 2, of the accompanying drawings. 2nd. A necktie-fastener consisting of two single-rings f attached to the tie-bands and adapted to be readily and easily slipped over and off the button of the collar, substantially as set forth with reference to

figures 3 of the accompanying drawings. 3rd. A necktie-fastener consisting of two elastic cords *g* secured to the ends of the tie-bands and forming loops to be slipped over the rear button attaching the collar to the neck-band of the shirt, substantially as set forth with reference to figure 4 of the accompanying drawings.

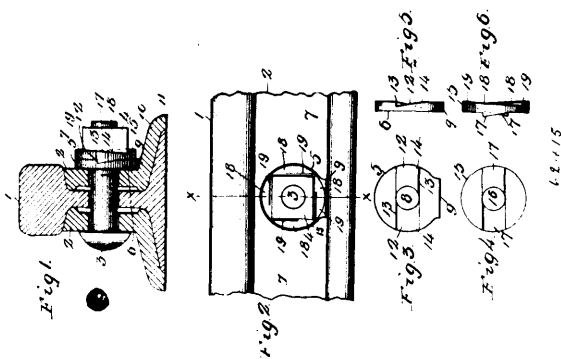
No. 62,414. Lock. (Serrure.)



Sunner Shaw, Boston, Massachusetts, U.S.A., 19th January, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. In a tumbler lock, the movable notched tumblers *h*, *h*, and intermediate stationary, recessed division plates *f*, *f*, combined with the bolt *e*, having a yoke *k*, adapted to interlock with said tumblers, a rotary key receiving tumbler cylinder and a lever *d*, pivoted intermediate between the tumbler cylinder and bolt and pivotally connected to said parts, substantially as and for the purpose set forth. 2nd. In a tumbular lock, in combination, a series of yielding pivoted, notched tumblers, a series of intermediate stationary division plates, a key receiving tumbular cylinder, a locking bolt having a yoke adapted to interlock with the notched tumblers and a lever pivoted intermediate between the tumbler cylinder and locking bolt and having its ends pivotally connected to said bolt and tumbler cylinder, substantially as and for the purpose set forth. 3rd. In a tumbler lock, a series of pivoted tumblers and intermediate stationary division plates, combined with a locking bolt having means for interlocking it with the tumblers, a key receiving tumbler cylinder and a lever pivoted intermediate between said tumbler cylinder and bolt, and having slotted or forked portions at its ends and means for connecting the ends of said lever to the tumbular cylinder and bolt, substantially as and for the purpose set forth.

No. 62,415. Nut Lock. (Arrête-écrou.)



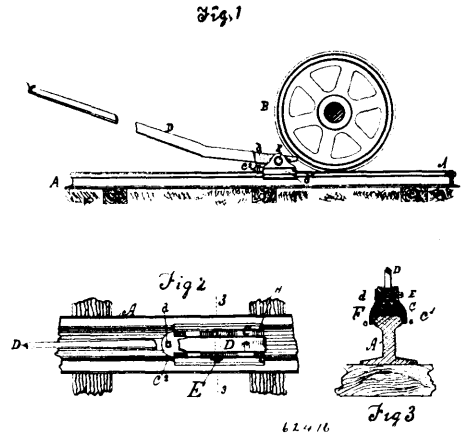
John A. Rausch, St. Louis, Missouri, U.S.A., 19th January, 1899; 6 years. (Filed 9th November, 1898.)

Claim.—A nut lock, comprising an ordinary bolt and nut, a circular plate 5, having a plain surface 6, which is adapted to come in contact with the fish-plate, means for holding said plate against rotation, two angular depressions 12, formed on the opposite side of said plate and oppositely located, shoulders 13, formed by said

depression and having inclined flat surfaces 14, the said shoulders facing one another and the opposite inclined flat surface formed in the opposite direction, a circular washer 14, adapted to be passed over the bolt and brought into contact with said plate, two inclined projecting lugs 17, formed on the inner surface of said washer, and oppositely located and co-operating with depressions 12, of plate 5, projecting lugs 18, formed on the opposite side of said washer and having outwardly inclined faces, shoulders 19, forming a part of said lugs and facing one another and co-operating with the sides of the nut whereby when the nut is unscrewed the inclined projecting lugs will be forced out of the inclined depressions formed in the plate, but said plate and washer locked against rotation independent of one another when the nut is turned in the opposite direction or brought in contact with the inclined projecting lugs formed on the outer surface of said washer, substantially as described.

No. 62,416. Car Pushing Device.

(Appareil de mise en mouvement des chars.)

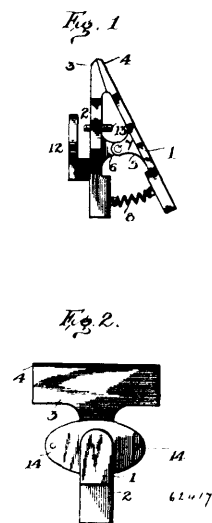


William Lowel Joy, Toronto, Ontario, Canada, 19th January, 1899; 6 years. (Filed 12th November, 1898.)

Claim.—In a car wheel pushing or moving device, the combination of a shoe fitting the upper surface of the rail and adapted to move forward thereupon, and having the wearing or friction plate and the set screw, and a lever fulcrumed in the upper portion of said shoe, and so arranged that its shorter or forward end will engage the thread of the wheel to be moved, and its longer end be adapted to be operated by hand power, substantially as set forth.

No. 62,417. Bed Clothes Clamp.

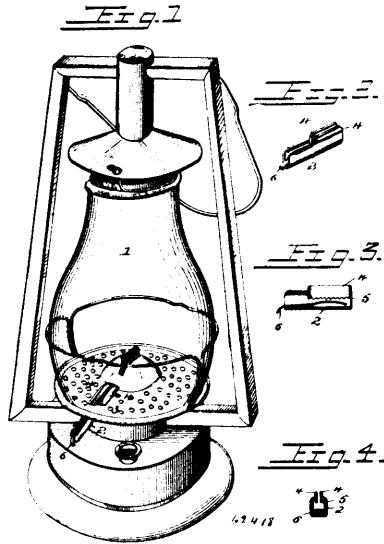
(Attache pour couvertures de lits.)



Lewis M. Lownes, Norristown, Pennsylvania, U.S.A., 19th January, 1899; 6 years. (Filed 15th December, 1898.)

Claim.—A clasp comprising two jaws pivoted to each other, the one member being provided with perforated, lateral extensions for securing it to a wooden bed rail, and with the lug 12, and screw 13, for securing it to an iron rail, substantially as described.

No. 62,418. Match Igniter. (*Allumeur d'allumettes.*)

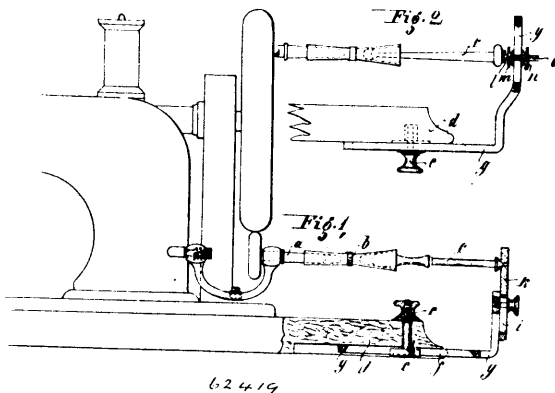


Charles M. Widrig, Jamestown, New York, U.S.A., 19th January, 1899; 6 years. (Filed 3rd November, 1898.)

Claim.—1st. In a device of the class described, a tubular lantern comprising a tubular body portion designed to extend through the globe seat of a tubular lantern in the direction of the burner, and flanges depending from the top of the tubular body and having toothed or serrated lower edges adapted to engage the head of the match, substantially as described. 2nd. In a device of the class described, a tubular lantern comprising a tubular body having a bottom and sides and provided at the upper edges of the latter with depending longitudinal match engaging flanges, and a spring for forcing the head of the match against the flanges, substantially as described.

No. 62,419. Spooling Device for Sewing Machines.

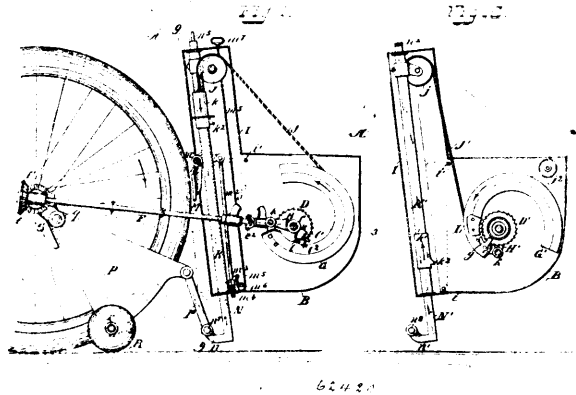
(*Appareil à bobiner pour machines à coudre.*)



Caroline Catharine Mathilda Wagner, No. 7 Markt, Bergedorf, Hamburg, Germany, 19th January, 1899; 6 years. (Filed 28th September, 1898.)

Claim.—1st. A spooling device for sewing machines, for winding or spooling bobbins or similar articles, having a connecting holder *b* bored conically at both ends, and an arm, *g*, *k*, adjustable horizontally and vertically and adapted to be easily attached to and removed from a sewing machine, constructed and arranged substantially as hereinbefore described. 2nd. A spooling device, in which the arm *g* carries at its bent upward end a piece *k* adjustable in vertical direction, the arm *g* being slotted longitudinally to allow of horizontal adjustment, constructed and arranged substantially as hereinbefore described. 3rd. A spooling device, in which the vertical part of the arm *g* is slotted and provided with a tightening screw secured by two nuts *m*, *n*, so as to be adjustable vertically to a certain extent sideways, constructed and arranged substantially as hereinbefore described.

No. 62,420. Bicycle. (*Bicyclo.*)

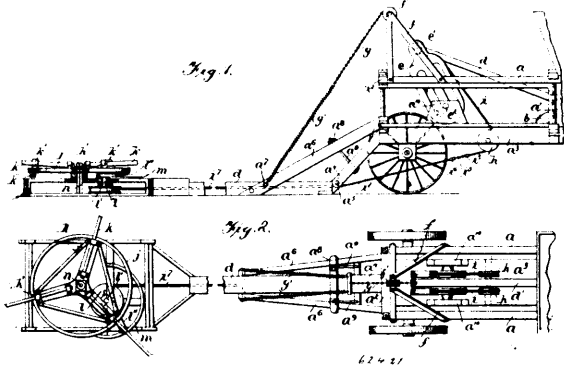


John H. Eickershoff, Cincinnati, Ohio, U.S.A., 19th January, 1899; 6 years. (Filed 24th August, 1898.)

Claim.—1st. In a bicycle, the combination of a shaft, driving-discs loosely mounted thereon, mechanism connecting the discs with the driven wheel, sheaves or sheave segments eccentrically fixed to the shaft and adapted to rock the shaft in opposite directions, and means for actuating the sheaves. 2nd. In a bicycle, the combination of a pair of reciprocating pedals, hollow pedal guides, slidable bars within the pedal guides adapted to serve as standards for supporting the bicycle, and means for holding the bars in any desired position. 3rd. In a bicycle, the combination of a pair of reciprocating pedals, hollow pedal guides, slidable bars within the pedal guides, a frame adapted to swing relatively to the hub of the driving-wheel, and connected with the sliding bars, a pair of rollers mounted on the swinging frame and adapted to support the bicycle, and mechanism, controlled by the rider, whereby the slidable bars, and thereby the rollers, may be held in any desired position. 4th. In a bicycle, the combination of a pair of reciprocating pedals, hollow pedal guides, slidable bars within the pedal guides adapted to serve as standards for supporting the bicycle, a brake adapted to engage with the wheel, and means for locking the brake and the sliding bars together. 5th. In a bicycle, the combination of a pair of reciprocating pedals, adapted through connecting mechanism to actuate the driving-shaft, a safety brake, contact parts adapted to be actuated by the pedals, but out of reach of their normal travel, and mechanism connecting the contact parts and the brake whereby the latter may be applied by abnormal movement of the pedals. 6th. In a bicycle, the combination of a pair of reciprocating pedals, hollow pedal guides, slidable bars within the pedal guides, a safety brake, lever mechanism whereby the brake may be brought into operation by abnormal movement of the pedals, and a cord connected with the lever mechanism whereby the brake may be operated at the will of the rider. 7th. In a bicycle, the combination of a pair of reciprocating pedals, hollow pedal guides, sliding bars within the pedal guides, a series of holes in the sliding bar, a pair of sliding pins adapted to take into the holes, a lever to operate the pins, and a spring whereby the pins are held within the holes of the sliding rods. 8th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the ratchets and the shaft of the driving-wheel, sheave segments adapted to actuate the shaft, means for actuating the segments, and pawls carried by the segments adapted to engage the ratchets when the speed of the segments is greater than that of the ratchets, and to be released when the speed of the ratchets is greater than that of the segments. 9th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the ratchets and the shaft of the driving-wheel, sheave segments adapted to actuate the shaft, pawls pivotally secured to the segments, and adapted to engage with the ratchet-wheels, and arms carried by the pawls adapted to contact with the ratchet-wheel and hold the pawls out of engagement with the ratchet, when the movement of the latter is faster than that of the segments, and throw the pawls into engagements when the movement of the segments is faster than that of the ratchets. 10th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the ratchets and the shaft of the driving-wheel, sheave segments adapted to actuate the ratchets, and carrying brake shoes adapted to engage with the ratchet-wheels, means for actuating the sheave segments, and springs adapted to hold the brake shoes out of contact with the ratchet-wheels until pressure is applied to the pedals concurrently, substantially as and for the purpose set forth. 11th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the ratchets and the shaft of the driving-wheels, sheave segments adapted to actuate the ratchets, a cord, or cords, connecting the sheave segments and the pedals, contact parts adapted to be actuated by the pedals, but out of reach of their normal travel, a brake shoe, and mechanism connecting the contact parts and the brake shoe, whereby the brake may be applied. 12th. In a bicycle, the combination of a shaft,

ratchets loosely mounted thereon, mechanism connecting the ratchets and wheel shaft, sheave segments carrying pawls adapted to actuate the ratchets, a cord, or cords, connected with the sheave segments and the pedals, and guide sheaves, mounted in different positions, whereby the cord may be caused to actuate the sheaves through different arcs, thereby varying the speed. 13th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the ratchets and the shaft of the driving-wheel, sheave segments adapted to actuate the ratchets, a cord, or cords, connecting the sheave segments and the pedals, guide sheaves for the cord, and mechanism for adjusting the position of the sheave segments relatively to the guide sheave, thereby varying the speed. 14th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the discs with the driven-wheel, a pair of sheave segments, each consisting of a part secured to the shaft carrying the discs and another part hinged thereto, friction shoe carried by the hinged part, adapted to engage with the discs, the sheave segments being fixed to the shaft in opposite directions, and cords attached to the sheaves and to alternately reciprocating pedals. 15th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the discs with the driven-wheel a pair of eccentrically mounted sheave segments, each consisting of a part secured to the shaft carrying the discs and another part hinged thereto, friction shoes carried by the hinged part adapted to engage with the discs, the sheave segments being fixed to the shaft in opposite directions and cords attached to the sheaves and to alternately reciprocating pedals. 16th. In a bicycle, the combination of a shaft, ratchets loosely mounted thereon, mechanism connecting the discs with the driven-wheel a pair of sheave segments each consisting of a part, secured to the shaft carrying the discs, and another part hinged thereto, friction shoes carried by the hinged part, adapted to engage with the discs, springs between the fixed and the hinged part, normally holding the friction shoes out of engagement with the discs, the sheave segments being fixed to the shaft in opposite directions, and cords attached to the sheaves and to alternately reciprocating pedals.

No. 62,421. Baling Press and Power.
(*Press d'emballage.*)



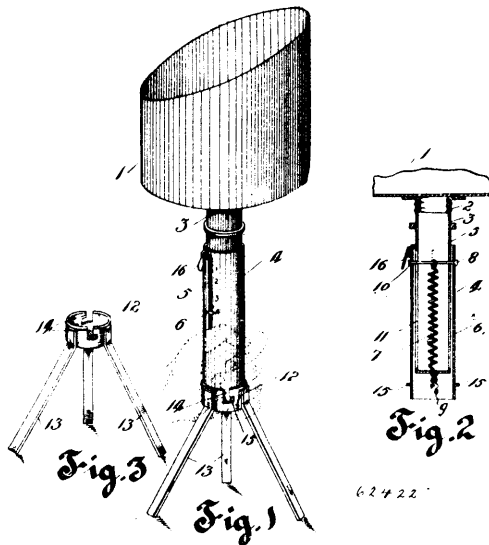
Norman Briggs Wilder, Prophetstown, Illinois, U. S. A., 21st January, 1899; 6 years. (Filed 9th September, 1898.)

Claim.—1st. In a baling press, a power comprising a rotary frame or member provided with a laterally projecting trip operating stud or extension, and a winding and releasing shaft to which the operating cable of the press or other machine is secured and on which it is wound, said shaft having a trip rigid therewith and extending laterally therefrom into the path of said stud so that the stud engages the trip near one end and moves along the edge thereof and swings the same to wind up the cable and then slips past the end of the trip and releases the same and allow it to rebound, substantially as set forth. 2nd. In combination, the horizontally disposed main frame, the vertical rigid shaft mounted about at the centre of the frame with the top journal above the frame, the horizontal rotary driving frame on said journal and provided with one or more actuating sweeps and the projections depending from its outer portion and equally spaced, the vertical winding shaft journaled in said main frame beneath and to one side of the axis of said rotary frame, the cable sheave rigid on said winding shaft and the lateral trip arm rigid on the upper end of said shaft and between the main and rotary frames, whereby the projections engage said trip in succession and swing the same partially around and release the trip which rebounds and engages the next succeeding projection, thereby automatically limiting the rebound of the trip and operating the same rapidly a number of times during a single comparatively slow rotation of the large rotary frame, and the actuating cable passing centrally into the end of the main frame and secured on the sheave. 3rd. In combination, the main frame, the central vertical shaft having the rotary frame thereon, said frame having the three projections depending from its outer portion and equally spaced, and the several series of aligned loops or sockets on its upper face, sweeps removably fitted in said loops and above the upper face of the rotary frame, the winding shaft mounted in the main frame with the lateral trip arm between the

main and rotary frames and normally in the circular path of said projections, the segmental track on the main frame beneath said trip arm, the sheave secured to the winding shaft, and the actuating cable passing through the main frame to said sheave. 4th. In combination, a baling press, a main frame, the vertical shaft mounted at the central portion thereof, the rotary driving frame above the frame and on said shaft and provided with one or more actuating sweeps and the equally spaced projections depending from its outer portion, the vertical winding shaft within the frame beneath said rotary frame and between the axis and outer edge thereof, the cable sheave rigid on the winding shaft, the lateral trip arm rigid on the shaft between the main and rotary frames, whereby the projections engage said trip in succession and swing the same partially around and release the trip which rebounds and engages the next succeeding projection, and the actuating cable secured to said sheave. 5th. In a baling press, the combination of a power, a press frame, a presser head, an operating toggle for the presser head comprising a link confined to the head and a power member at one end fulcrumed to the frame and at its opposite end jointed to said link, and an actuating cable secured to the rear portion of said power member and passing around the free or jointed end thereof and downwardly at the front thereof, whereby said cable embraces the free end of said power member and extends down at the front and rear edges thereof and pulls downwardly and forwardly on the free end thereof. 6th. In a baling press, the combination of a press frame, a presser head, an operating toggle for the presser head comprising a sheave like power link at its lower end suitably fulcrumed to the frame to swing vertically, a link joined to the upper end of the power link and secured to the presser head, and an actuating cable adapted for connection with a suitable power and extending upwardly at the front edge of said power link and passing around the free end thereof, whereby the cable pulls downwardly and forwardly on the power link with a varying leverage thereon. 7th. In a baling press, the combination of the press frame, the presser head, the operating toggle comprising a power member composed of two elongated sheaves like links or levers at their lower ends mounted on the frame, a link joined between the upper ends of said power member and coupled to the presser head, and the actuating cable having two plies or lengths passing around and loosely encircling the free or jointed ends of said power member links, respectively, and secured at the rear edges thereof, whereby said cable pulls on the free or jointed ends of said power member links. 8th. In a baling press, the combination of the press frame, the bearing blocks secured at the front portion of the press frame, a horizontal shaft extending between the bearing blocks, an operating toggle having one member secured to the presser head and its power head and its power member composed of two parallel links with said presser head member coupled between their free ends, the said links at their ends mounted on said shaft and rounded at their free or jointed ends and grooved at their edges, the actuating cable having two plies or lengths fitting in said grooved edges and passing around the jointed ends of the links and passing down from the front edges of said power links, and pulleys in the press frame for said cable arranged in advance of said shaft. 9th. In a baling press, the combination of a frame, the presser head, the operating toggle comprising the power member composed of two sheave like links fulcrumed at their lower ends and at their upper or free ends having upward extensions, and the link pivoted to the presser head and joined to said power links between said extensions, said power member links having rounded upper ends and grooved edges, the double cable extending along the front edges of said power member links and around the free ends thereof and down and secured at the rear edges thereof. 10th. A baling press having its presser head operating toggle comprising a power member connected with the presser head by a link, said power member fulcrumed to the frame at one end and at its opposite end joined to said link and having a grooved edge, and an actuating cable passing from the front around the end of said power member and longitudinally in the rear grooved edge thereof and into an opening therein, a clamp securing the end of the cable in said opening, and means binding or clamping the cable in the groove at an intermediate point in the rear edge of the power member. 11th. In a baling press, the combination of a press frame, the presser head, the operating toggle comprising a power member composed of two sheave like links fulcrumed to the frame and having the presser head link coupled between their free ends, a double cable passing around the jointed ends of said power links respectively, pulleys carried by the frame and around which said cable passes respectively, a spreader at the rear end of said double cable, a cable adapted for connection with the power, and a detachable coupling between said last mentioned cable and said spreader. 12th. In a baling press, the combination of the press frame, a presser head, the operating toggle comprising a link pivoted to the presser head, and a power member composed of two links fulcrumed to the frame and at their free ends joined to said first mentioned link, a doubled cable having its plies passing around the free ends of said power links respectively, with its ends secured at the rear thereof, pulleys in the frame around which said plies of the doubled cable pass, a spreader in the double end of said cable, and a connection therefrom adapted to be coupled with a suitable actuating means. 13th. In a baling press, the combination of a press frame, a presser head, an operating toggle therefor coupled to the head and having its power member fulcrumed to the frame and formed at its side edges and around its jointed end to receive a cable, the actuating cable extending loosely

along one side edge, around the free end of and longitudinally at the opposite side edge of the power member to a point near its fulcrum, and means detachably securing the cable in said last mentioned edge of said member. 14th. In a baling press, the combination of a press frame, a presser head, the operating toggle comprising the power member of parallel links at their lower ends suitably fulcrumed and at their upper ends connected to reciprocate the presser head, pulleys mounted in the frame in advance of the power member, and parallel actuating cable plies passing around said pulleys and upwardly along the front edges of said power member links and around the upper free ends of said links and downwardly along the rear edges of said links and secured thereto at said rear edges. 15th. In a baling press, the presser head operating toggle comprising a power link fulcrumed at one end and at its free end connected to the presser head and formed to receive a cable encircling its end and extending longitudinally along its edge and secured thereto, and a hook bolt drawing said cable into said edge and extending through to an opening in the link. 16th. In a baling press, the combination of a press chamber, the presser head, the press frame extending forwardly from said chamber, bearing blocks on the bottom beams of the front portion of said frame, a shaft carried by said bearing blocks, the two parallel sheave like links at their lower ends mounted on said shaft, the presser head link coupled between the free ends of said sheave like links, pulleys in the frame between said shaft and press chamber, and cable lengths secured to said sheave like links and passing around the free ends thereof and downwardly and forwardly at the front thereof to and around said pulleys, and actuating means. 17th. The operating toggle of a baling press having its power member, comprising two links and the actuating cable provided with two plies or connections secured to and passing over the free ends of said links and pulling forwardly and downwardly on said free ends, substantially as set forth.

No. 62,422. Weighing Scoop. (Escop.)



Bernard McKiernan, Stockton, California, U.S.A., 21st January, 1899; 6 years. (Filed 23rd November, 1898.)

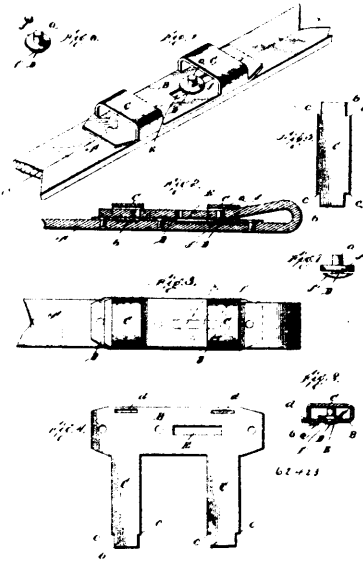
Claim.—1st. The combination with a scoop of a stem depending therefrom, a handle encircling said stem and connected thereto by means of a tension spring, and a support secured to said handle, substantially as described. 2nd. The combination with a scoop, a stem depending therefrom, a handle encircling said stem, and a tension spring removably secured to said stem and said handle, substantially as described. 3rd. The combination with a scoop of a stem depending therefrom, a handle encircling said stem and connected thereto by means of a tension spring, and a support removably secured to said handle, substantially as described.

No. 62,423. Buckle. (Boucl.)

John L. Perkins, Sabatha, Kansas, U.S.A., 21st January, 1899; 6 years. (Filed 9th January, 1899.)

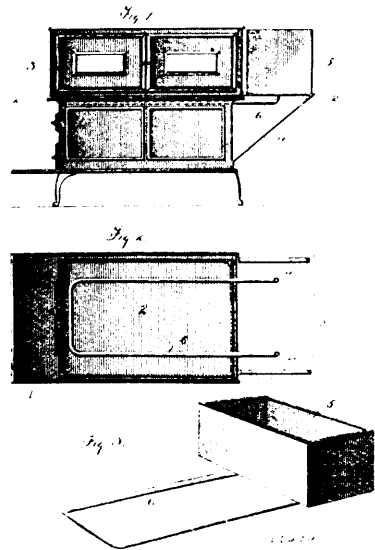
Claim.—1st. A blank for buckles having the lateral pieces C, C, provided with extensions b, b, the slots d, d, of said blank corresponding with said extension and also provided with the central slot E, for holding the sliding button, the said extensions being adapted to be turned or bent over to form keepers, substantially as set forth. 2nd. The combination of the base plate having extension forming the keeper bent and secured in said plate and integral therewith of the double disc button adapted to slide one on each side of said plate,

said button carrying the buckle, stem or tongue, substantially as described. 3rd. A buckle comprising the base plate constructed as



described, the double disc button operating in said plate and fastened thereto, a strap secured to said plate having perforations to fasten over the stem or tongue, said strap and button and stem being arranged to slide upon the keeper to hold it in position, substantially as set forth. 4th. A buckle comprising the base plate B, having central slot E, the keepers C, C, secured to said plate, one being a holding down keeper for the button, the other for holding the strap when buckled, the disc button sliding each side of the base plate, the lower disc button being rounded so as not to chafe or abrade the leather when sliding, substantially as set forth and described.

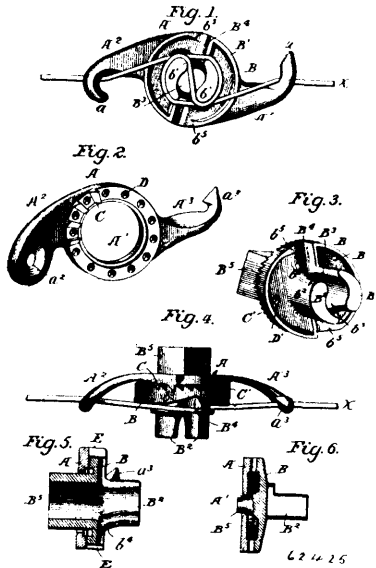
No. 62,424. Boiler. (Chaudiere.)



Calixte Courchene, St. Gabriel, de Brandon, Quebec, Canada, 21st January, 1899; 6 years. (Filed 9th January, 1899.)

Claim.—1st. The combination with a stove, of a heating tank connected thereto, and a pipe, extending into the fire chamber of said stove, said pipe having its ends operatively connected to said tank, substantially as described. 2nd. The combination with a stove, of a heating tank connected thereto, and a U-shaped pipe or tube, having its ends operatively connected to said tank and having its main portion extended into the fire chamber of the stove, whereby a constant circulation of water will be maintained between said tank and said pipe or tube, substantially as described.

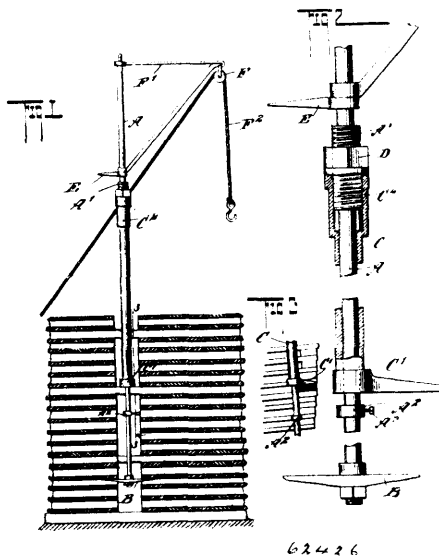
No. 62,425. Wire Stretcher. (Tendeur de fil.)



Harry Zimmerman, Frederick, Maryland, U.S.A., 21st January, 1899; 6 years. (Filed 9th January, 1899.)

Claim.—1st. A wire-stretcher comprising two parts, the body portion having arms and a winding key adapted to be applied to the body portion, and securing devices to hold them in position. 2nd. A wire-stretcher consisting of a body portion having arms, and a winding key, means for securing the parts together and lugs shaped, substantially as described and for the purpose set forth. 3rd. A wire-stretcher comprising a body portion having arms bent towards its face, and a winding key having lugs and means for holding the two parts in position, the parts being so shaped that the tension of the wire tends to hold the parts in engagement. 4th. In a wire-stretcher the body portion having the characteristics hereinbefore described for the purposes set forth. 5th. In a wire-stretcher, a winding key having the characteristics hereinbefore described, for the purposes set forth.

No. 62,426. A Device for Handling Lumber. (Appareil pour manier le bois de charpente.)

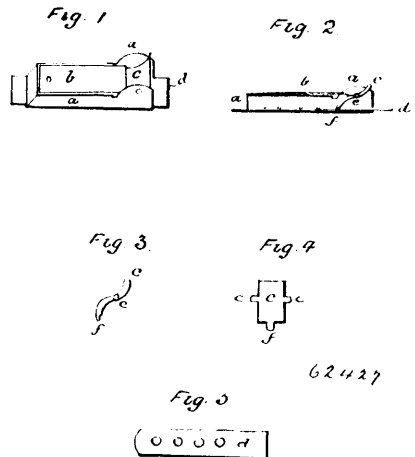


John Andrew McGarry, Chicago, Illinois, U.S.A., 21st January, 1899; 6 years. (Filed 9th January, 1899.)

Claim.—1st. A device for handling lumber or the like, comprising a supporting piece provided near one end with a projecting arm rigidly connected thereto and adapted to engage a portion of the lumber when piled, a second arm connected with a part free to move

longitudinally along said rod, and a controlling device for controlling the position of the longitudinally-movable part. 2nd. A device for handling lumber or the like, comprising a crane, a support upon which said crane is movably mounted, an arm connected to the bottom of said support, a second arm free from said support, but associated therewith, so as to be free to be moved longitudinally therealong, an actuating device for forcing said arms toward each other, said actuating device being so positioned as to limit the longitudinal movement of the movable arm, whereby the support may be clamped to the pile of lumber so that it will be contained within the outer boundaries of the pile. 3rd. A device for handling lumber, adapted to be removably fastened to a lumber pile provided with a space or flue near its centre, and comprising a crane, supporting rod therefor provided near one end with an arm rigidly connected thereto, said arm being adapted to be lowered into said space or flue and then moved to a position where it engages one of the boards of the pile, a second engaging arm connected with said rod so as to be free to move longitudinally therealong, and a controlling device for forcing the two arms together, the whole being so constructed that the device may be attached to the pile of lumber within its outer boundaries. 4th. A device for handling lumber, comprising a rod provided at one end with an engaging arm, a longitudinally movable arm connected with said rod and normally free to move therealong, and a controlling device for said longitudinally-movable arm, movable with relation to said arm and said rod, and a crane connected with said rod so as to be supported thereby. 5th. A device for handling lumber or the like, comprising a crane, a support for said crane provided at one end with an engaging arm, a sleeve surrounding said support and provided with an engaging arm, a screw-threaded portion on said support, a nut working on said screw-threaded portion, and adapted to engage said sleeve so as to force the two arms together. 6th. A device for handling lumber or the like, comprising a supporting piece, an arm connected to said supporting piece and adapted to engage a portion of the pile of lumber, a second arm connected with said supporting piece and free therefrom so as to be moved therealong, and stops for limiting the longitudinal movement of said arm, said latter arm being substantially at right angles to said first-mentioned arm when the device is in position. 7th. A device for handling lumber, adapted to be removably fastened to the lumber pile provided with a space or flue near its centre, and comprising a support provided near one end with a cross piece adapted to engage portions of the lumber pile on each side of said space, a projecting part or foot movably connected with said support and adapted to engage a cross piece extending across said space or flue so that the foot and cross piece will be at an angle to each other, and means for forcing said foot and cross piece toward each other, so as to clamp them in position. 8th. A device for handling lumber, comprising a supporting piece provided with an engaging part for engaging the pile of lumber, a sleeve surrounding said supporting piece and also provided with an engaging part, said sleeve being free from said rod so that it can be moved longitudinally therealong, and means associated with said parts whereby they may be moved relatively.

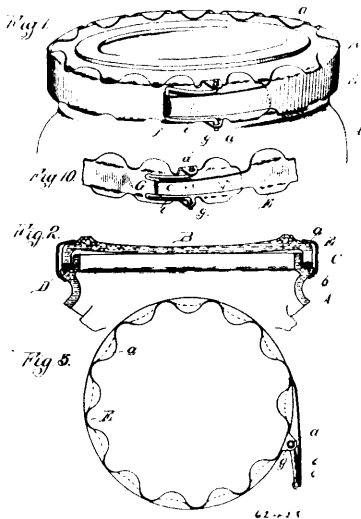
No. 62,427. Fastener for Gloves, Boots, Shoes, Harness, etc. (Attache de gants, chaussures, harnais, etc.)



Henry Foreman, Berlin, Ontario, Canada, 21st January, 1899; 6 years. (Filed 10th January, 1899.)

Claim.—1st. A fastener or coupler, the one part of which shall contain a lever and spring and the other part consist of a perforated corrugated or serrated tongue, substantially as hereinbefore described. 2nd. In a fastener or coupler, the combination of the frame a, the spring b, the lever c and the tongue d, substantially as and for the purpose hereinbefore described.

No. 62,428. Jar Closure. (Fermeture de jarres.)

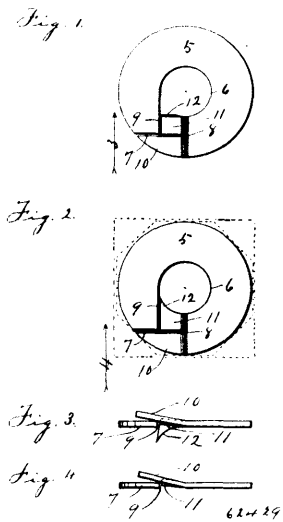


Ernest R. Meyer, Detroit, Michigan, U.S.A., 21st January, 1899; 6 years. (Filed 11th January, 1899.)

Claim.—1st. In a jar closure, the combination of a clamping ring, formed with a series of inward projections along its upper and lower edges and with an extension at one end adapted to overlap the other end, and a lever link pivotally secured at opposite ends to the ends of the clamping ring and adapted to be self-locking. 2nd. In a jar closure, the combination of a clamping ring having a body portion adapted to encircle the rim of the jar and provided with clamping projections for the same, a plain extension at one end of said body portion formed with a loop in its end and arranged to overlap the body portion, and an open ended lever link engaging with its closed end into said loop and fulcrumed at its open ends in ears outwardly projecting, formed at the opposite ends of the clamping ring. 3rd. In a jar closure, the combination of a clamping ring having a body portion adapted to encircle the rim and clamp the edges thereof together, an extension or strap formed at one end thereof adapted to overlap the body portion and having a loop and an open ended lever link engaging with its closed end into said loop and fulcrumed at its open ends to the opposite ends of the clamping ring. 4th. In a jar closure, the combination of the clamping ring having a body portion adapted to encircle the rim and clamp the edges thereof together, perforated ears formed at one end thereof and projecting outwardly, an extension or strap at the other end of the body portion and formed with a loop adapted to overlap the body portion, and a lever link fulcrumed in the ears and engaging at its other end into the loop of the extension, said lever link being self-locking. 5th. In a jar closure, the combination with the clamping ring formed with a body portion adapted to encircle the rim of the jar, and a self-locking link fulcrumed at one end to one end of the body portion and engaging at the other end with an overlapping extension on the other end of the body portion, said body portion having a series of inwardly extending projections along the upper and lower edges thereof, the projections on one edge being adapted to form independently operating spring clamps constituting a take up when the jar is closed. 6th. In a jar closure, the combination with the clamping ring formed with overlapping ends and having a body portion adapted to encircle the rim of the jar and a self locking lever link fulcrumed respectively at its opposite ends to the ends of the clamping ring, the body portion having at each edge a series of inwardly extending projections adapted to clamp the edge of the rim of the jar, the projections at the upper edge projecting further inward than those at the lower edge and adapted to operate as spring clamps. 7th. In a jar closure, the combination with a clamping ring formed with overlapping ends and having a body portion formed with inward projections along its edges adapted to clamp the edges of the rim of the jar and an opened lever link fulcrumed at its opposite ends to the ends of the clamping ring and adapted to be self locking. 8th. In a jar closure, the combination with the clamping ring formed with overlapping ends and having a body portion adapted to encircle the rim of the jar and provided along its edges with a series of inward projections adapted to clamp the rim of the jar, an open ended lever link formed with a cross-bar *f* engaging a loop formed in the overlapping end of the clamping ring and with off-sets *g* at the open ends of the link, and ears *d* formed at the other end of the clamping ring into which said off-sets pivotally engage. 9th. In a jar closure, the combination with a clamping ring formed with overlapping ends, and having a body portion formed with inward projections along its edges adapted to clamp the edges of the rim of the jar, and an open-

ended lever link fulcrumed at its opposite ends to the ends of the clamping ring. 10th. In a jar closure, the combination of the clamping band formed with overlapping ends and the lever link pivotally secured at its open ends pivotally engaging into ears formed at one end of the clamping band and having its closed end engaging into a loop formed at the other end, the side bars of the link being bowed to form a compensating spring in the link.

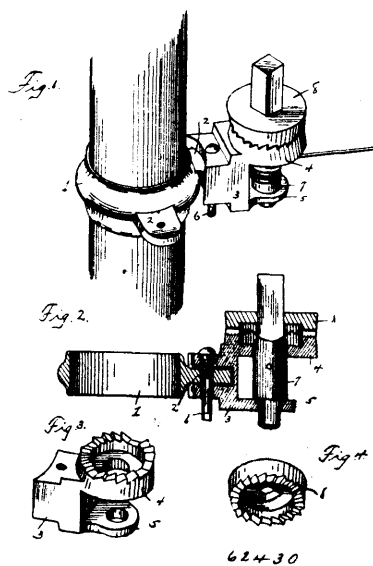
No. 62,429. Nut Lock. (Arrête-écrou.)



Harry V. Padfield, St. Louis, Missouri, U.S.A., 21st January, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. A nut-lock consisting of a plate having a central opening 6, and having the slit 7, intersecting a radial line at right angles, and having the 9 extending from the opening 6, and intersecting the slit 7, at right angles, the tongue 10, being bent slightly upwardly, substantially as specified. 2nd. A nut-lock consisting of a plate having the central opening 6, and having the slit 7, intersecting a radial line at right angles, and having the slit 9, extending from the opening 6, and intersecting the slit 7, at right angles, the tongues 10 and 11, being bent slightly upwardly, substantially as specified. 3rd. A nut-lock consisting of a plate, having a central opening 6, and having the slit 7, intersecting a radial line at right angles, and having the slit 9, extending from the opening 6, and intersecting the slit 7, at right angles, the tongue 10, being bent slightly upwardly and the point 12, being bent downwardly, substantially as specified.

No. 62,430. Wire Stretcher. (Tendeur de fil de fer.)



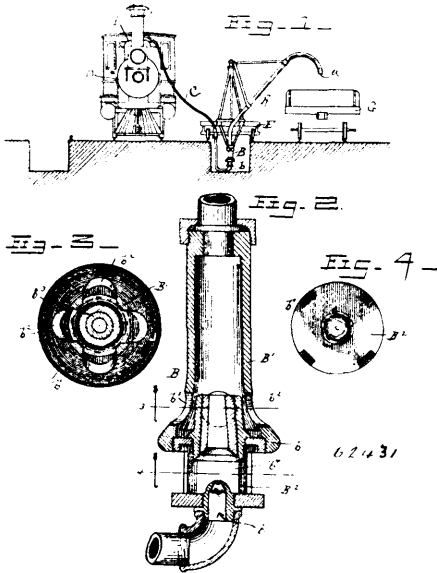
William D. Diller, York, Pennsylvania, U.S.A., 21st January, 1899; 6 years. (Filed 11th January, 1899.)

Claim.—1st. In a wire-stretcher, the combination of a ring or band provided with a lug, a frame having a socket to receive said lug and provided with perforated ears or flanges, a winding-shaft

journalled in the ears or flanges, a pin passing through registering perforations of the frame and the lug and detachably connecting the same, and a ratchet for holding the winding-shaft against backward movement, substantially as set forth. 2nd. In a wire-stretcher, the combination of a ring or band, a frame detachably secured to the same and provided with upper and lower horizontal ears or flanges, the upper ear or flange being provided at its upper face with ratchet-teeth, a vertical shaft journalled in bearing-openings of the ears or flanges and having a polygonal upper portion, and a ratchet-wheel provided at its lower face with ratchet-teeth to engage those of the frame and having a polygonal opening to receive the upper portion of the shaft, substantially as and for the purpose described. 3rd. A wire-stretcher, comprising a frame having upper and lower ears the upper ear being provided with ratchet-teeth, a vertical shaft having a step bearing in the frame, and a ratchet-wheel slidingly mounted on the shaft and held by gravity in engagement with the said ratchet-teeth, substantially as described.

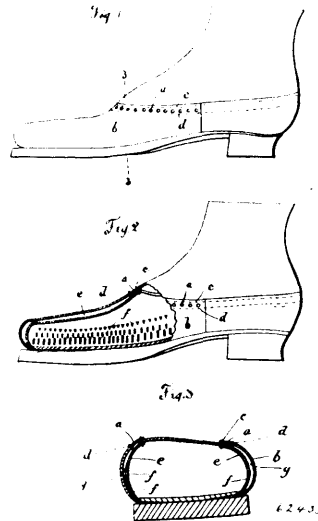
No. 62,431. Fluid Pressure Elevator.

(Elevateur à pression de fluides.)



middle to the pole by said bolt, bracket G having slots G¹, through which said bolt passes, and brackets E, E, attached to said tree, and the ends of brackets E, E, connected to the ends of the spring, as set forth.

No. 62,433. Boot and Shoe. (Chaussure.)



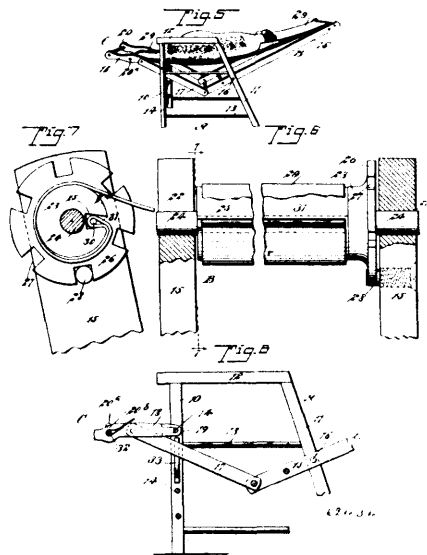
Elizabeth Ellen McHugh, assignee of Frank William Slater, both of Montreal, Quebec, Canada, 23rd January, 1899; 6 years. (Filed 7th January, 1899.)

Claim.—1st. A boot or shoe having outer perforations in the vamp adjacent to the upper edge thereof, inner apertures in the lining adjacent to its lower edge and extending upward somewhat throughout same whereby air may enter to and be expelled from the interior of the boot, substantially as described. 2nd. A boot or shoe having an air space *g* between the vamp *b* and lining *c*, outer perforations *a* in such vamp adjacent to its upper edge, and inner apertures *f* in such lining adjacent to its lower edge, all substantially as and for the purpose set forth.

Walter V. Butterfield, Des Moines, Iowa, U.S.A., 21st January, 1899; 6 years. (Filed 4th January, 1899.)

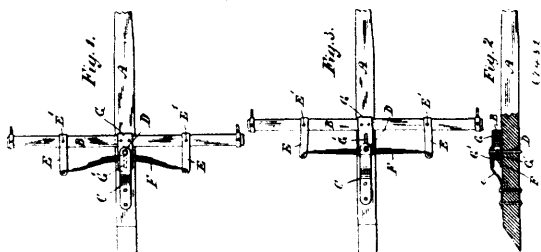
Claim.—1st. In a fluid-pressure elevator, the combination of a delivery-pipe, a leg portion B secured to the inlet part of such pipe and provided with an enlarged portion *b*¹ at the lower end thereof and having a lateral opening *b*² on such lower portion, and inlet-pipe *b*³ arranged in the axial opening of the leg portion and extending inwardly in such leg portion, an injector *b* secured to the cage portion B² in line with the inlet pipe, and a portion interposed between the inlet pipe and the injector to provide a space between such parts substantially as described. 2nd. In a fluid-pressure elevator, the combination of a delivery-pipe, a leg portion B arranged on the inlet part of such pipe and provided with a set of lateral openings *b*² at the lower end thereof, a cage portion B² secured to the leg portion at its axial opening providing a second set of lateral opening *b*⁴, an inlet pipe or bushing *b*³ in the upper part of the cage extending into the leg portion, and an injector *b* in the lower part of the cage portion in line with the inlet pipe and adapted to be connected with a source of fluid pressure, substantially as described.

No. 62,434. Adjustable Chair. (Fauteuil.)



No. 62,432. Single and Double Tree.

(Palonnier.)



Dan Everett Carter, and Luverne Bradley Wood, both of Traverse City, Michigan, U.S.A., 23rd January, 1899; 6 years. (Filed 5th January, 1899.)

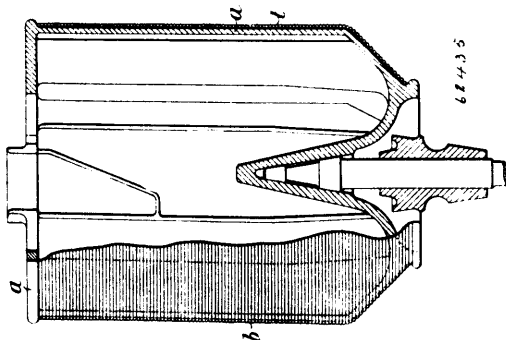
Claim.—1st. In an adjustable chair, the combination with a stationary frame and an adjustable frame, the adjustable frame comprising a back portion pivoted at the rear of the stationary frame, a foot rest pivoted at the front portion of the stationary

Robert Fawns, Parry Sound, Ontario, Canada, 21st January, 1899; 6 years. (Filed 19th November, 1898.)

Claim.—The combination with the whiffle or double tree, pole, and draft bolt, of the C-carriage spring pivotally connected at the

frame, and a link connection between the lower end of the back portion of the adjustable frame and the foot rest, of a roller journalled at the upper end of the back portion of the adjustable frame, the said roller being provided with a dove tail slot and a recessed disc, a projection from the back portion of the adjustable frame, arranged to enter a recess in the disc of the roller, and a flexible strip constituting the direct support for the body of the person occupying the chair, and means, substantially as described, for attaching the said strip to the roller and to the foot rest, for the purpose described. 2nd. In an adjustable chair, the combination with a stationary frame and an adjustable frame, the adjustable frame comprising a back portion pivoted at the rear of the stationary frame, a foot rest pivoted at the front portion of the stationary frame, and a link connection between the lower end of the back portion of the adjustable frame and the foot rest, of a roller journalled at the upper end of the back portion of the adjustable frame, the said roller being provided with a dove-tail slot and a recessed disc, a projection from the back portion of the adjustable frame, arranged to enter a recess in the disc of the roller, a flexible strip constituting the direct support for the body of the person occupying the chair, the said strip being provided with a hem at each end, a rod arranged to be passed through one hem and adapted to enter the said dove-tail slot of the roller, a second rod adapted to enter the hem at the other end of the said strip and to be removably placed in the foot rest, and means for locking the said rod in the foot rest, for the purpose set forth. 3rd. In an adjustable chair, the combination with a stationary frame having its upper portion formed to receive a table, and an adjustable frame, the said adjustable frame consisting of a back portion pivoted to the rear portion of the stationary frame, a foot rest provided with straps pivotally receiving a forward portion of the stationary frame, connecting bars pivotally attached to the lower part of the back portion of the adjustable frame and to the foot rest at a point near its centre, the back portion of the adjustable frame being provided at its upper end with a slot in one side and an aperture in the opposite side, and a projection below said aperture, of a tension device consisting of a roller, the trunnions whereof are adapted to enter the slot and the recess in the back portion of the adjustable frame, the roller being provided with a longitudinal slot contracted at its outer longitudinal portion, a disc secured to the said roller, having apertures adapted to receive a projection from the back portion of the adjustable frame, a rod removably attached to the said foot rest, a second rod capable of entering the enlarged portion of the longitudinal slot of the tension roller, and a strip of a flexible material constituting a direct support for the person occupying the chair and a covering for a portion of the said foot rest, the said strip of flexible material being removably attached to the rods in the tension roller and in the foot rest, for the purpose specified. 4th. In an adjustable chair, the combination with a frame, of a strip of flexible material constituting a support for a person occupying the chair, a roller mounted on the said frame and having a longitudinal slot contracted towards the surface thereof, and in which is adapted to be received an end of said strip, and a disc secured to said roller and having apertures adapted to receive a projection from the said frame, whereby the roller is held in adjusted position, as and for the purpose described. 5th. In an adjustable chair, the combination with the pivoted frame having its upper end formed with a slot and a recess, of a roller whose trunnions are adapted to be received in said slot and recess, the said roller being provided with a longitudinal slot, a strip of flexible material detachably secured at one end to said frame and having its other end wound around said roller and inserted in said slot, means for holding the said latter end in said slot, and a disc secured to said roller and provided with apertures, the frame being provided with a projection arranged to be inserted in one of said apertures to hold said roller from turning, as and for the purpose described.

No. 62,435. Drum for Centrifugal Separators.
(*Tambour pour séparateurs centrifuges.*)

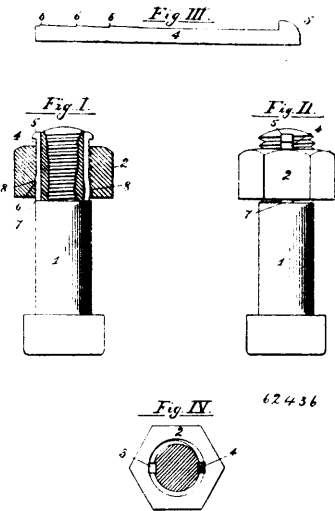


R. A. Lister & Co., Victoria, Ironworks, Dursley, assignee of William Joseph Ashworth, of Dursley aforesaid, and Thomas Stevinson, Gloucester, both in England, 23rd January, 1899; 6 years. (Filed 28th December, 1898.)

Claim.—1st. A bowl or drum for centrifugal separators composed of a metal or material of relatively light specific gravity and having

an external binding of wire or metallic ribbon, substantially as and for the purpose described. 2nd. The combination with the bowl or drum of a centrifugal separator of an external binding of metallic wire or ribbon and an internal lining of material which will not injure or be injured by the liquid, substantially as and for the purpose described.

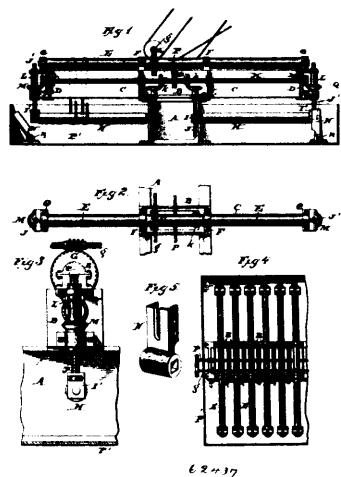
No. 62,436. Lock Nut. (*Arrête-écrou.*)



Willard Reed Green, San Francisco, California, U.S.A., 23rd January, 1899; 6 years. (Filed 9th January, 1899.)

Claim.—In a nut locking device, the combination of a bolt and a nut having corresponding grooves in their adjacent faces, and a key or feather forcibly seated lengthwise therein, whereby the said key or feather is given an endwise upset or expansion within the groove to prevent displacement and lock the parts against relative movement, substantially as specified.

No. 62,437. Machine for Treating Yarns for Mercerizing, Dyeing, etc. (*Machine pour le traitement de fil de carret.*)

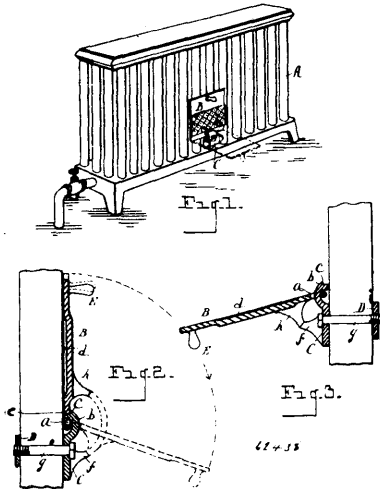


James Roland Hope, Philadelphia, and William Thomas Galey, Overbrook, and Thomas McConnell, Chester, all in Pennsylvania, U.S.A., 23rd January, 1899; 6 years. (Filed 10th September, 1898.)

Claim.—1st. In a machine for treating yarns, the combination of a vat, a main frame located therein and provided with a series of overhanging arms extending over the vat, a series of rotatable rollers extending parallel with said overhanging arms and journalled in bearings therein, and a second series of rollers arranged parallel with the first series of rollers. 2nd. In a machine for treating yarns, the combination of a vat, a main frame centrally located therein and extending across it, a series of overhanging arms on each side carried by the main frame and extending over the vat, a series of rotatable rollers extending over the overhanging arms on each side and journalled in bearings therein, and a second series of rollers on each side arranged parallel with the first series of rollers. 3rd. In a machine for treating yarns, the combination of a vat, a main frame

located therein and provided with a series of overhanging arms extending over the vat, a series of rotatable rollers extending parallel with said overhanging arms, and journaled in bearings therein, a series of supports carried by the outer end of said overhanging arms, a second series of rollers arranged parallel with the first series of rollers and journaled at their outer ends in the supports carried by the overhanging arms. 4th. In a machine for treating yarns, the combination of a vat, a main frame located therein and provided with a series of overhanging arms extending over the vat, a series of rotatable rollers extending parallel with said overhanging arms and journaled in bearings therein, a series of supports carried by the outer ends of said overhanging arms, a second series of rollers arranged parallel with the first series of rollers and journaled at their outer ends in the supports carried by the overhanging arms, and means for adjusting said series of rollers to and from each other.

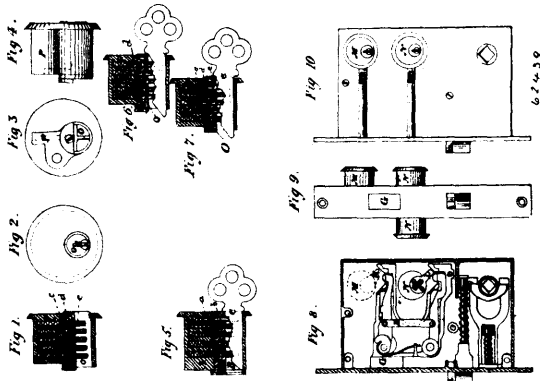
No. 62,438. Foot-Warmer for Radiators.
(*Chauferette pour calorifères.*)



Fred H. Knapp, Chicago, Illinois, U.S.A., assignee of Evan W. Cornell, Adrian, Michigan, U.S.A., 23rd January, 1899; 6 years. (Filed 10th January, 1899.)

Claim.—1st. In a foot-warmer for radiators, the combination of the fixed plate secured to the radiator, said fixed plate having a curved finger with a shoulder at its upper end, the warming-plate hinged on said curved finger and adapted to be engaged by said shoulder, and means for supporting said warming-plate in an extended position. 2nd. In a foot-warmer for radiators, the combination with the radiator, the fixed plate thereon, the warming-plate hinged to said fixed plate, the catch for retaining said plate in a vertical position against the pipes of the radiator, and the legs projecting outwardly from said plates for supporting said warming-plate in an extended position. 3rd. In a foot-warmer for radiators, the combination of the fixed plate secured to the radiator, the warming-plate hinged to said fixed plate and adapted to swing outwardly, and means for supporting said warming-plate in an extended position.

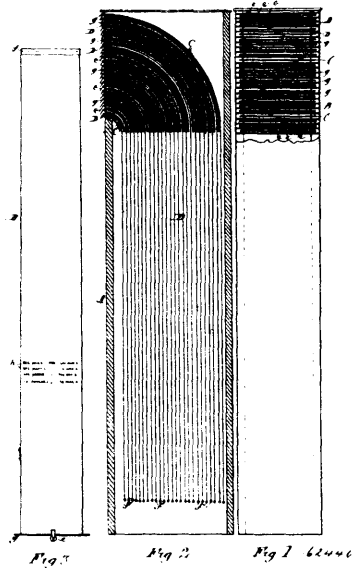
No. 62,439. Lock. (*Serrure.*)



Jacob Ricketts and Michael Riley, both of Peterborough, Ontario, Canada, 23rd January, 1899; 6 years. (Filed 6th December, 1898.)

Claim.—1st. A pin tumbler lock, comprising a chamber P, having pin compartments, rotating plug O, having pin compartments and key groove, and pins c, d, and e in each compartment, capped by spiral springs, substantially as and for the purpose hereinbefore set forth. 2nd. In a tumbler-lock of the kind set forth, the combination of chamber P, having any number of pin compartments, rotating plug O, having the same number of pin compartments, three or more sets of pins in each pin compartment, and a spiral spring capping each set of pins, substantially as and for the purpose hereinbefore set forth.

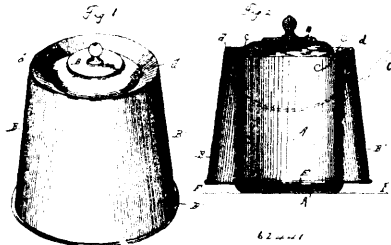
No. 62,440. Telephone Number and Address Annunciator. (*Numéro et indicateur de téléphone.*)



William James Walsh and George M. Ryckman, both of Hamilton, Ontario, Canada, 23rd January, 1899; 6 years. (Filed 10th October, 1898.)

Claim.—A telephone annunciator, consisting of a case, a series of curved inflexible partitions attached to the case, and a series of flexible sheets, loose at both ends, placed respectively between the inflexible partitions, the lower ends of said flexible sheets having weights attached thereto, and the fronts thereof provided with stops, all constructed substantially as and for the purpose specified.

No. 62,441. Cooking or Heating Utensil.
(*Ustensile de cuisine.*)



La Gee Brainard, Valkaria, Florida, an John H. Phillips, Melbourne, Florida, U. S. A., 25th January, 1899; 6 years. (Filed 11th January, 1899.)

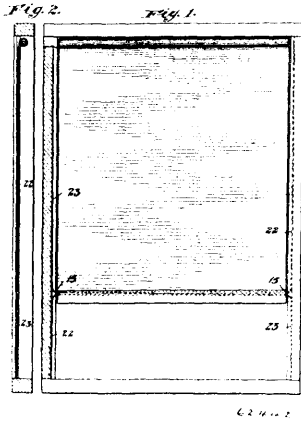
Claim.—The combination with a cooking vessel, of a cover adapted to rest thereon, and provided with a drip-point C, located below and near the upper edge of the cover and a conical shield secured to the edge of the cover and extending to near the bottom of the vessel, substantially as described.

No. 62,442. Curtain Fixture. (*Porte-rideau.*)

Forsyth Brothers Company, assignee of George Howard Forsyth both of Chicago, Illinois, U.S.A., 25th January, 1899; 6 years (Filed 13th January, 1899.)

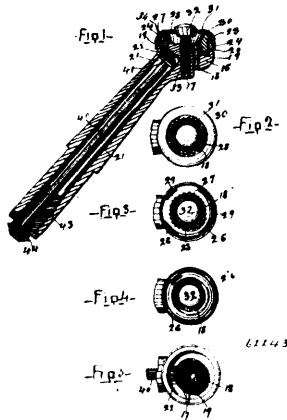
Claim.—1st. The combination with a flexible shade or curtain and its spring-actuated roller, of flexible guides adapted to maintain the lower edge of the shade in substantial parallelism with the roller, and holding means carried by the shade and adapted to contact with the window-frame, whereby to hold the shade at any desired elevation independently of the flexible guides, substantially as described.

2nd. A curtain-fixture comprising in combination with a shade or curtain and its spring-actuated roller, flexible guides, connected



with the lower edge of the shade or curtain, whereby to maintain it in substantial parallelism with the roller, and spring-actuated friction shoes or tips carried by the curtain and adapted to contact with the window-frame, whereby to hold the shade at any desired elevation against the pull of the shade-roller spring, substantially as described. 3rd. A curtain-fixture comprising in combination with a curtain and its spring-actuated roller and tube or pocket, of flexible guides extending through said tube or pocket and toward diagonally opposite corners of the window, and spring-actuated friction-shoes also carried by the curtain and adapted to impinge the window-frame, substantially as described. 4th. A curtain-fixture comprising in combination a spring actuated curtain provided with a tube or pocket in its lower margin, flexible guides passing through said tube or pocket and extending from the ends thereof in opposite directions and friction-shoes slidably mounted within the ends of the tube, and springs adapted to thrust said shoes outwardly and into contact with the window-frame, said shoes having apertures through which the flexible guides issue, substantially as described.

No. 62,443. Pegging Machine. (Machine à cheviller.)

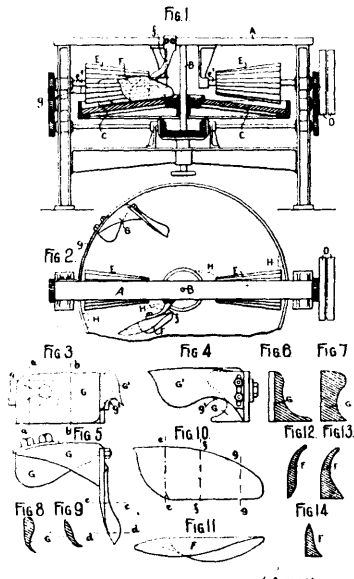


The Duplessis Pegging and Sewing Machine Co., assignee of Elouild Duplessis, all of St. Hyacinthe, Quebec, Canada. 25th January, 1899; 6 years. (Filed 10th September, 1898.)

Claim.—1st. In a pegging machine, the combination with a cutter, of vertically adjustable work supporting mechanism located with a part on each side of said cutter and adapted to adjust the work to and from the cutter, for the purpose set forth. 2nd. In a pegging machine, the combination with a rotary cutter consisting of a ring saw-toothed on its inner edge, a vertically adjustable work supporting section located within and concentrically of said cutter, and means for adjusting said work supporting section, for the purpose set forth. 3rd. In a pegging machine, the combination with a rotary cutter consisting of a ring saw-toothed on its inner edge, a vertically adjustable work supporting section located within and concentrically of said cutter, a vertically adjustable work supporting section located outside of said cutter, and means for adjusting said work supporting sections, for the purpose set forth. 4th. A pegging machine having a horn or work support, a rotary cutter mounted in the nose of said horn or work support, said cutter consisting of a ring saw-toothed on its inner edge, a work supporting section located within said cutter and an opening extending com-

pletely through the nose of said horn and in a line intermediate of said cutter and work support, for the purpose set forth. 5th. In a pegging machine, a rotary carrier consisting of a ring rotatably mounted in the nose of the horn and having its upper edge outwardly bevelled, a rotary cutter consisting of a bevelled ring saw-toothed on its inner edge and removably mounted upon the bevelled surface of said carrier, means for retaining said cutter against displacement, and means for rotating said carrier. 6th. In a pegging machine a rotary carrier consisting of a ring rotatably mounted in the nose of the horn, a rotary cutter consisting of a ring saw-toothed on its inner edge and removably mounted upon said carrier, a ring adapted to retain said cutter against displacement and means for rotating said carrier. 7th. In a pegging machine, a rotary carrier consisting of a ring rotatably mounted in the nose of the horn, a rotary cutter consisting of a ring saw-toothed on its inner edge and removably mounted upon said carrier, a work supporting ring adapted to retain said cutter against displacement, and means for rotating said carrier. 8th. In a pegging machine, a rotary carrier consisting of a ring rotatably mounted in the nose of the horn, a rotary cutter consisting of a ring saw-toothed on its inner edge and removably mounted upon said carrier, a vertical adjustable work supporting ring adapted to retain said cutter against displacement, and means for rotating said carrier. 9th. In a pegging machine, rotary carrier consisting of a ring rotatably mounted in the nose of the horn and having its upper edge outwardly bevelled, a rotary cutter consisting of a bevelled ring saw-toothed on its inner edge and removably mounted upon the bevelled surface of said carrier, a ring adapted to retain said cutter against displacement, and means for rotating said carrier. 10th. In a pegging machine, a rotary carrier consisting of a ring rotatably mounted in the nose of the horn and having its upper edge outwardly bevelled, a rotary cutter consisting of a bevelled ring saw-toothed on the inner edge and removably mounted upon the bevelled surface of said carrier, a work-supporting ring adapted to retain said cutter against displacement, and means for rotating said carrier. 11th. In a pegging machine, a rotary carrier, consisting of a ring rotatably mounted in the nose of the horn and having its upper edge outwardly bevelled, a rotary cutter consisting of a bevelled ring saw-toothed on its inner edge and removably mounted upon the bevelled surface of said carrier, a vertically adjustable work-supporting ring adapted to retain said cutter against displacement, and means for rotating said carrier. 12th. In a pegging-machine, a horn or work-support having the nose thereof provided with a screw-threaded perforation, a vertically adjustable work-supporting section formed with a screw-threaded shank adapted to take into said perforation, said nose having the semi-circular opening therethrough concentric of said work-supporting section, an upwardly projecting circular flange formed upon said nose concentrically of said work-supporting section and having its outside surface screw-threaded, a ring having its upper edge angular in cross-section and provided with projections, and its lower portion gear-toothed and provided on its outer periphery with a shoulder adapted to rest upon said flange, spindle and pinion mechanism for rotating said ring, a bevelled ring saw-toothed on its inner edge and notched on its outer edge, an outer ring screw-threaded on its inside face and having its upper edge inwardly offset, substantially as described and for the purpose set forth.

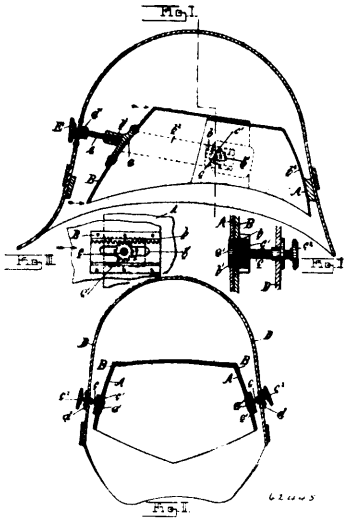
No. 62,444. Butter Working Machine. (Batte à beurre.)



John Flynn, jr., 35 South Terrace, Cork City, Ireland, 25th January, 1899; 6 years. (Filed 19th December, 1898.)

Claim.—1st. The combination with a butter working machine consisting of a rotating conical table and of one or more conical rollers, of ploughs carried by the frame located in advance of the rollers, and adapted to operate as herein specified. 2nd. A butter working machine consisting of a rotating cone-shaped table over or in contact with which revolve one or more fluted rollers, of mechanism for imparting motion to the said table and rollers, and of ploughs carried by the frame of the machine and adapted to gather up and invert the layer of butter spread by the rollers, as and for the purpose set forth. 3rd. A butter working machine consisting of a rotating cone-shaped table over or in contact with which revolve one or more fluted rollers, of mechanism for imparting motion to the said table and rollers, of a plough such as F, carried by a vertically arranged arm adjustably mounted on the frame of the machine so that its vertical position can be varied, of a plough such as G, carried by an elastic or spring arm attached to the frame of the machine, and of a tail-board such as G¹, mounted on the plough G, in such a manner that its position with respect to the said plough can be varied in the vertical plane, as and for the purpose set forth. 4th. The combination with a butter working machine, consisting of a rotating cone-shaped table over or in contact with which revolve one or more cone-shaped fluted rollers, of ploughs located between the said rollers, the one so shaped as to gather the butter from the centre towards the periphery of the table and invert it, and the other so shaped as to gather the butter from the periphery of the table towards its centre and invert it, the said plough carrying a vertically adjustable tail-board so shaped as to spread out the layer of inverted butter, as set forth.

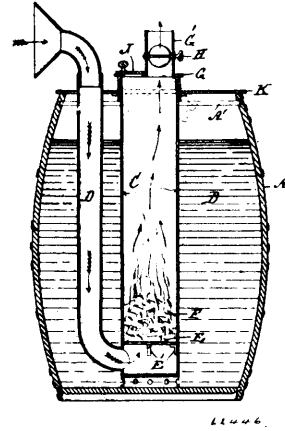
No. 62,445. Hat, Helmet and Head Covering.
(*Chapeau, etc.*)



Charles Josiah Ross, 227 High Street, Exter, England, 25th January, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. A hat, helmet or the like head covering having a head band made in sections secured to the body of the hat, helmet or the like so as to be adjustable to vary the size of the head band, substantially as described. 2nd. A hat, helmet or the like head covering having a head band made in two sections, a front and a rear, the front section being curved to a point at the forehead and the rear section curved downwards at the rear to fit tightly on the rounded part of the back of the head, one of said sections being fixed to the body of the hat, helmet or the like while the other is adjustable by means operated from outside the body of the hat, helmet or the like covering, substantially as described. 3rd. A hat, helmet or the like head covering having a head band made in sections curved to fit tightly to the head, said sections being adjustably connected together by toothed racks secured to one section with which gear pinions the shanks of which rotate in journals in the other section which said shanks pass through eyelets or the like in the side of the hat, helmet or like covering body and are operated from the exterior thereof with an additional adjustable support at the front or rear also operated from outside the hat, helmet or like covering body, substantially as described. 4th. In a hat, helmet or the like head covering having a head band made in sections, means such as herein described for varying the size of the head band and for supporting the body of the hat, helmet or like head covering on the head band, comprising toothed racks on the head band sections, pinions gearing with said racks and passing through eyelets in the hat, helmet or like covering body, and additional adjustment supports on the said body engaging screwed attachments on the head band sections, substantially as described.

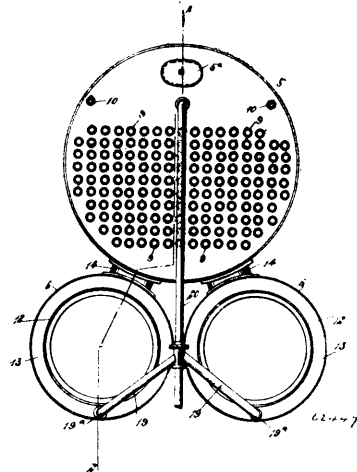
No. 52,446. Cattle Feed Heater.
(*Chaufeur de nourriture d'animal.*)



Neil McDougald and Thomas Lougheed, both of Allenford, Ontario, Canada, 25th January, 1899; 6 years. (Filed 10th January, 1899.)

Claim.—A cattle feed heater, comprising a vertical combustion cylinder closed at the bottom, an inlet draft pipe exterior thereto and entering the cylinder at or near its bottom, a grating within the cylinder and above the inlet draft pipe, and a smoke outlet and fuel door at the top of the cylinder, said heater adapted to be partly submerged in the feed contained in a barrel, as set forth.

No. 62,447. Steam Boiler and Furnace.
(*Chaudière à vapeur et fournaise.*)



William Hopkins, Dubuque, Iowa, U.S.A., 25th January, 1899; 6 years. (Filed 3rd October, 1898.)

Claim.—In a boiler, a shell, a series of fire tubes run through said shell, two exterior furnace shells located beneath the boiler shell and running parallel therewith and communicating therewith at each end, a fire wall within each furnace shell, the spaces enclosed by the front portions of the fire walls serving as fire boxes, means engaging said shells and forming a passage establishing communication between the fire walls and the fire tubes of the boiler shell, and pipes, passing respectively from the rear bottom portion of each furnace shell upward to the upper portion of the boiler shell, whereby to lead the water from said lower rear portions back to the boiler shell.

No. 62,448. New Galvanic Element.
(*Elément galvanique.*)

Constantin N. Sedneff, St. Petersburg, Russia, 25th January, 1899; 6 years. (Filed 23rd February, 1897.)

Claim.—1st. A galvanic element, composed of the usual two electrolytes and a third electrolyte consisting of an acid effecting an alternate reduction and oxidation for freeing the electrodes from the hydrogen and oxygen developed when the circuit is closed, substantially as set forth. 2nd. A galvanic element, composed of the usual two electrolytes and of a third electrolyte contained in a separate cell and consisting of an acid effecting an alternate reduc-

tion and oxidation for freeing the electrodes from the hydrogen and oxygen developed when the circuit is closed, substantially as set

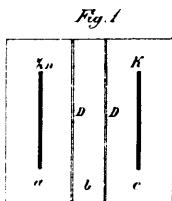
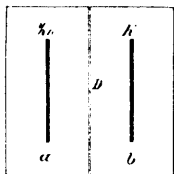


Fig. 2.

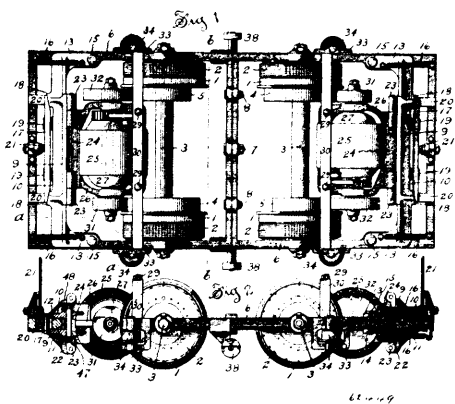


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forth. 3rd. A galvanic element, composed of the usual two electrolytes and of a third electrolyte contained in the fluid surrounding the positive electrode and consisting of an acid effecting an alternate reduction and oxidation for freeing the electrodes from the hydrogen and oxygen developed when the circuit is closed, substantially as set forth. 4th. A galvanic element containing in the cell of the positive electrode a depolarizer consisting of an oxide of a metal or metalloïd acting similar to antimony for effecting a metallic precipitate on the positive electrode, substantially as set forth. 5th. The combination with the cell of a galvanic element of a diaphragm consisting of a substance permitting the passage of hydrogen, oxygen and water but intercepting the passage of other chemicals suspended in the electrolytes, substantially as set forth.

No. 62,449. Electric Railway Truck.

(Chariot de chemin de fer électrique.)



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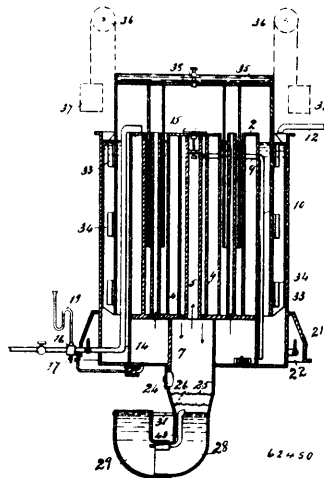
George Joseph Capewell, Hartford, Connecticut, U.S.A., 25th January, 1899; 6 years. (Filed 6th September, 1898.)

Claim.—1st. A railway car truck having flanged traction wheels, wide tread traction wheels connected thereto, a truck frame supported by the traction wheels, a motor carriage loosely mounted upon the truck frame, means for moving the carriage, a motor supported by the carriage, and friction connections between the motor and the traction wheels, substantially as specified. 2nd. A railway car truck having flanged traction wheels, friction pulleys connected thereto, a truck frame supported by the traction wheels, a motor carriage mounted upon and movable longitudinally of the truck frame, a motor supported by the carriage, pulleys mounted on the shaft of the motor, springs normally holding the carriage with the pulleys out of contact, and mechanism for moving the carriage so that the pulleys on the motor shaft will engage with the pulleys connected with the traction wheels, substantially as specified. 3rd. A railway car truck having flanged traction wheels, a truck frame in two parts, each part being supported by a pair of traction wheels, pivots connecting the parts of the truck frame whereby they may have an independent vertical oscillation, a motor carriage loosely mounted upon and movable longitudinally of each truck frame, means for moving the carriages, motors supported by the carriages, and friction connections between the motors and the traction wheels and adapted to be engaged and disengaged according to the movement of the carriage, substantially as specified. 4th. A rail-

way car truck having flanged traction wheels, wide tread traction wheels and friction pulleys mounted on the same axles, a truck frame supported by the traction wheels, a motor carriage loosely mounted upon the truck frame, means for moving the motor carriage toward and from the traction wheels, a motor, a double hinge connection between the motor and the motor carriage, and friction pulleys mounted upon the motor shaft and adapted to be moved into and out of contact with the pulleys connected with the traction wheels, substantially as specified. 5th. A railway car truck having flanged traction wheels, wide tread traction wheels connected thereto, a truck frame formed of two parts, each part being supported by a pair of traction wheels, pivots connecting the parts of the truck frame so that they may have independent vertical oscillation, and side bearing retaining wheels secured to the sides of the truck frame, substantially as specified. 6th. A railway car truck having flanged traction wheels adapted to run upon the two rails of the ordinary track, flat tread traction wheels without flanges mounted upon the same axles with the flanged traction wheels and adapted to run upon special rails that are higher than and which extend alongside the rails of the ordinary track, a truck frame supported by the traction wheels, and retaining wheels borne by the truck frame and adapted to run against side rails elevated above the traction rails when the truck is supported by the flat tread traction wheels upon the higher special rails, substantially as specified.

No. 62,450. Gas Generating Process.

(Procédé de générer le gaz.)



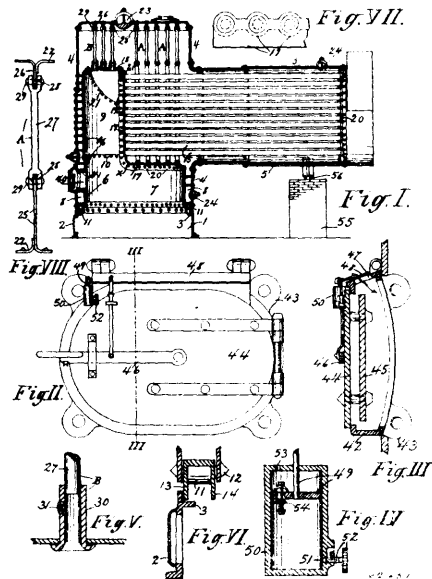
62-50

Samuel H. Wood, Wilmette, Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 9th July, 1897.)

Claim.—1st. The method in a gas generator of supplying water through an annular vessel and through pipes running through the hollow centre into a water-flue surrounding and cooling the gas on its way to the gasometer, and thence falling through a screen separator upon carbide racks, and thence escaping through an elbow-shaped self-regulating overflow pipe, substantially as set forth. 2nd. The provision for a safety water exit to allow the water to escape in case the lime waste should obstruct the elbow outlet, substantially as set forth. 3rd. A double sieve or rack to hold the carbide, the lower one with finer mesh to prevent the carbide crumbling and dropping into the waste water before the gas is thoroughly extracted, substantially as set forth. 4th. The double elbow in a gasometer for retaining the waste lime while the water seals the gas and may itself escape through the overflow pipe, substantially as set forth. 5th. The supply-tank, placed above the top line of the annular vessel, as a part of the hereinbefore described gas generator, substantially as set forth. 6th. The self-acting drip-pan below the overflow pipe to act as a storage tank to prevent the lime getting into the sewer in stationary gas generators, while the water is allowed to escape at the top of the pan or in the delivery waggon to prevent the waste lime from dropping on the ground, substantially as set forth. 7th. The double water and gas-flue in the centre, the water-flue surrounding the gas-flue acting as a conductor of the gas and as a cooler also, substantially as set forth. 8th. The heating flange, with gas-pipe and burners at the bottom, as described, in its particular use in connection with the generator hereinbefore described, substantially as set forth. 9th. The double flange and wood guides which keep the gasometer upright, the wood guides being especially adapted to make the gasometer move easily and smoothly, substantially as set forth. 10th. The wire device for holding the elbow in place, substantially as described. 11th. The use of travelling gas generators in conjunction with stationary storage tanks, to be located in buildings or the like, and adapted for detachable connection with the travelling gas generator, substantially as set forth. 12th. The gas generator, provided with a gas delivery-pipe, an air-chamber, and an air delivery-pipe leading

from the air-chamber to the gas delivery-pipe, substantially as and for the purpose set forth. 13th. The gas generator, provided with a gas delivery-pipe, an air-chamber, and an air delivery-pipe leading from the air-chamber to the gas delivery-pipe, tubes forming an upward extension of the air-chamber, depending tubes fitted over said extension tubes, and walls or partitions forming a space for the reception of water to form a water seal in conjunction with the depending tubes, substantially as set forth.

No. 62,451. Steam Boiler. (*Chaudière à vapeur.*)



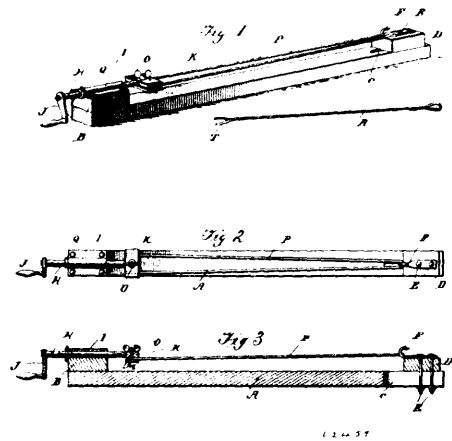
David Fitzgibbons, Oswego, New York, U.S.A., 25th January, 1899; 6 years. (Filed 10th September, 1898.)

Claim.—1st. In a boiler, the combination of an outer shell composed of a vertical cylindrical section and of a horizontal cylindrical section extended rearwardly therefrom at about the middle of said vertical section, an inner shell secured in said outer shell, the lower or fire-box section of said inner shell being the shorter and cylindrical, and the upper or combustion-chamber section of said inner shell being the longer and extending upwardly in said vertical section substantially to the upper edge of said rearward extension and being substantially semi-circular in cross-section, the rear plate of said combustion-chamber section and the upper plate of said fire-box section being formed of a single sheet bent substantially at right angles, tubes arranged in said horizontal rearward extension and secured to said rear plate, a steel ring fitted to the space between the lower edges of said inner and said outer shells, a support for said rearward extension, and a separate cylindrical ash-pit portion having an inwardly extending ledge adapted to receive and support the front or vertical portion of said boiler. 2nd. In a boiler, the combination of an outer shell having a vertical cylindrical section and a horizontal cylindrical section extending rearwardly therefrom, an inner shell fitting in said outer shell having a lower cylindrical portion of less diameter than said outer shell, and a contracted upper portion substantially semi-circular in cross section, a separate cylindrical ash-pit portion having an inwardly extending ledge adapted to receive and support the vertical portion of the boiler, and a corrugated steel ring rivetted between the lower edges of said outer and inner shells, filling the space between them and having a downward annular extension fitted to said ledge. 3rd. In a steam generator, in combination, an outer shell having a cylindrical upright section and a cylindrical horizontal section extending rearwardly from about the middle of said upright section, an inner shell having a lower cylindrical section and an upper substantially semi-cylindrical section extending upwardly to about the upper surface of said horizontal section, single plate bent at right angles forming the rear face of said upper section and the upper face of said lower section, and a series of tubes arranged in said horizontal section and having their front ends secured in the rear face of said upper section. 4th. In a boiler, the combination of an outer shell composed of a vertical cylindrical section and an horizontal cylindrical section, an inner shell arranged within said outer shell, having a water-space between them, stays arranged in the upper portion of the said water-space and securing the upper portion of the inner shell to the upper portion of the outer shell, said stays being composed of short tubes expanded and beaded to fit perforations in the upper plate of the combustion-chamber and opening into said combustion-chamber, of bolts closing the upper ends of said tubes and secured thereto, said bolts being provided with double eyes at their upper ends, and of metallic straps engaging with said eyes and securing said stays to the upper plate of the outer shell, and fusible plugs in

said tubes. 5th. In an upright boiler, the combination of an outer shell having a vertical cylindrical portion, an inner shell fitted therein having a lower, shorter cylindrical section, and an upper, longer section substantially semi-circular in cross section, said inner shell being composed of a lower annular plate, an upper, substantially semi-circular plate, a top plate substantially semi-circular and secured to said upper plate with a curved joint extending from about the upper front corner of said upper section rearwardly and downwardly to the rear face of said upper section, and of an integral rear plate bent substantially at right angles to form the rear face of upper section and the upper face of said lower section, said inner shell being arranged within said outer shell with its lower section arranged concentrically within the lower portion of the outer shell leaving water legs between the lower portions of said shells of substantially uniform width from top to bottom, and a corrugated steel ring of uniform thickness filling the space between the lower edges of said outer and inner shells and rivetted in position therebetween. 6th. In a boiler having inner and outer shells forming water space between them and a combustion chamber within the inner shell, a tubular opening through the lower portion of said shells into the combustion chamber, a door frame and an outer fire-door with latch and catch fitted to said opening, an air-opening above said door for admitting air into the combustion chamber, an air-door hinged to the upper edge of said air opening for closing the same, a projecting arm on said air-door, a rod supported in guides on the front of the fire door and connected to said latch for engaging the said projecting arm to elevate said air-door when the fire-door latch is raised, a cylinder secured to the door frame below said air-door, a depending piston secured to the air-door and fitted to said cylinder, an air hole in the top of said cylinder, a check valve in said piston, an escape vent in the lower portion of said cylinder for permitting the escape of air therefrom, and a thumb screw fitted to said vent for regulating the escape of air.

No. 62,452. Machine for Twisting Wire Pickets.

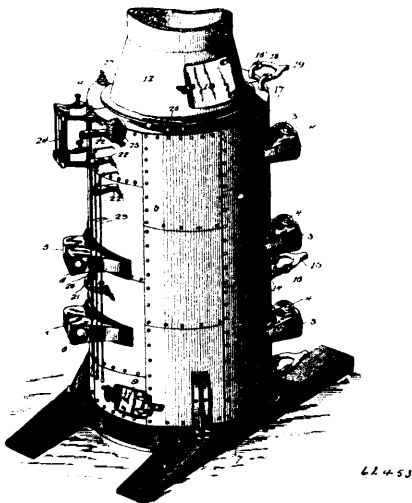
(*Machine à tordre les piquets de fil de fer.*)



John H. Stauffer, Gap, Pennsylvania, U.S.A., 25th January, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. In a wire picket twisting device, a base provided with a fixed head at one end and an adjustable head at the other, means for attaching one end of the wire to the adjustable head, and means connected with the fixed head for grasping the two ends of the wire and twisting it, substantially as described. 2nd. In a wire picket twisting device, the combination of a base, a fixed head at one end, an adjustable head at the other end, a hook on the adjustable head over which the wire is bent, a clamp near the fixed head to receive the two ends of the wire, and a shaft secured to the clamp for twisting the wire into a picket, substantially as described. 3rd. In a wire picket twisting device, the combination of a base, a fixed head at one end, an adjustable head at the other end, a hook on the adjustable head over which the wire is bent, a shaft journaled in the fixed head, and a clasp at the end of the shaft to receive the ends of the wire, substantially as described. 4th. In a wire picket twisting device, the combination of a base provided with a fixed head at one end and a longitudinal slot at the other, an adjustable head and a hook thereon mounted over said slot, bolts passing through the hook, the head and the slot, and secured on the under side of the base by nuts, a longitudinal shaft seated in a semi-circular groove in the fixed head, a clamping plate provided with a semi-circular groove secured to the fixed head and forming the upper half of the shaft bearing, a plate secured upon the inner end of the shaft and provided with a central opening, a second plate parallel with the shaft-plate having a screw-threaded stem to pass through the opening in the shaft-plate, a thumb-nut engaging the screw-threaded stem to draw the two plates together, a clamping ring to prevent the shaft from being drawn inward, and a handle for turning the shaft, substantially as described.

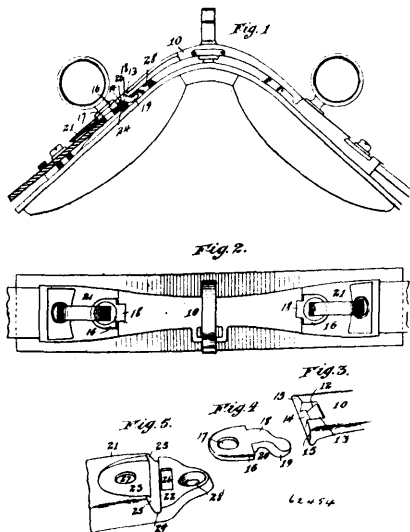
No. 62,453. Steam Boiler. (Chaudière à vapeur.)



Nelson Fillmore Anderson and William Thomas Anderson, both of Hardid, State of Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. In a boiler of the character described, the combination of parti-cylindrical hollow sections hinged together and provided with clusters of inwardly projecting water tubes, and means for securing the sections together, substantially as set forth. 2nd. In a boiler of the character described, the combination of parti-cylindrical hollow sections hinged together and provided with inwardly projecting water tubes arranged in parallel horizontal rows and parallel vertical rows, and means for securing the sections together, substantially as described. 3rd. In a boiler of the character described, the combination with the parti-cylindrical hollow sections hinged together and provided with inwardly projecting water tubes and a tubular connection between the sections of said boiler, whereby a uniform water level is obtained in both sections, substantially as set forth for the purpose described. 4th. In a boiler of the character described, the combination with the parti-cylindrical hollow sections hinged together, water tubes projecting inwardly from said sections and having screw-threaded engagement therewith, said tubes arranged in horizontal rows and in vertical rows, and means for securing the sections together, substantially as set forth.

No. 62,454. Harness Saddle Tree. (Bois de selle de harnais.)

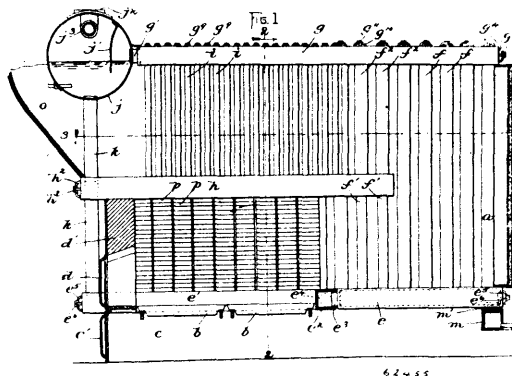


Charles Jesse Cooper, Moline, Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—1st. In a harness saddle tree, the combination with a yoke having at its end an aperture and cross-bar and stop shoulders located on each side of such aperture, of a jockey-plate rebated to receive the end of the yoke and having stop shoulders to abut against those of the yoke and an aperture, and a connecting plate having a body portion adapted to be secured to the jockey-plate and a hooked

end passing over the cross-bar and through the apertures in the yoke and jockey-plate, substantially as described. 2nd. In a harness saddle tree, the combination with a yoke having at its end a recess provided with an aperture and cross-bar, with stop shoulders located on each side of said aperture, of a jockey-plate rebated to receive the end of the yoke, provided with an aperture and having a recess for the connecting plate and stop shoulders to abut against those of the yoke, and a connecting plate having a body portion adapted to fit within the recess of the jockey-plate and be secured therein and having a tongue adapted to fit within the recess of the yoke and provided with a hooked end to pass over the cross-bar and through the apertures in the yoke and jockey-plate, said yoke plates having a flush or continuous upper surface, substantially as described.

No. 62,455. Steam Boiler. (Chaudière à vapeur.)



Richard Hutchinson, Somerville, Massachusetts, U.S.A., 25th January, 1899; 6 years. (Filed 5th December, 1898.)

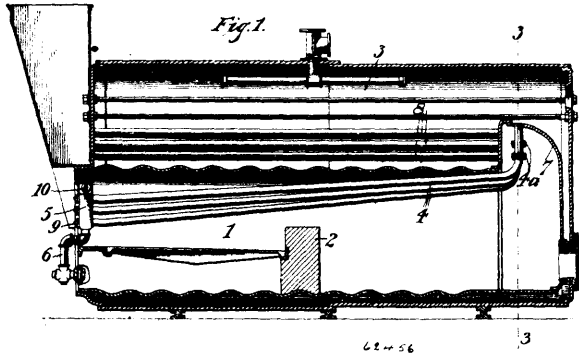
Claim.—1st. In a sectional water-tube boiler, a grate, an upper series of manifolds arranged at the base of the boiler, back of the grate, a back series of tubes connecting the upper and lower manifolds, an intermediate series of manifolds arranged above the grate and terminating forward of the said back tubes, the latter manifolds being arranged in contact, side by side, and collectively constituting a baffle, a front series of tubes connecting the intermediate and upper manifolds, and an outlet for the products of combustion. 2nd. In a sectional water-tube boiler, a lower series of manifolds arranged at the base of the boiler, an upper series of manifolds arranged at the top of the boiler, an intermediate series of manifolds, a back series of relatively long upright tubes connecting the upper and lower manifolds, a front series of relatively short upright tubes connecting the upper and intermediate manifolds, and means in the top sides of the upper manifolds for permitting the removal, insertion, and cleaning of the tubes of both series. 3rd. A sectional water-tube boiler comprising a grate, a lower series of manifolds arranged at the base of the boiler and formed with apertures in their ends, means for closing said apertures, an upper series of manifolds arranged at the top of the boiler and formed with apertures in their ends, means for closing said apertures, a steam-drum connected with the said upper manifolds, a downtake leading from said drum, an intermediate series of manifolds formed with apertures in their ends, means for closing said apertures, a series of upright tubes connecting the upper and lower manifolds, a second series of upright tubes connecting the upper and intermediate manifolds, the upper manifolds being formed with apertures above the several tubes, permitting the removal, insertion, and cleaning thereof, and means for closing said apertures. 4th. A sectional water-tube boiler comprising a grate, a lower series of manifolds arranged at the base of the boiler, back of the grate, an upper series of manifolds arranged at the top of the boiler, an intermediate series of manifolds in contact side by side, and constituting a baffle, a series of upright tubes connecting the upper and lower manifolds, a second series of upright tubes connecting the upper and intermediate manifolds, and a third series of upright tubes connecting the lower and intermediate manifolds. 5th. In a water-tube boiler, a grate, and a plurality of independent manifolds arranged at the end across the end thereof, for the purpose specified. 6th. In a water-tube boiler, two transverse manifolds, and a series of tubes connecting the same, one of said manifolds having opposite the tubes provisions for access thereto, and the other manifold having an imperforate wall opposite the tubes.

No. 62,456. Steam Boiler. (Chaudière à vapeur.)

George Herbert Watson, Chicago, Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 9th September, 1898.)

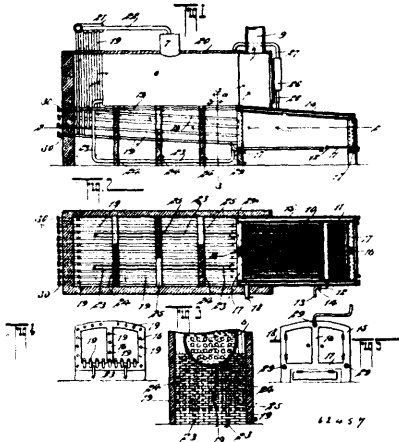
Claim.—1st. In a steam boiler having an internal furnace, the arrangement of one or more circulating pipes extended directly and continuously through said furnace and communicating at one end with the lower part of the boiler below one end of the internal furnace and discharging into the upper part of the boiler at its other end, to promote the circulation and effect a rapid generation

of steam, as described. 2nd. In a steam boiler having an internal furnace, the arrangement of one or more circulating pipes extended



directly and continuously through said furnace and being in communication at one end of the boiler with the lower part of the same and at the other end with an upper part of the boiler, to lift water from the lower part of the boiler at one end below the internal furnace and discharge it into an upper part of the boiler at its other end, the interior of said pipes being accessible for the purpose of cleaning them out and the pipes being removable to give access to the boiler and furnace for cleaning or repairs, as described.

No. 62,457. Boiler. (Chaudière.)



Robert W. Innes, Omaha, Nebraska, U.S.A., 25th January, 1899; 6 years. (Filed 12th January, 1899.)

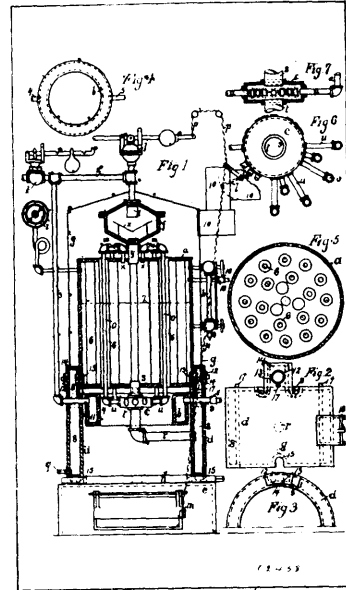
Claim.—1st. A boiler having a boiler proper, a shell inclosing the same, a furnace located at the forward end of the boiler and having a water-jacket at the top and sides thereof, a grate within the furnace, a water-beam running along the rear edge of the grate and communicating with the water-jacket, tubes running from the rear edge of the water-jacket from the rear water-beam and from the rear water-leg, the tubes passing beneath the boiler proper and running up past the rear end thereof, a header above the boiler proper with which header the said tubes communicate, a tube leading from the header to the dome of the boiler proper, and a return-tube running from the boiler proper to the furnace. 2nd. A boiler having a boiler proper, a shell inclosing the boiler proper, a furnace, the top and sides of which are formed by a water-jacket, a grate beneath the water-jacket, water-beams running transversely at the front and rear of the grate and between the sides of the water-jacket, a water-leg standing on each water-beam and joining the top of the water-jacket, tubes running from the rear water-beam from the water-jacket and from the rear water-leg, the tubes passing beneath the boiler proper and up along the rear end thereof to a point beyond the shell, a header with which the tubes communicate, a tube leading from the header to the boiler proper, and a return-tube running from the boiler proper to the furnace.

No. 62,458. Steam Generator. (Générateur de vapeur.)

Henry Hennig, Paterson New Jersey, U.S.A., 25th January, 1899; 6 years. (Filed 3rd October, 1898.)

Claim.—1st. The combination in a steam generating device, of a water holding case *c*, pipes *u*, connected to pipes *o*, running through boiler tubes *b*, the pipe *w*, the pipes *r* and *s*, for supplying case *c*, from water back and boiler, and the water back *d*, the boiler *a*, and their connections together, substantially as described. 2nd.

The combination in a steam heating device of an annular superheating chamber, and its connection with a separator *f*, and the



water back *d*, the boiler *a*, and their connection with each other, substantially as described. 3rd. In a steam heating apparatus, the annular superheating chamber in combination with the case *c*, pipes *u*, *o* and *w*, for the purpose of making steam quickly and superheating steam, all substantially as set forth. 4th. In a closed circulation and steam heating device the superheating device placed inside of the fire-box, consisting of an annular chamber in connection with a separator *f*, in combination with the water back *d*, boiler *a*, water heating case *c*, the water tube connection *r*, pipes *u* and *o*, substantially as and for the purpose set forth. 5th. In a steam heating and closed circulating device, a water back *d*, and boiler connected, heating case *c*, water tube *r*, small pipes *u*, *o* and *w*, in combination with steam separating case *f*, jacket *g*, an annular superheating chamber *b*, and pipes adapted for radiator connections, completing a closed circulation, substantially as described.

No. 62,459. Calcium Carbide Manufacture.

(Fabrication de carbure de calcium.)

Willy Joseph Hubert Lazarus, Düren, Prussia, 25th January, 1899; 6 years. (Filed 2nd August, 1898.)

Claim.—1st. The improvement in the manufacture of calcium-carbide cartridges for the production of acetylene gas which improvement consists in first impregnating the calcium-carbide with paraffine, or other cementing agent, then reducing the impregnated carbide to powder, and condensing the powder thus obtained into a compact body, substantially as and for the purpose hereinbefore described. 2nd. The improvement in the manufacture of calcium-carbide cartridges for the production of acetylene gas, which improvement consists in first impregnating the calcium-carbide with paraffine or other cementing agent, then reducing the impregnated carbide to powder, and forcing the powder into an envelope of sheet metal, and closing the filling-in end of the said envelope by a substance impermeable to water and vapours, substantially as and for the purpose hereinbefore described.

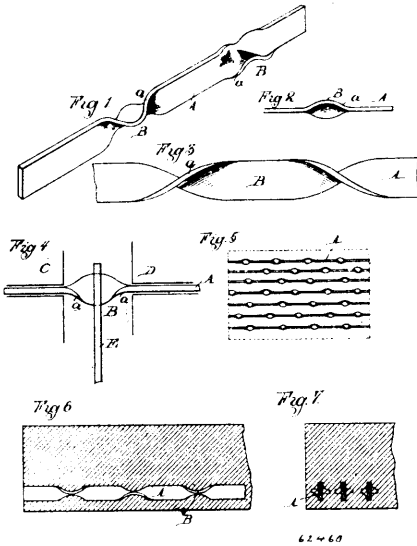
No. 62,460. Fire Proof Construction.

(Construction à l'épreuve du feu.)

Alphonse De Man, Detroit, Michigan, U.S.A., 25th January, 1899; 6 years. (Filed 23rd September, 1898.)

Claim.—1st. A composite slab or span comprising a body of artificial stone and a metallic strengthening member embedded therein, consisting of the flat bar *A* having twists *B* formed therein at intervals. 2nd. A composite slab or span comprising a body of artificial stone and a plurality of metallic strengthening members embedded therein, each consisting of a flat thin bar having twists formed therein at intervals, said bars being arranged on edge side by side for the purpose described. 3rd. A composite floor-span comprising a body of artificial stone and independent horizontal and double-inclined tension members embedded therein, the horizontal member being located below the neutral line and the double-inclined member extending from at or below the neutral lines in the central portion of the span diagonally upward to the ends of the span. 4th. A composite floor span comprising a body of artificial stone and metallic tension members embedded therein consisting of alternate horizontal bars located below the neutral line and double inclined

bars extending from below the neutral line in the central portion of the span diagonally upward to the ends of the span. 5th. A com-



posite floor-span comprising a body of artificial stone and the alternately-arranged metallic tension members F and G embedded therein, the former consisting of U-shaped bars having the horizontal portions c the upturned portions d and the outwardly extending end portions e, and the latter consisting of the upwardly-inclined portions g and the outwardly extending end portions f, the portions c and f forming supporting arms or hooks for the span. 6th. A composite span comprising a body of artificial stone and a metallic strengthening member embedded therein while under tension. 7th. A composite span comprising a body of artificial stone and metallic strengthening members having anchoring shoulders formed therein at intervals, said members being embedded in the body while under tension. 8th. A composite span comprising a body of artificial stone and metallic strengthening members embedded therein in a portion of the span subject to tensile strains, said strengthening members being provided at intervals with anchoring shoulders and being embedded in the body while under tension. 9th. A floor and ceiling construction, comprising a metallic floor beam, a strip or slab of artificial stone placed beneath said beams, and having laterally extending anchors and a ceiling span extending between said beam and the adjacent beam formed of metallic strengthening members and a body of artificial stone in which said members and said lateral anchors are embedded. 10th. In a floor construction, a removable slab forming a section of the floor comprising a body of artificial stone, a series of longitudinal metallic strengthening members embedded therein, each comprising a flat bar twisted at intervals to form anchoring shoulders, and one or more independent cross strengthening members. 11th. In a floor construction, a removable slab forming a section of the floor, comprising a body of artificial stone, and metallic strengthening members embedded therein, a series of said members being arranged side by side near the bottom of the slab, and a second series of lighter weight being arranged near the upper surface of the slab. 12th. A floor construction comprising the floor beams, monolith artificial stone ceiling and floor spans arranged respectively below and above said beams, the floor span having an opening left therein, and a slab removably closing said opening consisting of a body of artificial stone and metallic strengthening members embedded therein the ends of said slab being supported upon the floor beams.

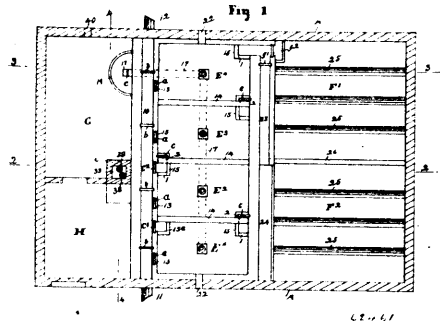
No. 62,161. Sewage Treating Apparatus.

(Appareil pour le traitement des égouts.)

Garcyt D. Mitchell, Chelsea, Massachusetts, U.S.A., 25th January, 1899; 6 years. (Filed 9th April, 1898.)

Claim.—1st. In a sewage treating plant, a series of covered collecting-tanks having connections for flowing off liquid from each tank to the next tank from a point between the two bodies of light and heavy solid material collected at the top and bottom of the tank, in combination with one or more filters for the liquid delivered from the last tank, a covered sludge-filter, connections from the tanks to the sludge-filter, a building inclosing said tanks and filters, and connections for ventilating the collecting-tank and sludge-filter independently of the building, substantially as described. 2nd. In a sewage treating plant, a series of covered collecting-tanks having connections for flowing off liquid from each tank to the next tank from a point between the two bodies of light and heavy solid material collected at the top and bottom of the tank, connections for carrying off the sludge from each tank, one or more filters for the liquid delivered from the last tank, a building inclosing said tanks and

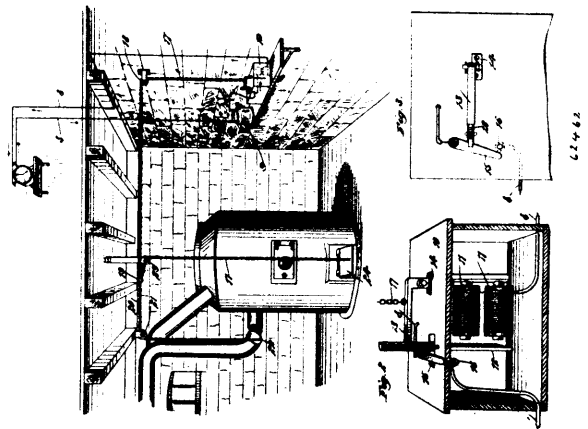
filter or filters, and separate ventilating connections for the collecting-tanks and the building, substantially as described. 3rd. A sewage



collecting-tank having a delivery pipe provided with an opening from the tank near the bottom of the latter and an outlet at the top of the tank and means for adjusting vertically the position of the opening from the tank, substantially as described. 4th. A series of sewage collecting-tanks having pipes 15, connecting said tanks and provided with opening 1, from and near the bottom of the tank from which the liquid is to be drawn and opening 2 near the top of the tank through which the liquid is delivered to the next tank, in combination with sewage sluice-way 10, connected with the tanks, and gates controlling communication between the sluice-way and between the different tanks, substantially as described. 5th. A series of sewage collecting-tanks having connections for flowing off liquid from a point below the level of liquid in each tank to the next tank, and gates controlling said connections, in combination with sluice-way and tanks and gates controlling said passages, gates b, in said sluice-way, and other passages between the sluice-way and one or more of the first tanks of the series for flowing off the sewage-water to the sluice-way from a point below the level of the water in the tanks and controlled by gates, as c', c'', substantially as described. 6th. A series of sewage collecting-tanks having connections for flowing off liquid from a point below the level of liquid in each tank to the next tank, and gates controlling said connections, in combination with sluice-way 10, passages 13, between the tanks and gates controlling said passages, gates b, in said sluice-way, sludge delivery and washing pipe 17, below the tanks and gates, d, controlling the outlet from the tanks to the pipe 17, substantially as described. 7th. A series of sewage collecting-tanks having connections for flowing off liquid from a point below the level of liquid, in each tank to the next tank, and gates controlling said connections, in combination with sluice-way 10, passages 13, between the tanks and gates controlling said passages, gates b, in said sluice-way, and other passages between the sluice-way and one or more of the first tanks of the series for flowing off the sewage water to the sluice-way from a point below the level of the water in the tanks and controlled by gates, as c', c'', sludge delivery and washing pipe 17, below the tanks, and gates, d, controlling the outlets from the tanks to the pipe 17, substantially as described.

No. 62,162. Damper Releasing Device.

(Appareil à régler le tirage.)

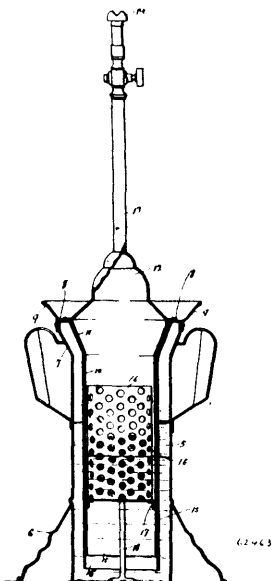


Thomas Kitson, Stroudsburg, Pennsylvania, U.S.A., 26th January 1899; 6 years. (Filed 22nd September, 1898.)

Claim.—The combination of a casing having a slot in one wall thereof an electro-magnet mounted in the casing, an armature pivotally mount-

ted on the casing and extending through the slot in the wall thereof, one arm of the armature being within the casing and the other arm of the armature being without the casing, a switch mounted on the outer side of the casing and controlling the circuit of the magnet and arranged in the path of the outer arm of the armature to be thrown into open position by the movement of the inner arm of the armature toward the magnet, and a pivotally mounted arm carried on the exterior of the casing and engaged with the outer arm of the armature and normally held immovable thereby.

No. 62,463. Acetylene Gas Lamp.
(*Lampe à gaz acétylène.*)



George Dacarie Pearson, and Ernest Cooper Mount, both of Montreal, Quebec, Canada, 26th January, 1899; 6 years. (Filed 6th September, 1898.)

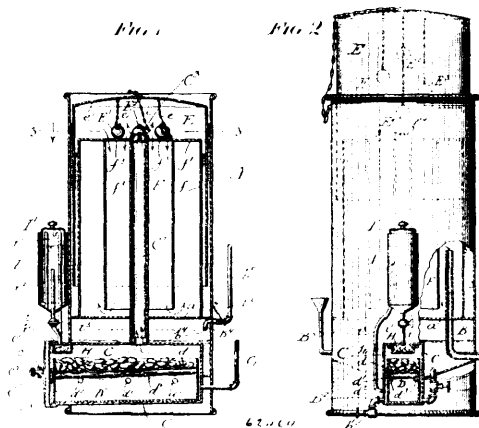
Claim.—1st. An acetylene gas lamp comprising a cylinder having its upper end open and flared and lower end closed, a second cylinder having its upper end closed and communicating with the burner and its lower end open, said second cylinder being suspended with said first mentioned cylinder and extending within a short distance of the lower end thereof, and a perforated calcium carbide holder supported within said inner cylinder a short distance above the lower end thereof, for the purpose as set forth. 2nd. An acetylene gas lamp having a cylindrical water chamber 5, with expanded or flared upper end, as shown and described. 3rd. An acetylene gas generator comprising an outer cylinder 5 having its lower end closed and upper end partially closed by a perforated diaphragm 8, an inner cylinder 10 having its upper end extended in circumference as at 11 and provided with a dome 12, communicating with the burner 14 and a calcium carbide holder 16 made of wire mesh and supported upon a leg 18 within said inner cylinder, and provided with radial projections 17, substantially as described and for the purpose set forth.

No. 62,464. Acetylene Generator. (*Générateur à acétylène.*)

F. Cortez Wilson, assignee of Augustine Davis, both of Chicago, Illinois, U. S. A., 26th January, 1899; 6 years. (Filed 31st August, 1898.)

Claim.—1st. In an acetylene gas generator, provided with a generating chamber, a carbid support in said chamber, means for supplying a head of water to said chamber from below the charge of carbid, and an expansible gas receiver affording with increase of capacity an increase of gas pressure acting in opposition to said head of water to control or depress its level relatively to the carbid support. 2nd. An acetylene generator provided with a generating chamber, a gas outlet leading from the generating chamber to an expansible gas receiver, means for supplying a head of water to the generating chamber at a point below the gas outlet, means for adjustably limiting the head of water supplied, and means for automatically increasing the pressure of the receiver as it increases in capacity so as to thereby control the hydration of the carbid by varying the water level in the generating chamber. 3rd. In a gas generating apparatus, the combination of a water chamber and a generating chamber located in fixed relation to the water chamber and having a continuous water connection with the water in the water chamber when the generator is in operation, and means for determinably varying the initial water level in said chamber to regulate the head of water supplied. 4th. In an acetylene gas generator, the combination with a generating chamber having a

carbid support set to be immersed by a head of water admitted to said chamber, of a water chamber supplying said head of water to

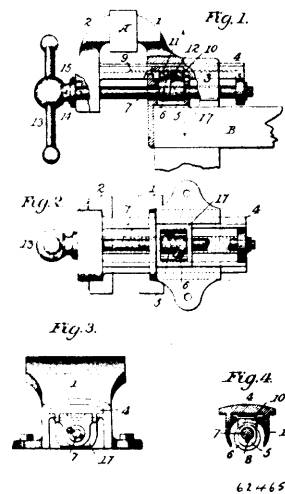


the generating chamber at a point below said support, an adjustable outlet pipe in the water chamber for determining the maximum water level therein, and an indicator whereby the position of the outlet pipe can be adjusted at will to determine the head of water supplied. 5th. In an acetylene generator, the combination with a generating chamber having a carbid support set to be immersed by a head of water admitted to said chamber, of a water chamber supplying said head of water to the generating chamber at a point below said support, and means for limiting the maximum level of water in said chamber, comprising a pipe passing out through a stuffing box and revoluble therein and having its inner end deflected out of its axis of rotation, and an indicator on the outer end of the pipe whereby the position of its inner end can be determined. 6th. An acetylene generator provided with a generating chamber, means for supplying a head of water to said chamber from below the charge of carbid, means for adjustably varying the said head of water supplied, a floating gas receiver, and one or more heavy bodies arranged to be lifted in succession by the receiver as it rises to produce an increasing gas pressure acting in opposition to the head of water to regulate the hydration of the carbide. 7th. An acetylene generator provided with a generating chamber, a water supply chamber communicating with generating chamber below the charge of carbide, an expansible gas receiver affording with increase of capacity an increase of gas pressure acting in opposition to the head of water afforded by said supply chamber, and means for adjustably limiting the maximum water level in the supply chamber. 8th. An acetylene generator provided with a generating chamber, a water supply chamber communicating with the generating chamber below the charge of carbid therein, an expansible gas receiver affording an increase of gas pressure with increase of capacity, and means for adjustably limiting the maximum water level in the supply chamber comprising an outlet pipe passing out of the chamber through a stuffing-box in which it is revolubly mounted, the inner end of the pipe being deflected out of its axis of rotation, and an indicator enabling the position of the pipe to be accurately adjusted. 9th. An acetylene generator provided with a generating chamber and a water chamber opening into the lower portion of the generating chamber, a carbid support within the generating chamber above the water inlet, an auxiliary carbid support within the generating chamber above the first support, a water receptacle discharging independently into the generating chamber at a point adjacent to the auxiliary support, and a valve controlling the discharge of said receptacle, whereby the auxiliary charge of carbid can be independently hydrated at will. 10th. In an acetylene gas generator, the combination with a closed generating chamber having a carbid support, and means for supplying a head of water to said closed chamber at a point beneath the carbid support, of an open relief pipe leading directly out of said closed chamber at a point beneath the normal level of the water therein. 11th. The combination with a closed generating chamber having a support for calcic carbid, of means for supplying a head of water to the chamber at a point below the carbid support, an expansible gas receiver affording increased pressure with increased capacity, and a relief pipe leading directly out of said closed chamber at a point below the normal level of water therein but adapted to be uncovered when the maximum pressure afforded by the expansible receiver is approached. 12th. The combination with a generating chamber and receiver, of means for forcing air into the generating chamber, and a blow-off pipe normally closed by the water in the generating chamber for conducting away the gas expelled by the air. 13th. The combination with a generating chamber having a support for calcic carbid, of means for supplying a head of water to the chamber at a point below the carbid support, a gas receiver connected with the generating chamber by a valved passage, means for forcing air into the generating chamber, and an open relief pipe leading out of the generating chamber at a point below the normal water level

therein. 14th. The combination with a generating chamber, of a relief pipe normally sealed by the water in said chamber, means for drawing down the water to open the relief pipe, and means for forcing air into the chamber to displace the gas therein and expel it through the relief pipe. 15th. The combination with a water chamber and a generating chamber having a carbid support and communicating with the water chamber below said support, of a gas holder connected with the generating chamber by a valved passage, a relief pipe leading out of the generating chamber at a point below the water level therein, and valved a passage for draining the chamber, and an air pump for forcing air into the chamber. 16th. An acetylene generator provided with a generating chamber, a gas holder connected with the chamber, means for supplying water to a principal charge of carbid within the chamber, an auxiliary charge of carbid normally free from water, a tank opening into the generating chamber at a point adjacent to the auxiliary charge of carbid, a valve controlling the discharge of said tank, an inverted bell within said tank, a valved air inlet opening into the bell, a valved air outlet leading from the bell into the generating chamber, and a relief pipe leading out of the chamber. 17th. The combination, with a generating chamber, of an inverted gas holding bell having its lower edges submerged in an annular sealing chamber, a transverse partition extending between the inner walls of said sealing chamber to form a mixing chamber beneath, depending partition reaching from said transverse partition to within a short distance of the bottom wall, a gas inlet leading into the bell, apertures in the upper partition wall on one side of the depending partition, and an outlet pipe leading from the mixing chamber at a point on the opposite side of the depending partition from said apertures. 18th. An acetylene gas apparatus, comprising a water chamber, a generating chamber within said water chamber having removable door or cover, a removable carbid receptacle within the generating chamber, a carbide support in said receptacle, a valved passage opening from the water chamber into the generating chamber at a point below the carbid support, a relief pipe extending out of the generating chamber at a point below the carbid support, discharge passage opening out of the lower portion of the generating chamber and controlled by a valve, and a valved outlet pipe leading to a gas receiver. 19th. An acetylene generator provided with a generating chamber, a removable receptacle provided in its upper part with a carbid supporting grating, closed in its lower portion so as to retain the waste, apertures in the receptacle above the bottom thereof below the carbid support, and means for supplying water to said chamber at a point below the carbid support. 20th. An acetylene generator provided with a generating chamber, an expansible gas receiver affording increased pressure with increased capacity, a removable receptacle within the generating chamber provided in its upper part with an inclined grating serving as a carbid support and closed in its lower portion to retain the waste, means for supplying a head of water to the chamber from below the carbid support, and apertures in the removable receptacle above its bottom and below the inclined screen. 21st. A gas generator provided with a generating chamber, having a removable receptacle with a primary carbid support consisting of an upper grating and a subjacent parallel lower grating of finer mesh, the receptacle being closed in its lower portion to retain the waste and being provided with apertures in its side walls above said closed bottom portion but below the lower grating, and means for supplying water to the generating chamber at a point below the carbid support. 22nd. In a gas generator, a closeable generating chamber extending into a close ventilated water supply chamber provided with means for determining the head of water contained therein, and connected therewith by a valved opening for hydrating the charge of carbid by means of said head of water, and having a relief pipe normally closed by the water in said generating chamber. 23rd. In a gas generator, a generating chamber extending within a water chamber and connected therewith by a valved passage, means for adjustably varying the head of water in said water chamber, a carbid support within the generating chamber above said opening, and a connected expansible gas receiver affording increased pressure with increased capacity. 24th. The combination, with a generating chamber and an expansible gas receiver affording an increased pressure with increased capacity, of a substantially plane primary carbid support of open work, inclined from the horizontal, and means for supplying a head of water to the chamber at a point below the carbid support. 25th. The combination, with a generating chamber, of a primary carbid support, consisting of an upper grating to receive the charge and a lower grating of finer mesh immediately beneath parallel with and in close proximity to the upper grating, means for supplying a head of water to the chamber at a point below the carbid support, and a gas receiver connected with the chamber. 26th. The combination, with a generating chamber, of an inclined primary support for calcic carbid, consisting of an upper grating for the reception of the original and regular charge of carbid, and a lower grating of finer mesh immediately beneath and parallel with the upper grating. 27th. In an acetylene gas generator, the combination with a generating chamber having an inclined primary carbid support consisting of an upper grating which receives the charge and a lower parallel grating of smaller mesh in proximity thereto, means for supplying a head of water to said chamber from beneath the carbid support, and an expansible gas receiver affording with increase of capacity an increase of gas pressure acting in opposition to said head of water to regulate its height relatively to the carbid support. 28th. An acetylene gas generator, provided

with a generating chamber containing an inclined primary carbid support consisting of an upper grating to receive the original and regular charge of carbid and a parallel lower grating of finer mesh immediately beneath and in proximity thereto, means for supplying a head of water to said chamber from below the charge of carbid, an expansible gas receiver, and an increasing resistance automatically applied to the receiver as its capacity increases to afford a variable pressure acting in opposition to the head of water to control or depress its level relatively to the carbid support. 29th. In a gas generator of the class described, a closeable generating chamber, a removable drawer having a carbid support and closed in its lower portion to retain the residuum, said generating chamber being constructed to contain said drawer and also having a valved connection with a water supply at a point below the level of the carbid support, and an independent valved discharge opening arranged to drain said closed generating chamber. 30th. In a gas generator of the class described, a closeable generating chamber, a removable drawer having a carbid support and also constructed to retain the residuum, said generating chamber being constructed to contain said drawer and also having a valved connection with a water supply at a point below the level of the carbid support, an independent valved discharge opening arranged to drain the generating chamber, and means for forcing air into the chamber to displace the air therein.

No. 62,465. Clamping Device. (Appareil d'assemblage.)

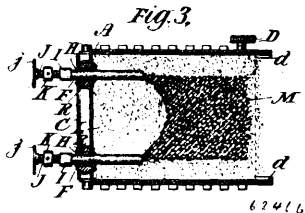
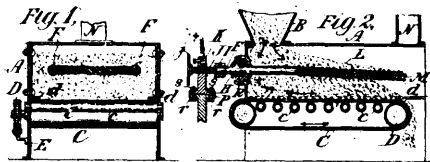


Willard Reed Green, Denver, Colorado, assignee of Augustus Howard, San Francisco, all in the U.S.A., 26th January, 1899; 6 years. (Filed 9th January, 1899.)

Claim.—In a clamping device, two parts, each provided with an extension the one adapted to fit the other, and means for adjustably securing them with relation to each other, substantially as described. 2nd. In a clamping device, two parts, one provided with a hollow extension and the other with an extension sliding loosely in the first extension and means for adjustably securing the extensions with relation to each other, substantially as described. 3rd. In a clamping device, two parts, one provided with a hollow extension and the other with an extension sliding loosely in the first extension, a rod mounted in one extension, a cam operated by the rod, and means whereby the extensions are positively moved with relation to each other on the operation of the rod, substantially as described. 4th. In a clamping device, two parts, one provided with a hollow extension and the other with an extension sliding loosely in the first extension, a rod mounted in one extension, a cam operated by the rod, a block operated by the cam and having projections engaging projections on one of the extensions, substantially as described. 5th. In a clamping device, two parts, one provided with a hollow extension and the other with an extension sliding loosely in the first extension, a rod mounted in one extension, a cam operated by the rod and having a thread, a block having a groove engaging the thread and provided with projections engaging projections on one of the extensions, substantially as described. 6th. In a clamping device, two parts, one provided with a hollow extension and the other with an extension sliding loosely in the first extension, a rod mounted in one extension, a cam adapted to turn with the rod and slide freely thereon, a spiral thread on the cam, a block provided with a collar surrounding the cam and having a groove engaging the thread thereon and projections on the block engaging projections on one of the extensions, substantially as described. 7th. In a clamping device, two parts, one provided with a hollow extension and the other with an extension sliding loosely in the first extension and a rod mounted in one extension, a cam rotating with and sliding on the rod, a spiral thread on the cam, a block having a collar surrounding the cam and provided with a flattened portion, a housing for the cam and projections on the block adapted to engage projections on

one of the extensions, substantially as described. 8th. In a clamping device, a fixed and movable part, each provided with an extension the one adapted to fit the other to permit the parts to be initially adjusted, and means for finally adjusting the movable part with relation to the fixed part and securing the desired pressure, substantially as described.

No. 62,466. Process of and Apparatus for the Manufacture of Metallic Carbides. (*Procédé et appareil pour la fabrication de carbure métallique.*)



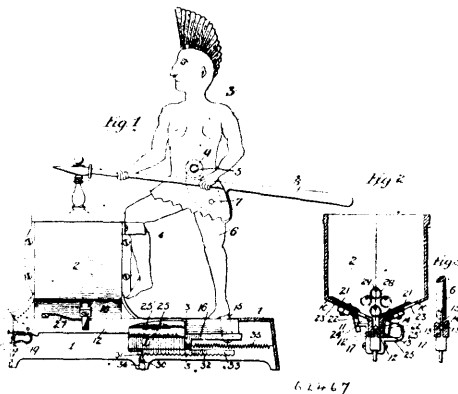
Thomas L. Wilson, St. Catharines, Ontario, Canada, assignee of Isaiah Lewis Roberts, of Niagara, State of New York, U.S.A., New York, 26th January, 1899; 18 years. (Filed 27th July, 1897.)

Claim.—1st. As an improvement in the art of metallurgy, the process of converting or changing an ore substantially an insulator of electricity, which consists in establishing between electrodes within a non-conducting mixture of pulverized or granulated ore or oxide and a reducing agent, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into a conductive body, and gradually drawing the mixture between the electrodes in a direction transverse to the direction of flow of the current through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby converted into a conducting body and caused to act as an incandescent conductor to reduce the adjacent portions of the mixture, substantially as described. 2nd. As an improvement in the art of metallurgy, the process of converting or changing an ore substantially an insulator of electricity, which consists in establishing between electrodes within a non-conducting mixture of pulverized ore or oxide and carbon, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into a conductive body, and gradually drawing the mixture between the electrodes in a direction transverse to the direction of flow of the current, through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby converted into a conductive body and caused to act as an incandescent conductor to reduce the adjacent portions of the mixture, substantially as described. 3rd. As an improvement in the art of metallurgy, the process of converting or changing an ore of calcium commingled with carbon, substantially an insulator of electricity, which consists in establishing between electrodes within a non-conducting mixture of pulverized or granulated calcium oxide and carbon, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portion of the mixture into a calcium carbide, and gradually drawing the mixture between the electrodes in a direction transverse to the direction of flow of the current through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby converted into a conducting body and caused to act as an incandescent conductor to reduce the adjacent portions of mixture, substantially as described. 4th. As an improvement in the art of metallurgy, the process of converting or changing an ore of calcium commingled with carbon, substantially an insulator of electricity, which consists in establishing between the electrodes within a non-conducting mixture of pulverized or granulated calcium oxide and carbon, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into calcium carbide, and gradually passing the mixture between the electrodes in a direction transverse to the direction of flow of the current through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby

converted into a conducting body and caused to act as an incandescent conductor to reduce the adjacent portions of the mixture, and maintaining the resulting slab of carbide within a surrounding cover of the unconverted material, substantially as described. 5th. The process of producing metallic carbides, which consists in surrounding horizontal electrodes with a mass of pulverized oxide and carbon, in establishing a temporary conducting path between said electrodes, in passing the pulverized mass of oxide and carbon horizontally between the electrodes without breaking contact with the produced carbide, in gradually widening the said slab of produced carbide by the gradual withdrawal of the electrodes, and in finally forming carbide by moving the mixed mass between parallel electrodes extending in the direction of travel of the mass, thereby forming such slab of carbide of the full width of the distance between the electrodes, and in supplying sufficient unconverted material to surround the electrodes and the slab so formed, and in simultaneously moving said unconverted material onward again with the so formed carbide, substantially as described. 6th. In an apparatus for effecting metallurgical operations, the combination of a continuous horizontal, mechanical conveyer, two electrodes located in proximity thereto, and means for feeding a mass of material to be treated into said conveyer above and below said electrodes, thereby enclosing them in a mass of the material to be treated in their operation, substantially as described. 7th. The combination in an apparatus for effecting metallurgical operations of an endless, continuous, horizontal, mechanical conveyer, and two horizontally adjustable electrodes placed in proximity thereto, capable of taking a parallel position, thereby affecting material moved by said conveyer, substantially as described. 8th. In an apparatus for the treatment of substances by electrical heat, the combination of a conveyer made of wire cloth, the wires of which are severally covered with asbestos, and two electrodes, located in proximity to said conveyer, substantially as described. 9th. The combination in an apparatus for effecting an electrical conversion, of a continuous, horizontal, mechanical conveyer, and two horizontal electrodes arranged in proximity to its upper surface, substantially as and for the purposes described. 10th. The combination in an apparatus for affecting electrical conversion, of a continuous, horizontal, mechanical conveyer, two horizontal electrodes arranged in proximity to its upper surface and means for causing the said electrodes to travel above said conveyer and in the same horizontal plane, substantially as described. 11th. The combination in an apparatus for effecting electrical conversion, of the belt C, horizontally adjustable electrodes F in proximity thereto, the adjustable supports R located above the belt and aiding in supporting the electrodes, and the plates P, located outside of the casing of the apparatus and carrying the moving holders of the electrodes, substantially as described.

No. 62,467. Cigar Cutter and Match Igniter.

(*Coupe-cigare et allume allumette.*)

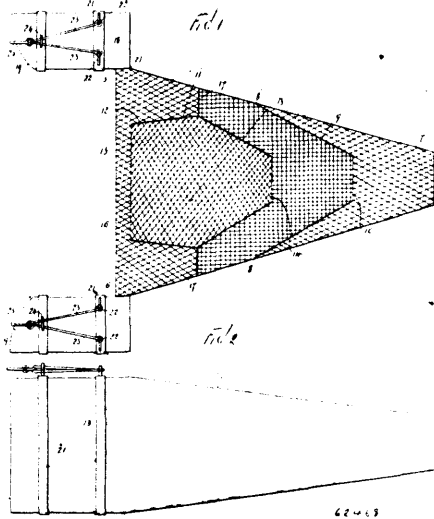


William Henry Thompson, of East Stroudsburg, Pennsylvania, U.S.A., 26th January, 1899; 6 years. (Filed 16th November, 1898.)

Claim.—1st. In combination in a match igniting device, a hopper, a pair of feed-plates reciprocating therein, means for giving said plates a reciprocating movement in opposite directions, a discharge-channel leading from the hopper and a plunger working in said channel, substantially as described. 2nd. In combination, the hopper having a discharge-channel the discharge-plunger for the match, the alternately-reciprocating feed-plates and the cams moving with the discharge-plunger for reciprocating said plates, substantially as described. 3rd. In combination, a hopper having the flanges with the feed-channel between, the feed-plunger working in said channel, the cam-plates moving with said plunger, the feed-plates reciprocating along the hopper-bottom toward the feed-channel in the hopper and the arms extending from said feed-plates into the path of the cams, substantially as described. 4th. In combination, the hopper, the feeding device, and the separating and distributing means independent of said feeding device, comprising a plurality of yield-

ing tubular means, substantially as described. 5th. In combination, the hopper, the feeding means, and the independent yielding distributing device located within the hopper, substantially as described. 6th. In combination, the feeding device, and the series of yielding distributing and separating devices for the matches located above and independent of the feeding device, substantially as described. 7th. In combination, the hopper, the series of cross-rods therein, feeding means and the series of tubular members suspended from said rods, substantially as described.

No. 62,168. Fishing-Net. (Filet de pêche.)



Edward Miller, Brooklyn, New York, U.S.A., 26th January, 1899; 6 years. (Filed 28th November, 1898.)

Claim.—1st. A net, which is provided with a large open end, a smaller closed end, said net being provided at its large end with two guide-blocks which are secured to the side thereof, said guide-blocks being provided with ropes or cords which are secured to the rear ends thereof and which are passed through an eye or ring secured near the forward ends thereof, and connected with ropes which are adapted to be operated from a boat, substantially as shown and described. 2nd. A net, which is provided with a large open end and a smaller closed end, said net being also provided with a pocket which is conical in form and which is secured therein, and the inner end of which is directed inwardly towards the smaller end of the net, and a supplemental pocket secured concentrically in the larger open end of the net, the outer portion of said supplemental pocket being cylindrical in form and open, and the inner portion thereof being conical in form and open, said net being also provided at its larger end with two guide-blocks which are secured to the sides thereof, said guide-blocks being provided with ropes or cords which are secured to the rear ends thereof and which are passed through an eye or ring secured near the forward ends thereof, and connected with ropes which are adapted to be operated from a boat, substantially as shown and described. 3rd. A net, which is provided with a large open end and a smaller closed end, said net being also provided with a pocket which is conical in form, and which is secured therein, and the inner end of which is directed inwardly towards the smaller end of the net, and a supplemental pocket secured concentrically in the larger open end of the net, the outer portion of said supplemental pocket being cylindrical in form and open and of less diameter than the corresponding portion of the net, and the inner portion of said supplemental pocket being conical in form and open, said net being also provided with two guide-blocks which are secured to the sides of the large open end thereof, and said guide-blocks being provided with bridles, substantially as shown and described.

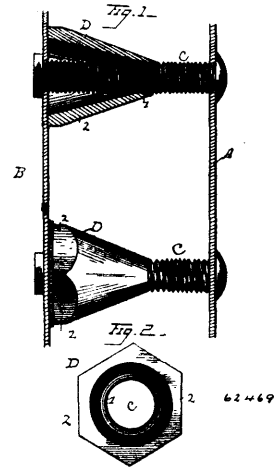
No. 62,169. Protector for Stay Bolts.

(Protecteur pour boulon de tirant.)

Francis J. Coins, Marshall, Texas U.S.A., 26th January, 1899; 6 years. (Filed 21st September, 1898.)

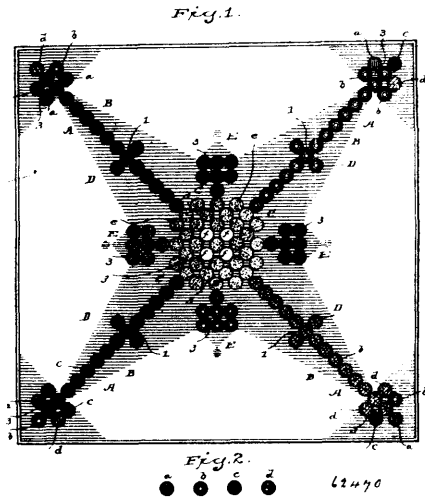
Claim.—1st. A bolt-protector having a conical outer face, a conical inner, a screw-threaded opening communicating at one end with the conical interior of the protector and terminating at the other end coincident with the end of the conical outer face, the larger end of the protector being adapted to bear against a boiler plate, and having flat peripheral faces to receive a wrench, substantially as set forth. 2nd. The combination with two shells of a boiler, of screw-threaded bolts connecting said shells, and conical protectors on said bolts, one end of each protector bearing against the inner face of the outer shell and the other end of said protector terminating intermediate of the end of the bolt on which it is screwed, substantially

as set forth. 3rd. The combination with the shell of a fire-chamber and an outer shell with an intervening water-space between said



shells of bolts passing through said shells and the water-space, each bolt having a screw-threaded portion, a conical protector adapted to screw at its smaller end on each bolt so as to terminate between the ends of said bolt and each protector being adapted to bear tightly against the inner face of the outer shell, substantially as set forth.

No. 62,170. Game Board. (Tableau de jeu.)

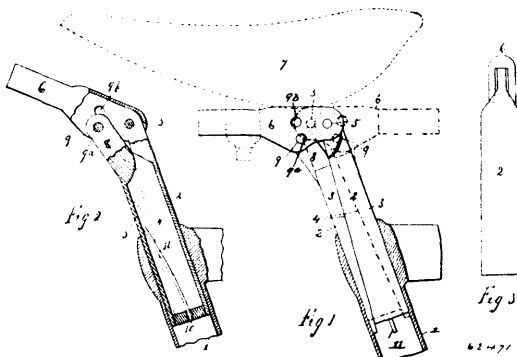


Elbridge Gerry, Danbury, Connecticut, U.S.A., 26th January, 1899; 6 years. (Filed 23rd November, 1898.)

Claim.—1st. A game board comprising a number of contiguous spots arranged in groups at the corners, each group comprising differently coloured spots, runs of different colours but corresponding in colour with certain spots in each group leading from said group to a group of spots of another colour at the centre of the board, four spots on the common which serve as bases, and other groups of spots having one spot in each group contiguous to the central group, all the spots in each of said last set of groups being of the same colour but the groups being of different colours which correspond with the runs. 2nd. A game board comprising a number of contiguous spots arranged in groups of seven spot at the corners, each group consisting of four spots of one colour and three spots of three colours differing from the colour of the first four and from each other, the four spots of each group being of different colours, one group from another, runs of the same colour as the four spots in each corner group leading toward the centre, a group of spots at the centre of still another colour with the exception of four spots which serve as bases, and four groups of seven spots each one spot in each group being contiguous to the central group, all the spots in said last set of groups being of a color corresponding to one of the runs. 3rd. A game board comprising a number of contiguous spots arranged in groups of seven spots at the corners, each group consisting of four spots of one colour and three spots of three colours differing from the colour of the first four and from each other, the four spots of each corner group being of different colours one group from another, runs of the same colour as the four spots in each corner group leading toward the centre, two

spots of the same colour flanking one spot in each of the runs, a group of spots at the centre of still another colour with the exception of four spots which serve as bases, and four groups of seven spots each one spot in each group being contiguous to the central group, all the spots in each set of groups being of a colour corresponding to one of the runs. 4th. A game board comprising a number of spots of different colours arranged to form starting places at the corners, each starting place including spots of different colours, runs of different colours but corresponding in colour with certain spots in each starting place and extending from the starting place to a common at the centre, spots on the common which serve as bases and homes corresponding in colour to the runs, one spot in each home being contiguous to the common. 5th. A game board comprising a number of spots of different colours arranged to form starting places at the corners, each starting place including spots of different colours, runs of different colours but corresponding in colour with certain spots in each starting place leading from the starting places to a common at the centre, spots in said common which serve as bases, guard houses in each run consisting of one spot of the same colour flanking a spot in the run and homes corresponding in colour to the runs, one spot in each home being contiguous to the common.

No. 62,471. Bicycle Seat Post. (*Poteau de siege de bicyclette.*)

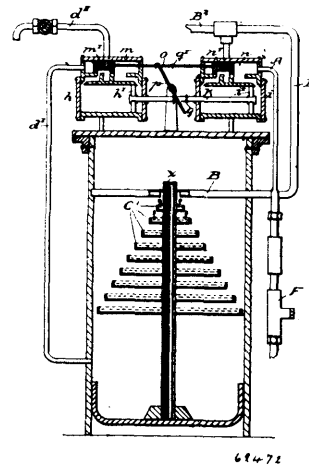


George W. Lord, Excelsior Springs, Missouri, U.S.A., 26th January, 1899; 6 years. (Filed 22nd September, 1898.)

Claim.—1st. The combination with the tubular seat-post, supporting-standard of a bicycle-frame, of a cylindrical seat-post fitting therein and adapted under pressure to increase diametrically in size, substantially as described. 2nd. A seat-post for bicycles, comprising an upwardly tapering member, a downwardly tapering member, and a seat-supporting lever fulcrumed upon the first-named member and pivotally connected to the last-named or sliding member, substantially as described. 3rd. A seat-post for bicycles, comprising a member having a bevelled face which converges downwardly with reference to the opposing wall of the customary seat-post supporting standard of a bicycle-frame, a wedge-like member fitting snugly and slidingly against the bevelled surface of the first-named member, and a lever fulcrumed upon the first-named member and pivotally connected to the last-named member, that its vertical adjustment may increase or diminish the diameter of the seat-post as a whole, by sliding the wedge-like member downwardly or upwardly, substantially as described. 4th. A seat-post for bicycles, comprising a member having a bevelled face which converged downwardly with reference to the opposing wall of the customary seat-post supporting-standard of a bicycle-frame, a wedge-like member fitting snugly and slidingly against the bevelled surface of the first named member, a lever fulcrumed upon the first-named member and pivotally connected to the last-named member in order that its vertical adjustment may increase or diminish the diameter of the seat-post as a whole by sliding the wedge-like member downwardly and upwardly, and a seat mounted upon the rear end of said lever, substantially as described. 5th. The combination with the tubular seat-post supporting-standard of a bicycle-frame, of a cylindrical seat-post fitting snugly within said standard, and formed by cutting a piece of tubing in half longitudinally, so as to produce opposing inclined faces on the member thus formed a lever fulcrumed at its front end and upon the member forming the body of the post, and adapted to swing in a vertical plane, and pivotally connected to the upper end of the other member nearer its rear end, and a seat mounted upon said lever rearward of its connection with the last-named member, substantially as described. 6th. A seat-post for bicycles, comprising a pair of members, one tapering upwardly and the other downwardly, and fitted together and forming conjointly a cylindrical post, and a spring holding said members yieldingly together, substantially as described. 7th. A seat-post for bicycles, comprising an upwardly tapering member, a downwardly tapering member, a seat-supporting lever fulcrumed upon the first-named member and provided with superposed openings or slots, and a pivot-pin mounted in one of said openings and connecting the lever pivotally with the last-named member, sub-

stantially as described. 8th. A seat-post for bicycles, comprising a pair of members having cam or inclined faces fitting slidingly together, and a spring holding them yieldingly in this position. 9th. A seat-post for bicycles, comprising a pair of members having opposing inclined faces fitting together, and one of them provided with an apertured bottom, and a spring extending through said aperture and secured at its upper end to the member not provided with the apertured bottom.

No. 62,472. Liquid Aerating Apparatus. (*Appareil à aérer les liquides.*)

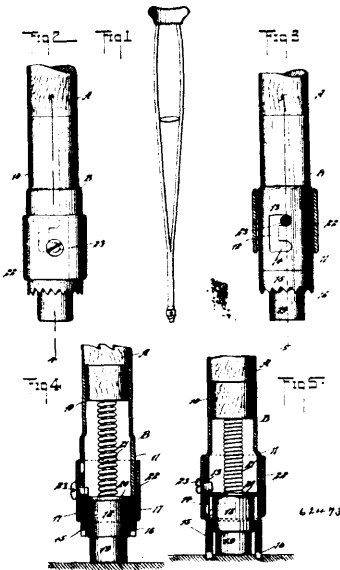


Emil Koenig and Mitchell Louis Erlanger, both of New York City, New York, U.S.A., 26th January, 1899; 6 years. (Filed 27th September, 1898.)

Claim.—1st. In an automatic aerating apparatus, the combination of a receptacle for a liquid, a feed therefor, a discharge, and automatic means for measuring the feed by the discharge of the liquid, as described. 2nd. In an automatic aerating apparatus, the combination of a closed receptacle for an intermixed gas and liquid, a feed therefor, a discharge, and automatic means for measuring the feed of liquid by the discharge thereof, as described. 3rd. In an automatic aerating apparatus, the combination of a closed receptacle for a liquid, a feed therefor, a discharge, and connected pistons and valves interposed in the feed and discharge for measuring the feed by the discharge, as described. 4th. In an automatic aerating apparatus, the combination of a closed receptacle for an intermixed gas and liquid, a pressure gas supply connected to said receptacle, a liquid feed thereto, a discharge, and connected pistons and valves interposed in said liquid feed and intermixed gas and liquid discharge for controlling the feed of liquid by the discharge, as described. 5th. In an automatic aerating apparatus, the combination of a closed receptacle for an intermixed gas and liquid, a pressure gas supply connected to said receptacle, a liquid feed thereto, a discharge, and balanced valve and piston for the discharge, a valve controlling said discharge, another balanced valve and a piston for the liquid feed, connections between the balanced valves and between the pistons, a rocking lever interposed between the pistons connection and the valves connection, and another valve controlling the discharge, as described. 6th. In an aerating apparatus, the combination of a closed chamber, a gas and liquid supply leading thereto, flanged discs C¹ within the chamber for dividing the liquid in shallow layers of constant volumes and the gas constantly filling the free spaces between and around said layers whereby when the liquid supply is not running the shallow layers are exposed to the action of the gas, and a draw-off pipe, as described. 7th. In an aerating apparatus, the combination of a closed chamber, a supply of gas and liquid thereto, flanged discs C¹ within the chamber for dividing the inflowing liquid in shallow layers of constant volumes and constantly maintaining the same, means for automatically supplying the necessary liquid to the chamber, and a draw-off pipe, as described. 8th. In an aerating apparatus, the combination of a closed chamber, a supply of gas and liquid thereto, flanged discs C¹ within the chamber for dividing the liquid in shallow layers of constant volumes and all at each fresh supply a quantity of said liquid to pass from one layer to another, means for automatically supplying the necessary liquid to the chamber, and a draw-off pipe, as described. 9th. In an aerating apparatus, the combination of a closed chamber, a supply of gas and liquid thereto, flanged discs C¹ within the chamber for dividing the inflowing liquid in shallow layers of constant volumes and maintaining them by allowing the superfluous liquid to flow successively from one layer to another and to collect at the bottom, means for automatically stopping the liquid feed supply and exposing said constant volumes to the action of gas in said chamber, and a draw-off pipe, as described. 10th. In an aerating apparatus, the combination of a closed chamber, a supply of gas and liquid thereto, flanged discs

C¹, within the chamber and above the level of the liquid for dividing the inflowing liquid into shallow layers, each of a constant quantity, and constantly maintaining the same, means for automatically stopping the feed supply and thereby exposing said layers to the action of the gas in said tank, and a draw-off pipe, as described. 11th. In an automatic aerating apparatus, a closed chamber provided with gas and liquid inlets and an outlet, a plurality of vessels composed of flanged discs C¹, gradually increasing in diameter and capable of holding a constant quantity of liquid, and means for automatically controlling the supply of liquid to the chamber, as described. 12th. In an aerating apparatus, a closed chamber provided with gas and liquid inlets and outlet, a plurality of vessels composed of flanged discs C¹, gradually increasing in diameter capable of holding a constant quantity of liquid and mounted on a central vertical stem so that the smallest is uppermost, and means for controlling the feed of liquid to the chamber whereby the liquid contained in said vessels may be exposed to the gas contained in the chamber, as described.

No. 62,473. Crutch. (Béquille.)



Richard Schwarting, New York City, U.S.A., 26th January, 1899; 6 years. (Filed 22nd October, 1898.)

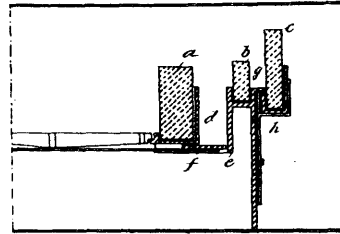
Claim.—1st. A foot for crutches, provided with a spur tip and with a yielding tip, the yielding tip having movement within the spur tip, and means for locking one of the tips out of action, as set forth. 2nd. A foot for crutches, provided with a roughened tip which is a fixture to the foot, and a yielding tip arranged to have sliding movement within the roughened surface of the foot and likewise within the body of said foot, and a locking device capable of preventing the movement of said yielding tip within the roughened tip and within the ferrule of the foot, substantially as described. 3rd. A foot for crutches, provided with teeth at its lower end, and a longitudinal slot above the teeth, having lateral branches, a sleeve mounted to turn and slide on the foot, having a projection to enter said slot, and a spring-controlled yielding tip having sliding movement within the foot, and arranged to extend normally beyond the toothed surface of the foot, for the purpose set forth. 4th. A foot for crutches, provided with teeth and a device for the purpose of freeing the teeth from substances adhering to them, the said devices being arranged for movement relatively to and from the teeth and in line with the projections of the teeth, and means for limiting the end movement of the said device adapted for freeing the teeth from substances adhering to them, as and for the purpose specified.

No. 62,474. Resinous Soap Manufacture. (Manufacture de savon résineux.)

Fritz Arledter, Perlen near Luzern, Switzerland, 26th January, 1899; 6 years. (Filed 12th April, 1898.)

Claim.—1st. For producing a resinous soap containing unsaponaceous resin particularly employable by manufacture of paper as paper size the method hereinbefore described consisting in boiling under great pressure resin and quantity of alkali not sufficient for the complete saponification of the resin. 2nd. In a method for producing resinous soap, the filtering of the finished mass under pressure through filters of glass wool asbestos, felt or the like.

No. 62,475. Fire Bridge. (Autel pour four de fournaises.)



62475

Ernst Schumacher, Leer, Germany, 26th January, 1899; 6 years, (Filed 16th September, 1898.)

Claim.—In a fire bridge for steam boiler furnaces the fire bridge consisting of several parts *a b c* of which the most backward part *c*, is movable to regulate the section for the passage of the fire guses, while behind the front part *a*, there is an air shaft *d*, with the air entrance to be regulated by a slide, so as to form, above the fire bridge, a mixing chamber for the fire guses coming from the grate with the outlet section and the air entrance section to be regulated, substantially as and for the purpose set forth.

No. 62,476. Touch and Technic Stop for Pianos. (Assourdissoir pour pianos.)

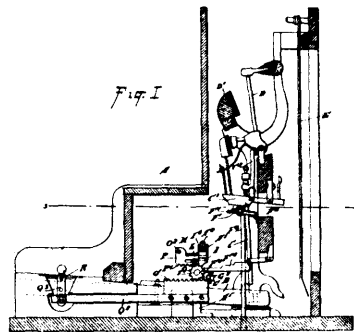
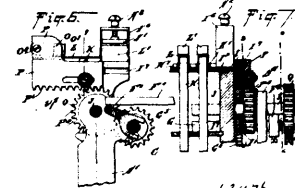


Fig. I



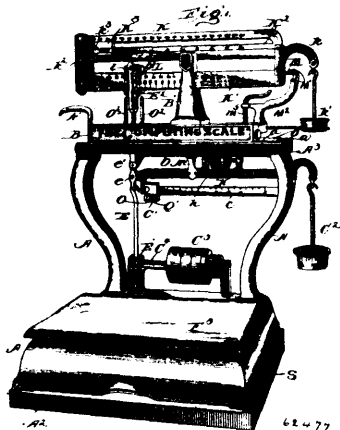
62476

Alfred Rudolph Spoerl, and William Louis Geisler, both of New York City, New York, U.S.A., 26th January, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. A device of the class described, provided with a resistance comprising rods fitted to slide, and adapted to rest on the keys, and springs pressing on the said rods, substantially as shown and described. 2nd. A device of the class described, provided with a resistance comprising rods fitted to slide, and adapted to rest on the keys, springs pressing on the said rods, and means, substantially as described, for increasing or decreasing the tension of the said springs, as set forth. 3rd. A device of the class described, provided with a resistance comprising rods fitted to slide and adapted to rest on the keys, springs pressing on the said rods, and means, substantially as described, for limiting the swinging motion of the said springs, as set forth. 4th. A device of the class described, provided with a resistance comprising rods fitted to slide and adapted to rest on the keys, and springs pressing on the said rods, each of the said springs being provided at its free end with a block or weight adapted to swing between two plates, one of which is adjustable, substantially as shown and described. 5th. A device of the class described, provided with a resistance, comprising a frame mounted to swing, and under the control of the operator, rods fitted to slide in the said frame and adapted to rest on the keys, and springs held on the said frame and engaging the said rods, each of the springs being provided with a block or weight at its free end, substantially as shown and described. 6th. A device of the class described, provided with a resistance, comprising a frame mounted to swing, and under the control of the operator, rods fitted to slide in the said frame and adapted to rest on the keys, springs held on the said frame and engaging the said rods, each of the springs being provided with a block or weight at its free end, and a bar adjustably held over

the said springs for regulating the tension of the springs, substantially as shown and described. 7th. A device of the class described, provided with a resistance, comprising a frame mounted to swing, and under the control of the operator, rods fitted to slide in the said frame and adapted to rest on the keys, springs held on the said frame and engaging the said rods, each of the springs being provided with a block or weight at its free end, a bar adjustably held over said springs for regulating the tension of the springs, and means, substantially as described, for adjusting said bar over the said springs, as set forth. 8th. A device of the class described, provided with a resistance comprising a frame, rods fitted to slide in the said frame, springs pressing on the said rods, a bar adjustably held over the said springs, means for shifting the said bar, and a device for indicating the position of the bar relatively to the springs, as set forth. 9th. A device of the class described, provided with a rock shaft under the control of the operator and carrying arms, posts fitted to slide vertically and provided with feet engaging the said arms, hinged arms connected with the said posts, and a rail carried by the said hinged arms and adapted to engage jack-levers, substantially as shown and described.

No. 62,477. Weighing and Price Scale. (Balancer.)

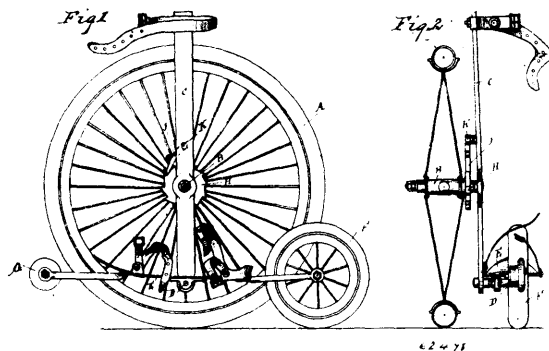


Orange Oscar Ozias, Dayton, Ohio, U.S.A., 26th January, 1899; 6 years. (Filed 5th August, 1898.)

Claim.—1st. In a price scale, a price beam and price poise movable relatively to each other, and connections between the price poise and platform, in connection with a price poise lifter, independent of the platform connection, and having bearings separated from each other in the plane of relative movement of the price poise and beam. 2nd. In a price scale, the relatively movable computing beam and poise for determining by their relative positions the price per unit of weight of an article, with means for holding said beam horizontally out of engagement with the price poise while the two are being shifted with relation to each other, and for engaging said price poise with the beam when brought to the proper position of adjustment. 3rd. The use in a price scale of a price beam having a notched or serrated edge in connection with a price determining poise having teeth co-operating with said notched or serrated edge, and an anti-friction roller for facilitating the relative movement of the price poise. 4th. In a price scale, the combination with a relatively movable price beam and price poise, and connections between the said price poise and platform, of a poise lifter independent of the platform connection having separated poise lifter posts co-operating with bearings in the price poise on opposite sides of the platform connections, whereby tilting of the price poise in the plane of relative movement of the price beam is prevented. 5th. In a price scale, the combination with a relatively movable price beam and price poise and connections between said price poise and platform, of a vertically movable price poise lifter independent of the platform connection and co-operating with the price poise below the plane of the bottom of the beam. 6th. In a price scale, the combination with a relatively movable price beam and price poise, said beam having a slot or recess in its lower edge, of an anti-friction roller mounted in the price poise and working within said slot or recess, as set forth. 7th. In a price scale, the combination with a relatively movable price beam and price poise, said beam having a slot or recess in its lower edge, of a spring-pressed anti-friction roller mounted in the price poise and working within said slot or recess, as set forth. 8th. In a price scale, the combination with a relatively movable price beam and price poise, said beam having a slot or recess in its lower edge, of an anti-friction roller mounted in the price poise and working within said slot or recess, with means for lifting the price poise to support the beam on said roller, substantially as described. 9th. In a price scale, the combination with the base, the carriage movable longitudinally thereon, the price beam fulcrumed on the carriage, the price poise on the beam and the connector for the platform connected with said price poise, of the links pivotally mounted on the base, the poise lifter carried

by said links and having posts co-operating with the under side of the price poise beneath the beam on each side of the platform connector with means for raising and lowering said poise lifter. 10th. In a price scale, the combination with a notched beam having a toothed or serrated edge, of the poise sliding on said beam and the snap lock carried by the poise and adapted to be automatically held either in its operative or inoperative position. 11th. The use in a scale having a beam with a notched or serrated edge, of a poise co-operating with the beam and having a roller co-operating with said notched or serrated edge and a spring for holding said roller in engagement therewith. 12th. In a price scale, embodying a platform with platform levers for supporting the same, a weighing beam connected with said platform levers and a price beam also connected with said platform levers with means for varying the effective leverage exerted by said beam, graduations for determining the degree of variation in the leverage of the price beam and indicating rate prices and graduations on said price beam indicating total values with a sliding poise for registering with said total value graduations. 13th. In a price scale, a price beam, price poise, adjustable with relation thereto, price poise lifter, and links on which said price poise lifter is mounted, a lever m^4 , a rod m^6 , and means for raising said lever and the price poise lifter to support the beam in horizontal position, substantially as described. 14th. In combination with a weighing scale a swivel base composed of a top and a bottom plate pivoted together by a central bolt and circular tracks on the adjacent faces of said frames. 15th. In combination with a weighing scale a swivel base composed of a top and bottom frames held together by a central bolt, circular tracks on the adjacent faces of said frames, anti-friction rollers interposed between said tracks and a detent for holding the frames in their relatively adjusted position, substantially as described. 16th. In combination with a weighing scale the swivel base with interposed anti-friction rollers.

No. 62,478. Roller Skate. (Patin à roulette.)



Alfred Houée, Rennes, France, 26th January, 1899; 6 years. (Filed 19th September, 1898.)

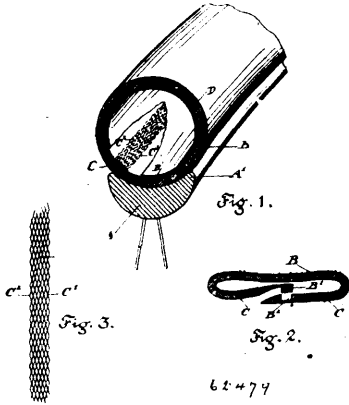
Claim.—1st. In a rolling skate the combination of a leg support a drive wheel revolvably mounted at the side thereof and a skate pivoted at the lower end of said support, with a roller at the forward end of said skate and normally held in elevated position, and a wheel rotatable in the rear of said skate, substantially as described. 2nd. In a device, such as described, the combination of a leg-support, a drive wheel revolvably mounted at the side thereof, a ratchet wheel, a pawl carried by the leg-support adapted to engage therewith and a skate pivotally secured at the lower end of said support, with a roller at the forward end of said skate and normally held in elevated position and a wheel of relatively smaller size than the drive wheel, rotatable in the rear extremity of said skate and adapted to serve as a support, substantially as described. 3rd. A device such as described embodying a leg-support c an axis b rigidly connected with said support, a drive wheel rotatably mounted thereon, a ratchet wheel fixed to its hub, a pawl j pivoted to stud k on said support and adapted to engage with said ratchet wheel, and a skate e pivotally secured to the base of said leg-support, with a roller g carried in a bearing at the forward end of said skate and normally held in elevated position, and a wheel f rotatable in the rear extremity of said skate and adapted to steady the device, substantially as described.

No. 62,479. Pneumatic Tire. (Bandage pneumatique.)

Charles Sumner Scott, Cadiz, Ohio, U.S.A., 26th January, 1899; 6 years. (Filed 30th September, 1898.)

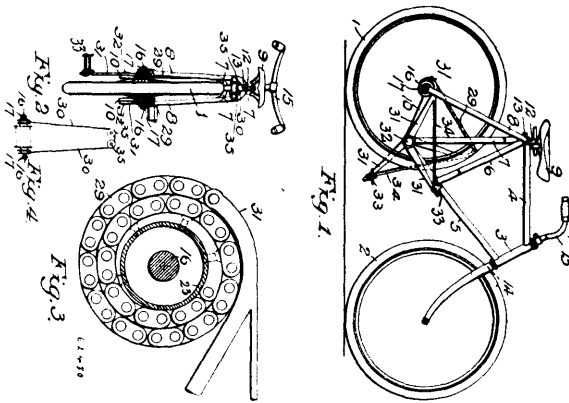
Claim.—1st. An automatically-attachable pneumatic tire having narrow primarily-flexible bands of diagonally-woven wire fabric secured in its sides, the inflation of the tire causing a distortion and consequent rigidity of the bands, substantially as described. 2nd. The combination of a grooved wheel-rim and an automatically-attachable pneumatic tire having primarily-flexible metal bands secured in its sides, the edges of the bands being respectively above and below the rim edges and the inflation of the tire causing a distortion and

consequent rigidity of the bands, substantially as described. 3rd. The combination of a wheel-rim and an automatically-attachable



pneumatic tire having a pair of narrow primarily-flexible bands of diagonally-woven wire fabrics in its sides, the inflation of the tire causing a distortion and consequent rigidity of the bands, substantially as described.

No. 62,480. Cycle. (Cycle.)

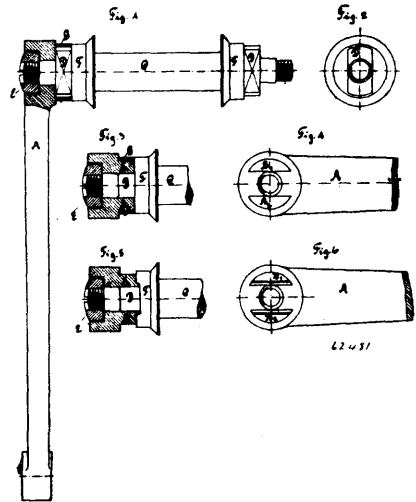


Thomas Hill, River Falls, Wisconsin, U.S.A., 26th January, 1899; 6 years. (Filed 30th August, 1898.)

Claim.—1st. A clutch device, comprising two parts rotatable independently of each other, one having ratchet-teeth and the other carrying one or more pawls, and the pawl-ring provided with passages through which the free ends of said pawl or pawls pass, said ring having a limited rotary movement with respect to one section of said clutch, and having frictional engagement with the other section thereof, whereby said pawl or pawls are rendered silent in their action on said ratchet-teeth, substantially as described. 2nd. A clutch device, comprising two parts rotatable independently of each other, one having ratchet-teeth and the other carrying a series of pawls, one of which pawls is spring-held in advance of the others, and a pawl-ring with which said pawls engage, said ring having a limited rotary movement with respect to one of said clutch sections and having frictional engagement with the other section thereof, substantially as described. 3rd. The combination with the wheel-hub provided with the internal ratchet-teeth, of the pair of loose hubs provided with a pawl-disc or flange, the series of pawls mounted on said pawl-disc and engageable with said ratchet-teeth, one of which pawls is mounted for limited endwise movement and is spring-held in advance of the others, and the loose pawl-ring through which said pawls work, said pawl-ring being mounted for a limited rotary motion with respect to the pawl-disc and having frictional engagement with the flange of said wheel-hub, substantially as described. 4th. In a cycle, the combination, with the wheel-hub provided with two series of ratchet-teeth 50, and with the loose pawl-ring in frictional engagement with the hub, of the independent drums 23, provided with pawls 38 and 39, adapted to engage the ratchet-teeth 50, and means for alternately rotating said drums, for the purpose set forth. 5th. In a cycle, the combination, with the wheel-hub provided with the two series of ratchet-teeth 50, and with the loose pawl-ring 44, in frictional engagement with the hub, of the drums 23, each carrying a series of pawls connected to said pawl-ring and adapted to engage said ratchet-teeth, for the purpose set forth. 6th. In a cycle, the combination, with the wheel-hub provided with a series of ratchet-teeth and with the loose pawl-ring in frictional engagement with the hub, of the independent drums 23, each provided with pawls adapted to engage said ratchet-teeth,

levers pivoted upon the bicycle-frame and provided with suitable pedals, chains arranged upon said drums and connected to said levers and means for winding said chains upon said drums. 7th. In a cycle, the combination, with the wheel-hub provided with suitable ratchet-teeth, of the drums mounted upon the axle of said wheel and provided with pawls adapted to engage said ratchet-teeth, pivoted levers mounted upon the cycle-frame and provided with suitable pedals, chains connected to said levers and to said drums, a cord 30, oppositely wound upon said drums and passing over suitable pulleys upon the cycle-frame, for the purpose set forth. 8th. In a cycle, the combination, with the wheel-axle 16, provided with the cone-bearings 18 and 19, of the wheel-hub arranged upon said axle and with a series of pawls 21, between said hub and said bearing 19, the independent drums 23, arranged outside of said wheel-hub, with the series of balls 25, arranged between each of said drums, and the cone-bearings 18 and 19, means for rotating said drums and means connecting said drums with said hub, for the purpose set forth.

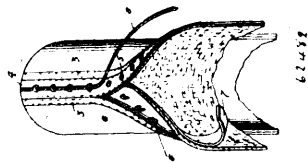
No. 62,481. Method of Securing Cranks to Axles. (Méthode d'assujettir les manivelles aux essieux.)



John Hayden, Brantford, Ontario, Canada, 26th January, 1899; 6 years. (Filed 16th August, 1898.)

Claim.—In a crank connection a crank with the hub partially removed to form two opposing jaws provided with means to prevent their spreading and an axle terminating into a reduced and screwed end, the bigger part reaching partly into the crank hub by being simultaneously reduced to form corresponding flat surfaces to supplement the jaws and both held together by a nut, substantially as and for the purposes set forth.

No. 62,482. Bicycle Tire. (Bandage de bicycles.)



Jacob Reepmaker, Rotterdam, South Holland, Netherlands, 26th January, 1899; 6 years. (Filed 8th July, 1898.)

Claim.—1st. A sheath for pneumatic tires comprising an outer rubber envelope, an inner quilted or reinforced canvas of greater width than the envelope and stitched thereto to form overlapping flaps which project on each side of the envelope and have their edges reinforced by whip stitches, the reinforcing strip 4 stitched to outer edge of one of the flaps and having one of its edges abutting against one edge of the rubber envelope, the reinforcing strip 7 secured to the under side of the other overlapping flap, a longitudinal row of eyelets formed through the reinforcing strip 4, and the overlapping flap to which it is attached, a series of loops secured to the opposite overlapping flap, said loops projecting through said eyelets, and a lacing cord passed the ends of the loops to secure them in said eyelets, substantially as set forth. 2nd. The combination with the rim of a wheel and the sheath of a pneumatic tire, and the lacing cord for said sheath, said rim having orifices, of the bracket 13 having an orifice, the lever 12 fulcrumed on said bracket and provided with an orifice, and a short arm 10 adapted to clamp said lacing cord in said bracket, the orifices in the bracket and the rim of the wheel registering, while the orifice in the lever is at one side of the registering orifices, substantially as set forth.

TRADE-MARKS

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6728. THE DODDS MEDICINE COMPANY OF ONTARIO, LIMITED, Toronto, Ont. Proprietary Medicines, 3rd January, 1899.
6729. THE JOLIETTE TOBACCO COMPANY, Joliette, Que. Cut and Plug Tobacco, 3rd January, 1899.
6730. THE FRONTIER MINERAL PAINT COMPANY, Detroit, Michigan, U. S. A. Mineral Paints, 3rd January, 1899.
6731. THE KENNEY COMPANY, New York, N.Y., U.S.A. Plumbing Appliances, 3rd January, 1899.
6732. L. C. BLISS and COMPANY, Boston, Massachusetts, U.S.A. Calf Skins, 4th January, 1899.
6733. ARTHUR A. MARTIN, Toronto, Ont. Ointments and Salves, 5th January, 1899.
6734. THE KNICKERBOCKER BRACE COMPANY, Easton, Pennsylvania, U.S.A. Garment Supporters, (Shoulder Braces and Suspenders), 9th January, 1899.
6735. BRITISH CYANIDES COMPANY, LIMITED, Oldbury, Worcester County, England. General Trade Mark, 11th January, 1899.
6736. THE JAMES ROBERTSON COMPANY, LIMITED, Montreal, Que. Hardware and Plumbers' Supplies, 11th January, 1899.
6737. P. MELCHERS, Schiedam, Holland. Gin, 11th January, 1899.
6738. J. FLEURY'S SONS, Aurora, Ont. Agricultural Implements, 13th January, 1899.
6739. DROUIN, FRERES et COMPAGNIE, Québec, Qué. Poudre à Pâte, 16 janvier, 1899.
6740. THE MONSOON TEA COMPANY, Toronto, Ont. Tea, 16th January, 1899.
6741. COOMBS' EUREKA AERATED FLOUR COMPANY, LIMITED, Nottingham and London, England. Flour, Self-raising Flour, Malted Food, Custard Powder, Blanc Mange Powder, Egg Powder, and Light Pastry Powder, 19th January, 1899.
6742. MAPONITE, LIMITED, London, England. A Manufactured Article having elastic properties from which are made balls and other articles of various descriptions and having various uses such as for use in games or in mechanical constructions for springs, axle dust-guards, belting and the like, 20th January, 1899.
6743. JOSEPH CROSFIELD and SONS, LIMITED, Bank Quay, Warrington, Lancashire, England. Soap of all descriptions, Candles, Detergents, Oils, Matches, Starch, Blue and other preparations for Laundry purposes, Perfumery, Toilet Articles and preparations for the Teeth and Hair, 23rd January, 1899.
6744. M. BEETHAM and SON, 22 Promenade Villas, Cheltenham, England. Soap of all descriptions, Perfumery, Toilet Articles, and Preparations for the Teeth, Skin and Hair, 23rd January, 1899.
6745. PERRY and COMPANY, LIMITED, 36 Lancaster Street, Birmingham, England. Paper, (except Paper Hangings) Stationery and Book-binding, 23rd January, 1899.
6747. SAMSON CORDAGE WORKS, Boston, Massachusetts, U.S.A. Braided Goods for window sash, electric trolley, arc lamp, ventilators, and other purposes, 24th January, 1899.
6748. TURNER, BEETON & COMPANY, Victoria, B.C. General Trade Mark, 25th January, 1899.
6749. JOHN ARTHUR McELROY, Toronto, Ont. Ladies' Wear, comprising waists, collars, cuffs, skirts, underwear and mantles, 25th January, 1899.
6750. REUBEN MILLICHAMP, Toronto, Ont. Dry Goods, such as woollens, flannels, dress goods, costume cloths and other woollen fabrics, 27th January, 1899.
6751. FRED L. LAVANBURG, New York, N.Y., U.S.A. Insecticides, 27th January, 1899.

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6752. LAWRENCE A. WILSON, Montreal, Que. Scotch Whiskeys, 27th January, 1899.
6753. LEITCH BROTHERS, Oak Lake, Manitoba. Flour, Rolled Oats, Meals and Cereal Foods, 28th January, 1899.
6754. CHARLES A. LIFFITON, Montreal, Que. Mocha Coffee, 30th January, 1899
6755. } D. RANSOM, SON & COMPANY, Buffalo, N.Y., U.S.A. Certain proprie-
6756. } tary Medicines, 30th January, 1899.

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10377. WHISTLING RUFUS. A Characteristic Two-Step March, By Kerry Mills. F. A. Mills, New York, N. Y., U. S. A., 2nd January, 1899.
10378. THE ACCOUNTANT'S INDICATOR. Octavius Smith, Montreal, Que., 3rd January, 1899.
10379. ANALYSIS, PARSING AND SUPPLEMENTARY READING. By Rev. J. O. Miller, M.A. The Copp, Clark Co. (Ltd.), Toronto, Ont., 3rd January, 1899.
10380. BEFORE THE EVENING SERVICE. (Photo.) J. Andison Cockburn, Paris, Ont., 3rd January, 1899.
10381. THE PRACTICE OF THE SUPREME COURT OF CANADA. By Robert Cassels, Q.C. Second Edition. By C. H. Masters. Ottawa, Ont., 4th January, 1899.
10382. MAP OF GREENWOOD AND WELLINGTON CAMPS OF THE BOUNDARY CREEK DISTRICT. Compiled and published by Sydney M. Johnson, B.A. Sc., P.L.S., Greenwood, B.C., 4th January, 1899.
10383. MAP OF DOMINION OF CANADA AND NEWFOUNDLAND. Compiled from the latest Government Surveys. The Copp, Clark Co. (Ltd.), Toronto, Ont., 5th January, 1899.
10384. THE WAY TO BE WELL. (Book.) Dr. Williams Medicine Co., Brockville, Ont., 7th January, 1899.
10385. THE STENOGRAPHER'S COMPANION. Vol. I. No. 10. January, 1899. Robert Goltman, Montreal, Que., 7th January 1899.
10386. FRACTIONS I. (Chart.) B. Lippens, Montreal, Que., 9th January, 1899.
10387. FRACTIONS II. (Chart.) B. Lippens, Montreal, Que., 9th January, 1899.
10388. FRACTIONS III. (Chart.) B. Lippens, Montreal, Que., 9th January, 1899.
10389. FRACTIONS IV. (Chart.) B. Lippens, Montreal, Que., 9th January, 1899.
10390. THE CANADIAN MAGAZINE. January, 1899. The Ontario Publishing Co. (Ltd.), Toronto, Ont., 9th January, 1899.
10391. NEIL MACLEOD. A Tale of Literary Life in London. By David Lyall. (L. Gladstone.) The Copp, Clark Co. (Ltd.), Toronto, Ont., 9th January, 1899.
10392. MÉTHODE DE COUPE LINÉAIRE. (Pour vêtements) publiée dans le journal "La Presse", de Montréal. (Droit temporaire d'auteur.) J. Clément Dulude, Montréal, Qué., 9 janvier 1899.
10393. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts.) February, 1899. The Butterick Publishing Co. (Ltd.), New York, N. Y., U.S.A., 12th January, 1899.
10394. THE GLASS OF FASHION UP TO DATE. (February, 1899.) The Butterick Publishing Co. (Ltd.), New York, N. Y., U.S.A., 12th January, 1899.
10395. METROPOLITAN FASHIONS. (February, 1899.) The Butterick Publishing Co. (Ltd.), New York, N. Y., U.S.A., 12th January, 1899.
10396. THE TOWN TRAVELLER. (Book.) By George Gissing. George N. Morang, Toronto, Ont., 12th January, 1899.
10397. THE CIRCUIT GUIDE,—SPRING ASSIZES, 1899. George Allan Kingston, Toronto, Ont., 12th January, 1899.
10398. BIRD'S EYE VIEW OF THE TERMINAL FACILITIES FOR THE WINTER EXPORT AND IMPORT TRADE OF CANADA BY WAY OF SAINT JOHN, NEW BRUNSWICK. (Drawing.) Frederick Herbert Carter Miles, St. John, N.B., 13th January, 1899.
10399. WITHOUT YOUR LOVE, AH! LET ME DIE. Words and Music by Charles K. Harris, Milwaukee, Wisconsin, U.S.A., 14th January, 1899.

10400. MID THE GREEN FIELDS OF VIRGINIA. (In the Vale of Shenandoah.) Words and Music by Charles K. Harris, Milwaukee, Wisconsin, U.S.A., 14th January, 1899.
10401. BELCHER'S FARMERS ALMANAC, 1899. Hezekiah M. McAlpine, Halifax, N.S., 16th January, 1899.
10402. MAP OF THE KLONDIKE GOLD FIELD AND VICINITY. (Including latest Official Surveys by Department of Dominion Lands and Geological Survey.) By J. B. Tyrrell, M.A., F.G.S., Mining Engineer, Ottawa, Ont., 18th January, 1899.
10403. AGRICULTURE IN THE BIBLE AND BIBLE TIMES. Published in the "Farmer's Advocate and Home Magazine," London, Ont. (Temporary Copyright.) Rev. W. A. Burman, Winnipeg, Man., 19th January, 1899.
10404. THE CANADIAN LAW LIST. (Hardy's) 1899. Edited by H. Cartwright, Toronto, Ont., 20th January, 1899.
10405. CHAPTERS FROM PARKMAN'S WORKS. George N. Morang, Toronto, Ont., 23rd January, 1899.
10406. THE LIFE OF HENRY DRUMMOND. By George Adam Smith. Hodder & Stoughton, London, England, 23rd January, 1899.
10407. COMMAND. The Gathering of Israel. The Closing of Redemption. Ira Mabee, Simcoe, Ont., 25th January, 1899.
10408. THE TRUEDENTAL REGISTER. W. C. Hayes, Buffalo, N. Y., U.S.A., 26th January, 1899.
10409. THE PRAIRIE ROSE WALTZES. By John B. Spurr, Toronto, Ont., 26th January, 1899.
10410. VIRGIL'S ÆNEID. Book II. Edited with Introductory Notices, Notes, Complete Vocabulary and Illustrations. By John Henderson, M.A., and E. W. Hagarty, B.A. The Copp, Clark Co. (Ltd.), Toronto, Ont., 27th January, 1899.
10411. THE TORONTO CITY DIRECTORY, 1899. The Might Directory Company of Toronto, (Ltd.), Toronto, Ont., 28th January, 1899.
10412. OFFICIAL TELEPHONE DIRECTORY, WINNIPEG AND SELKIRK, MANITOBA, JANUARY, 1899. The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 28th January, 1899.
10413. THE CASH BUYER'S STAMP ENVELOPE. John Edwy Merritt, Toronto, Ont., 28th January, 1899.
10414. MAP OF THE PROVINCE OF ONTARIO, SHOWING COUNTIES, TOWNSHIPS, RAILWAYS AND POST OFFICES. The Copp, Clark Co. (Ltd.), Toronto, Ont., 30th January, 1899.
10415. MY SWEETHEART NELLIE. (Song.) Words and Music by J. Willis Elliot, East Toronto, Ont., 31st January, 1899.
10416. THE CANADA LAW JOURNAL. Volume XXXIV. From January to December, 1898. Arthur Henry O'Brien, Ottawa, Ont., 31st January, 1899.