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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, 61,537. Type Casting and Composing Machine.
(Coulate de caracteres it muthine à comonoser.)


Charles Méray-Horvath, 1 Paulergasse, Budapest, Hungary, 2nd November, 1898; 6 years. (Filed 27th September, 1897.)
Clum.-1st. In a type casting machine, the combination of a aterally reciprocating matrix carrier, movable at right angles to its plane of travel, a removahle matrix supported in the carrier, and a pelatively stationary mat in bolder adapted to take the matrix from the carrier when displaced and present it to the mould and return it to the carrier during the return stroke thereof, substantially as described. 2nd. In a type casting machine, the combination of a laterally reciprocating series of matrix carriers, removable matrix rings supported in the carriers, means for displacing a carrier in the series during the reciprocation thereof, and a relatively stationary matrix holder adapted to take a matrix ring from the displaced
carrier as the latter is moving in one direction with the series, and surrender it thereto on its return stroke, substantially as described. 3rd. In a type casting machine, the combination of a matrix holder adapted to present a matrix to the casting point, with a series of matrix carriers, a matrix ring having a plurality of matrices for different characters detachably supported on each carrier, and means for reciprocating the carriers past the holder, with means whereloy any carrier may be displaced from the line during its reciprocation so as to surrender its matrix ring to the holder when moving in one direction and to receive the sameon its return stroke, and means for shifting the holder so as to present the proper matrix of the ring to the mould, substantially as described. 4th. In a type casting machine, the combination of a mould, a rocking holder adapted to receive a matrix and present the same to the mould, with a series of matrix carriers, detachable matrix rings mounted on the carriers, each having a plurality of matrices for different characters, means for automatically displacing any carrier so that it will surrender the matrix to the holder on one stroke and take it therefrom on its return stroke, means for rocking the holder if necessary so that it would present the proper matrice of the ring to the mould, and means for restoring any displaced carrier to normal position after it has taken upits matrix, substantially as and for the purpose described. 5th. In a type casting machine, the combination of a series of matrix carriers, wach provided with a detachable matrix, and means for simultaneously laterally reciprocating said carriers with means whereby any carrier may be selected and displaced in the series during its reciprocation, means whereby its matrix may be removed from such selected carrier, presented to the casting apparatus and returned to such carrier and means whereby the displaced carrier is returned to position in the series, all during one reciprocation of the carriers, for the purpose and sulustantially as described. 6th. In a type casting machine, the combination of the mould, the matrix rings each having a plurality of characters, the rocking matrix holder, and means for moving the holder to and from said mould, with mechanism for successively supplying matrix rings to and removing them from said holder, substantially as and for the purpose described. 7 th. The combination of a mould, a matrix holder movable to and from the mould and rotatable on its axis, a series of matrix rings each having a plurality of matrices in its periphery, and means for supplying said matrices singly or one at a time to, and removing them from the holder, with means whereby the holder may be rocked as it is moved towards the mould so as to present the proper matrix thereto, and means whereby the mould is automatically varied in size to suit the type character to be cast. 8th. For a type casting machine, a matrix ring having a plurality of matrices in its periphery and a recess in its side opposite each matrix to regulate the size of the body of the type, substantially as described. 9th. In a type casting machine, the combination of a matrix bolder, and a series of matrix pieces each having a plurality of matrices, and a recess in its side beside each matrice, and means for supplying these matrice pieces to, and removing them from the holder, with a mould to which the matrice pieces are presented, said mould having a movable side provided with a finger or rox adapted to enter the recess in the side of the matrice piece and thus regulate the size of the mould according to the type character to be cast. 10th. The combination with a mould, of a matrix holder movable to and from said mould and rotatable on its axis, and a series of matrix-rings each having a plurality of matrices in its periphery, means for successively supplying said matrix rings to and renioving them from the holder, and means substantially as described whereby the holder may be automatically rocked on its axis as it is moved toward the mould, for the purpose and substantially as described. 11th. The combination of the laterally reciprocating and swinging carrier $\mathbf{E}$, having a recess in one edge for the reception of a matrix ring, and a spring-controlled catch on the carrier adapted to secure the matrix
ring thereon, with a matrix ring adapted to fit in said recess and notched for the engagement of said catch, for the purpose and substantially as described. 12 th. The combination of the reciprocating frame, a series of matrix carriers thereon and reciprocated therewith, the catches adapted to hold the carriers in normal position on the frame, and means for displacing any carrier whose catch is disengaged, with means for reciprocating said carriers, and means for disengaging the catches from the carriers, substantially as and for the purpose described. 13th. In a type casting machine, the combination of the mould, having an adjustable slide forming one side thereof and a rotatable annulus provided with stops of different lenghts adapted to engage a stop on the slide and prevent backward movement thereof during the casting of a type, for the purpose and substantially as described. 14th. The combination in a type casting machine, of a mould and matrix holder adapted to receive a matrix and present it to the mould, and a pair of adjustable stops, with means for projecting either one of said stops into the path of said holder, whereby it may be rocked as it is moved toward the mould. 15 th . The combination in a type casting machine, of a mould, a matrix holder adapted to receive a matrix and present the same to the mould, a pair of movable stops, and means for projecting either one of said stops into the path of said holder, whereby it may be rocked as it is moved toward the mould, with the fixed stop whereby the holder is rocked to normal position when moved back from the the mould, substantially as and for the purpose described. 16 th. In a type casting machine, the combination of a mould, one side of which is formed by the periphery of a rotatable disc, and means ror oscillating said disc, after each casting of a type. 17th. In a type casting machine, the combination of a dise adapted to form one side of the mould, and provided with a peripheral slot adapted to receive the finished type, and having a scraper adapted to trim one side of the type as the dise is rotated, substantially as and for the purpose described. 18th. In a type casting machine, the combination of the disc having a plate forming one side of the mould, a peripheral slot opposite said plate adapted to receive the finished type, and a scraper intermediate the slot and plate and adapted to trim one side of the type as the disc is rotated, with a tixed scraper adapted to trim the other side of the type when the same is being moved by the slot from the mould. 19th. In a character selecting device, the combination of a rotary disc having notches in its periphery with a series of feelers and a releasing lever controlled by said feelers adapted to be operated once whenever all of said feelers simultaneously find notches in the periphery of the disc, substantially as described. 20th. In a character selecting device, the combination of a rotary dise having a plurality of series of notches in its periphery, with a series of feelers and a releasing lever controlled by said feelers adapted to be operated once wheneser all of said feelers simultantonsly find notches in the periphery of the disc, with means whereby one or more of said feelers may be shifted laterally so that it will engage the notches in another serits on the disc, and means wherehy all of said feelers are returned to normal position once for each revolution of the dise. 21 st. In a character selecting device for type casting machines, the combination of a peripherally notched disc, a series of laterally movable feelers and a release lever controlled by said feelers, adapted to be operated whenever all of said feelers simultaneously find notches in the disc, substantially as described. 22nd. In a character selecting device for type casting machines, the combination of a peripherally notched dise, a series of laterally movable feelers and a release lever controlled by said feelers, adapted to be operated whenever all of said feelers simultaneously find notches in the dise, the pivoted levers for shifting said feelers laterally, with a series of electro-magnets controlling said cam levers, and means for controlling the circuits through said electro-magnets, substantially as and for the purposes described. 23 rd . In an electro-mechanical selecting device, the combination of a rotary cylinder, a series of spring contacts thereunder and a perforated strip adapted to be noved between the cylinder and said contacts, and means for automaticially moving said contacts from the cylinder when it and the strip are moving, substantially as described. 24th. In a type casting machine, the combination of a series of reciprocating carriers, a relatively stationary matrix holder, moulding mechanism beside the holder and matrix rings removably mounted on the carriers and adapted to be caught separately by the holder and presented to the mould, each matrix ring havirg a plurality of matrices for different characters and a recess beside each matrix, substantially as described, with mechanism adapted to engage a recess of each matrix ring to control the adjustment of the mould, so that each type character will have a body of the proper size, and mechanism whereby after the casting operation, the inatrix ring is returned to its own carrier and the cast type automatically removed from the mould, for the pmpose and substantially as described. 25th. In a type casting and setting machine, the arrangement for the adjustment of the working matrix arms, characterized by the moving to and fro during the operation of the machine of the matrix frame, and with it the matrix arms $\mathbf{E}$, which motion is effected by the conversion of rotary motion into horizontal motion, effected by means of the revolving shaft with application to the inner toothed ring $G$ and of the pinion ( $x^{d}$ revolv. ing within it, and baving a diameter half that of the ring, whereby a given point upon the wheel $G$ describes a horizontal line, and directs the sliding motion of the matrix frame, so that the single matrix arms can pass at any given moment beneath a hammer whose motion can according to the arrangaments hereinbefore described
release the hooks $\mathrm{E}^{h}$ of the one or the other matrix arms, and bring the corresponding matrix piece into the working position, constructed and arranged substantially as hereinbefore described.

No. 61,538 . Electricul dian Detector.
(Alarme électrique pour logaz.)


51535
Charles Fdward Ormshy, Toronto, Ontario, Canada, End Nosember, 1898; 6 years. (Filed 22nd April, 1898.)
Olaim. 1st. In an electrical gas detector, a thermostat and cutout wwitch secured to the burner, said thermostat operated by the metal conductor which encircles the nip,le of the gas burner, and said cut-out switch operated by the can shaped washer, which rotates with the gas cock, substantially as shown and described. 2nd. In an electrical gas detector, a thermostat contained within a case, and operated by the heat conducted by the metal conductor which encircles the nipple of the gas burner, substantially as shown and for the purpose hereinbefort set forth. 3rd. In an electrical gas detector, a thermostat containing within the case, two metal legs composed of two or more metals, having different expansive fowers, said legs having attached to their free extremities the contact points and Hexible connection, substantially as shown and described. 4th. In an electrical gas detector, a cut out switch operated by a cam shaped wasber secured to the gas cock, said witch contained within a case, and secured to a burner substantially as shown and described. Dth. In an electrical gas detector, a thermostat and cut-out switch, secured to the burner and electrically commeted in parallel, substantially as shown and for the purpose here-inbefore set forth, 6th. In an electrical gas detector, a thermostat and a cut-out switch secured to each burner, said burners connected in series with a relay and closed circuit battery, substantially as shown and described. 7th. In an electrical gas detector, a thermostat and cat-out switch, electrically comnected in parallel, while the burners containing the said thermostat and cut-out switch are electrically connected in series, with the relay and closed circuit battery, in combination with an intermitting alarm controlling mechanism, operated by a separate battery, and controlled by the said relay, substantially as shown and for the purpose hereinbefore set forth. Xth. In an electrical gas detector, a thermostat and cutout switch, electrically connected in parallel, while the burners containing the said thermostat and cut out switch are electrically commected in series with the relay, and closed circuit battery in combination with an intermitting alarm controlling mechanism, operated by a separate hattery controlled by the said relay, and an alarm mechanism operated by a separate battery, and controlled by the said intermitting alarm controlling mechanism. substantially as shown and for the purpese hereinbefore set forth. 9 th. In an electrical gas detector, a thermostat and cnt-out switch, electrically connected in parallel, while the burners containing the said thermostat and cut-out switch are electrically connected in series with the relay and closed circuit battery, in combination with an annunciator, said ammunciator containing a three joint switch for cutting said relay out, and a movable arm forming contact with contact points electrically comected to the room containing said burners, and an alarm operated by said closed circuit battery, substantially as shown and for the purpose hereinbefore set forth. 10 th . In an electrical gas detector, an intermitting alarm controlling mechanism consisting of a time-piece in combination with electro-magnets for operating the mechanism which carries a pinion for engaging with
one of the train of gear contained within the time-piece, said pinion carrying a projecting arm for forming contact with a stationary contact point, substantially as shown and described.

No. 61,539. Thawing Apparatus. (Aymurcil ì degrler.)


David Phillips, Pony, Montana, U.S.A., 2nd November, 1898; 6 years. (Filed 1lth November, 1897.)
Cluim. - A thawing device, comprising an air beater, a suction fan for drawing air from the heater, a flexible pipe receiving the discharge from the fan, a discharge pipe having connection with the flexible pipe, a sleeve in which the discharge pipe is axially and longitudinally adjustable, a plate having bearings in which trunnions on the sleeve engages, a block, a socket plate on said block and with which the first named plate engages, and a bolt passing from the first named plate through the socket plate and through the block, substantially as described.

No. 61,540. Pneumatic TireInflating Apparatus.
(Appareil meunatique à gonfler les banduges.)


Bruno Zirrgiebel, 35 Leipziger Str, Leipizig, Rendnitz, Saxony, Germany, 2nd November, 1898; 6 years. (Filed 6th December, 1897.)

Claim.-.-1st. A process for filling pnemmatic tires, which consists in attaching to the inlet pipe of the same a vessel containing liquified gas or gas or air under pressure, opening a valve on the
same and allowing the contents to flow into the tire until the latter has attained the required pressure, substantially as described. 2nd. A receptacle for charging pneumatic tires, having a reservoir, a plug therein having a valve, a chamber, a channel therethrough to the iuterior of the reservoir, a valve seat and valve at the end of said channel, an outlet channel conmmnicating with said valve chamber above the said valve seat, means for connecting the outlet channel to the valve of a pneumatic tire and means for indicating the pressure in said reservoir, substantially as described. 3rd. The combination of a reservoir having a plug screwed therein, a valve chamber and valve in said plug, a boring through said plug from the valve chamber to the interior of the reservoir, an arm to said plug having boring communicating with said valve chamber, as specified, a chamber screwed to the said reservoir and having therein a membrane, one side of which communicates with the interior of the reservoir, a piston mounted within said casing at the oppos:te side of said membrane, a spring to normally hold said piston against said membrane, a cap in connection with said piston to slide on the exterior of said casing and a scale on said casing, substantially as described.

No. 61,541. Vehicle Gearing. (Train de voitures.)


William Mark Watson, Brantford, Ontario, Canada, 2nd November, 1898; 6 years. (Filed 16th October, 1897.)
Cluim..--A waggon gear, consisting of two bolsters, front and rear, with friction rollers attached thereto, having the front and rear axles centrally pivoted by a lolt to the said bolsters which are provided with friction plates to act jointly with the friction rollers, diagonally arranged reaches securely pivoted to the axles and spring braces attached to the reaches, substantially as and for the purpose described.

No. 61,542 . Compressible Tube. (Tube comprimé.)


Alfred (iartner and Theodore Y. Kinne, both of Paterson, New Jeisey, U.S.A., 2ud November, 1898; 6 years. (Filed 26th May, 1898.)
Cluim.- 1st. The combination of a compressible tube having means for closing one of its ends and having its other end flattened and compressed together, and a combined key and hermetical closure for the last-named end consisting of a metallic plate bent
lengthwise upon itself to form substantially laminated members and clamped upon said end, and a handle integrally formed with and extending from one or both ends of one of said members, substantially as described. 2nd. The combination of a compressible tube having means for closing one of its ends and having its other end Hattened or compressed together, and a combined key and hermetical closure consisting of a metallic plate bent lengthwise upon itself and clamped upon, and having its menbers in laminated arrangement with said compressed end of the tube, the edge of said compressed end being umiformly in substantial contact with the inside of said closure at the bend therein, and a handle integral with and projecting from one or both ends of one of said members, substantially as described.

No. 61,543. Ntove Damper. (Registre de poêles.)

a
William J. Keep and William V. Robinson, both of Detroit, Michigan, U.S. A., 2nd November, 1898 ; 6 years. (Filed 6th October, 1898.)

Claim.-1st. In combination with a casing having an opening, a damper hinged thereto having a regulating device engaging an edge of the opening and means for lifting the regulating device bodily from engagement with the opening whereby to permit the damper to be readily closed or opened to its fullest extent, substantially as described. 2nd. In combination with a casing having an opening, a damper hinged thereto having a screw or similar device, engaging an edge of said opening to open and close the damper. and a lug on said casing adapted to limit the outward movement of the damper to prevent the screw from being turned out of engagement with the edge of said opening, substantially as described. 3rd. In combination with a casing having an elongated opening, a damper hinged to said casing and vertically movable relative thereto, and a screw or similar device carried by said damper and adapted to engage an edge of said opening, substantially as described. 4th. In combination with a casing having an elongated opening, a damper hinged to said casing and vertically movable relative thereto, a sorew carried by said damper adapted to engage one edge of said opening, and a lug on the casing adapted to engage the bottom of the damper in the outward movement thereof, substantially as described.
No. 61,544. Lamp Wick. (Mérhe de lumpes.)


61544x


Charles Lancaster Marshall, Newark, New Jersey, U.S.A., 2nd November, 1898 ; 6 years. (Filed 8th March, 1898.)
Claim.--1st. A wick for lamps having fibres partially carbonized and devoid of oleaginous substances. 2nd. The method of treating wicks, which consists in driving off by the application of heat and
permanently separating the oleaginous or gummy substances from said wicks. 3rd. The method of treating wicks which consists in raising said wicks to a temperature sufficient to partially carbonize their fibres in a chamber substantially free from oxygen. 4th. The methor of treating wicks which consists in raising them to a temperature adapted to vaporize oleaginous and gummy matters in a receptacle having an escape vent, and then raising said wicks to a partially carbonizing temperature. 5th. The method of treating lamp wicks which consists in packing them close in a eceptacle, shutting off access of oxygen and raising them to a partially carbonizing temperature. 6th. The method of treating wicks which consists in packing them closely in a receptacle, driving off the vapor through an escape vent by heat, and subjecting them to a partially carbonizing temperature
No. 61,545. Neans for Teaching Gcography and History. (Moyen d'enseigner la géographie et l'histoirc.)


Rudolph Mayer, 12i5-7 Nymphenburger Strasse, Munich, Bavaria, (ierman Empire, 2nd November, 1898; 6 years. (Filed 19th April 1898.)
Claim.-1st. Means for teaching geography, history and the details apertaining thereto, consisting of a map and a series of detached pictures representing various places on the said map, and means for attaching said picture in position on said mapor in an album to accomapny said map the position of the places on the map being provided with numbers and the positions in the album having corresponding numbers, substantially as described. 2nd. In the device covered by claim 1, the employment of postcards with views thereon instead of the pictures substantially as described.. 3rd. In the devices covered by claims 1 and 2 the attachment of the cards or pictures by means of, a, slipping the corners under corresponding slits in the page, , laps or claws out from the page and overlapping the sides of the pictures or cards, $c$ slipping the corners of the cards under diagonally formed slits in the page or background, d minature hands or the like affixed to the page or hackground and overlapping the picture or card, $e$ cross strips or bands passing over the cards, $f$ pockets or frames formed in the page or background, substantially as described and shown and for the purpose specified.

No. 61,546. Dental Spatula. (Spatule dentaire.)


Alanson Harris Putnam, Toronto, Ontario, Canada, 2nd November 1898; 6 years. (Filed 14th February, 1898.)
Claim. -1 st. In an electrically heated spatula, a case having the portion which incloses the heating coil and stem of the spatula perforated, substantially as shown and described. 2nd. In an electrically heated spatula, the combination of the heating coil embedded in asbestos and encircling the stem of the spatula, with the case, said case having the portion which incloses the same perforated on the periphery, and the remaining portion of the case inclosing the conductors, substantially as shown and for the purpose hereinbefore set forth. 3rd. In an electrically heated spatula, the combination
of the spatula and heating coil embedded in astestos and encircling the stem of the spatula, with the case, said case having the cut-out switch located therein, substantially as shown and for the purpmis. hereinbefore set forth. 4th. In an elecrically heated spatula, the combination of the spatula with the heating coil, which encireles the stem of the same, and the perforated protion of the case which incloses the sameand the controlling rheostat, subsantially as shown and for the purpose hereinbefore set forth.

No. 61,547 . Aerator (hirin. (Buratte.)


William Chipman, Ottawa, Ontario, Canada, 2nd November, 1898; 6 years. (Filed 7th October, 1898.)
Chim. -1 st. In an aerator the combination of pipe 2, reservoir 3, apparatus for forcing air, and pipe 4 all arranged and combined as shown and described and for the purposes hereinbefore set forth. 2nd. In a churn the combination of pipe 2, reservoir 3, apparatus for forcing air, pipe 4 , and pipe 6 , all arranged and combined as shown and described and for the purposes hereinbefore set forth.

## No. 61,548. Resilient Tires and Tire Cover. <br> (Brmeltue etc.)



James Meeredy MacLulich, (xortmore, Dundrum, Ireland, (i. B. 2nd November, 1898 ; 6 years. (Filed 20th June, 1898.)
Claim.-1st. The method of manufacturing a resilient endless or jointless tire or tire cover with a compressed tread, which consists in bending, coiling or looping the tire on a suitable surface in such manner that compensating or nentralizing cross twists or twists in contrary directions are produced, and then vulcanizing such tire while so bent, coiled or looped, substantially as and for the purposes described. 2nd. In the manufacture of an endless tire or tire cover, a surface on which such tire is adapted to be mounted during the vulcanization thereof, consisting of an endless series of curves so arranged that the tire is not curved continuously in the same way, but is curved partly in one direction and partly in another so that any twist proluced by one part will be neutralized by that produced by the other part, substantially as described. 3rd. In the manufacture of an endless tire or tire cover, a surface on which said tire is adapted to be mounted and retained during the vulcanization process, comprising an endless mandrel, and projections on such mandrel wer which the tire may be looped to change the direction of its curves or coils, substantially as and for the purposes described. 4th. In the manufacture of an endless tire or tire cover, a surface on which said tire is adapted to be mounted and retained during the valcanization process, comprising an endless mandrel formed in two portions connected together by telescopic members, clips for securing such members after adjustment, projections on such mandrel over which the tire may be looped to change the direction of its curves
or coils, and an adjustable strut for maintaining the mandrel in position when the tire :s mounted thereon, substantially as deseribed. Eth. In a manufacture of an endless tire or tire cover, a surface on which said tire is adapted to be mounted and rebained during the vulcanization process, comprising an endless mandrel, projections on such mandrel over which the tire may be looped to change the direction of its curves or coils, and moulds or cups for supporting the tire at the lower portions of the curves or coils thereof, substantially as described. 6th. A tire or tire cover made endless or jointless with its outer or peripheral portion in a state of compression by being bent, coiled or looped around a suitable surface, and subsequently vulcanized, substantially as described.

No. 61,549. Produce Carrier. (Transport.)


Rora C. Weltner, Roxalana, West Virginia, 2nd November, 1898 ; 6 years. (Filed 10th October, 1898.)
Claim.-1st. In a carrier of the kind specified, a frame having a winding drum consisting of a shaft provided with radial spokes, cross-pieces connecting the ends of said spokes, outwardly-extending pins upon said cross-pieces, said pins being arranged in two rows and in the central portion of the cross-pieces, a crank for turning the shaft of the winding-drum, a cable connected with said windingdrum between the two sets of pins thereon and provided at its outer end with nuans for attaching the same to a stationary part, and a tightening-cable connected with said winding-drum. 2nd. In a carrier, an inclined cable securtly fastened at its opposite ends, and a traveliing carrier mounted upon said inclined cable and consisting of a frame comprising two side-pieces having a roller at their upper ends, a pivot-pin pivoted to the lower ends of one of said side-pieces, and a pivoted latch secured to the other side of said pieces and provided at its lower end with a groove or shoulder to engage the free or swinging end of said pivoted pin, and one end of said pivoted latch extending outwardly and above the upper end of said frame.

## No. 61,550. Honding and Tying Nyntem.

(S!!steme d'attache,)
John Bennett, South Paris, Maine, U.S.A., 2nd November, 1898 ; 6 years. (Filed 10th October, 1898.)
Cluim.-1st. A bond for joining and bracing bodies, consisting of a two-part bonding-bar, one cast over and inclosing the other bar and both bars engaging invisible excavations in the joining ends of the bodies. 2nd. A lond for joining and bracing bodies having excavations in their joining-surfaces, consisting of a double-ended solid tie-bar entering said excavations, and a fastening part cast over and enveloping the entire body of said solid bar within said excavations and crossing the joining-surfaces, the enveloping bond forming a tubular engaging-body within the joined parts. 3rd. For joining and bracing borlies having "xcavations, in their joining-surfaces, a solid bar entering alike said excavations, and a bond cast of tubular form crossing the joining-surfaces as a fastening for the solid bar to the surrounding walls of the excavations in the way stated. 4th. For joining and bracing bodies having excavations in their joinngsurfaces and grovves or channels opening into said excavations and a filling-duct opening at the surface of the joined parts, a solid bar entering alike said excavations, and a bond cast of tubular form crossing the joining-surfaces for fastening the solid bar to the walls of the excavations and forming circumferential projections or arms upon said cast bond at the joming of the bonded bodies. 5th. For
joining and bracing bodies having excavations in their joining-surfaces, a tubular fastening-bond cast over a strengthening-bond with-

in and crossing the joining-surfaces. 6th. A bond for joining and bracing bodies consisting of a solid bar, and a bar formed around it having circumferential arms, both bars and arms engaging the joined parts.

No. 61,551. Nail. (Clou.)


Hedley Livingston Waddell Button, Mutual Chambers, Brisbane
jtreet, Launceston, Tasmania, 2nd November, 1898; 6 years.
(Filed 17th September, 1898.)
Claim.-A nail having its pointed end formed with a reverse V-shaped cutting edge and with a bevelled face on opposite sides, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings.

No. 61,552. Bunsen Burner. (Bruleur.)
Richard Adanı, Berlin, ( $e$ erman Empire, 2nd November, 18.8; 6 years. (Filed 6th September, 1898.)
Claim.-An improved burner for producing. Bunsen flame from liquid fuel, provided with single or multiple induction for outside air in which a perforated tube $a^{2}$ having its upuer ends bent outwards forms a chamber $M$ covered with a suitablecap $k$ and serving both as a gas reducer and mixing and beating chamber, in combination with a wick tube, the interior wall $a^{1}$ of which is of less height than the exterior wall thereof $a$, so that the fuel drawn up by the
wick is conducted in the form of gases into the interior of the chamber M where the gases are intimately mixed with a central air

draught in order to produce a gas air mixture, which produces in combination of a sufficient air draught outside the chamber M, a Bunsen flame suitable for incandescent lighting or heating purposes.

No. 61,553. Fly Trap. (Attrappr-mouches.)


Richard Gustav Witt and Alphonse Schaaf, both of Maisonneuve, Quebec, Canada, 2nd November, 1898; 6 years. (Filed 15th June, 1898.)
Claim.-1st. A fly-trap comprising an opaque base member, a removable closed top member, and an opening formed in said base member leading into said top member, substantially as described. 2nd. A fly-trap comprising an opaque base member, an opaque top member removably located thereon, and an opening formed in said base member and leading into said top member, substantially as described. 3rd. A fly-trap comprising a base member, a closed top, member removably located therem, and a conduit formed in said base member, said conduit leading to said topmember, substantially as described. 4th. A fly-trap comprising a base member normally held above the surface of its support, a closed top member removably secured thereto, and an open conduit formed in said base member and extending into said top member, substantially as described. 5th. A fly-trap comprising a base member, a top member located thereon, an open conduit formed on said base member, and a receptacle located between said top member and said conduit, substantially as described. 6th. A fly-tray comprising a base member, a closed top member removably located thereon, and an open conical conduit formed in said base member and leading into said top menber, substantially as described. Tth. A fly-trap comprising a base member, a top member removably located thereon, said top member being formed of glass, and an opening formed in said base member and leading into said top member, substantially as described.

No. 61,554. Saw. (Scic.)


Frank W. Walquist, Gulbrand Nelson and John L. Grouquist, all of Brooklyn, New York, U.S.A., 2nd November, 1898 ; 6 years. (Filed 13th August, 1899.)
Claim.-1st. In a saw, a tooth having an extended outer face between the point and the heel, said heel being in advance of the clearance notch for the succeeding tooth, said outer face formed on a line affording clearance only, or threalwout for the advance of the work upon the saw, and being expanded equally each side the length of the face from the point to heel, substantially as described. Ond. The combination in a saw, of alternate channeling teeth and finishing teeth, the chamelling teeth being longer and narrower than the finishing teeth, suhstantially as described. 3rd. The combination in a saw of the alternative tapper faced channelling teeth and the upset faced finishing teeth, the chammelling teeth being longer and narrower than the clearing teeth, substantially as described. 4th. The combination in a saw, of the alternate taper faced channelling teeth, and the up-set finishing teeth, the channelling teeth being longer and narrower than the finishing teeth, and the finishing teeth having the narrow side faces parallel, transverseiy, with the sides of the saw plate, substantially as described. 5 th. The conbination in a saw of alternate channelling teeth and finishing teeth, the channelling teeth being longer and narrower than the finishing teeth, and the finishing teeth being upset on the fact and taper from the cutting edge back ward, substantially as described.

No. 61,555. Filter Press. (Presse if filter.)


Filter Braulechnische Maschinenfahrik, Act-lies-Vorm, L. A. Enzinger, Hessia, assignee of Gustav Ackermann, Charlottenburg, both in ( iermany, 2nd November, 1898; 6 years. (Filed 19th August, 1898.)
Claim.--In a screw-filter press, the combination with an inlet chamber F, gridiron frames, filter-plates and end chamber S, of an intermediate or collecting chamber or chambers I), all as and for the purposes hereinbefore set forth.

## No. 61,556. Tongue Truck Connectionnfor Road Rollerm.

(Atteltefe pour roulecux reversibles.)
John Challen, Hamilton, Ontario, assignee of George Warner Taft, Kennet Square, Pennsylvania, U.S.A., 2nd November, 1898; 6 years. (Filed 2(ith September, 1898.)
Claim. -1st. The combination, with the road-roller, the frame carrying the bearings for the roller axle or journals, and the detach-
able tongue-truck, of a connection-plate fixed to said frame, and having the forwardly-tapered horns, V-shaped mouth, and seat for

receiving the pintle-stud, and the locking yoke or loop hinged upon said connection-plate and adapted to fall in front of the pintle-stud for confining the same in said seat, said yoke provided with the forward projection having the upwardly-inclined undet surface, substantially as set forth. 2nd. In combination, substantially as described, with a road roller, its draft frame, and the detachable tongue-truck having means for harnessing the team thereto, and carrying the pintle-stud, a tongue-truck cunnection at rach end of said draftframe, each comprising a projecting bifurcated plate having forwardlytapered arms or horns with a pintle-receiving space between, and a movable yoke or fastener adapted for antomatic elevation, and instant engagement with the pintle-stud of said tongue-truck when backed into said receiving-space, and means under control of the atterdant for retracting said fastener and thereby detaching said tongue-truck, for the purjoses set forth. 3rd. In a tongue-truckattaching appliance, the connection-plate having a pintle-seat and forwardly-open mouth leading into said seat, the side portions fitted with lugs or shoulders $m$, and the upwardly-swinging yoke, its arms loosely hinged on said plate, its fore part having a forwardly upwardly inclined projection, an inner seat for embracing the pintlestud, and its outer angles fitted with surfaces $n$, that engage or abut on said shoulders, in combination with the tongue-truck having the pintle-stud fixed thereon. 4th. In a tongue-truck-attaching appliance, the pintle-stud rigidly fixed upon the tongue-plate, said stud having a head or flange that projects rearward and latterally beyond the cylindrical body of the stud, but presenting no projection at its forward side, in combination with the connection-plate provided with a pintle-seat recess with a semi-circular flangeor lip over which said head engages, and a yoke or drop fastener adapted to fall in front of said pintle-stud for retaining said pintle with said head and lip in conjunction, suhstantially as set forth.

## No. 61,557. Paper Ninamelling Art.

(Art demailler le papier.)
Charles Edward Shaw, Stafford, assignee of The Publishing Advertising and Trading Syndicate, 40 King. Street, Cheapside, London, assignee of Frederick (ieorge Annison, also of London, all in England, 2nd November, 1898; 6 years. (Filed 22nd Septeuber, 1898.)
Claim.-1st As a new article of manufacture, the herein described enamelled paper, the enameled surface of which is adapted to receive and retain printing and lithographic impressions, which enamelled surface consists of a nitro-cellulose compound of the character described, and pigment, the proportion of the latter to the composition being larger than, or in excess of the proportion of the nitrocellulose compound for the purpose set forth. 2nd. Asa new article of manufacture, the berein described enamelled paper, the enamelled surface of which is adapted to receive and retain printing and lithographic impressions, which enamelled surface consists of a nitrocellulose compound of the character described containing oil and pigment, the proportion of the latter to the composition being larger than, or in excess of the proportion of the nitro-cellulose compound for the purpose set forth. 3rd. A composition of matter to be used as an enamel adapted to receive printing and lithographic impressions, consisting of a nitro-cellulose compound of the character described and a pigment, the proportion of the latter to the composition being larger than, or in excess of the proportion of the nitro-cellulose compound, substantially as described.

No. 61,558. (isar Rolling Machine.
(Muchine it rouler les cigares.)


The Bunn Cigar Rolling Machine Co., assignee of John Bumn, all of Binghampton, New York, U.S.A., 2nd November, 1898; 6 years. (Filed 18th August, 1898.)
Claim.- 1st. The combination in a cigar rolling machine, of a driving shaft having a worm, a carriage having a lag to engage said worm, presser rollers supported hy said carriage, a shaft upon which the carriage is loosely mounted and about which it is adapted to turn, a spring connected with the carriage for holding the lug yieldingly engaged with the worm, means for tilting the carriage to disengage the lug from the worm, and a belt attached at one end of the carriage and having a spring section, as and for the purposes set forth. 2nd. The combination, with the shaft having a worm, and a second shaft having a lengthened key way, said shatt being geared together, of a carriage loosely momited on the second shaft, presser rollers mounted on shafts journalled in the carriage, gears on the ends of the roller shafts, a gear movable with said carriage and keyed on said second shaft and intermeshing with the said gear on the roller shafts, a lug projecting from the carriage into engagement with said worm means for turning the carriage on its shaft to disengage said lug from the worm, and means for returning said carriage to the starting plate when the lug is disengaged from the worm, as and for the purposes set forth. 3rd. The combination with the worm shaft, a second shaft, and a carriage loosely mounted on said second shaft and having a lug engaged with said worm, of a pivotally supported arm carried by said carriage, presser toller carried by said arm, and connections between the arm and carriage whereby when the arm is tilted it will raise the presser rollers relatively to the carriage and also turn the carriage upon its shaft, as and for the purposes set forth. 4th. The combination with the carriage and means for feed ing the same, of a pivotally supported arm carried by the carriage, presser rollers carried by the arm, and connections between said arm and the carriage whereby when the arm is tilted it will turn the carriage to disconnect the feeding means and also raise the presser rollers relatively to said carriage, as and for the purpose set for th. 5 th. The combination with the carriage, and means for feeding the same, of an orm having presser rollers at one end, a second arm pivoted in said carriage attached to the first mentioned arm, a projection from the second arm, and a stop projecting from the carriage in the path of said projection whereby the turning of the arm upon its pivot operates to turn the carriage so as to disconnect the feeding means thereof and toraise the presser rollers relatively to the carriage, as and for the purpose set forth. Gith. The combination with the carriage, and means for feeding the same, of an arm having presser rollers at one end, a shaft supported by the carriage a second arm loosly mounted on the shaft and attached to the first-mentioned arm, a stop projecting from the carriage, a projection from the second arm located rearward of said stop and designed to engage the same when the second arm has turned a short distance on its shaft. and a coiled spring encircling the shaft and secured at its other end to the carriage, as and for the purposes set forth. 7th. The combination with the drising shaft having a worm, a second shaft, a carriage loosely mounted on the second shaft and having a lug engaged with the worm, and a stop projecting from the canriage, of an arm, presser collers at one end of said arm, and a second arm pivotally mounted in the carriage and attached to the first mentioned arm, the second arm having a projection so located with respect to the stop as that it will engage the same after it has turned a short cistance, whereby tulting of the
first-mentioned arm causes said presser rollers to be lifted within the carriage and also disengaged said lug from the worm, as and for the purpose set forth. 8th. The combination with the driving shaft, and a second shaft geared therewith, of a carriage movable on said second shaft, gearing to connect the driving shaft and carriage to move the latter along the second shaft, a stop projecting from the carriage, an arm, presser rollers at one end of said arm, a second arm pwotally mounted in the carriage and attached to the firstmentioned arm, the second arm having a projection so located with respect $t_{0}$ ) the stop as that it will engage the same after it has turned a short distance, whereby tilting of the first-mentioned arm lifts the presser rollers relatively to the carriage and discomects the driving gearing of the carriage, and means for automatically returning the carriage to the starting place when its driving gear is disconnected, as and for the purpose set forth. 9th. The combination, in a cigar rolling machine, of a plate constructed to form a part of the tip forming cavity, a movable plate forming the other portion of said cavity, a movable rod carrying the latter plate, a spring to normally hold the plates in engagements, a piwoted arm, and connections between the pivoted arm and movable plate, operated by the arm to force the movable plate outward, as and for the purpose set forth. 10th. The combination, in a cigar rolling machine, of a pivotally supported arm, presser rollers supported by the arm, a plate constructed to form a part of the tip-forming cavity, a movable plate forming the other portion of said cavity, and connections between the arm and movalle plate, whereby tilting of the former operates both to lift the presser rollers and open the tip-forming cavity, as and for the purpose set forth. 11th. The coubination, in a cigar rolling machine, of a pivotally supported arm, presser rollers carried thereby, a plate constructed to form a part of the tip-forming cavity, a movable plate forming the outer portion of said cavity, a movable rod carrying said movable plate, a pivoted spring presser lever engaged with said rod, and a link connecting the upper end of said lever with the pivoted arm, as and for the purpose set forth. 12th. The combination, in a cigar rolling machine, of a pivotally mounted carriage, rollers carried thereby, gearing for feeding said carriage from one end of the machine to the other, and an armpivotally supported within the carriage, presser rollers carried by the arm, a pate constructed to form a part of the tip-forming cavity, a movable plate forming the other part of said cavity, comnections between the pivoted arm and movable plate for causing the latter to be moved by the tilting of the former, and connections between the pivoted arm and carriage for causing said arm to tilt the carriage and thereby disconnect said feeding means, as and for the purpose set forth. 13th. The combination, in a cigar rolling machine, of a feeding worm, a pivotally mounted carriage, having a lug engaged with the worm, rollers in the carriage, an arm pivotally supported in the carriage, presser rollers at the forward end of the arm, a stop extending from the carriage, a projection movable with the arm and so arranged with respect to said stop, as to engage the same after the arm has been tilted a certain distance, a plate constructed to form a part of the tip-forming cavity, a movable plate forming the other part of the cavity, connections between said pivoted arm and movable plate for causing the latter to be moved by the former, whereby the tilting of the pivoted arm raises the presser rollers carried thereby, opens the tip-forming cavity and disconnects the feeding gear of the roller carriage, and means for returning said carriage to the starting place when the feeding gear is discomnected, as and for the purpose set forth. 14th. The combination, in a cigar rolling machine with a feeding worm, a pivotally mounted carriage having a lug engaged with the worm, rollers in the carriage, a stop, 43 projecting from one end of the carriage, and a shaft 41 at the rear end of the carriage, of an arm loosely mounted on said shaft and having a projection arranged to engage said stop when the arm has turned a certain distance less than the full extent of its movement, a plate constructed to form a part of the tip-forming cavity, a movable plate forming the other part of said cavity, a movable rod carrying the movable plate, a pivoted lever attached at one end of the rod, a link connecting the other end of said lever with the arm, a second arm attached between its end to the first mentioned arm, and presser rollers at the forward end of said second arm, as and for the purpose set forth. 15th. The combination, in a cigar rolling machine, of rollers for supporting the bench, an arm 36, a pivotally supported frame connected with the forward end of said arm, means for adjusting the frame relatively to the arm, and a presser roller journalled in said frame, as and for the purpose set forth. 16th. The combination, in a cigar rolling machine, of rollers for supporting the bunch, an arm 36 having an upwardly projecting lug, a second arm 118 pivotally attached to the forward end of the arm 36 and having a lug in front of the lug on the same, an adjusting rod threaded in one of said lugs and extending loosely through the other lug, a spring encircling the rod between the lugs, a frame supported by the second arm, and presser roller journalled in the frame, as and for the purpose set forth. 17 th. The combination, in a cigar rolling machine, of rollers for supporting the bunch, an arm 36, a second arm pivotally attached to the forward end of the 36 and having a forwardly projecting stid, a frame adjustably mounted on said stud, means for adjusting the inclination of the second arm relatively to the arm 36 , and a presser roller supported by said frame, as and for the purpose set forth. 18th. The combination, in a cigar rolling nachine, with rollers for supporting the bunch, an arm having an elongated slot intermediate at its ends and an upwardly projecting lug near its front end, and a clampserew
extending throngh said slot and serving to secure the arm adjust ably to its suppit, of a second arm, pwotally attached to the for ward end of sabl list mentioned arm having a forwardly projecting atud and an upwardly prejecting lug, an adjustmg rod threaded in one of said luge and exteming loosely through theother lug, a spring encirching sad rol botwon the lug, a frame adjustably mounted on the stud, and a peoser mollur journalled in the frames, as and for the purpese set forth. 19th. The combination, in a cigar rolling machine, with rollers for suporting the bunch, of a forwardly and rearwardly adjustahly arm, a stcond arm pivotally mounted on said first mentioned arm, means for adjusting the inclination of the second. arm, relatively to the wther arm, a frame carried by the second and adjustable forward and rearward thereon, and a presser roller journalled in said frame, as and for the propses set forth. 20th. The combination, in at cirar rolling machine, with the rollers for sup. porting the bunch, of a pivoted arm having a bifurcateci front end, a shaft extending arross said front end of the arm, adjustable arms 118 pivotally momated on the ends of said shaft means for holding the latter arms independently in adjustable pesition, separate frames independently adjustable forward and rearward on satid arms 11 s , and rollors journatled in satid frame, as and for the purpese set forth. elst. The combination, in a cigar rolling machite, with a shaft 15 , a carriage thereon, means for driving sad shaft. two rollor carrsing shafts journalled in said carriage, one being slightly alove and rearward of the other, gears on the ends of sad whafts, a grar on said shaft 15 meshing with each of the othergears, and a roller 96 frictionally engaged with a roller on one of said shafts, of a pair of rollers, 30 and 31 arranged end to end above the lower of said previonsly mentomed rollers and frictionally engaged with said roller 20, and a pivotally supported arm carrying maid rollors, 30 and 31 , as and for the purpmes set forth. $22 n d$. The combination, in a cigar rolling machine, with the driving shaft, a second shaft having a lengthened key-way, said shafts being geared together, a wom on the driving shaft, a carriage loosely mounted on said second shaft, and having a lug engaged with the worm, and a grat on said second shaft movable with the carriage and having a key transwersing the lengthened key-way, of a pair of rollers monnted on shafts journalled in said carriage gears on the ends of said roller shafts, beth of naid gears intermeshing with the gear on said second shaft, a third roller frictionally engaged with one of said pair of rollers, a pair of rollers arranged end to end both in frictional engagement with said third roller, a pivoted arm supporting the latter pair of rollers, and comnections between the pivoted arm and the carriage, wherely the tilting of the arm first raises the pair of rollers carried thereby and finally turns the carriage upon its shaft 15, as and for the purposes set forth. 23rd. In a cigar rolling machine, me ans for supporting and rotating the bunch, said means containing a frictionally driven roller, a nomally stationary shaft having an teentrically sft cylindrical part on which the roller turns, and means wherehy the shaft may be turned in the bearing, as and for the purpose set forth. 24th. In a cigar rolling machine, the combination with bunch suphorting rollers, of a roller 20 driven by frictional engagement with one of such rollers, a roller driven by the roller 20, a nomally stationary shaft having an eccontrically set cylindrical portion on which the roller 20 turns, and means whereby the shaft may be turned in it- bearing, as and for the purpose set forth. 25 th. In a cigar rolling machine, means for supporting and rotating the bunch, said means containing a frictionally driven roller, a shaft having an ecentrically set cylindrically portion within the roller and on which the latter turns, a split sleeve supported on the machine and in which the shaft may be turned, and a screw to clany the sleeve on the shaft and prevent the latter from turning in the former, as anl for the purpose set forth. elith. In a cigar rolling machine, the combination with a movable carriage, rollers 18 and 19 carried thereby and arranged one atowe and rearward of the other, rollers 30 and 31 arrangedend toend, and a pivotally supported arm 36 carrying said rollers 30 and 31 , of a coller 20 frictionally engiged with each of said rollets 19,30 and 31 , a normally stationary shaft having an eccentrically set cylindrical portion on which the roller 20 turns, and mean- wherehy the shaft may be turned in its bearing to cause the roller 20 to thear with greater or less phossure upen the rollers 19,30 and 31, as and for the phr ose set forth. 27th. In a cigar rolling machine, the combination with the wrapping ntechanism, of a severing knife, an operating lever to which said knife is pivoted, a spring comnecting said lever and knife, and astationary armadjacent to the cutting pint of said knife, whereby the knife will orerate to make a dratw cut, as and for the purpose set forth. 28th. In a cigar rolling nachim, the comhination with the wrapping mochanism, of a knife having an elongated slot at one end, a thumb lever having a vertical portion, a pivet for the vertical portion of the lever said pioot extending the elongated slot and the knife and ver tical purtion of the lever being pivoted together, a spring connec tion latween the knife and lever, and relatively a stationary arm adjacent to the cuttira, i..rtion of the knife, wherthy the knife acts on said arm with a draw artion, as and for the purpose set forth. 29th. In a cigar rolline machine, the combination with the wrapping mechanisn, and a plate adjacent thereto at the header end of the mat hint, said plate having a tip forming cavity and being provided with a horioontally projecting arm of a knife having an elongater slot at the end, a thomb lever having a vertical portion pivited on a stud projecting through said slot into the plate, the knife and lever being pivented togethrr. a spring comecting the kmfe and lever together, as described, wherehy the knife will operate on the hori-
zontal arm of the plate with a draw action, as and for the purpose set forth. 30th. In a cigar rolling machine, the combination with the driving shaft, the carriage carrying presser rollers, and means for rotating said presser mollers simmltaneonsly with the rotation of the driving shaft, of a worm on said driving shaft and a lug project ing from the carriage, the worm and lug being normally out of engagement when the carriage is at rest at its starting point, whereby the shaft will rotate before the worm is operatively engaged with the lug, as and for the purpose set forth. 31st. In a cigar rolling machine, the combination with the driving shaft, and the carriage carrying presser rollers, of a worm on said driving shaft, and a spring presed movable lug projecting from said carriage and engaged by the worm, as and for the purpose set forth. 32nd. In a cigar rolling machine, the combination of the pivotally mounted carriage carrying presser rollers, a worm, a spring pressed movable lng projecting from said carrage and engaged with the worm, and motans for tilting the carriage to disengage the lug from the worm, as and for the purpuse set forth. 33rd. In a cigar rolling machine, the combination of the pivotally-mounted carriage carrying the presier rollets, it projection from the carriage having a grooved way, a ling having an arm nov bly mounted in said way, a spri, g engag ing one end of the arm and a stop at the other end thereof, a worm engaged by said lug, means for tilting the carriage to disengage the lug from the worm, and means for returning the caraiage to the starting place when the lug and worm are disconnected, as and for the purpuse set forth. $3+t h$. In a cigar rolling machine, the combination with, the roller carriage, and means for feeding the same, of a wrapper holder, a pivoted laver connected with said wrapper holder, and a stop phate acting on sad lever to withdraw and replace the wrapper holder, as and for the purpose set forth. 35th. In a cigar rolling machine, the combination with the roller carriage and means for feeding the same of a wrapper holder comprising a longi tudinally movable uod supported in the carriage, a bent wire having on end jourmalled in the inner end of said rod, a lever pivoted between its en is on a support movable with the carriage and having its upper end adjustably attached to the rod and its lower end bifurcated and bent in reverse directions, and a longitudinally adjustable plate on a fixed part of the machine having a bent end arrangert in the path of the lower end of said lever and operating thereon to withdraw and replace said wrapper holder, as and for the purpose set forth.

No. 61,559. Electric Furinace and Method of Operating the Same. (Fournaise électrique et méthode d'operation.)


61559
A. II. Cowles, Cleveland, Ohio, U.S.A., 2nd November, $1898 ; 6$ years. (Filed 95th May, 189a.)
Cluim.--1st. The method of treatment of ores or other compounds or mixtures of material of low conductivity herein described, which consists in passing an electric current and generating within the mass of the material electrical heat, and in prriodically passing gas therethrough in opposite directions, as and for the purpose set forth. End. The combination in an electric furnace, of an electric furnace chamber with gas inlet and outlet flues or passages and a reversing valve comected with the said inlet and ontlet flues or passages and adaped to change the direction of the How of gas through the electrically heated tield of the furnact chamber, as and for the pur pose set forth 3 rd . In an electric furnace. a furnace chamber adapted to be charged at the top and having a central adjustable electrode extending down into the chamber, lateral gas inlet and
outlet flues or passages opening into the furnace chamber and filled with grannlated or broken carbon, together with gas comections with sand inlet and outlet fluesor passages for the supply of gas to the furnace chamber and the removal of the same therefrom, as and for the purpose set forth. 4 th. In an electric furnace, a furnace chamber adapted to be charged at the top, and having a central adjustable electrode extending down into. the chamber, lateral gas inlet and ontlet hues or pasages opeming into the furnace chamber and filled with gramulated or brokth carbon, tugether with gas connections with said inlet or outlet Hues or passages for the supply of gas to the furnace chamber and the removal of the same therefrom, and means for reversing the flow of gas through the inlet and ontlet flues, as and for the purpose set forth. Sth. The combination in an electric fumace, of an electric furnace chamber having electrical connections for the passage of an electric chrient through the same, of pipes connected therewith for the inflow of gas and arr and for the outfow of gat, and means for the reversal of the direction of the flow of gas through the electrically heated field of the furnace chamber, as and for the purpose set forth. fith. The combination in an electric furnace, of an electric furnace chamber having electrical connections for the pasage of an electric corrent through the same, of pipes connected therewith for the inflow and outflow of gases, a reversing valve in operative relation tosad pipes to reverse the flow of gas through the electrically heated tield, and an air pipe comected with the gas supply pipe outside of the reversing valve, as and for the purpose set forth.

Ne. 61, 6 60. Electrie Furnace. (Fournuise electrique.)


Alfred H. Cowles, Cleveland, Ohio, U.S.A., 2nd November, 1898 ; 6 years. (Filed 25th May, 1808.)
Cheim 1st. In anelectric heatingapparatus, the combination with a chamber, of an electric circuit connected therewith and adapted to produce a zone or arra of electric heat, separate gas inlet and outlet passages connected with said chamber, and means for periodically reversing the flow of gas therethrough, as and for the propose set forth. 2nd. In an electric furnance, the combination with a furnace shamber of an elecrtic circuit connected therewith and adapted to ereate a zone of electrical heat within the furnace chamber, of se parate inlet and outlet gas-flues and interstitial hodies in the path of the inflowing and outfowing gases, together with means for reversing the flow of gas therethrough, as and for the purposes sitt forth. 3rd. In an electric furnace, the combination with a furnace chamber of an electric circuit connected therewith and adapted to create a zone of electrical heat within the furnace chamber, of inlet and outlet gas flues, and interstitial bolies contiguous to the zone of electrical heat and in the path of the infowing and outfowing gases, together with means for reversing the flow of gas therethrough, as and for the purpose set forth. 4th. The combination with an electric furnace chamber, of lateral compartments filled with broken carbon and forming gas passages for inflow and ontflow of gas, in eombination with gas pipes comected with waid apartments, and a reversing valve to control the direction of the flow of gas through the furnace, as and for the purpose set forth. Sth. In an electric furnace or apparatus, in which there is a field, zone or area of electrio heat, with means for passing a gas therethrough, bedies of carton on opmosite sides of the field or zone of electric heat, with interstices or channels through the said bodies for the flow of gas therethrough, and means for reversing the fow of gas through the same, as and for the purpose set forth.
bth. A furnace and fumace chamber, having carbon-lined flues or chamels extending outward therefiom, and adapted to form gas passages for the fow of givs to and from the furnace chamber, together with means for directing the How of gas, in through one group of carbon-lined thes or chamels to the furnace chamber, and out through anothe group of the same, and a reversing valve for directing the flow of the gas, as and for the purpose set forth. 7 th. Thes combination with a furnace chamber of outwardly witending thes tilled with broken carbon, and forminer gas passages for the inflow aud outflow of the sas or gases, in combimation with gas pipes connected with said Hlues, and a reversing valve to control the direction of How of the gas through the furnace, as and for the purpose set forth. Sth. In an electric furnace a furnance chamber having outwardly extending cras flues, diametrically ophosite and filled with Gramulated or broken carbon, with gas pipes connected with said Hues, and a reversing value to control the direction of the flow of the gas through the furnate, as and for the purpose set forth.

## No. 61, $\boldsymbol{j} 61$. Artificial stone compound.

## (Complose de fir rore artiticiellt.)

Thomas Mccomnell, Toronto, Ontario, Canada, 2nd November, 1898: 6 years. (Filed 20th . Fmer, 1898.)
Claim. - 1st. A composition of matter for making artificial stone, brick, tile and paving blocks, composed of sand, fine blue clay, ore or rock, irom and ashes. or potash in the proportions and for the parposes herein set forth. End. The process herein described for manufacturing artificial stone, brick, tile and paving blocks for building purposes, drains and paving, and for all other purposes to which the same can be applied, using the said compensition of sand, fine blue clay, ore or rock, iron and ashes, or potash in the proportionsand manner herein specified and set forth, and the composition in the desired form and substantially in the proportions described and for the purgoses berein set forth.

No. 61,56\%. Brunh. (Brossf.)


Walter Wilkinson and Irvine Wilkinson, both of Philadelphia, Pennsylvania, U.S.A., 2nd November, 1898; 6 ytars. (Filed 18th .June, 1898.)
Claim. 1st. A brush consisting of a back, having suitable bristles attached thereto, sockets formed in each end of the back, and a handle having a shank adapted to le inserted in either of the sockets, ats specified. End. As an new article of manufacture, a hrush consisting of a back having a socket in eachend thereof, and a handle having a shank carrying a key whereby it may be locked to the back, as specified. 3rd. The herein described combination of a back having two sockets therein, each socket having a circular groove and a longitudinal groove leading thereto, a handle, a shank formed therewith, and a key attached to the shank for engagement with the grooves of the sockets, as specified.

## No. 61,563. moli Noorer. (Marqueur de !otif.)

Frederick Walsingham Meredith, bis Dawson Street, Dublin, Ireland, and November, 1898; 6years. (Filed 2nd June, 1898.)
Claim.--1st. In a golf seorer, the embination of small dials for indicating the scores in each hole, a larger dial for indicating the strokes as they are made, means for cperating said dials and a suitable framing or casing therefor, substantially as set forth. End. In a golf scorer, the con.bination of the small dials a, each representing a golf hole, dises $c$, having mumerals for indicating the scores in tach hole, pivoted behind said dials, knohs d, uperating the dises $r$, so that the required mumerals show through the orenings $b$, large dial $r$, similarly provided with dise 0 , and operating knob $h$, for indicating the strokes as they are made, framing $i$, and cover $j$, substantially as set forth. Prd. In a golf scorer, the combination of the small dials a, each representing a golf hole, pointersh, for indicating the scores on said dials, card $h$, forming the framing and serving as a larger dial and pointer $m$, for indicating upon the large dial the strokes as they are made, substantially as set forth. 4th. In a golf scorer, the combination of the suall numeral roliers $o$, each representing a grolf hole, spindles $q$, and milled or roughened pinions $r$, for "perating said mumeral rollers o, to indicate the scores in each hole, casing $n$, large dial arranged on said casing and pointer for indicating thereon the strokts as they are made, substantially as set forth. oth. In a golf scorer, the combination of the small dials a,

Fach representing a golf hole, operating knobs $t$, for indicating thereon the seores in each hole, watch-like casing res, and pointer

", "erating either by means of the knob $\mu$, or ly the pressknob $p^{\prime \prime}$, for indicating the strokes as they are made, substantially as set forth.

No. 61,ifi. Amalgamator. (Amalymatevor.)


Alfred Andrew Lockwood, 29 Cornhill, London, Middlesex, Eing land, 2nd November, 1898; 6 years. (Filed 27th May, 1s98.)
Elaim.- In analgamating apparatus for theating auriferous and arrentiferons ores and the like, in combination, a stationary pan adapted with a peripheral pulp overtlow and a mercury outlet, and with an upraised central part adapted to act as a bearing to a centra! shaft, an overhanging yoke keyed to the shaft and extending around the $\quad$ praised central part of the pan and adapted with a flanged and superficially grooved distributing plate set at a short distance abose the mercury in the pan, and with a pulp trough fitted with a series of peudent tubes passing through to the under surface of the distributiug plate, and with an adjustable shutter plate adapted to more or less close the inlet openings to the said tuhes, and means for rotating the central shaft, as set forth.

No. 61,565. Explomive. (Eirplosif.)
Oscar Frederick Carlson, Kamhammstorg, Stockbolm, Sweden, End November, $18!8 ; 6$ years. (Filed 14 th May, 18!s.)
Cham. Fxplosivescompensed of perchlorate of ammoniamixed with one or more intlamable substances and in which the propertion of percharate of ammona varits from 40 to!s inerent of the weight and consequently the proportion of the inflammable substance or substances mixed with the perchlorate of ammonia varies from 60 to 2 per cent of the weight.

No. 61, 666. Nilectric Battery plate.
(Plapue pour piles électriques.)


Alfred C. Croftan, Chicago, Illinois, U.S.A., 2nd November, 1898; 6 years. (Filed 4th May, 1898.)
Claim.-1st. The improved method of forming spongy lead plates, which consists in forcing molten lead through a series of small orifices and allowing it to pile up just before soldifying upon a horizontally vibrating surface, substantially as described. 2nd. The method of forming spongy lead plates, which consists in forcing the lead in a molten condition through a series of small orifices, receiving it at a temperature intermediate between a ruming and a congealing temperature upon a horizontally vibrating support and afterwards compressing certain portions of the spongy mass thus formed to produce comparatively solid strengthening ribs or frames, substantially as described.

No. 61,567.
Apparatus for the Introduction of Gises intoliquids or Pulps. (Appareilpour l'intro(hutiom des taze duns les liquides.)


Heury Thomas Durant, Johanneshurg, South African Republic, 2nd November, 18!3; 6 yeats. (Filed 21st April, 1898.)
Cluim.-1st. In an apparatus for introducing air or gas intoliquids, the combination of a tank E , a pipe C: extending fron: the bottom of said tank and temmating at the top of said tank, a pump, A interpersed in pipe. (\%, means for reducing the fow of liguid below the capacity of the pump, and air or gas inlets between the reducing means and the pmon. 2md. In an apharatus for introducing air or fits into liguids, the combination of an open tank F , a pipe C extending from the hottom of said tank and terminating at the top of said tank, a pump) A interposed in pipe ( $($, means for reducing the How of liguid below the capacity of the pump, and an air or gas inlets between the reducing means and the pump

No. 61,568. Explosive. (Explosif.)
Robie Crowe, Denver, Colorado, U.S.A., 2nd November, 1898; 6 years. (Filed 28 th $A_{p}$ ril, 1898.)
Chaim.-A mixture for nentralizing the poisomous gases from explosions of giant powder, consisting of so per cent in weight of unbolted wheat Hour, 25 per cent in weight of common salt in tinely ground form and $22^{5}$ per cent of bi-carbonate of soda in a fine ground form.

No. 61, 6 69. Drilling, Tappingand Stud Netting Machine. (Machine a forer, terander, etr.)


Franklin Alfred Frrington, New York City, New York, İ.S.A.,
2nd Novemher, 1898; 6 years. (Filed Xth March, 1898.$)$
Claim.--1st. The combination of a swivel-head, a spindle carried thereby and having each of its ends provided with means for comection with a tool or tool-holder, and a reversing mechanism carried by said head to rotate said spindle in opposite directions, sulstantially as described. 2nd. The combination of a spindle having each of its ends provided with means for connection with a tool or toolholder, means to turn said spindle in opossite directions, means to swivel said spindle to bring its ends to register alternately with the same point, and an automatic locking mechanism tolock said spindle automatically in axial alignment with said point, smbstantially as described. 3 rd. The combination with a supporting frame, of a swivel head connected therewith by a swivel-joint, a pinion projecting into said swivel-head, two concentric wheels journalled in said swivel-head, and meshing with said pinion, two clutches, one of said clutches being connected with one of said wheels and the other of said clutches with theother of said wher-ls, a spindle, the axis of said spindle being concentric with the axis of said wheels, and a third clutch located between said wher-clutches and comected with said spindle, substantially as described. 4th. The combination with a supporting frame, of a swivel head connected therewith by a swiseljoint, one of said parts having an index boreor bores and theother of said parts having a locking pin or pins to mesh with said index bore or bores to lock said swivel-head at certain intervals to said supporting frame, a pinion projecting into said swivel-head, two wheels journalled in said swivel-head and meshing with said pinion, two clutches, one of said clutches being connected with one of said wheels and the other of said clutches with the other of said wherfs, a p pindle provided with a clutch or clutches for engagement with said wheel chutches, substantially as described. ath. The combination of a swivel-head adapted for connection by a swivel-joint with a supporting part. a a pinion projecting therein, two concentric wheels journalled in said swivel-head and meshing with said pinion, one of said wheels being of greater diameter than the other, two chutches one of said clutches being connected with one of said wherls and the other of said chutches being connected with the other of said wherds, and aspindle provided with a clutch or clutches for engagement with said wher-l-clutches, substantially as dexcribed. Gth. The combination of a bevel pinion carrying two sets of driving faces, the pitch cone of one of said sets of driving faces lying within that of the other, two concentrie bevel wheels meshing respectively with said sets of driving faces of said pinion, a spindle, means for commeting said spindle altermately with either of said wheels and means for swivelling said spindle, suinstantially as described. 7 th. The combination of a wheed having a recess or clutch chamber in its face and an eccentrically located longitudinal bore opening partly on the face of said recessor clutchchamber and indenting the side wall thereof, a clutch-pin located
in said bore and projecting longitudinally from the face of said recess or clutch chamber, a part of the periphery of said clutch-pin being embedded in the supporting indentuce this provided in the side wall of said recess or clateh chamber, and part therenf extending latterally into sail recess or clutch-chamber, whereloy said chatch-pin is telieved from shearing strain, and a pimile proided with a clutch to engage said eluteh-pin, substantially as deseribed. 8th. The combination of two dises and means to rotate sad dises in oplosite directions, one of said discs having a recess or cluteh-chamber in its face and an eccentrically located longitudinal bore opening partly on the face of said recess or clutch-chamber and indenting the side wall there of, a clutch pin located in sad eccentrically located bore and projecting longitudinally from the face of said recess or clutehchamber, part of the periphery of said clutch-pin heing embedded in the supporting indenture thes provided in the side wall of said recess or clutch-chamber and part thereof extending latterally into said recess or clutch chamber, a clutch commected with the other of said dises, and a spindle having a clutch or clutches to engage either of said dise clutches, sulstantially as described. !th. The combi nation of two dises and means to rotate said dises in opposite directions, each of said dises having a central twore or hearing, one of said discs having a recess or cluteh chamber within the plane of its inner face, a cluteh-pin commeted with said dise and projecting from the face of said recess or chatch-charnber, the inner end of said clutch-pin alsolying within the plane of the inner face of said dise, another clutch connected with the other of said dises, a spindle journalled in said bores or bearings of satid dises, and a clutch connected with said spindle to engare said dise-clutches, substantially as described. 10th. The combination of a friction disc, a screw-threaded hat, projecting therefrom, a wheel surrounding said hub, a screw-threaded adjusting ring to mesh with said screwthreaded hub to move one of said parts longitudinally, and a checknut or washer to bold said adjusting ring in pusition when adjusted, substantially as described. 11th. The combination of a friction dise having a screw-threaded hub, another dise surrounding said huh, one of said dises being provided with a pesitive clutch, a screwthreaded adjusting ring meshing with said sorew-threaded huh to move one of said dises longitudinally, a check-nut or washer to hold said adjusting ring in position when adjusted, and a spindle having a clutch adapted to engage said dise chuteh suhstantially as described. 12th. The combination of a driving friction disc, a friction driven dise surrounding said driving friction dise, and having a concentric scew-threaded bore, an externally-threact adjusting ring inde. pendent of said driving friction dise located in and meshing with said screw-threaded bore of said friction driven dise to adjust the tension of the frictional contact of said lises, said adjustine ring having a concentric bore to admit means fo. eomecting said drising friction dise, with a rotative part, and a ch cinut or washor whold said adjusting ring in position, substantially as deseribed. 13 th. The combination of a driving friction dise, a spindie projecting therefrom, a screw-threaded adjusting ring surounting sadspindt.a check-nut or washer interpestd between said aljusting ring and said driving friction disc, and a friction driven dise locaterl on the other side of said driving friction disc and prorided with serew. threads to mesh with the screw-threads of said adjusting ring, said check-nut or washer and said friction driven dise being connected together, to turn in unsion by a slip-joint whereby said last-mentioned parts can have independent longitudinal movement towards and from each other, substantially as described. 14th. The combination of a driving fraction dise, a spindle projecting therefrom, : screw threaded adjusting ring surrounding said spindle, a check-nut or washer interposed between said adjusting ring and said driving friction dise and provided with a lug upon its priphery a oupshaped friction driven dise having a slot in its side wall to receive the log of said check-nut or washer and also having screws-threads to mesh with the serew-threads of said adjusting ring, substantially as described. 15th. The combination of a spindle having an axial socket, satid spindle being provided with a clutch to enable it to impart rotary motion, the walls of said axial socket being indented by a concentric groove, and a spring extending along said groove and extensible into said socket, substantially as described. 16th. The combination of a spindle provided with a clutch and having an axial socket, the walls of said socket being indented by a concentric groove, a spiral spring placed along said concentric groose, and a shaft adapted to enter said socket and provided with a clutch to mgage said spindle clutch, said whaft having a shoulder to co-act with said spring, to connect said shaft longitudinally with said spring, substantially as described. 17 th. The conbination of a spindle having one of its ands provided with an axial socket, and a coupler-clutch connected with said end of said spindle, and an independent shaft adapted to enter said socket and provided with a compler-clutch to engrage satid spimdle compler-clutch, sulstantially as described. 18th. The combination of a spindle having one of its ends provided with an axial secket, a coupler-clute.h eommected with said fond of said spindle and having under-cut edres on opmesite sides, and a shaft adapted to enter said wockut and provided with a coupler clutch havingoposite sides oppositely under-cut to engage said spindle coupler-chutch, substantially as described. 19th. The combination of a spintle having a flange and an axial socket, a dise comnected with said flange said disc having an axial bore and being provided with a coupler-clutch, and another dise having axial shaft to enter said socket and a coupler-clutch to engage said coupler-clutch on said
disc, substantially as described. 20th. The combination of a spindle having a flange and an axial socket, a disc comnected with said flange and having an axial bore that registers with said socket, said parts having an axial recess of greater diameter than said axial socket and located between their opposed surfares, a retaining spring located along the groove thus formed in the wall of said socket and extensible into said socket, said disc having a couplercluteh and another disc having an axial shaft to enter said socket and a coupler clutch to engage said coupler-clutch, substantially as described. 21st. The combination of two dises provided with coupler-clutches, the coupler-clutches of one of said discs having opposite sides oppositely under-cut, and the coupler-clutch of the other disc having clutch-faces adapted to engage said undercut coupler-clutch, the distance between the clutch-faces of the second mentioned coupler-clutch being greater than the distance between the under-cut edges of the first-mentioned coupler clutch, to enable the latter to pass between said clutch-faces, substantially as described. 29nd. The combination of two dises, one of said discs being provided with a coupler-clutch having opposite sides oppositely under-cut at a right angle, and the other of said dises having a coupler-chutch provided with correspondingly under-cut clutch faces, the distance between said clutch-faces of the second mentioned conpler-clutch being greater than the distance between the under-cut edges of said first-mentioned coupler-chatch, to enable the latter to pass between said clutch-faces, substantially as described. 23 rd. The combination of two wheels, each of said whetels being provided with a clutch, means to rotate said wheels in opposite directions, a shaft having a coupler-clutch, aspindle having a clatch to comect said spindle. with either of said wheels, and a coupler-cluteh to commect said spindle with said shaft, said couplerclutches being undercut to a greater degree than said wheel clutches to enable said coupler-clutches t, remain in mesh to draw said spindle clutch out of engagement with either of said wheel-clutches, substantially a- described. 24th. The combination of a spindle having an axial socket the walls of said socket being indented by a concentric groove, an independent shaft adapted to be inserted into and removed from said socket during the rotation of said spindle, a catch carried by one of said! parts, means to connect saidspindle and shaft together in rotary driving engagement, said shaft hia ing a shoulder so located along the portion of said shaft that enters said socket, that said catch, said shoulder and said grooveare in co-opera ive position to connect said piudle and said shaft longitudinally together before said shaft frnters into rotary driving engagement with said spindle, substantially as described. 25th. The combination of a spindle having an axial socket, and a catch extensible into said socket, with an independent shaft whene diameter bermits it to be freely inserted matorad removed from said socket during the rotation of said spindle, and means $t$. commet said spindle and shaft together in rotary driv ing engagement, said shaft having a shoulder that is so located along the periphery of said shaft that said shoulder is atove or within said catch, beforesaid spindle and whall enter into said rotary driving engagement to comect said spindle and shaft longitudinally together while permitting one to rotate independently of the other, sulstantially as described. 2lith. The combination of a spindle provided with a couplerelutch atod hasing an axial socket, a cateh c rried by said spindle, and extensible into said socket, an independent toolholder provided with a couplerelnteh and having an axial shaft adantei to le inserted into and removed from said socket during the rotation of satid pindle, said shaft having a shomeder that is so located along the periphery of said shaft that said shoulder is above said catch before said coupler-chatches enter into rotary engagement to comect said spindle and shaft lonritudinally tugether, said shaft also having a cylindrical slideway of reduced diameter extending below said shoukler, at a distance greater than the depth to which the coupler-chutehes mesh when in rotary engagement, to enable said shaft to slide independently of said catch to permit sail coupler elutches to engage and disengage, substantially as !escribed. 27 th. The combination of a $b$ dy having two jaws, means to move one of said jaws towards the other, the lower portions of sad jaws having opposed aligning faces, the uper portions of said jaws overhanging said lower portions and having two parallel doiving faces extending inward beyond said lower aligning faces at an acute angle to the direc tion of movement of said jaws, sulistantially as descrihed. 28 th. The combination of a hody having two jaws, means to move one of said jaws towards theothe?, said jaws being provided with aligning faces, and a pair of fingers fastened to said jaws above said aligning faces, each of suid fingers being provided with a driving face that is par allel to that of the other and which extends inward heyond its associate aligning face at an acute angle to the direction of movement of said jaws, substanti:lly as described. 29th. The combina tion of two serew threaded jaws, a tubular body surrounding said jaws and having an opening in its side walls, a right and left serew meshing with said jaws and having a portion located in said opening, said borly at said opening being provided with means to preventend movement of said serew in said hody, and means to retain the opposed faces of said jaws parallel with the axis of said body, substentially asdeecriled. 30th. The combination of twoserew threaded jaws. a tubular boty suromonding said jaws and having a transverse optening or openings and provided with opposite $y$ acting thrust pates, a right and left threaded serew meshing with said jaws and adapten to en age said thrust-plates to prevent end movement of said screw in said body, and means to retain the oprosed faces of said jaws parallel with the axis of said body, substantially as des-
cribed. 31st. The combination of two screw-threaded jaws, a tubular body surrounding said jaws and having an opening in its side walls, a right and left th eaded screw meshing with said jaws and having a portion located in said opening, a thrust-nut located in said opening and connected with said screw to resist end movement thereof, said body being provided with means to prevent end movement of said thrust-mut in either direction, and means to retain the opposed faces of said jaws parallel with the axis of said body, substantially as described. 32nd. The combination of two se ew threaded jaws, a tubular body surrounding said jaws and having an opening in its side walls, a right and left threaded screw meshing with said jaws and having a portion located in said opening, a thrust-nut attached to said screw to turn therewith and journalled in said opening, the outer face of said thrust-nut having bearing against the inner surface of said body an's the inner face of said thrust-nut having a bearing against the outer surface of said body to prevent end movement of said serew in said body in either direction and moans to retain the opposed faces of said jaws parallel with the axis of said body, substantially as described. 33rd. The combination of two screw threaded jaws, a tubular boly surrounding said jaws and having an opening in its side wall, a right and left threaded screw having a portion located in said opening, a thrust-nut attached to said screw to turn therewith and journalled in said opening, the wall of said opening being indented by a lateral recess in which is located said thrust-nut and which recess has end walls that hold said thrust-nut from end movement in either direction, and means to retain the opposed faces of said jaws parallel with the axis of said body, substantially as described. 3ith. The combination of two screw-threaded jaws, a tubular body surrounding said jaws and having a transverse opening or openings provided with oppositely acting thrust-plates, a right and left threaded screw meshing with said jaws and adapted to engage said thrust-plates to prevent end movement of said screw in said body, and an aligning piece located between said jaws and the inner wall of said body and connected with said body to rotate in unison therewith, substantially as described. 35th. The combination of a tubular body, a centreing and aligning mechanism surrounded by said body, sand body and said mechanism being longitudinally movable, the one along the other, and means to connect said mechanism to said body to rotate in unison therewith, substantially as described. 36th. The combination of two screw-threaded jaws, a tubular body surrounding said jaws, a right and left threaded screw meshing with said jaws, an aligning piece interposed between said jaws and said body, said aligning-piece and said body being longitudinally movable, the one along the other, substantially as described. 37th. The combination of a driving part, another part connected to rotate therewith, and longitudinally movalle therealong, two jaws supported by said longitudinally movable part, means to move said jaws towards each other, and means to lock said longitudinally movable part at intervals along said driving part, substantially as described. 38 th. The combination of a driving part, two screw threaded jaws, a right and left threaded screw meshing with said jaws, the jaws and screw being connected to rotate in unison with and being longitudinally movable along said driving part, and means to lock said jaws to the driving part to prevent said longitudinal movement, substantially as described. 39th. The combination of two serew-threaded jaws, a tubular body surrounding said jaws, a right and left threaded screw meshing with said jaws, means to prevent end movement of said screw in said body, and an aligning-piece, said aligning-piece and said body being longitudinally moviable, the one along the other. the one having an indenture or indentures and the other a projection or projections to mesh with said indenture or indentures to lock one of said last-named parts to certain intervals along the length of the other, substantially as descrubed. toth. The combination of two jaws, a tubular body surrounding said jaws, a right and left threaded serew located on one side of said jaws, means to prevent end movement of said screw in said body, and an aligning-piece located between the ourer side of said jaws and the inner wall of said body, one side of said jaws bearing upon said aligning piece and the other side of said jaws being screw-threaded to mesh with said screws and having projections thit extend beyond said screw-threarled portions over and under said screw, said aligning-piece and said body heing longitudinally movable the one along the other, whereby the lateral pressure exerted by said serew-threaded parts when under struin will serve to clamp last-named parts together, substantially as described. 41st. The combination of a body having a rack, a spring located under said rack, another part having a rack to mesh with said first-mentioned rack, and a push-button carried by said shcond-mentioned part and provided with a plane surface to bear directly upon the ends of the teeth of said first-mentioner rack to disconnect said racks, substantially as descritied. 42nd. The combination of a driving part having a rack, a longitudinally movable tubular body surrounding said driving part and having a rack, a spring or springs to hold said racks in mesh, means to disengage said racks, a pair of jaws supported by said tubular body, and means to move said jaws together, substantially as described. 43rd. The combination with a normally immovable alignating-piece having a socket to receive a tool, the imner portion of said socket being screwthreaded, said aligning pirce being provided with means to connect suid tool to rotate in unison therewith, of a screw-threaded centrepiece situated in said screw threaded portion of said socket, whereby said centre-piece can be adjusted longitu linally to centre said tool,
substantially as deseribed. 44th. The combination of an aligningpiece having an axial bore meeting a transverse bore, and provided with axially located centering means, a socket-piece located in said transverse hore and movable transversely through the axis of said aligning-piece, a frame, said aligning-piece being longitudinally movable along said frame, substantially as described. 4ith. The combination of an aligning-piece having am axial bore meeting a transverse bore and provided with axially located centering neans, a socket-piece located in said transwerse bore and movable transversely through the axis of said aligning-piece, a frame, said align-ing-piece beng longitudinally movalle along said frame, and means to lock said aligning piece to said frame to prevent said longitudinal movement, sulstantially as des ribed. fith. The combination of a screw-threaded frame, an aligning piece that is scopw-threaded to mesh with said frame, and provided with means to receive and centre a tool or tool-holder, and means to comnect said frame and aligning-piece to rotate in mison, substantially as described. 47 th. The combination of a screw-threaded frame provided with a transverse opening, an aligning-piece that is screw-threaded to mesh with said frame and likewise provided with a transserse opening, and another part located in said transverse openings to prevent the independent rotation of said frame and aligning-piece, substantially as described. 48 th. The combination of a screw-threaded frame having a transverse opening, a screw-threaded aligning-piece tomesh with satd frame and having an axial bore meeting a transverse opening, satid ali mong-piece being also provided with axially located centering, and a socket-piece to mesh with said transverse openings in said aligning-piece and frame, sulstantially as described. 49th. The combination of a frame having a transverse opening and provided with a serew-threaded portion interrupted by an unthreaded portion, an aligning-piece having a transverse opening, and provided with a screw-threaded portio imnterrupted by an unthreaded portion, and a transversely novable part to mesh with said transverse openings when the screw-threaded portions of said parts are in mesh, substantially as deseribed. 50th. A body having an axial bore terminated at its inner end by a transversely movalile wedge, and provided with a transverse bore opening into said axial bore and adapted to receive a stud-nut, substantially as described. 51st. A hody having an axial hore adapted to receive a stud, and terminated at its inmer end by a transversely movable wedge, substantially as described. EDnd. A borly having an axial bore adapted to receive a stud and terminated at its momer end by a transversely movable wedge, a transwerse hore opening into waid axial bore, an internally serew-threaded stud-nut situated in said transverse bore and comnected to rotate with said body, substantially as described. B3rd. A body having an axial hore adapted to receive a stud and terminated at its inner end in a transcersely movat e wedge, a transverse bore opening into said axial bore, a stud-nut having a screw-threaded hore, said stud-nut being situated in said transwerse bore and commected to rotate with said body, and means toregister said serew-threaded bore of said stud-nut with said axial bore of said body, substantially as deseribed. 54th. A body having an axial bore adapted to receive a stud and a transierse bore opening into said axial borf, a stud-mut having a screw-threaded bore and situated in said teanswerse bore and commerted to rotate in unison with said body, and a transversely movable wedge located in said body above said stud-mut, substantially as described. 55th. A body having an axial bore adapted to receive a stud, two transverse bores opening into said axial bore, a stud-nut having a screw-threaded hore and situated in one of said transverse hores: and a transversely movable wedge located in the other of waid transwerse bores, substantially as described. 56ith. A body having an axial hore provided with serew threads to mesh with a stud, and a movable wedge adapted to co-act with said stud, substantially as described. 5\%th. A body having an axial bore terminated at its imer end by a slip-surface, a transverse bore opening into said axial bore, and an internally scerewthreaded stud-nut focated in said transverse bore and comnected to rotate with said body, shbstantially as described. Esth. A body having an axial bore adapted to receive a stud, a removable stud-nit adapted to pass within said lore to mesh with said stud, at slipsurface to co-act with said stud, and means to commect said stud-nut longitudinally with said body, substantially as described.

## No. 61, $\boldsymbol{\sigma}^{70}$. Fire and Weather Proof conmpomition.

(Compusition it ľpre "IM de fret it du temes.)
. Tohames Stocker and Hermann Zander, both of Rathenow, Prussia, 2nd Novemher, 18!S; 6 years. (Filed 2lst March. 189k.)
Claim. 1st. The herein deseribed fire and weather-proof composition, consisting of sodium or potassium silicate and caustic soda dissolved in the same, gromd fire-clay, burnt magnesite, and gromad steatite, substantially as set forth. Znd. The herein described fire and weatherproof composition, ronsisting of sodian or potassium silicate and canstic seda disselved in the same, gromed fire-clay, burnt magnesite and roumd ashestonetibres, substantially as set forth. Brd. The herein described tire and weather-phof composition, consist ing of sodimu or potassium silicate and camstic som la dis. solsed in the same, gronnd fire day, burnt magnesite, ground steatite or asbestos fibres and a suitable vegetable oil, substantially as set forth. th. The herein described fire and weather-proof composition consisting of sodium or potassimm silicate and caustic soma
dissolved in the same, ground fire-clay, burnt magnesite, ground ashestos-filires and fish-glue, substantially as set forth.

## No. 61, g\% 1 . Process of Producing Salts from Metallic Anodes. (Procedé pour luprodurtion du sel d'anode mételligur.)

Dr. Otto Carl Strecker and 1)r. Hans H. Strecker, both of Kohn, Khine, Prussia, 2 2nd November, 1898; 6 years. (Filed 12th January, 1898.)
Claim.-A process for the production of salts, which are either insoluble or with ditficulty soluble in water or solutions of salts, by means of electrolysis from metal anodes characterized thereby, that the mixture of the solutions of two salts, used as the electrolyte in such proportions that the electrolyte contains the one (the dissolving salt) in quantity of the greatest conductivity of this salt, and the other (the precipitating salt) in quantity of the electro-chemical equivalent of the density of current employed.

No. 61, ,72. Oil Vapour Burner. (Bruleur d'huile it vapcur.)


Morit\% Brenstein, 38 Maner Strasse, Berlin, (iermany, 2nd Novemher, 180k; 6 years. (Filed 13th Decemiter, 1897.)
Cluim.-In an oil gas lamp, having a circular burner and interior air-feed with a perforated distributing plate above the month of the said feed, the combination of an interior and exterior hollow perforated body above the said plate and within and without the flame, for the purpose of fore-watming the feed air, substantially as described.

No. 61, itis. Type-Writing Machine. (Clatigrophe.)


Richard William Thlig, College Point, New York, U.S.A., 2nd November, 189\%; 6 years. (Filed 18th November, 1897.)
Claim. - 1st. In a typewriting machine the combination with a type carrier, gearing connected therewith, and key levers, of rollers between said key levers and said gearing, substantially as set forth. 2nd. In a typewriting machine the combination with a type carrier, gearing connected therewith, and lesers constructed to impart motion to said gearing, of k+y levers, and a rollers carried loy each of said levers and adapted tce be engaged by said key levers, substantially as set forth. Brd. In a typewriting machine, the combination with a type carrier, gearing connected thewwith and key levers, of a lever having a rack har to impart motion to said gearing, an arm ou said lever, lugs on said arm and a roller mounted in said lugs and adapted to be engared by the key levers, substantially as set forth. Ath. In a typewriting machine, the combination with a type wherl, a pinion commected therewith, key levers and intermediate mechanism for imparting motion to said type wherl, of two flyers adapted to receive motion from said pinion and to move together
simultaneonsly in the same direction so as to co-operate with the ! key levers to stop the gearing and hold the type carrier in the position to which it may be moved, substantially as set forth. 5th. In a typewriting machine, the combination with a type carrier, a pinion connected therewith. key levers and intermediate devices for moving the type carrier, of two flyers constructed to receive motion fromsaid pinion and adapted to co-oprate with the key levers, one of said flyers having curved arms terminating near the respective sides of the other flyer, substantially as set forth. (ith. In a type writug machine, the combination with a type carrier, a pinion connected therewith, key levers and devices intermediate of the key levers and pinion whereby to rotate the typ, carrier, of a flyer constructed to receive motion from said pinion, said fiyte having two armsat its free end to receive a key leverbetween them, whereby to bold the type carrier in the position to which it may be moped by said key lever, substantially as set forth. 7 th. In a typewriting machine, the combination with a type carrier, a pinion connected therewith, key lever and devices intermediate the key levers and said pinion, of a flyer constructed to receive motion from said pinion, said Hyer having two curved adjustable arms at its free end adapted to receive a key lever between them, substantially as and for the purposeset forth. 8th. In a typewriting machine, the combination with a type carrier, and a pinion connected therewith, of two flyers constructed to receive uotion from said pinion, one of said Hyers having two arms which tenrinate near the respective sides of the other fiyer, key levers having bevelled edges to enter between one fyer and one or the other arm of the other flyer and propelling devices hetween said key levers and said pinion, substantially as set forth. !th. In a type writing machine, the combination with the carrier and gearing connected therewith, of a series of key levers, pivoted levers co-nperating with the key levers, and with said gearing, and a miversal bar to be actuated by said key levers, said universal bar bring constructed and adapted to return said pivoted levers to and retain them in their normal position, substant:ally as set forth. 10th. In a type writing machine, the combination with a type carrier, key levers and gearing intermediate of the type carritr and key levers, of a universal bar to be aciuated by the key levers and co-operating with the gearing to return the same and the type carrier to and retain them in their normal positions, substantially as set forth. 11th. In a type writing machine, the combination with a type carrier, key levers, gearing between the key levers and type carrier and a fyer co-operating with said gearing and key levers, of a universal bar to be actuated by said key levers and co-operating with said gearing and flyer to retain them in their normal position, substantially as set forth. 12th. In a type writing machine, the combination with a type carrier, key levers, gearing co-operating with the key levers and typecarrier and a fyer co-operating with the key levers and gearing, of a universal har to be actuated by said key levers, and arms on said universal bar projecting toward pach other and adapted to co-operate with the flyer to prevent the vibration of the latter when it comes to normal position, substantially as set forth. 13th. In a type writing machine, the combination, with a type carrier, and graring connected therewith, of two pivoted levers, key levers co-operating therewith, a pivoted universal frame connected with said key levers and arms secured to said universal frame and acting to force said pivoted levers to and retain them in their normal positions, substantially as set forth. 14th. In a type writing machine, the combination with a type carrier, gearing connected therewith pivoted levers co-oprating with said gearing and key levers constructed to actuate said pivoted levers, of a universal bar to be actuated by said key levers and adapted to engage said pivoted levers and move them to their normal positions, a pivoted device connected with said miversal har and arms secured to said pivoted device and adapted to engage said pivoted levers and co-operate with the universal har to return caid pivoted levers to and return them in their nomal positions, substantially as set forth. 15th. In a typewrit ng machine, the combination with a type-carrier, gearing connected therewith and key levers, of two vertical shafts, levers secured to said shafts and co-operating with said gearing and key levers, a universal bar to be actuated by the key levers, and adapted to engage said pivoted levers, a pivoted device under the frame of the machine and connected with said universal bar, a bevelled block on said pivoted device, pins also on said pivoted device, and arms on said shafts and co-operating with said bevelled block and pins to assist in returning said pivoted levers, gearing and type-carrier to their normal positions, substantially as set forth. llith. In a typewriting machine, the combination with a type-carrier, key levers, means intermediate of the key levers and type wheel for operating the latter, and a universal bar common to said key levers, of a star wheel secured to the type carrier a dog to engage said star wheel, and devices intermediate of said dog and universal bar for forcing the dog into engagement with the star wheel and lock the type-carrier in writing position, substantially as set forth. 17th. 1natypewriting machine, the combmation with a type-carrier key lever, operating means between the key levers and type-carrier, and a universal bar common to the key levers, of a star wheel secured to the type-carrier, a soring pressed dog normally out of contact with said star wheel and devices intermediate of the dog and key levers for forcing said dog into engagement with the star wheel wherely to lock the type carriter in writing position, substantially as set forth. 18 th. In a typewriting machine, the combination with a type carrier, key levers, gearing intermediate of the key levers and type-carrier and a universal bar common to
aid key levers, of a star wheel secured to said type carrier a spring pressed dog momally out of contact with said star wheel, arms secured to said dog, a pinoted device under the frame of the machine and comected with said miversal har and arms secured to the pivoted device and adapited to engage the atms on said dug whereby to fonce the laterer inte contact with the star wheel, substantially as set forth. 19th. In a typewriting machine, the combination with a frame having a slotted tlange, a typecarrier, gearing comected with said type-carrier and key levers projecting through said slotte d Hange and co.operating with sa dgearing, of a nuiversal harconcento ic with said flange, a guide pin secured tosaid univerval har and adapted to move in one of the slots of saidslotted flange and hamuer mechan ism, connected with said miverwal bar. substantially as set forth. 20th. In a typewriting machine, the combination with a frame having a slotted flange, of a type carrier, goaring connected therewith, a series of key levers projecting through the slots of said Hange and co-operating with said gearing, and cord laced through aid slotted flange, substantially as and for the purp se set forth. 2 2st. In a typewriting machine, the combination with a type carrier key levers and garing between said key levers and type-carrier, of a universal har common to said key levers, a spring commected with said universal bar and means for adjusting said spring whereby to regulate the temsion of the key levers, substantially as set forth. 22 nd . In a typewriting machine, the combination with a typecarrier, key levers and gearing between sait key levers and type. carrier, of a universal har common to said key levers, a spring attached to ome end of said universal bar, and a serew adjustably attached to the frame of the machine, to which screw the other end of said spring is attached, substantially as set forth. 23rd. In it typewiting machine, the combination with a type-carrier, key levers and gearing between the key levers and type carrier, of a pivoted frame connected with said key levers, and a hanmer engaged and forced directly by said pivoted frame, against the paper, riblom and type-carrier. 2tth. In a typewriting machins, the combination with a typecarrier, key levers and graring between the key levers and typ-wheel, of a pivoted hammer, a pivoted frame comected with the key levers, a connection between said hammer and pivoted frame, wherely the movement of the latter will result in a quick pull on the hammer and throw the same, substantially as set forth. 25 th. In a typewriting machine, the combination with the typecarrier, key levers and intermediate actuating mechanism, of a pivoted hammer, a pivoted frame connected with the key levers, a lug projecting from the arm of the hammer at the pivotal point thereof, and a connection between said lug and the pivoted end of the frame, substantially as set forth. Sith. In a typewriting machine the combination with a type-carrier, key levers and an intermediate actuating mechanism, of a pivoted frame connected with the key levers, a pivoted hammer, a lug projecting from the arm of said hammer at the pivotal point thereof, an arm projecting from the pivoted end of the pisoted frame, and a bar pivoted at one end to said lug on the hammer and having a movable connection at its other end with said arm on the pivoted frame, substantially as set forth. 27 th. In a typewriting machine, the combination with a type-carrier, key levers and gearing between the key levers and a type-wheel, of a pivoted hammer, a pivoted frame adapted to engage and operate said hammer to force the head thereof against the paper, ribbon type carrier, and a spring attached at one end to said hammer and at the other end to the machine frame and tending to return the hammer tonormal position. substantially as set forth. 2sth. In a type writing machme. the combination with a frame, of a pivoted hammer, an arm or projection thereom, and a cushion on said arm or projection adapted to engage the frame and limit the return movement of the hammer, substantially as set forth. 29th. In a typewriting machine, the comhination with a frame and a type-carrier, of a pivoted hammer, and a stop, on the pivoted hammer adapted to strike the frameand limit tha force of the blow of the hammeragainst the type wheel, substantially as set forth. 30th. In atypewriting machine, the combination with a frame and a typecarrier, of a pivoted hammer and an adjustaine stop, constructed and adapted to limit the force of the blow of the hammer against the type-carrier, substantially as set forth. 31st, In a typewriting machine, the combination witha frame and a typecarrier, of a pivoted hammer, an arm or projection thereon and an adjustahle head on said armor projection, said adjustahle head being adapted to strike the frame and linit the force of the blow of the hammer against the type-carrier, substantially as set forth. 32nd, The combination in a typewriting machine, of a type-carrier, means for operating the same, a carriage, a hammer, aud a stop constructed and adapted to prevent the operation of the hammer when the carriage approaches the end of its travel, substantially as set forth. 33rd. The combination in a typewriting machine, of a type-carrier, means for operating the same, a carriage and an adjustable stop constructed and arranged to present the operation of the hammer when the carriage approaches the end of its travel, substantially as set forth. 34th. The combination in a typewriting machine, of a typecarrier, means for operating the same, a carriage, a stop for preventing the operation of the hammer when the carriage approaches the end of its travel and means for moving said stop out of the path of the hammer, substantially as ret forth 30th. The combination in a typewriting machine, of a typ-carrier, means for operating the same, a carriage, a revoluable rod mounterl in the carriage, a hammer an arm en said revoluble rod adatted to prevent the operation of the hammer when the carriage approaches the end of its
 forth. 36th. The combination in a typewriting machine, of a typecarmer, means for operating the same, a carriage, a hammer, and an adjustable stop am carried by the carriage and adapted to prevent the openation of the hammer when the carriage approaches the end of its travel, sulstantially as set forth. 37 th. The combination in a typuriting machine, of a type carri\&r neans for operating the same, a hammer, a carriage, a rod, and a stop arm for the hammer mounted on said rod and adjustable longitudinally thereof, substantially as set forth. 38th. The combination in a typewriting machine, of a type-carrier, means for operating the same, a carrier, a hammer, a rod having a series of notches or grooves therein, a stop arm mounted on said rod and a spring-dog carried by the stop arm and adapted to enter one or another of said grooves or notches, sulstantially as set forth. 39th. The combination in a typewriting machine, of a typ-carrier, means for operating the same, a carriage, a hammer, a bell and a hammer stop constructed and arranged to operate simultaneonsly when the carriage approaches the end of its travel, substantially is set forth. 40th. The combination in a typewriting machine, of a frame, a carriage mounted thereon, an adjustable stop on the frame, a revoluble rod mounted in the carriage, a levelled pin on said rod, a spring for maintaining said pin in line with the stop on the frame, a pin for limiting the revoluble movement of said rod and a thumb-piece on said rod, substantially as set forth. 41st. In a typewriting nachine, the combination with a type-carrier, of a pinion, ball bearings for said pinion, gearing betwern said pinion and type-carrier, key levers and gearing thetween said levers and pinion, substantially as set forth. 42nd. In a typewriting machine, the combination with a type-carrier and an elongated pinion connected therewith, of two segments meshing with said elongatea pinion, means for adjustably securing said segments together, key levers and intermediate devices co-operating with said key levers and said segments, substantially as set forth. 43rd. In a typewriting machine, the combination with a type-carrier, and an elongated pinion connected therewith, of two segments meshing with said elongated pinion, one of said segments having a slot therein, a headed serew passing through said slot and entering the other segment, key levers and intermediate devices co-operating with said $\mathrm{k}+\mathrm{y}$ levers and segments, substantially as set forth. 44th. A type-wheel for a typewriting machine, consisting of a shell having letters and characters on its periphery, said shell having openirgs in its ends, enlargements co-incodent with said openings, the interior of said shell being curved at the juncture of the ends and peripheral wall of the shell, substantially as set forth. 45th. The combination in a typewriting machine, of a frame, a series of radiating key levers monnted on said frame, a lug on each key lever, finger keys or buttons having letters and characters thereon and having sockets for the reception of said lugs, said sockets being disposed at an angle to the letters and characters and at an angle to the letters and characters and at an angle to the key levers, whereby the letters and characters on all the finger keys or buttons will be parallel with each other at a right angle to the operator, substantially as set forth. 46th. In a type writing machine, the combination with the carriage frame, of a paper carrying roller mounted therein, a knob on the journal of said roller, a feed roller co-operating with the paper carrying roller, a notched wheel on said feed roller, each notch of said notched wheel representing one-half of a line space, a spring actuated lever having a tooth to engage said notched wherl, a pin on said lever, and a weighted lever pivoted between its ands to the carriage frame and having a hook to engage said pin, whereby to retain the tooth on the first mentioned lever ont of engagement with the notehed wheel, substantially as set forth. 47 th. In a type writing machine, the combination with a carriage frame, of a paper carrying roller and a feed roller mounted in said frame, a ratchet wheel on the journ 1 of the feed roller, a lever pivoted to the carriage frame and having a hook-shaped lower end adapted to engage the journal of the feed roller whereby to limit the throw of said lever, a ratchet bar carried by the lever and adapted to mesh with, said ratchet wheel, a spring for moving said lever in one direction, an arm or lever pivoted to the first-mentioned lever for limitmg the throw of the latter, and a ston for limittug the movements of said arm or lever, substantially as set forth. 48th. In a type writing machine, the combination with a post, of a sleeve mounted on said post and having bearings at its ends only agarnst the post, a pinion on the lower part of said sleeve, a type carrier on the upper part of said sleeve, and a flange on the sleeve under said type carrier, sulstantially as set forth. 49th. The herein described method of ascertain ing the positions of diverging key levers on a type writing machine, consisting in drawing lines divfrging from a point in rear of the machine to the front of the machine, and drawing a curved line concentric with the axis of the Hyer of the machine so as to cross the divergent lines, whereby a part of the rotation of the flyer will effect a complete cotation of the type carrier geared with said flyer, substantially as set forth. 5oth. In a carriage for a type writing machine, the combination with a lower sliding part and an upper hinged part, of slotted lugs depending from the hinged part, each slot being enlarged at one end, a longitudinally mov: able rod mounted in the sliding part of the carriage and passing through said slotted lugs, said rod having contracted portions to enter the contracted pertions of the slots in said lugs, a spring bearing against said rod for moving it longi-
tudmally in one direction and maintaning it in its momal position for locking the two parts of the carriage together and a button at the other end of said rod whereby to move the rod to unlock the two parts of the carriage, suhstantially as s+t forth. Elsc. In a typewriting machine, the combination with the key levers, and the ribhon reels, of spur wheels comnected with said ribibon reels, a shaft having worms at its ends adapted to be moved alternately into mesh with the respective spur-wherls, ratchet mechanisum connected with the worm-shaft and comnections between said ratchet mechanism and the key levers, substantially as set forth. 52nd. In a typewriting machine, the combination with the key levers, and the ribkon reels, of spur-wheels connected with the riblon reels, a shaft having worms at its ends to be nade to mesh alternately with the respectue spur-wheels, a ratchet-wheel secured to said worm-shaft. a lever loosely mounted on said worm-shaft, a dog carried by one arm ot said lever and engaging said ratehet-wheel, and connections between the other arm of said lever and key levers, sulstantially as set forth. S3rd. In a typewriting machine, the combination with the frame, the key levirs and the cover, the latter having a hole and a tooth projecting into said hole, of ribbon reels, spur-wheels connected with the ribbon reels, a pivotally supported bracket, a shaft revolubly mounted in said bracket, woms at the ende of said shaft to mesh alternately with the respectise spur-wheels, connections between said shaft and the kiy levers, a spring arm projecting from said bracket and a pin secured to sad spring-arm through the hole in the cover and adapted to engage one sideor the other of the tooth projecting into said hole, sulistantially ats set forth. 5tth. In a typewriting machine, the combination with the ribom reels and key levers, of spur-wheels comected with the ribhon ierls, a worm shaft adapted to be made to mesh alternat ly with the respective spur-wheels, a ratchet-whet secured to said shaft, a bell-crank-lever lose ely mounted on said shaft, a dog pivoted to one arm of said bell-crank-lever and engaging said ratchet-wheel, a pivoted frame, an arm on said pivoted frame adapted to engage the depending arm of said bell crink lever and a connection between said pivoted frameand the key levers, substantially as set forth. asth. In a typewriting machine, the combination with two shafts. of a sleeve mounted on each shaft, the upper part of each sleve being contracted and split, a ribhon reel mounted on the contracted split portion of tach sloeve, a spur wheel on each sleeve, a worm-shaft adapted to be made to neesh aiternately with the respective spurwheels and intermediate devices between the worm-shaft and the key levers for operating said worm shaft, substantially as set forth. Ffith. In a typew riting machine, the combination with the cover, of line indicators on said cover, substantially as set forth, 57 th . In a typewriting machine of the type-wheel class, the combination with the cover and the carriage, of line indicators of said covers, said indicators consisting of pointers projecting from the cover toward the car rirgeat cach side of the type-carrier, suhstentially as set forth. 58th. In a typewring machine, the combination with the type-wheel, of an indicator on said type-wheel so located as todemote the point of rest of the type-wherl with respect to the paper on the carriage of the machine, whereby to denote the point on paper where the last letter was printed, substantially as set forth. F!th. In a type-writing machine, the combination with the frame and the carriage, of a spring drum attached to the frame of the machine, said drum having a groove in its periphery, a cord adapted to wind in said groove and an eye at one end of said cord adapted to receive a pin on the carriage, substantially as set forth. 6ioth. In a typewriting machine, the combination with a frame and a carriage, of a crum, a shank or pin adapted to screw into the frame and having a bell secured to one end therof, said shank or pin be-ing also adapted to pass through the drum, a hook on said shank or fin, the hole in one face of the drum being enlarged to permit the passage of said hook, a hook in the drum, a spring in the drum and attached at its respective ends to said hooks, a cord attached to the carriage and wound on said drum, and a hanmer for the bell adapted to le controlled by the carriage, substantially as set forth. 61st. In a typewriting machine, the combination with the type-carrier, gearing connected therewith, key levers co-operating with said gearing and a cover having a slot therein, of a flyer connected with said gearing and a pin on said flyer and projecting through the shot in the cover, substantially as set forth. 62nd. In a typewriting machine, the combination with two shafts, of sleeves mounted thereon, screws in the ends of said shafts whereby to prevent longitudinal displacement of said sleeves, ribion reels on said sleeves, spur wheels on said sleeves, a worm wheel adapted to mesh altemately with the respective spur wheels, key levers and connections between said key levers and worm shaft, substantially as set forth. 6:3rd, In a typewriting machine, ribtom consisting of two parallel plates and a hab, and a hook secured to said hub for the reception of the end of the inking ribbom, substantially as set forth. 64th. In a typewriting machine. the combination with a typecarrier, gearing commected the rew ith and levers co-operating with said gearing and having rollers, of a series of key levers, each having a curned cam to eo-operate with said levers, substantially as set forth. (inth. In a typewriting machine, the combination with atseries of pivoted key levers, of a series of spring fingers bearing on said kev levers and serving to maintain their normal position, substantially as set forth. Gifth. In atypewriting machine, the combination with a frame and a series of pivoted key levers, of a pate or bar over said key levers and serving to limit the movements thereof and spring fingers projecting from said plate or
bar and bearing against said kfy levers, substantially as set forth.

67th. In a typewriting machine, the combination with a series of pivoted key levers, of a series of spring fingers made in a single piece and bearing against said key levers, substantially as set forth. b8th. In a typewriting nachine, the combination with key levers, a type-carrier and gearing for transmitting motion to said typecarrier, of two pairs of pivoted arms, the alms of each fair being integral with each other, one arm of each pair being in position to be moved by engagement of the key levers therewith and racks carried by the other integral arm of each pair, wherely to transmit motion to said gearing, substantially as set forth. (ilth. In a typewriting machine, the combination with a type-carrite, gearing comected therewith and key levers, of two pans of arms or levers co-operating with the key levers and gearing, loosely mounted shafts to which the respective pairs of anms or levers are connected, arms secured to said shafts and a bevelled device constructed and adapted to hold said last-mentioned arns in their normal position and to return them to their normal position, whereby to cause the type-wheel to assume it. normal position, substantially as set forth. Joth. In a typewriting machine, the combination with a type-carrier, gearing connected therewith and key lesers, of two pairs of arms or levers co-operating with the key levers and said gearing, lousely mounted shafts to which the respective pairs of arms or levers are secured, arms stcured to the lower ends of the respuective shafts, and a bevel led block constructed to be moved by the key levers said hock having a shoulder against which both the arms secured to the lower ends of the shafts rest, substantially as set forth. 71st. In a typewriting machine, the combination with a type carrier, gearing connected therewith and key levers of two arms or levers co-operating with said key levers and gearing, lowsely mounted shafts to which said arms or levers are secured, arms secured to the lower ends of said shafts, a pivoted fame common to and adapted to be moved by said key levers, a bevelled block carried by said pivoted frame and co-operating with said arms to return ome or the other to its normal position and inclined pins secured to said pivoted frame and adapted to return the arm not returned by said bevelled block, substantially as set forth. 72nd. In a tylue-writing machine, the combination with a tupe-carrier, gearing comncted therewith, key levers and levers co-operating with sald gearing and key levers, of loosely mounted shafts to which said levers are sectured, arms secured to the lower ends of said shafts, a pivoted frame engaged by said arms. and means carried by said frame constructed and adapted to return said arms and parts with which they are connected, substantially as set forth. 73 rd . In a type-writing machine, the conbination with a type-carrier, gearing connected therewith and key levers, of two arms or levers co-operating with said key levers and said gearing, loosely mounted shafts to which said arms or levers are secured, arms secured to the lower ends of said shafts, a pivoted frame common to and adapted to be moved by said key levers, and a bevelled block or arm carried by said pivoted frame and co-operating with the arms secured to the lower ends of said shafts, whereby to effect the return of the type wheel and co-operating parts to their normal positions, substantially as set forth. 74th. In a typewriting machine, the combination with a typecarrier, gearing connected therewith and key levers, of two arms or levers co-operating with said $k+y$ levers and gearing, loosely mounted shafts to which said arm:s or levers are connected, arms serured to the lower ends of said shafts, a pivoted frame, a bevelled arm or block carried by said frame and adapted to effect a movement, of the arms on the lower ends of the shafts, wherety to return the typecarrier and co-operating parts to their nornal powitions and a universal bar disposed over the key levers and connected with said pivoted frame, substantially as set forth. 75th. In a typewriting machine, the combination with a serles of key levers, a typ-carrier, a hammer, a carriage and a carriage feed mechanism, of a pivoted lever forming part of said feed mechanism, a universal bar common to all of said key levers, and a pivoted frame connected with the universal bar and arranged to actuate the hammer and the lever of the carriage feed mechanism, substantially as set forth. 76 th. In a typewriting machine, the combination with a carriage, feed mechanism therefor, a type arrier, key levers and a actuating devices between said key levers and the type-carrier, of a pivoted lever forming part of the sad feed mechanism and connected with said key levers, an independent key lever and a comeec tion between said independent key lever and the pivoted lever of the feed mechanism. the operation of said connectionshering independent of the type cartier operating mechanism, suhstantially as set forth. 77 th. In a typewriting machine, the combination with a series of key levers, a carriage and a ratchet bar secured to said carriage, of a pivoted lever having a fixed dog at one cond, a spring pressed dog pivoted to said lever and co-operating with the fised dog and the rack to effect the feeding of the cariage, a pivoted device under said lever and a universal bar common to said kes device under said ever and a spacing between letters when the key levers are operated, substantially as ser forth. 78th. In a typewriting machine, the combination with the frame, the carringe and a ratchet bar on the carriage, of a lever pivotaily supported between its ends by said frame, a fixed dog at one end of said lever, a apring-press ed dug pivotally attachel to said lever and co-opreating with the fixed doy and the ratchet bar, a spring tending to force the inner end of said lever downwardly and a key lever pivotally supported hetween its ends by the frame whereby to move said imer end of the first-mentioned lever upwardly and depress the outer or forward end thereof to move both
dogs out of engagement with the ratchet bar and thus entirely release the carriage, substantially as set forth. 79th. In a typewriting machine, the combination with a type-carrier having several rows of type therem, of two key levers. each arranged to shift the type-carrier longitudinally and a locking device co-operating with one of said key levers to hold the type-carrier in a shifted pos.tion and with the other key lever to release said type-carrier, substantially as set forth. 8oth. In a typewriting machine, the combination with the frame and the type-carrier support, of two key levers for raising said type carrier supprort different distances and permit its immediate return, and two other key levers for raising the typecarrier supprit different distances, intermediate connections between said key levens and type-carier supmort and common to them all, and lucking devices co-operating with the last mentioned pair of key levers to retain the type carrier and its support in raised position and co operating with the first mentioned pair of key levers t? release the type-carrier support and permit the type-carrier to droy to normal position, substantially as set forth. 81st. In a typewriting machine, the combination with the frame and a type-carrier support, of two pairs of key levers, one pair being adapted to raise the type-carrier temporarily and the other bar being a: apted to cause the type-carrier to be raised and so remain, and devices cooperating with said key levers and typ-carrier supp,rt in such manner that the operation of one of the key levers of the first pair will result in releasing the typecarrier support and permit the type-carrier to drop to its normal $\mathrm{p}^{k \times i t i o n, ~ s u b s t a n t i a l l y ~ a s ~ s e t ~ f u r t h . ~ 82 n d . ~ I n ~ a ~ t y p e w r i t i n g ~}$ machine, the combination with the frame and a type carrier support, of a bar comnected with said support, a pin on said bar, a sroing actuated, toothed arm to be engaged by said pin and key levers adapted to engage said har and raise the same and the type carrier, substantially as set forth. 83rd. In a typewriting machine, the combination with the frane and the type-carrier support, of a bar connected with said support, key levers to engage said bar to rase it, a pin on the har, a pivotally supported toothed arm to be engaged hy said pin when the bar is raised by the key lever, a spring for forcing the toothed arm thward said har, and means for moving said toothed arm to release the bar and permit the type-carrier to drop to its normal josition, sulstantially as set forth. 84th. In a typewriting machine, the combination with a frame and a type-carrier support, of a bar connected with aid type-carrier support, two key levers adapted to engage each end of said bar to raise the same and the type-carrier support, one key lever of each pair being adapted to raise said bar further than the other, a shaft, a locking arm on one end of said shaft adapted to engage the har and maintain it raised when a key lever of one pair is operated and an arm on said shaft to be engaged by the key levers of the other pair whereby to move the locking arm out of engagement with said har and thus permit said bar, type-carrier supnort and type-carrier to drop to their normal positions, substantially as set forth. 85th. In a typewriting machine, the combination with the frante, of slotted guides secued thereto and extending threthrough, guide rods passing through said guides, a type-carrier support secured to said guide rods, a bar secured to the lower ends of said guide rods, key levers adapted to engage the respective ends of said bar, means for limiting the movements of said key levers and a locking device for said bar under control of the key levers at one end only of said bar, substantially as set forth. 8ifth. In a typewriting machine, the combination with the carrluge, of two rollers each having journals mometerl in the respoctive ends of the arriage and co-operating to feed the paper, one of said rollers also serving to receive and carry the paper and guide fingers embracing said paper-carrying roller, substantially as set forth. 8ith. In a typewriting machine, the combination with the frame, a cover, a typecarrier, inking ribbon and a hammer, of small pins or posts on said cover adjacent to said type-carrier, and a guard of soft pliable non-metallic material disposed between the hammer and the type-wheel, said guard having perforated bosses or enlargements at its ends for the reception of the small pins or posts on the cover, substantially as set forth. 88th. The combination in a typewriting machine, of a frame having a flat horizontal top face, said top face having a number of radiating grooves therein, key levers disposed in and extending through said radiating grooves, said flat top face of the frame also having a series of transverse grooves extending across and intersecting the radiating grooves, each transverse groove being made tapering in cross-section and pivot pins secured to and projecting from opposite sides of the key levers and spated in the bottom of said transverse grooves, substantially as set forth.

##  Metals. (Procéde pour onduire l'aluminium aver diautres metrena.)

(iaston Weil and Alfred Levy, both of Paris, France, 2nd November, $1898 ; 6$ years. (Filed 2nd November, 18:7.)
Clain.-1st. As a bath for plating aluminium or other metal which comprises an ordinary plating bath cumbined with one or several proxuctions belonging to the category of the so called photographic developers, and mure especially the following productions: pyro catechine, hydrowninone, pyrogallic acid and gallates. gallic acid and gallates, tamic acid, and tamnates, oxalic acid and oxalatts, tartaric acid and tartarates, lact ic acid and lactates, substantially as described 2nd. A hath far silver plating aluminium and other metals which
consists of a solution of a silver salt combined with hydroquinone, substantially as described. 3rd. A bath for copper ylating aluminium and other metals which consists of a solution of a copper salt combined with lactic acid, substantially as described. 4th. The process of gilding or silver plating aluminium which consists first. in copper plating the aluminium in a bath consisting of a solution of a copper salt combined with photographic developer, and then in gilding or silver plating the coppered aluminimo in a bath containing a gold or silver salt.

## No. 61, 575. Speed Indicator for Ships.

(Indicatenr de vitesse pour vaissemur.)


Warren Henry McCurdy, Boston, Massachusetts, C.S.A., 2nd November, 1898 ; 6 years. (Filed 15th July, 1897.)
Claim.-1st. A ship's log composed of a hollow divided shell, containing an independent frame having opposite heads packed water-tight and inserted in said shell, and containing a cam and means to move it to actuate a make-and-break device to effect the closing of an electric circuit, substantially as described. 2nd. A ship's log composed of a hollow divided shell having at one end a rotating driving-shaft, and having within said shell a train of mechanism mounted in and carried by an independent frame having opposite heads packed water-tight in said whell, and a shaft extended outwardly from one of said heads to be engaged and driven by the driving-shaft, combined with is stutting box through which the shaft driven by the driving-shaft is extended to operate, substantially as described. 3rd. A ship's log, and a rotator thertfor, a driving shaft mounted in the former and connected to and to be rotated hy the latter, and a driven-shaft within the log, said two shafts being connected together end to end by discs carried by each, and suitable fastening means, as pins, arranged to join the discs, substantially as described. 4th. A ship's log, having a chamber for the reception of an insulating plug, and open at its end for the reception of a electric cable, combined with the said cable provided with atrength giving wires and electric wires wrapped together within an insulating protector, the electric wires beting arranged to co-operate with a make-and-break device in the $\log$, substantially as described. Sth. In a ship's log, a plug at one end thereof of light insulating material as woord, solidly fitted immovably in the $\log$, and having passages to contain the electric wires of an electric cable, an electric cable being immovably embedded in said plug, and suitable make-and-break mechanism therefor, substantially as described. Gth. In a ship's log. a head having a projection, and a slide rod having a collar, combined with a piece of tubing surrounding said rod, and connected to said head and collar to forin a water-tight joint, substantially as described. 7 th. A ship's log, and an electric cable containing electric wires, and strength-giving wires, nested together in a compact bunch and bound together by a protecting covering, substantially as described. 8th. A ship's log registering system, comprising a log, means contained in and connected with said log to register the ship's speed in denominations of a predetermined character, mechanism also contained in and connected with said log to register on shipboard the ship's speed in denominations in licating shorter distances than said other denominations, said means for indicating said longer distances being normally cperative, and said mechanism for indicating said shorter distances being normally inoperative, and means on ship-board to render said latter mechanism operative at will, whereby the one $\log$ operates in the system ordinarily to register the ship's
speed in denominations indicating relatively long distances and also, when required, and without removal from the water or manipulation the sand lug is caused to make its registrations in shorter distances, or more frequently, for a given speed, substantially as described. 9th. A ship's $\log$ registering system, comprising a log, electric circuits, two independent registers, one being normally active and one normally inactive, and means to put one or both of said registers in circuit with said $\log$, as desired, substantially as described. 10th. A ship's $\log$ registering system, comprising a log, two registering mechanisms, electrical connections therefor, a main suurce of energy, as the ship's dynamo, normally in circuit, an auxiliary source of energy normally out of circuit but always active, and means to automatically put said auxiliary source of energy in circuit when said main source breaks down or ceases to supply a given amount, substantially as described. 11th. A ship's log, providel with four electric wires, making two independent circuits, substantially as described. 12th. A ship's log, provided with four electric wires making two independent circuits, the ends of said wires being sealed in the ends of rubber tuhes and intermediately connected by mercury within the tubes, snbstantially as described. 13th. In an electric ship's log, means to prevent the entrance of water therein, and additional means to prevent the access of moisture to the terminal wires, said latter means including a rubber tube connecting the said terminals, sealed thereabout at its ends, and filled with a liquid conductor, substantially as described. 14th. A ship's log, having two independent electric circuits, and two make-and-break mechanisms, one for each circuit, substantially as described. 15th. A ship's log, having two independent electric circuits, and two make-and-break mechanisms, one for each circuit, one of said mechanisms being operated faster than the other, substantially as described. 1fith. In an electric ship’s log, a terminal comprising a rubber tube filled with mercury sealed against entrance of moisture, a break device to compress said tube, and means to operate the same, said devices being provided with a blunt edge engaging the tube, substantially as described. 17th. In an electric ship's log, a make-an d-break mechanism, comprising a plunger, a spring retractor, a friction roll carried on said plunger, and an actuating cam, said roll engaging said cam and said retractor maintaining said engagement, substantially as described. 18th. In an electric ship's $\log$, a make-and, break mechanism, comprising a plunger, a bearing therefor, a roll journalled in one end of said plunger, a cam engaging said roll, and neans to actuate the same, substantially as described. 19th. The combination with a ship's log, and its cable, of a section extending beyond the log and capable of limited flexture, said section having a shouldered annulus secured on its outer end, and a screw nut abutting against said shoulder, and the adjacent end of the cable having i long tapered socket end, to offer the least resistence in the water, threaded to engage said screw nut opposite to said annulus, substantially as described. 20th. The combination with a ship's log, and its cable, of an intermediate section, comprising a Hexible sheath, means at one end to fasten the same to the log, and a joint connection to the other end to join the section to said cable, said connection comprising a tapered and threaded socket end, a shouldered ammulus, and a screw nut, substantially as described. 21st. A device for governing the trailing position of the ship's log, comprising a leader secured behind the vessel and adapted to retain the cable of the log, and having means connecting the same with the vessel wherely the cable may be shifted laterally relatively to the vessel, as desired, substantially as described. 22nd. A device for governing the trailing position of the ship's log, comprising a leader secured behind the vessel and adapted to retain the cable of the log, said cable having a flexible jacket secured thereto and provided with a shoulder to engage the forward end of said leader, said leader having means connecting the same with the vessel, whereby the cable may be shifted laterally relatively to the vessel, as desired, substantially as described.

## No. 61,576. (ider Mill. (Prossuir.)

Eckhart. Wettlaufer, Sebastapol, Ontario, Canada, 2nd November, 1898; 6 years. (Filed 11 th March, 1897.)
Claim. 1st. In a cider mill, the frame $A$, the uprights $A^{*}$. in which the openings $A^{3}$, are formed, the adjustable bars $A^{1}$, loosely secured at one end in the uprights $A^{2}$, and at the other end in the openings $A^{3}$, of the uprights $A^{+}$, in combination with the pressure roller or wheel F , screen cylinder F , shafts $\mathrm{B}^{1}$ and $\mathrm{B}^{2}$, and means for holding said pressure roller in frictional contact with said screen cylinder, at the same time permitting said pressure roller to be automatically adjusted from said screen cylinder, substantially as and for the purpose set forth. 2nd. In a cider mill, the frame $A$, in the uprights $A^{4}$, of which the openings $A^{3}$, are formed, the automatically adjustable bars $A^{1}$, loosely secured at one end in the uprights $A^{2}$, and at the other end in the openings $A^{3}$, of the uprights $A^{+}$, and the wrights $J$, in combination with the pressure roller $\mathbb{E}$, screen cylinder F , and the shafts $\mathrm{B}^{1}$ and $\mathrm{B}^{2}$, substantially as and for the purpose set forth. 3rd. In a cider mill, a screen cylinder consisting of the hoops $\mathrm{F}^{1}$, the battens $\mathrm{F}^{2}$, the slats $\mathrm{F}^{3}$, in which the slits or openings $\mathrm{F}^{4}$. are formed, the verforated endless cover or carrier $\mathrm{F}^{5}$, and the bands $\mathrm{F}^{\text {t }}$, substantially as and for the purpose set forth. 4th. In a cider mill, a ccreen cylinder consisting of the hoops $F^{1}$, the battens $\mathrm{F}^{2}$, the slats $\mathrm{F}^{3}$, in which the slits or openings $\mathrm{F}^{4}$, are formed, the perforated endless cover or carrier $F^{5}$, and the bands $\mathrm{F}^{6}$, in combination with the chute $K$, substantially as and for the
purpose set forth. 5th. In a cider mill, a screen cylinder consisting of the hoops $\mathrm{F}^{1}$, the battens $\mathrm{F}^{2}$, the slats $\mathrm{F}^{* 3}$, in which the slits or

openings $\mathrm{F}^{4}$, are formed, the perforated endless cover or carrier $\mathrm{F}^{5}$, and the bands $\mathrm{F}^{8}$, in combination with the chute L , substantially as and for the purpose set forth. 6th. In a cidermill, a screen cylinder consisting of the hoops $\mathrm{F}^{1}$, the hattens $\mathrm{F}^{2}$, the slats $\mathrm{F}^{3}$, in which the slits or openings $\mathrm{F}^{4}$, are formed, the perforated endless cover or carrier $\mathrm{F}^{5}$, the bands $\mathrm{F}^{\prime \prime}$, pins $\mathrm{F}^{s}$, and arms $\mathrm{F}^{7}$, in combination with the chutes K and L , and shaft $\mathrm{B}^{2}$, substantially as and for the purpose set forth. 7 th. In a cider mill, a frame A, grinning box C , shaft B, pulping cylinder $D$, pressure roller or wheel $\mathbf{E}$, and shaft $B^{1}$, in combination with the screen cylinder $F$, shaft $B^{2}$, perforated endless cover or carrier $F^{5}$, chutes $K$ and $L$, and scraper $G$, substantially as and for the purpose set torth. 8th. In a cider mill, a frame A, grinding box C , shaft B , and pulping cylinder D , in combination with the adjustahle cross bars $A^{2}$, pressure roller $E$, shaft $B^{1}$, screen cylinder F , shaft $\mathrm{B}^{2}$, perforated endless cover or carrier $\mathrm{F}^{5}$, chutes $K$ and $L$, and the scraper ( $\mathcal{i}$, substantially as and for the purpese set forth.

## No. 61,577. Explosive. (Explosif.)

George (i. André, (ilfnlean, Argyllshire, and Charles Herbert Curtis, 74 Lombard Street, London, England, 2nd November, 1898; 6 years. (Filed 24th March, 1898.)
Chim.--1st. A safety explosive compound consisting of 5 to 8 parts of woodmeal and (or) starch and 95 to 92 parts of ammonium nitrate substantially as hereinbefore described. 2nd. A safety explosive compound consisting of 5 to 8 parts of woodneal and (or) starch and 95 to 92 parts of ammonium nitrate and potassium nitrate, the relative proportions of the ammonium nitrate and potassium nitrate being liable to slight variations as bereinbefore described. 3 rd . A safety explosive compound, consisting of 12 parts of woodmeal, 85 parts of ammonium nitrate and 3 parts of potassium nitrate, or slight variations of these as hereinbefore described.

No. 61,578. Kiln. (Four.)


## 61578

(ivorge Plant, Carleton West, Ontario, Canada, End November, 1898; 6 years. (Filed 11th June, 1898.)
Claim.-1st- A duplicate kiln comprising the two chambers separated by a wall and provided with the usual end fire-chambers and smoke stack and openings in the top designed to he commected by a cross pipe after the firing in one kiln has been accomplished, as and for the purpose specitied. 2nd. A duplicate kiln comprising the two chambers separated by a wall and provided with the usual end fire-chambers and smoke stack and opening in the top designed
to be connected by a cross-pipe after the firing in one kiln has been accomplished and a suitable damper in the cross-pipe as and for the purpose specified.

No. 61,579. (anh Register. (Réyistry it monnaie.)


The National Cash Register Company, assignee of Thomas Carney, all of Dayton, Ohio, U.S.A., 3rd November, 1898; 6 years." (Filed 4th May, 1898.)
Claim. -1 st. In a cash register, the combination with printingwheels each provided with a star-wheel, of a pivoted frame carrying aligning arms adapted to engage said star-wheel, an operating arm connected to said frame, and a cam connected to the moving parts of the machine and engaging said arm for operating it. 2nd. In a cash register, the combination with printing-wheels each carrying an aligning or star-wheel, of a pivoted frame carrying aligning arms arranged to engage the star-wheels, a printing platen or hammer co-operating with the printing-wheels, a rotary shaft and cams on the rotary shaft arranged to actuate the frame which carries the aligning arins and the said platen or hamner. 3rd. In a cash register, the combination with the printing mechanism, of a movable platen carrying arm or hammer, and the spring pressed plunger carried by the said arm and arranged to engage the stationary portion of the frame. 4th. In a cash register, the combination with a printing mechanism of a movable platen carrying arm, means for operating said arm and a spring pressed plunger mounted on said arm and arranged to engage a stationary portion of the frame to force the platen away from the printing devices. 5th. In a cash register, the combination with a registering mechanisin, of a plurality of printing wheels, aligning devices, for said wheels connected to the moving parts of the machine, and means connecting the registering mechanism with the printing-wheels for moving the latter but at the same time allowing them to be aligned independently of the movements of the registering mechanism. (ith. In a cash register, the combination with a plurality of operating racks, of a shaft, nested sleeves mounted over said shaft collars fast on said shaft and sleeves and each formed with a projection, pinions meshing with the racks and each formed with a recess to receive its respective projection, printing-wheels mounted on said shaft and sleeves and aligning devices for said wheels. 7th. In a cash register, the combination with a printing mechanism, of an inking ribbon, a friction roller for moving said ribion forward, gearing for operating said roller, a record strip, winding roller mounted on one of said gears, and means connecting said roller to the moving parts of the machine. 8 th. In a cash register con prising a series of keys, the combination with the printing mechanism, of a record strip, a winding roller for the latter, a ratchet-wheel carried by the roller, a universal bar extending across the keys and arranged to be moved when any key is operated and an arm arranged to be moved by said universal bar and bearing an actuating pawl co-operating with the said ratchetwheel. 9 th. In a cash register, the combination with the printing mechanism and an aligning pawl therefor, of a printing platen or hammer, a rotary shaft bearing cams arranged to throw the aligning pawl into engagement with the printing-wheels and to hold it there temporarily and to then actuate the printing platen or hammer, or permit it to be actuated, while the aligning pawl is so held and to then release the aligning pawl. 10th. In a cash register, the combination with a series of keys, of printing mechansm, a record strip therefor, an inking ribbon interposed between the record strip and the printing mechanism, a universal bar extending across the keys and arranged to be actuated when any key is operated, and means connecting with the universal bar to move the record strip and the printing ribhon whenever a key is actuated. 11th. In a cash register, the combination with an operating mechauism, of a series of keys arranged to actuate the same, a series of nested sleeves connected to said mechanism, printing-wheels on said sleeves, a printing platen and means connecting the same with the movable parts of the machine. 12th. In a cash register, the combination with an operating mechanism, printing wheels, means connecting said mechanism and wheels, a movalle ink ribkm, a movable printing strip and a
movable platen. 13th. In a cash register, the combination with a printing mechanism, of a movable platen and a cam mounted on a movable part of the machine and arranged to engage said platen to operate it with a hammer stroke. 14th. In a ca*h register, the combination with a registering mechanism, of printing-whels connected to the same, star-wheels mounted on said printing-wheels, aligning arms arranged to engage said star wheels, and means for operating said arms upon the movements of the machine proper. 15th. In a cash register, the combination with a series of operating keys, racks arranged to be operated by said keys, nested sleeves carrying pinions which engage said racks and prin ing-whets mounted on said sleteves. 16th. In a printing device for cash registers, the combination with the printing mechanism, of a movable inking ribbon for the same and an ink supply arranged to engage said ribbom and thus re-ink it as it is actuated. 17 th . In a cash register, the combnation with a series of operating keys, an operating mechanism arranged to bo actuated by the same, a counter adapted to be operated by said mechanism and a printing device also arranged to be operated hy said mechanism to print a record of the transaction. 1sth. In a printing device for cash register, the combination with the printing mechanism, a movable inking ribbon and an absorbent roller saturated with ink and engaging said ribbon, and to re-ink it as it is actuated.

## No. 61,580. Cash Register. (Régistre ic monnair.)



The National Cash Register Company, assignee of James S. Crane, all of Dayton, Ohio, UT. S. A., Brd November, 1898; 6 years. (Filed 25th May, 1898.)
Claim.-1st. The conbination with a cash register, of a receptacle on the same, a movable cover for said receptaclf and means arranged to release said cover when certain of the register keys are operated but retain the same should any of the remaining keys be operated. 2nd. The combination with a cash register, of a receptacle on the same, a movable cover for said receptacle, muans for normally holding the cover open, a latch controlled by the register keys, for holding said cover closed, and means connecting the cover to the movable parts of the machine whereby it is closed by the operation of said parts. 3rd. The combination with a cash register, of a receptacle on the same, a movable cover for said receptacle, a spring for normally holding said cover in one position, a latching means controlled by the register keys for holding said cover in the opposite position, and devices connected to the movable parts of the machine for moving said cover against the action of its spring upon the operation of said parts. 4th. The combination with a cash register, having a movable drawer, of a receptacle on said register, a cover for said receptacle, means for normally holding the cover open, a latch comtrolled by the register keys for holding the cover closed, and devices arranged to be operated by the drawer for closing said cover. Sith. The combination with a cash register, of a receptacle on the same, a movable cover for said receptacle, a spring actuated rod for normally holding said cover open, and devices connected to said rod and arranged to co-operate with the cash register drawer to close the cover. lith. The combination with a cash register, of a recepta le on the same, a movable cover for said rectptacle, a spring actuated rod for normally holding said cover open, a latching means for said rod co-operating with the register keys so as to be released by the latter and devices for closing the cover upon the operation of the cash drawer of the register. Tth. The combination with a cash register, of a receptacle on the same, a movable cover for said receptacle, a spring actuated rod for normally holding the cover open, a a crank arm on said rod and a pivoted pawl on said crank arm and arranged for free movement in one direction but to move said crank arm when moved in an opposite direction and means for moving said pawl upon the operation of the machine.

## No. 61,581. Bicyele Brake. (Froin de hic!eles.)

John Henry Punchard, 36 Cornwall Road, Westhourne Park, and Henry Derby, 249 Pentonville Road, inoth of Lomdon. Enoland, 3rd November, 1898; 6 years. (Filed 29 th June. 1s98.)
Glain.-1st. In brakes for bicyeles or other road wheles where applicable, the combination with a band wherl such as a of a brak
band such as $d$ each end of which lattter is supported on independent clips or devices adapted to be secured at any described point

to the frame tuhes such as $x$ and $y$ and means to operate said brake band so as to apply same to said band wheel all combined and arranged to act substantially in the manner and for the purposes set forth. 2nd. In brakes for bicycles or other road vehicles where applicable, the combination with a band wheel such as a of a band brake such as $d$ one end of which latter is mounted on a fixed support while the other end of said band is supported on a lever or bell crank like device or equivalent device pivoted or adapted to oscillate at a point situated within the perimeter (i. $\epsilon$., between the perimeter and the centre) of the aforesaid band wheel whereby the band brake is quickly applied against the band wheel and means to operate said lever or bell crank and thereby apply said band brake, substantially in the manner and for the purposes hereinbefore described. 3 rd . The improved arrangement and construction of mechanism for supporting and operating band brakes for bicycles or other road vehicles where applicable, having the several parts of such mechanism combined and arranged to act substantially as and for the purposes hereinbefone described and comprising the band wheel afixed on the crank axle $b$, the band-brake $d$, the pin $e$, carried on an adjustable clip secured to the frame, to which the end $d^{\prime}$ is secured, the bell crank device ! pivoted on pin $h$ mounted on an adjustable clip and carrying pin $f$, to which the operated $\Leftarrow$ nd $d^{2}$ of the bandbrake is secured the rod $j$, suitably operated from the brake lever $k$, and pivotally secured to one end of the bell crank device to operate the same, and the spring $i$ fixed at one end to the frame, and at the other to the bell crank device or lever $\rho$, substantially as and for the purpose specified. 4th. In a licycle a brake and an operating lever in combination with cons. itions for conveying motion to the former from the latter, one of the connecting rods comprising two parts overlapping one another, a lug upon one part and adapted to engage any one of several holes or notches in the other part, and a sleeve which may be slipped over the jointand locked with a set screw, substantially as and for the purpose specified.
No. 61,582. Speed Indicator. (Indicatcur de vitesse')


The Speed Meter Manufacturing Company, Portland, Maine, assignee of Albert Lyman Parcelle, Boston, Massachusetts, all in the U.S.A., 3rd November, 1898 ; 6 years. (Filed 25th June, 18!s.)
Chrinh.-1st. A speed indicator comprising in combination, a rotat ing spindle, a picoted weighter arm rotating in unison therewith and provided with a compensating cam, a spring also rotating with the said spindle and acting against the said cam, an index or pointer, and means to actuate the said index or pointer, from the said weighted arm, substantially as described. 2nd. In a speed indicating device actuated by centrifugal force, a weight capable of lateral movement from the axis of rotation, and a restraining spring whose effective length or tension is changed in proportion to the movement of the weight from the axis of rotation, substantially as described. 3rd. In a speed indicator, the combination of a weighted lever moving in a circ lar path from the axis of rotation and remaining in the same plane of rotation, said lever carrying a compensating cam, an index finger moved over a scale by the action of siaid weightod lever, and a restraining spring whose effective length or tension is changed in proportion to the movement of the weighted lever by the satid cam, substantially as Juscribed, 4th. A speed indicatur eorip ising indicating mechanism, a rotatory arbour, devises controlled by contrifugal force, and a longitudinally sliding wedge moved hy sadidevices and actuating the indicating mechanism. oth.

A speed indicator comprising indicating mechanism, a rotatory arbour, a weighted arm carried pivotally, said arbour and adapted to swing away from the centre of rotation ty centrifugal force, and an inclined bar connected to said arm for actuating the indicating mechanism. 6th. A speed indicator comprising a rotatory arbour, a weighted arm carried pivotally by said arbour and adapted to swing away from the centre of rotation by contrifugal force, an inclined bar connected to the said arm, a hub or sleeve controlled by said inclined bar, and an index comected to said hub. 7th. A speed indicator comprising a rotatory arbour, a weighted arm carried pivotally by said arbour and adapted to swing away from the centre of rotation be contrifugal force, a stationary projection, a hub or sleeve having a helical cam slot to receive said projection, and mechanism connected to said weighted arm to move said hub axially. 8th. A speed indicator comprising a rotatory arbour, a weighted arm carried pivotally by sald arbour and adapted to swing away from the centre of rotatien by contrifugal force, a stationary protection. a hub having a holical cam slot to receive seid projection, and a wedge connected to said arn and adapted to move said hub auxially. 9 th. A speed indicator comprising a rotatory arbour, a weighted arm carried pivotally by said arbuur and adapted to swing away from the centre of rotation by centrifugal force, a stationary scale plate having a lug, a hub having a helical cam slot to receive said lug, and a wedge connected to the weighted arm and adapted to act on the hub to move it axially. 10th. A speed indicator comprising a rotatory arbour, a weighted arm carried pivotally by said arbour and adapted tuswing away from the centre of rotation by centrifugal force, indicating mechanism, and a sliding bar conmected to said arm for actuating said mechanism, said bar being formed as a wedge. 11th. A speed indicator comprising a movable indicating device, a centrifugally operated weight, a compensating cam connected to said weight, a sping bearing on said cam and means through which said weight and spring act alternately on the indicating device, the weight acting to advance the said device and the spring to return it. 12th. A speed indicator comprising a rotary arbour, a weighted arm carried by said arbour and adapted to swing away from the centre of rotation by centrifugal force, a slotted wedge formed integrally with said arm, and mechanism actuated ly said wedge for indicating the relative positions thereof. 13th. A spered indicator comprising a rotary arbour, a weighted arm carried by said arbour and adapted tos swing away from the contre of rotation by centrifugal force, a curved inclined bar carried hy said arm and extending laterally from the free end thereof, and mechanism actuated by said har for indicating the relative positions threof. 14th. A speed indicator comprising a rotatory artoor, a weighted arm carried ny said artoour and adapted to swi:g away from the centre of rotation by centrifugal force, a compensating cam on said amm, a spring tearing against said can, ani idevices carried by said arm for adjusting the tonsion of the spring. 15th. A speed indicator comprising a centrifugally operated weight provided with a compensating cam, a spring bearing against said caun, and means carried ly said weight for adjusting the tension of the spring. 1lith. A speed indicator comprising a rotatory arkour, a centrifugally operated weight-d arm, carvied by said arbour and having its outer edge curved to form a compensating cam, and a spring bearing againt the said outer edge. 17 th. A speed indicotor comprising a rotatory arbour, a centrifugally operated weighted arm carried by said arbour and having its onter edge curved to form a compensating cam, a pivot for said arm, a spring bearing against the courpensating cam, and means for adjusting the tension of the spring. 18ti. A spepd indicator comprising a rotatory arbour, a centrifugally operated arm having a wripht at or near one end and a pivot near the other end thereof, said arm having its outer elge between the weight and the pivot convexly curved to form a compensating cam, and a leaf spring bearing against said compreusating camı. 19th. A sp-ed indicator comprising a rotatory arbour, a centrifugally operated arm having a weight at or near one end and a pivot near the other end thereof, said arm having its outer edge between the weight and the pivot convexly curved to form a compensating cam, a spring tharing against the said cam and projecting beyond the pivot and a serew comnecting the said projecting end of the spring with the end of the arm. ¿0th. A speed indicator comprising a rotatory artour, a centrifugally operated arm having a weight at or near one end and a pivot near the other end thereof, said arm having its outer edge between the weight and the pivot convexly curved to form a compensating cam, and having its end on the other side of the pivot reduced or cutaway, a spring bearing against the said cam edge, and having an end projecting leyond the said pivot, and an adjustable screw connecting the projecting end of the spring with the reduced end of the arm.

## No. 61,583. Petroleum Burner. (Brûleur í petrol..)

David Ogilvy, Montreal, Quelec, Canada, assignee of Charles Clifford Bruckner, Brooklyn, New York, U.S.A., 3rd November, 1898; 6 years. (Filed !eth December, 1897.)
Claim.-1st The combination in an incandescent lamp with a support for the mantle and a hollow hase for the burner, of a mixing chamber immeriately adjacent to the hollow hase, an air inlet flue and opening to the mising chamber, a generating chamber above the mixing chamber, a suall supply pipe permanently comnected near the lower end of the generating chamber, a valve seat at the lower end of such generating chamber and a tapuring meedle valve
passing through the valve seat, and mechanism for moving the valve from below so as to close the generating chamber tightly or to allow

the downward escape of the hydrocarbon vapours in the proper proportion into the mixing chamber, substantially as set forth. 2nd. The combination in an incandescent lamp with the mantle and its support and the hollow base, of a mixing chamber, a generating chamber above the mixing chamber and hasing a vertical partition, a supply pipe to one end of the generating chamber, a valve se-at opening into the mixing chamber and a tapering needle therefor passing through such mixing chamber into the valve seat, and means for moving such needle valve and regulating the escape of hydrocarbon vapours into the mixing chamber, substantially as set forth. 3rd. The combination in an incandescent limp with the mantle and its smport and the hollow base, of a mixing chamber, a generating chamber alwve the mixing chamber and having a vertical partition, a supply pipe to one end of the generating chamber, a valve seat opening into the mixing chamber and a tapering needle therefor passing through such mixing chamber into the valve seat, and means for moving such needle valve and regulating the escape of hydrocarbon vapours into the mixing chamber, an air inlet flue passing up at one side of the nixing chamber and opening into the upper part of the same, substantially as specified. 4th. The combination in an incanlescent lamp with the mantlo and its support, and the bollow hase, of a mixing chamber, a generating chamber alove the mixing chamber and having a vertical partition, a suphly pipe to one end of the generating chamber, a valve seat opening into the mixing chamber and a tapering needle valve passing through such mixing chamber into the valve seat, and means for moving such netdle valve and regulating the escape of hydrocarbon vapours into the mixing chamber, an air inlet flue passing up at one side of the mixing chamber aud opening into the upper part of the same, a slide for regulating the admission of air into the mixing chamber, substantially as set forth. Sth. The combination in an incandescent limp, with the mantle and its support and the hollow base, of a mixing chamber, a generating chambre above the mixing chamber and having a vertical partition, a supply pipe to one and of the generating chamber, a valve seat opening into the mixing chamber, and a tapering needle valve passing through such mixing chamber into the valve seat, and means for moving such needle valve and regulating the escape of hydrocarbon vapours into the mixing chamber, a cup around the lower end of the generating chamber and on the top of the mixing chamber for receiving the combustible fluid to heat the generating chamber in starting the lamp, substantially as set forth. 6th. The combination in an incandescent lamp with the mantle and its support and the hollow base, of a mixing chamber, a generating chamber above the mixing chamber and having a vertical partition, a supply pipe to one end of the generating chamber, a valve seat opening into the mixing chamber and a tapering needle valve passing through such mixing chamber into the valve seat. and means for moving such needle valve and regulating the escape of hydrocarbon vapours into the mixing chamber, a hollow support for the mixing chamber and openings for any liquid passing into the mixing chamber and a valve at the bottom of the holl w support for allowing such liquid to be drawn off, substantially as set forth. 7 th. The combination with the two mantles and their hollow bases and mixing chamber, of a generating chamber between the mantles and op ning at the lower end directly into the mixing chamber, substantially as set forth. Sth. In a lamp, the combination of a generating chamber located above the mixing chamber and having a valve controlled opeening, a valve for control
ling said opening，a device for operating said valve，and means for limiting the movement of said device，for the purpose set forth． 9 th．In a lamp，the combination of a chamber l）having a valve controlled opening 3，a value 4 for controlling said opening，a rotary device for operating said valve，a stop 30 upon a stationary part of the lamp and a projection 31 upon the rotatory device，substantially as and for the purpose set forth．

No．61，©8t．Grain Neparator．（Seperateur àgraim．）


Charles E．Bird，Minneapolis，Minnesota，and Julius Roshoit， Mayvile，North Dakota，both in the U．S．A．，3rd November， 1898； 6 years．（Filed 7th Octuber，1898．）
Claim．－1st．In a grain separater，the combination with separating sieves spaced apart in the direction of the grain＇s travel，an inter mediate sereen of very fine mesh，and a fan arranged to direct a blast through said intermediate sereen and the material passed thereover． sulstantially as described．2nd．In a grain separator，the combin－ ation with vibrating separating sieves，of an intermediate fine meshed sieve，a fan arranged to dirpet a blast through said inter－ mediate sieve，a discharge spout or tube，and deflectors for directing the bast into sad discharge tube，substantially as described．Brd． In a grain separater，the combination with separating screens and a fine meshed screen intermediate thereof，of a fan arranged to direct a blast tbrough aid intermediate sieve，a discharge spout or tube，the adjustable segmental deflector or throat piece $f^{14}$ and eo－operating deffectors directing the hast intos said discharge spont or tube，substantially as described．th．The combination with the vibrating sieves and vibrating intermediate sieve 6 ，of the fan arranged to dieect a bast through said sieves 6 ，the discharge spout $f^{13}$ ，deflectors directing the blast into said spout $f^{1: 3}$ ，and the adjustable deffectors or gates $f^{1+} k^{+4}$ controlling the biast，substan－ tially as described．$\overline{0}$ th．The combination with a hopper with a feed passage in its bottom，of a vibating shoe provided with separat－ ing sieves and with the cut－off or detlector $c^{\text {a }}$ vibrating below said hopper and passing through the stream of discharged grain， substantially as deseribed．Gth．In a grain separator，the com－ bination with a vibrating primary shot with separating sieves， of a secondary vibrating shoe provided with two independent lines of sieves arranged to receive the separations from the primary sieves and tocontinue the separation on two differentor indeperndent lines of separation，substantially as deseribed． 7 th．In a grain separator，the combination with a fixed feed hopper，of a primary and a secondary shoe，each of which shoes is provided with separat－ ing sieves，and connections for vibrating the said shoes in reverse order，substantially as deseribed．8th．In a grain separator，the combination with a vibrating shoe provided with separating sieves， of a support for one end of the sieve shoe having means for adjusting it to vary the rise and fall of that rind of the shoe，substantially as described．9th．In a grain separator，the combination with a vibrating shoe provided with separating sieves and provided with anti－friction rollers at one end，of the pivotally adjustable support $f^{14}$ ，on the upper face of which said rollers work，substantially as described．10th．The combination with a vibrating shoe provided with separating sieves，of one or more supporting levers or arus for the same，pivoted thereto and having its fixed fulcrum located out of verticalline with said commetion to the shoe，whereby said shoe will he moved vertically when vibrated，sulstantially as described． 11th．In a grain separator，the combination with the vilrating shoes $c$ and $f$ procided wth separating sieves，of the supporting lever or arms i pivoted to said shoes and proviled with the off－set fulcrum extension $f^{3}$ ，said parts operating substantially as described． 12 th． A feed hopper provided with the adjustable bottom section，in com－ bination with the pair of adjusting levers $b^{3}$ pivoted at $b^{4}$ and engageable with the relatively fixed block $b^{5}$ ，said parts operating， sulstantially as described．13th．In a grain separator，the combin－ ation with a vibrating shoe，of sieve sections of approximately the same mesh，staggered in lifferent planes，sulastantially as and for the
purposes set forth．14th．In a grain separator，the combination with a vibrating shoe，of separating sieves 9 and 10 of approximately the same mesh，staggered in different planes，and a Hexible imper－ forate flap or sheet $c^{14}$ ，overlying said sieve 10 and constituting an imperforate extension of said sieve 9 ，substantially as and for the pur－ posesset forth．15th．In a grain separator，the combination with a grain feeding device，and a fan through the blast of which the grain is passed，of a prinary sieve between said fan and said feed device，and one or more sieves beyond said fan，whereby the coarse chaff is carried off from the stock before it reaches the blast of said fan，substantially as described．16th．In a grain separator，a device for separating tadpoles or similar material from the grain，consisting of a pair of approximately parallel sieves located a distance apart less than the approximate length of tadpoles，whereby said tadpoles will be delivered endwise to the under and finer me h sieve，substan－ tially as described．
No．61，585．Horse shoe．（Fer it cheral．）


Charless F．Burroughs，Joseph A．Reed and Alfred M．True，all of Canton．Ohio，U．S．A．，3rd November，1898： 6 years．（Filed 13th September，1898．）
Chuime．－1st．The combination of the metal portion A，provided with the nail apertures of located through said metal portion near its outer edge，and the screw－threaded apertures $b$ located at the toe and hopls respectively，and the downwardly－projecting curved Hange $c$ ，the elastic tread 13 provided with the flange d located upon the nuder side of the body $A$ and against the curved flange $c$ ，the binding har $C$ located upon the underside of the Hange $d$ and against the fownwardly－projecting portion of said tread，and the retaining screws $d^{1}$ extended through the bar $C$ and into the bosses $d^{2}$ sub－ stantially as described．End．The combination of the metal portion A，provided with the nail apertures a located through said metal portion near its outer edge，and the screw－threaded apwrtures located at the toe and heels respectively，and the downwardly－projecting clamping Hange $r$ ，the elestic tread B provided with the Hanger，the binding－bar C located upon the under side of the flange $d$ ，and the retaining－serews $d^{11}$ ，sulistantially as and for the purpose specified．

No． 61, ， 86. Nrishorm．（Cisecuix．）


ノッズ


Tohn C．Ford，Macon，Missouri，U．S．A．，3rd November，189世；$;$ yeurs（Filed eoth July，1898．）

Jlaim.-1st. In a shears or scissors, the combination with the blades, of a pintle and nut formed of two or more parts, which are relatively adjustable for the purpose of regulating the pressure between the blades, and a corrugated spring locited between said relatively adjustable parts, one of said parts being chambered for centering the spring and preventing its displacement laterally, substantially as and for the purposes set forth. 2nd. In combination with the blades of shears or scissors, the pintle and nut for holding the blades together, and a corrugated anmular spring surrounding the pintle and located between one of the blades an Ione part of the securing means, the latter being provided with a elbamber in which the spring is located and by which it is prevented from lateral displacement, substantially as and for the purposes set forth. 3rd. In combination with the blades of sheais or scissors, a pintle provided with a head, a chambered nut secured upon said pintle, and adjustable thereon, and a corrugated annular spring or washer located between the nut and the adjacent blade, substantially as and for the purposes set forth. 4th. In combination with shears or scissors, a pintle for securing the same together, a chambered nut threaded upon said pintle, a corrugated spring or washer located in the chamber of said nut, and a jam serew in the end of the pintle, substantially as and for the purposes set forth. 5th. In a shears or scissors, a pintle provided with a head engaging one of the blades and with a cylindrical portion upon which said blade may turn, a squared portion also on said pintle upon which the other is fitted, a securing nut threaded upen the end of the pintle, and a corrugated spring introduced between one of the engaging parts and the adjacent blade, said part being provided with a chamber to receive the spring, substantially as and for the purposes set forth. 6th. An adjustable tension regulating device, consisting of a nut or pintle and having a recess or chamber 9 , formed therein, a corrugated spring washer titting said recess, the chamber forming the flanges !as, preventing lateral displacement or reaction of said spring washer, sulstantially as and for the purposes set forth.

No. 61,587. Ball Grinding Machine.
(Machine d̀ polir les boules.)


Rollin Henry White, Cleveland, Ohio, U.S.A., 3rd November, 1898; 6 years. (Filed 15th August, 1898.)
Claim.-1st. In a machine for grinding ball, the combination of a grinder rotatable upon a vertical axis, with a block below the grinder having in its top a recess adapted to contain a mixture of oil and emery, or like substance, and having in the bottom of said recess an endless ball groove, which, when the parts are in operative relation, is not a circle concentric with the axis of the grinder, substantially as and for the purpose specified. 2nd. In a machine for grinding balis the combination of a rotatable grind $+\mathbf{r}$, and a bed plate, with a block adapted to slide upon said bed plate, and having in its top a recess adapted to contain a mixture of oil and emery, or like substance, and having in the bottom of said recess an endless ballgroove which, when the parts are in operative relation, is not a circle concentric with the axis of the grinder, and means for moving the grinder vertically to permit the withdrawal of the block from and its replacement beneath the grinder, substantially as and for the purpose specified. 3rd. In a machine for grinding balls, the combination, of a bed plate and a block movable upon said bed plate, having in its top a recess adapted to contain a mixture of oil and em+ry, or like substance, and having in the buttom of said recess an endless sinuous ball groove, with a rotary grinder adapted to engage with the balls in said sinuous groove, substantially as and for the purpose specified. 4th. In a ball grinding machine, the combination of a grinder rotatable upon a vertical axis, a rotatable arm adapted by its position to indicate when the grinder has rotated the proper
number of times, with mechanism for driving said grinder and arm simultunonisly but at different speeds, the movement of the arm being the slower, substantially as and for the purpose specified. Sth. In a ball grinding machine, the combination of a rotatable grinder, mechanism for transmitting motion from the source of power to said grinder, with a rotatable arm and mechanism wherely it is turned simultaneonsly with the grinder but at much slower spew, and means whereby this arm will cause some part of the power-transmitting mechanism to be disconnected when the grinder has made tha. desired number of revolutions, substantially as and for the purpose specified. Gth In a ball grinding machine, the combination of a rotatable gronder. its operating mechanism, a rotatable arm and mechanism for operating the same simultaneonsly with the grinder but a slower speed, with a spring actuated belt shipper, and a latch ing device which holds the belt snipper in proper position to callse the belt to drive the machine, said latching device heing in the path of said arm, whereby it is released by said arm, substantially as and for the purpose specified. 7 th. In a ball grinding machime, the combination of an endwise movable grinder shaft, a sleeve which turns the shaft but has no end wise movement, a worm on said sleere, a pivoted disc and mechanism driven by said worm for turning said disc, with an arm mounted on the same axis with said disc, means for adjustably connecting said dise and arm, and belt shifting mechanism adapted to be set in operation by said arm, substantially as and for the purpose specified. 8th. In a ball grinding mechine, the combination of a rotatable grinder, a worm which rotates simultaneonsly therewith, a rotating disc, mechanism intermediate of said worm and dise whereby the latter is driven at comparatively slow speed, an arm pivoted upon the same axis as the disc, and means for adjustably securing said arm to said disc, with an adjust able pointer pivoted upon the same axis with the disc, means for fixing the peinter in different positions relative to said disc and a device adapted to be moved by said arm, substantially as and for the purpose speecified

No. 61,588. Machine for Grinding Balls.
(Murhine it polir les boules.)


Rollin Henry White, Cleveland, Ohio, U.S. A., 3rd November, 1898 ; 6 years. (Filed 15th August, 1898.
Claim.-1st. In a ball grinding machine, in combination, a nonrotating circular raceway open at its inner periphery, a rotating revolver in the form of an inverted frustum of a cone, which is inside of and concentric with the said raceway, the periphery of said revolver being adapted to bear upon the balls in the raceway, whereby it moves the balls around said raceway, and prevents their escape therefrom, an eccentric rotary grinder, and mechanism for moving said grinder and revolver upward relative to the raceway, substantially as specified. 2nd. In hall grinding machine, in combination, a raceway open at its inner periphery, a revolver inside of and concentric with said raceway, which revolver is in the form of an inverted frustum of a cone, and is adapted to bear 11 on the balls in the raceway to hold and move them therein. a hollow cylinder concentric with and inside of satd raceway, but normally befow the same, an ezcentric rotary grinder adapted to bear upnon the balls in the raceway, mechanism for moving the grinder, revolver and hollow cvlinder upward relative to the raceway for the purpose of first releasing the balls from the raceway, and allowing them to fall in said hollow cylinder, and then to cause said hollow cylinder to temporarily close the inner periphery of the raceway, whereby said raceway may be loaded with balls, substantially as specified. 3rd.

In a ball griming uachint, ilie combination, of an endless ball raceway and a rotating grinder for grinding the balls therein, said raceway and grinder being capable of relative vertical movement toward and from each other, with a loader having a growe of the same size and whape as the ball raceway and adapted to contain balls to be ground, and means for releasing said balls through the botton of said groove, substantially as specified. 4th. In a ball grinding machine, in combination, a circular rac way, a vertically movable revolver, a vertically movable cylinder inside the raceway and below it and the revolver, a loader consisting of an outer ring and an inner vertically movable plate, means for holding the loader over the ball raceway, and mechanism for raising the said cylinder, revolver and inner loader plate, substantially as specified. Sth. In a ball grinding machine, in combination, a circular raceway, a vertically movable revolver, a vertically movable cylinder inside the raceway and below it and the revolver, a loaded consisting of an outer ring and an inner vertically movable plate, a pivoted arm carrying the loader, and adapted to be swung to bring the loader over the raceway, and mechanism for raising said cylinder, revolver and inner loader plate, substantially as specified. Gith. In a ball grinding machine, in combination, a circular ball raceway, a rotary grinder eccentric thereto, a vertically movable slide which supports the grinder shaft, a vertically movable threaded rod, and means for moving and supporting the same, and an adjusting nut which connects said rod and shide, substantially as specitied. 7 th. In a ball grinding machine, in combination, a circular ball raceway, a rotary grinder eccentric thereto, a vertically movable slide which supports the grinder shaft, a vertically movable threaded rod and means for moving the same, and an adjusting nut which connects said rod and slide, an operating lever, mechanism commecting the same with said threaded rod, a fixed support for the lower end of said rod, an adjustable worm nut which connects said threaded rod and slide, and a worm shaft mounted on the side for turning said nut, substantially as specified. 8th. In a ball grinding machine, in combination, a base which supports the ball raceway, an upper frame member which supports the grinder and is bolted to the base, three adjusting wedges interposed between the base and upper frame member, and means for operating said wedges, substantially as specified.

## No. 61,589. Mail Marking Machine.

(Marhime ì merquer la mulle,)


Charles Partridge Oudin, New York City, U.S.A., 3rd November, 1898; 6 years. (Filed 30th December, 1897.)
Claim.-1st. In a mail marking machine, tae combination with a printing cylinder, of an impression cylinder the impression surface of which is composed of spring cushioned segment. 2nd. In a mail marking machine, the combination with a printing cylinder, of an impression cylinder the impression surface of which is composed of a series of yielding spring cushioned segments. 3rd. In a mail marking machine, the combination with a printing cylinder, of an impression cylinder, the impression surface of which is composed of a series of superimposed slotted segments, springs bearing at their free ends against the ends of the segments and the slots in the segments being such that the segments may rock or slide during the rotation of the impression cylinder. 4th. In a mail marking machine. an impression cylinder. comprising two discs, an interposed spacing block, and a series of sliding and rocking spring-actuated superimpresed segments. 5th. In a mail marking machine the combination with printing and impression cylinders, one of which is mounted on a sliding block, the impression cylinder having its impression surface made up of independent spring-actuated segments, of means for creating a variable pressure between the two cylinders. 6th. In a mail narking machine, the combination with printing and mpression cylinders, and a rigid stop, of a bifurcated spring actuated
lever for clearing the card or envelope from the stop at the proper time, a yielding defector, and a pair of yielding rollers for imparting the final thrust to the card or envelope. one of these rollers mounted on a spring arm and a shaft having cams thereon for operating the lever and spring arm. Thth. In a mail marking machine, the combination with printing and impression cylinders, a stop, a spring-actuated deflector and lever for rem ving a card or letter from the stop, of a pair of feed rollers faced with yielding material, a spring arm supporting one of these rollers, and means for forcing it yieldingly toward the other roller. 8th. In a mail marking machine, an antomatic feed comprising yielding fingers, and an endless belt, which carries forward as it passes, any letters or cards held by said fingers. 9th. In a mail marking machine, an automatic feed comprising yielding finger.s, one in advance of the next adjacent finger, and an endless belt, which carries forward as it passes, any letters or cards held by said fingers. loth. In a mail marking machine, an automatic feed comprising yieldinr fingers, an endless belt, and an arm which alternately exposes and shields or covers the belt whereby to alternately feed and stop the progressive movement of the cards and envelopes. 11th. In a mall marking machine, the combination with a pivoted arm, of an endless belt passing through and around a portion of the arm, and means for shifting said arm. 2th. In a mail marking machine, combination with a pivoted arm, of a cam for swinging the arm in one direction, a spring for swinging it in the other direction, an endless belt gassed around and through a portion of the arm, and means for keeping the belt tant. 13 th. The combination with rotary printing and impression cylinders, a feed roller, and a sliding bracket carrying one of the cylinders, of means for automatically applying a variable pressure to the bracket and through it to the cylinder carried thereby. 14th. The combination with a printing cylinder hawing a transverse post therein, of a cancellation die having a bayonet or L-shaped slot formed therein and adapted to receive this post, and a slide constructed and adapted to lock the die in this post. loth. The combination with a printing cylinder having a post therein, of a cancellation die having an I, shaped slot opening into the inner face and adapted to receive and let the post into its innemost end whereby the die is held in place, and a spring actuated slide having sliding connection with the cylinder in rear of the cancellation die and adapted to normally extend over the end of the latter whereby to lock it in place on the cylinder.
No. 61,590. Obstetric Device. (Appercil obstétrique.)


John Ira Sare, Narka, Kansas, U.S.A., 3rd November, 1898 ; 6 years. (Filed 13th September, 1898.)
Claim.-As an improved article of manufacture, the spoon-shaped wire frame $A$, fornsed with the converging longitudinal sides $a, a$, the parallel ends 33 which are secured in the smaller end of the longitudinal conical handle 2 , in combination with a wire slide $C$ adapted to draw the parts $a$, a towasd each other, the free end thereof formed with an interral eye $e$ and at its opposite end with a transverse cruss-head comprising the guide eyes $d$, $d$, encompassing the converging arms $a$, $a$ of the frame $A$, and having the free end of the wire after the cross head is formed, turned backward parallel with and secured to the shank, substantially as shown and descriled.

## No. 61,591. Method of Extracting Oil.

(Méthode dextroire thuile.)
Jo' n Charles William Stanley, London, England, 3rd November, 1898 ; 6 years. (Filed 17 th May, 1595. )
Oleim.-1st. The extraction of oil from material in which it is contained by sending an upward current of hot fluid thiough such material to carry the oil wut on to the upper surface of the mass, and withdrawing it without returning it through tiee material from which it was expelled. 2nd. The extraction of oil from material in which it is contained by de ivering hot Huid into such material through pipes or nozzles, the oprnings of which are directed downward, for the purpose described. 3rd. The extraction of oil from material in which it is contained hy delivering steam and water into it through the pipes or nozzles so disposed as to mingle them before
they issue into the material treated. 4th. Apparatus for the extraction of oil from material in which it is contained, comprising a tank


A having outlets for the expelled oil at the working level $\mathrm{X}, \mathrm{X}$, pipes or nozzles delivering hot fluid into the tanks at a lower level, and doors or valves E at or near the bottom of the tank, arranged and operating, substantially as and for the purpose described. 5th. In apparatus of the kind described, the combination with a single conveyor $C$, of two or more tanks $A$, which are discharged alternately. 6th. In apparatus of the kind described, the combination of a conveyor $C$ and one or more tanks $A$, with openings $A^{1}$, under the eontrol of slidable doors F , for regulating in the manner described, the dischalges of the contents of the tanks into the conveyor. 7 th. In apparatus of the kind described, the combination with concentric steam and water-pipes $J^{1}$, $\mathbf{H}^{1}$, of a stuffing box $J^{2}$ or other removable closure permitting the use of a clearing-rod, for the purpose described. 8th. The combination of tanks $A$, with openings $A^{1}$ and oil-exit holes $A^{*}$ and suitably supported in a canted position, the conveyor $\mathbf{C}$ placed in a central trough D , the sliding door E moving in guides $\mathrm{A}^{2}$ and operated by rods $\mathrm{E}^{1}$ provided with fingers $\mathrm{E}^{3}$, designed to engage with the bar $F^{1}$, the guttering $G$, the steampipes $H$, with downwardly extending branches $H^{1}$, which pass through stuffing hoxes $\mathrm{J}^{2}$, and the water-pipes J , substantially as specified.

No. 61,592. Process of Stepping flax or Memp.
(Procédé pour le rouissetge d" chanere ou lim.)

(ieorges Loppens and Honoré Deswarte, Nieuport, Belgium, 3rd November, 1898; 6 years. (Filed 16th December, 1896.)
rluim. The herein described process of retting flax which con ${ }^{-}$ sists in covering a mass of vertically-arranged flax-straw with water, constantly delivering fresh water beneath the mass, and constantly withdrawing the sinur grantity of impure water from helow the fresh water, sulstantially as specitied.

## No. 61, 593. Prorems of Making Matches.

(Proredi; nom,' '" fil!riration des allumettes.)
Juan Craveri, Buenns Ayres, Argentine Republic, 3rd November, 1898: ( F Years. (Filed 25th August, 1897.)
Claim.-1st. The herein described composition for making a paste for matches, which consists of the compounds of sulphocyanogen or of its isomeric and polyniric mixed with a combustible and an oxygen yie!ding comp"mbl, as hareintorfore described and specified. and. The herein described composition for making a paste for matehes, which consists of the compounds of sulphocyanogen or of its isomeric and polymeric, mixed with a combustible, and an
oxygen yielding compound, and aromatic nitro-derivatives and xantic acid compounds, as hereinbefore described and specified. 3rd. The herein descrilued composition of matter fur making a paste for matches, consisting of two parts of acid persulpho-cyanic, 4 parts of cyanogen persulphide, 2 parts of nitro-naphthalene, 1 part of xanthate of potassium, 1 part of charcoal, 20 parts of chlorate of potassium, 50 parts of peroxide of lead, 10 parts of trisulphide of antimony, and 10 parts of gelatine, or fine glue, mixed and dried in the manner indicated and for the purposes specified.

No. 61,594. Clothem Pin. (Epingle it lingr.)


Onesime Isale Bergeron, St. Grégoire. Nicolet, Québec, Canada, 3 novembre, 1898 ; 6 ans. (Déposé 5 aout, 1898.)
Résumé.-Une épingle a linge faite de broche nétallique et pliée de manière à former les mâchaires AA, les charniéres BB, les crochets CC, les leviers D)I, et EE , et les crochets FF, tel que cidessus decrit +t indiqué.

No. 61,igit. Saw Tool. (Outil pour repurer les scies.)


Richard Bennett, Raquette Lake, New York, U.S.A., 3rd November, 1898; 6 years. (Filed 26th October, 1898.)
Claim.--1st. As an article of manufacture, a saw-tool for sidedressing, comprising a suitable stock having one side or face thereof provided with an even bearing-surface, and with a recess in said face longitudinally graduated in depth, and a file adjustable in said reeess and correspondingly tapered so as to have its outer face always parallel with the said bearing-surface of the stock, and means for holding the file in place, substantially as set forth. 2nd. As an article of manufacture, a saw-tool adapited for the use in cutting down the raker-teeth of a saw, comprising a suitable stock, and an adjustable gauge supported by the stock, and having a slot open at one end to receive a raker-tooth to be cut down, substantially as set forth. 3rd. As an article of manufacture, a saw-tool adapted for use in setting the cutting-teeth and cutting down the raker-teeth of a saw, comprising a suitable stock provided with a flange along one edge and having a reciss therein, an adjustable raker-tooth gauge working in said recess, a setting member movably secured to the flanged edge of the stock and having one of its ends provided with a setting-slot and normally resting in said recess atoove the said gauge, the face of said flanged edge serving as an even bearing-surface for the side of the saw when the setting member is in use, and the lower side of said Hange serving as an even bearing-surface for the points of the teeth when the gauge is in use, substantially as set forth. 4th. As an article of manufacture, a saw-tool comprising a stock or body portion having the even faces $\mathbf{A}^{1}, \mathbf{A}^{2}$, the face $\mathbf{A}^{1}$, being provided with a recess or depression longitudinally graduated in depth, in which a tapering file may be adjustably seated for side-dressing saw teeth and means for adjustably securing the file in said recess, said face having an independent and narrow recess E , within which the file may be heid in position edgewise and sprung or bent for conrenient use in joining saw-teeth, a raker-tooth gauge vertically adjustable in the recess in the stock, the flange $B^{3}$, and the setting member B, combined and related, substantially as set forth. 5th. As an article of manufacture, a saw-tool comprising a stock having the flat even sides $A^{1}, A^{2}$, and flange $B^{3}$, extending from the flat even upper edge of the stock, the face $A^{\prime}$, having the recess $C$ and

E, constructed as described, the tapering tile, the recess $l$, gange $q$, having the open slot $g^{\prime}$, and setting member $B$, having slot $b$, sub. stantially as set forth. 6ith. 'The herein describerd combination tool, the same comprising a stock or hody portion having one of its faces provided with a tapering or graduated recess or depression C, within which a file may lu adjustably seated, a set-serew for adjusting and securing the file in said recess, an independent narrow and tapering recess $E$, within which the file is adjusted and held in position for convenient use in jointing saw-teeth, a raker-tooth gange $(\mathbb{i}$, vertically adjustable within a recess in the stock as described, means for vertically adjusting the gage block, and the swinging setting member B, pivoted at a point adjacent to one of its ends to the stock, and having its opmosite end notched as described and for the purpose specified.
No. 61,596. Gun ©arriage. (Affitt de ctnom.)


Michel Darmancier and Aime Dalzon, both of Saint Chamond Loire, France, 3rd November, 1898; 6 years. (Filed 21st September, 1897.)
Claim.-1st. In a gun carriage, a recoil arm pivotally connected with the front of the gun carriage, in combination with a device for the storage and re delivery of energy, wherehy the recoil arm is compressed during the recoll, and will resume its normal condition under the counteracting impulse of the energy storing device, substantially as specified. 2nd. In a gun carriage, a recoil arm provided with an anchor or fluke and pivotally connected with the front of the gun carriage, in combination with a device for the storage and re-delivery of energy, and an hydraulic brake, sulnstantially as specified. 3rd. In a gun carriage, a recoil arm provided with an anchor or fluke, and an extension added to such anchor or fluke and pivotally connected with the front of the gun carriage, in conbination with a device for the storage and redelivery of energy, and an hydraulic brake, substantially as specified. 4th. In a gun carriage. a rigid recoil arm provided with an anchor or theke. in consbination with an energy-storing device connecting it to the fiont part of the gon carriage, and an hydraulic brake, sulstantially as specitied. ith. In a gon carriage, a recoil arm provided with an anchor or Huke and pivotally connected with the front of the gun carriage, in combination with chains or rods ext-uding from the rear of the prop to the gun carriage, a device for the storage and re- (lelivery of energy, and chains, hooks, or bolts connecting the rear of the prop with the carriage trail, substantially as specifi d. lith. In a gun carriage, the combination with the main frame of an anxiliary carriage, a vertical pivot in rear, and a circular horizontal shackle concentric with and situated in front of the said pivot, substantially as described and for the purpose specified. 7 th. In a gun cariage, a a brake comprising the following instrumentalities, friction shoes actuated by means of a screw handle, a set of rods, and a leyer to enable the brake shoes to be applied to both wheels with the same effect, substantially as specified. 8th. In a gun carriage, an inclined compressible prop or recoil arm arranged along the gun carriage frame and provided at one end with an anchor or fluke, the said prop being pivotally comnected to the front part of the gum carriage, substantially as specified. ?th. In a gun carriage, an inclined compressible prop or recoil arm comprising the following elements:-a suitably packed hydraulic cylinder ", terminating in an anchor or fluke $f$, with a shoulder $g$ resting in contact with the trail, a solid piston $b$ adapted to move within the cylinder $a$, and pivotally connected to the front part of the gun carriage, a tube $d$ for strengthening the prop, which tube envelopes the piston and is adapted to slide on the hydraulic cylinder, an uncovered simple or compound metal spring $c$, its bearing points being afforded by the head of the piston rod and the bottom surface of the cylinder carrying the anchor, and the guard tube e, substantially as speceified. 10th. In a gun carriage, an inclined compressible prop or recoil arm comprising the following elements:-a suitably packed hydraulic cylinder $a$ terminating in an anchor or fluke $f$ with shoulder $g$ rest ing in contact with the trail, a piston $b$ of the hollow rod and p lunger type, and the metal spring $c$ which is enclosed in said piston $h$, substantially as specified. 11th. In a gin carriage, an inclined compressible prop or recoil arm comprising the following elements:-a suitably packed hydraulic cylinder a terminating in an anchor or fluke $f$ with shoulders $g$ resting in contact with the trail, a solid piston $b^{2}$ adapted to move within the cylinder $"$ and pivotally connected to the front part of the gun carriage, a tube for strengthening the prop, which tube envelopes the piston and is adapted to slide on the hydraulic cylinder, and a compressed air pad or buffer filling up the spaces $r^{1}$, ${ }^{2}$ left between the parts, substantially as specified
$1 \geqslant$ th. In a gun carriage, the combination with a hydranlic eylinder ", situated near the trail or guard tube $c$, aud the strengthening tube $d^{\prime \prime}$ forming a piston within the guard tule, substantially as specified. 13th. In a rim carriage, an inclined compressible recoil arm consisting of a hollow spring compressing rod 1 , forming an hydraulic cylinder with or without channels or grooves for the passage of the Huid, and provided with a tightly fitting or packed phag $d$, an hydraulic piston $b$ secured to the rear end of the outer tube $r$ and adaped to move in said rest $b$, and the spring $c$ held in operative position by the tubes "and $b$, substantially as specified. 14th. In a gun carriage, an anchor or thake consisting of a sharp ec.ge $f$ and a shoulder $g$ for limiting the depth to which it can enter the ground, the cutting edge being shaped to correspond to the directions of the percussive torce by which it is tolse driven into the ground, and terminating below in a projecting point situated in the central vertical plane of the gun carriage, substantially as specified. 15th. In a gun carriage, an anchor or tluke consisting of sharp edge $f$, a shoulder $g$, and an anchor or fluke extension $f^{1}$ secured against the cutting purtion of the anchor or fluke, substantially as and for the purpese specified. llith. In agun carriage, chainsor telescoping rods in combination with the inclined propor recoil arm and the gun carriage or gun carriage trail, substantially as described and for the purpose specitied. 17 th. In a gun carriage, the combination of the inclined prop or recoil arm, the gun carriage trail, chains adapted to connect the rear end of the prop: or recoil arm to the gun carriage, and a winting lever for actuating the means of engagement, substantially as specified. 18th. In a gun carriage and in combination therewith, a secondary auxiliary carriage $p$, interposed between the gun barrel and the main carriage, provided in the rear with a vertical pin or pivot (), projecting from the cross-tie $V$, of the gun carriage, situated front, a claw 4 , resting on the horizontal flange $r$, of the gun carriage in the vicinity of the centre of gravity of the combined gun and carriage and prefrably somewhat in the rear of that point, and in cross piece $u$, the said flange $r$, being concentric with the said pivot O, and engaging with the claw of, in such a manner that the front part of the auxiliary carriage may be angularly displaced a few degrees on its pivot O, substantially as specified. 19th. In a gun carriage and in combination therewith, a secondary or anxiliary carriage $p$, interposed between the gun barrel and the main carriage, and mechanism for connecting and re-adjusting the lateral pointing of the gim, which mechanism consists of a screw threaded cross spindle $t$, supported by the front part of the frame.$J$, and controlled by a liandle s, situated substantially as described. 20th. In a gun earriage a differential brake with brake shoes and a crank comprising two brake shoe carriers $A^{\prime}, A^{2}$, hinged to the gun carriage frame and controlled by the rods $B^{\prime}, 3^{2}$, which are operated by the cranks $\left.D^{1}, 1\right)^{2}$, mounted respectively on two shafts $C^{1}, C^{12}$, one of which shafts forms an extensions of the other, and both being held by the smports LL, and separated by a crank lever $F$, or its equivalent each of the said shafts $\mathrm{C}^{\prime}$, C ? carrying in addition to this, a crank $R^{1}, R^{2}$, respectively, connected together with a little play, by means of the piece E , which engages looth with the two cranks $K^{1}, K^{2}$, and with one arm of the bell crank lever $F$, the other arm of which is connected by the spindle to the rod H , situated equidistantly between the two cranks $\mathrm{R}^{1}, \mathrm{R}^{2}$, and carrying the nut I . controlled by the crank $J$, in such a manner that the slight rotary movement of the crank operating not $I, J$, by setting the crank shaft, and consequently the two crank supporting spindles, in rotary motion, thables the brake shoes to be appied to the wheels or alternatively to the cheeks of the gun carriage, whatever the respective diameters of the wheels may be, substantially as specified. 21st. In a gun carriage, in combination with the axle, of an axle covering metal sheet or plate rendered rigid in the vertical direction by the curved outline of one of its edges, substantially as described and for the purpose specified.

(Appareil comporatuire pur la sére.)


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Morton L. Dmbam, Toledo, Ontario, Canada, Brd Novomber, 1R!98; 6 years. (Filed 31st August, 1898.)

Claim.-1st. The combination of the fire chamber A, trough $1 P$, and smoke stack $B^{1}$, the renovable sap, pan $C$, having a series of smoke tubes $\mathrm{C}^{1}$, connecting said chamber and stack and sitting within the trough, and the reversible syrup pan 1), seated on top of the tire arch or chamber, said pans having divisional portious $\mathrm{C}^{2}$ and ()$^{2}$, respectively, as set forth. 2nd. The combination of the fire chamber A, trough B, in rear and smoke stack 13', at the end of said trough, the sap pan C , fitting intosaid trough and having tulas $\mathrm{C}^{1}$, connecting said chamber and stack, the syrup pan 1), on top of said chamber, said pans having pockets $C^{+}$, and I ') respectively, connected by a siphom and an automatic foat valve, substantialiy as set fortl.

No.61,g98. Piano Vibrator. Appurwil vilratoire pour pianos.)


Martinns Sieveking, XVIII (iymnasiumstrasst, to Viemna, Austria,
3rd November, 1898; 6 years. (Filed 26th August, 1898.)
Claim.-A vibrator for pianos, characterized by two tlies or wings mounted upon the same axis, the said Hies being arranged above the hammers and extending the whole width of the instrument, and being caused to rotate by means of clock-work mechanism, for the purpose of producing a peculiar viliration in the somods or notes of the instrument.

No. 61,599. Toothpick Making Machine.
(Apparail ì faire dex ruredents.)


Edward M. Lamb and Emmor Bales, both of Claytom, Michigan, U.S.A., 3rd November, 189R: 1 years. (Filed 2end August, 1898.)

Claim.-1st. In a machine for making toothpicks, the combination of the rotary feeding head for rotating and fueding the strand through the machine, the rotary cutter in line with said head, means involving a guide for carrying the strand over said cutter in contact therewith, and for intermittently depressing the rotary strand onto the cutter to form the taper on the end of the pick. substantially as described. 2nd. In a machine for making toothpicks, the combination of the rotary head adapted to rotate and feed the strand from which the pick is formed, a rotary cutter located in the path of said strand and rotating in the plane of the longitudinal axis thereof, means for holding said strand in contact with said cutter, and intermittently depressiug said strand onto said cutter, substantially as described. 3rd. In a machine for making toothpicks, the combination of the rotary feeding-heads for feeding and rotating the strands, the rotary cutters located in the path of said strands, the presser feet, the cross-head carrying said pressio feet, and means for intermictently depressing sidid cross-head to carry downward said shoes and force the strands downward onto the cutters, substantially as described. fth. In a machine fon making toothpicks, the combination of the feeding-heads for wotatig and foeding the
strands longitudinally, the rotary cutters located in the path of said strands, the series of spring actuated presser foot adapted to receive said strands and hold them in contact with said cutters, the vertically movable cross-head, adjusting screws in said cross-head engaging the stems of the presser foot, and means for depressing aaid cross-head, snbstantially as described. 5th. In a machine for making toothpicks, the combination of the rotary feeding heads adapted to rotate and feed the strands from which the toothpicks are formed, the cutters in line with said heads, a vertically movable cross-head carrying the presser feet across shatt, cams on the ends of said shaft, the arms engaging said cams, and the levers pivoted to said arms and engraging said cross-head, substantially as described. 6ith. In a machise for making toothpicks, ths combination of a fixed perforated cutter har, a reciprocating perforated cutter bar, and means for reciprocating the same, substantially as described. 7 th. In a machine for manufacturing toothpicks, the combination of a fixed bar provided with a single perforation for each strand of material operated upon by the machine, a reciprocating cutter bar provided with two perforations for each strand operated upon and means for bringing the perforations in the reciprocating bar alternately into register with the perforations in the fixed bar, substantially as described. Sth. In a machine for manufacturing toothpicks in comibination with a fixed cutter har and a reciprocating cutter bar, and as means for driving the reciprocating cutter bar, a mutilated wheel rngaging the crank wheel of the cutter bar, substantially as descriled. 9th. A cutter for severing strands of toothpicks at definite lengths, consisting of a fixed bar having an opening therethrough with shearing faces on each side of said opening, a reciprocating bar having a pair of openings therethrough with shearing faces between the openings, and means for actuating the reciprocating bar, substantially as described.

No. 61, $\mathbf{~ f 0 0}$. ('urbonating Apparatum.
(Apprarril à carbouizer.)


Edward E. Murphy, Buston. Massachusetts, U.S.A., 3rd November, 1898; 6 years. (Filed 25th .July, 1898.)
Cluim.-1st. In an apparatus of the character specified, comprising a reservoir or casing having a gas-inlet and a liquid inlet, a chamber arranged in said casmg and connected with the liquid inlet by a perforated norale whereby gas is drawn into said chamber by the liquid, and means in said chamber between the outlet therefrom and the nozale for sub-dividing and mechanically combining the gas and liquid. 2nd. An apparatus of the character specified, comprising a reservoil or casing having a gas-inlet, a liquid inlet, a gas and liguid receiving chamber within the casing communicating with the licuid inlet and provided at its upper portion with a gas-inducing liquid supply nozzle, and below sad nozzle with means for subdividing the gas and liquid, and additional sub-dividing means extending across the casing below the outlet of said chamber. 3rd. An apparatus of the character specified, comprising a reservoir or casing having a gas-inlet, a liquid inlet, a chamber in said casing a tubular neck connected with the liquid inlet, said neck having gas-supply openings, a gas-inducing liquid-supply nozzle in said neck, and means within the chamber for mechanically combining the gas and liquid. 4th. An apparatus of the character specified, comprising a reservoir or casing having agas-inlet and a liquid inlet in its upper portion and a siace for the accumulation of carbonated liquid in its lower portion, means for mechanically combining gas amb liyuid above said space, a valve-casing connected with the reservir and hatring a protion projecting into the reservoir, a main
valve and an anxiliary valve in said casing, and a foat within the reservoir arranged to act on the auxiliary value. Sth. An apparatus of the character sescitied, comprising a chamber or casing having a liquid inlet, a gas-inlet, and an outlet for carbonated liquid, means in satd casing for mechanically combining the liguid and gas which enter it, and means comprising an injector nozzle, a carbonated liquid recepta le commmicating with said ontlet, a liquid conduit connected with the liguid inl-t, an automatic check valve operated by an accumulation of carbonated liguid to close said conduit, and a steam pump comected with the conduit and with a source of liguid supply, the action of sad pump, being stopped by the closing of the antomatic check-valve. Gth. An apparatus of the character specified, comprising a chamber or casing having a liquid inlet, a gas inlet, and neans for mechanically com-
bining liquid and gas admitted through said inlets, a liquid conduit connected with the liquid inlet and including a casing or enlargement, and a gas conduit connected with the gas inlet, and including a chamber having an antomatic gas valve, a portion of said gas conduit passing through the casing. 7th. An apparatus of the character specified, comprising a carbonating chamber, a receptacle for carbonating liquid below the carbonating charnber, and an inte mediate air-trap having an automaticblow-off valve. Xth. An apparatus of the character specified, comprising a carbonating chamber, a carbonated liquid receptacle below said chamber, an intermediate air chamber or space commmicating with the liquid receptacle, an elongated outlet extending from the carbonating chamber below the upper portion of the air chamber, and an antomatic blow-off valve connected with the air chamber. '9h. An apparatus of the character specified, comprising a carbonated liquid receptacle having a dome, a carbonating chamber a portion of which is located above and a portion within said dome, and means for removing air from the dome. 10th. An apparatus of the charactor specitied, comprising a carbonated-liquid receptacle having a dome, a carbonating chamber a portion of which is located above and a portion wlthin satid dome, the said carbonating chamber having a guide in its lower portion, a float in the reservoir helow the carbonating chamber, a rod or stem on said float extending through said guide, a check valve controlling the entrance of liguid into the carbonatmg chamber, and connections between the float rod and check valve. 11 th. An apparatus of the character specified, comprising a carbonating chamber having a liquid inlet and a gas inlet, a casing within said chamber having provisions for receiving and mixing gas and liquid, a check valve controlling the admission of liquid to said chamber and casing, a lever connected to said valve and forked at one end to partially embrace said casing, a liyuid receptacle below the carbonating chamber and provided with a dome that encloses a part of the said chamber, a Hoat in said liguid receptack, and a rorl secured to the float and extending throush a guide in the bottom of the carbonating chamber, said rod having a fork at its upper end that partly embraces the casing in the carbonating chamber and is connec: ed with the forked end of the lever. 12th. An apparatus of the character specitied, comprising a carbonated licuid receptacle having a dome, a cartonating chamber a portion of which is located above and a portion within said dome, a series of wire dises in the lower portion of the casing, a tube affixed to the bottom of the casing and projecting upwardly through the series of dises, and a disc-clamping device on the upper end of the tube. 13th. In an apparatus of the character specified, a mechanical mixing device comprising a casing having meams for the admission of liquid and gas to its upher portion, and discharge. orifices at its lower portion and a cuplocated between the receiving and discharge ends of the casing and having a closed bottom and outlets above said bottom. $14 t \mathrm{th}$. An apparatus of the character specified, comprising two or nore carbonating chambers and receptacles, i gas supply connected to each of said chambers, means interposed between each chamber and the gas supply for regulating the passage of gas therein, and maintaining sufficient pressures in said chambers and receptacles, means for supplying liquid to both of said chambers, and means for regulating the pressure of the liquid introduced into said chambers, said receptacles having independent ontlets, whereby the carbonated liquid may be simultaneously used for different purpuses. 15th. An apparatus of the character specified, compising separate rese: voirs, each having means for commingling gas and liquid, a gas supply comnected to both eteservoirs, means interposed between the gas supply and the reservoirs for introducing gas thereto at different pr ssures, means controlled by the accumulation of carbonated liquid for supplying liquid to said reservoirs in the proper amount, and means for regulating the presure of the liquid introduced into said reservoirs, said reservoirs having
independent outlets. 16th. An apparatus of the character specitied. comprising separate reservoirs, each having means for commingling gas and liquid, a gas supply connected to both reservoirs, means interposed between the gas supply and the reservoirs for introducing gas thereto at different pressures, a pump for supplying liquid to said reservoirs, means for regulating the amount of liquid introduced introduced into said reservoirs, and a regulator controlled by the water pressure for regulating the admission of steam to the purip. 17th. An apparatus of the character specified, comprising a chamber or casing having a liquid inlet, a gas inlet, an cullet for the carbonnated licuid, means in said chamber for mecanically combining the liquid and gas which enter it, and including an injector nozzle, a crrbonated liquid receptacle a communicating with the outlet, a
liquid conduit connected wit the liquid inlet, an antomatic check liquid conduit connected wit the liquid inlet, an automatic check
valve operated by the accumulation of carbonated liquid to close
said conduit, a stram pmonf connected with said conduit and with a source of liguid supply, and a regulator connected with the liquid conduit and controlling the entrance of stean to the pump, whereby the action of the pump is stopped when the pressure of water increases leyond a predetermined point. 18th. An apparatus of the character specified, comprising a ciarkonating chamber, a receptacle for carbonated liquidbelow the carbomating chamber and intos which the carbonating chamber partially extends, means in the carbonating chamber for commingling and combining the liquid and gas, and a duct connecting said chamber and said receptacle for equalizing the presmure therein. 19th. An applaratus of the character specified, comprising a carbonating chamber, a receptacle for carbonated liquid helow the carbonating chamber partially extends, means in the carbonating chamber for commingling and combining the liquid and gas, and a duct comnecting said chamber and said receptacle for equalizing the pressure therein. 20th. An apparatus of the character specified, comprising a carbonating chamber, a receptacle for car bonated liquid below the carbonating chamber, said carbonating chamber having a portion in the form of a tube extending downwardly into the receptacle and containing means for agitating the carbonated liquid, and a tube connecting the chamber and the receptacle for equalizing the pressure therein, said tube projecting above the agitating means in the carbonating chamber. 21st. An apparatus of the character specified, comprising a receptacle for the carbonated liquid, a carbonating chamber separated from the receptacle by a portion, and having one or more injector nozzles connected with a licuid supply inlet, a gas inlet, and two or more tubes projecting down into the receptacle and secured in apertures in the partition, said tubes having means therein for comingling gas and liquid. Y2nd. An apparatus of the character specified, comprising a receptacle for the carbonated liquid, a carbonating chamber above the receptacle, a liquid inlet, a gas inlet, casings in said chamber communicating with said inlet, and having means therein for comingling gas and liquid, and tubes each arranged below one of the said casings, and having means for further commingling the gas and liquid. . 23rd. An apparatus of the character speciged, comprising a reservoir having an inlet, a carbonating chamber communicating therewith, and having a gas and a liquid inlet, means in said chamber for commingling gas and liquid, a liquid duct leading from said outlet, a gas duct leading from the carbonating chamber, and communicating with said liquid duct, and a pipe connected with said ducts, whereby a fountain may be connected with said pipe, and may he properly charged with gas and filled with carbonated liquid. 24th. An apparatus of the character specified, comprising a reservoir having an outlet, a carbonating chamber communicating therewith, and having a gas and a liquid inlet, means in said chamler for emmingling gas and llquid, a liguid duct leading from said outlet a gas dnct leading from the carbonating chamber, a coupling loet w een said ducts, valves in said ducts, a pressure gauge communicating with said duets, bet ween said valves, and a pipe commmicating with said coupling for the pur pose set forth. 25th. An apparatus of the character specified, comprising a reservoir having an outlet, a carlonating chamber communicating therewith, and having a gas and a liquid inlet, means in said chamber for commingling gas and liquid, a liquid duct leading from said outlet, a gas duct leading from the carbonating chamber, a coupling between said ducts, valves in said ducts, a pressure gauge communicating with said ducts, between said yalves, a pipe communi cating with said coupling, and a discharge pipe communicating with said coupling, for the purpose set forth. 26th. An apparatus of the character specified, comprising a reservoir having an outlet, a cartonating chamber communicating therewith, and having a gas and liquid inlet, means in said chamber for commingling gas and liquid. a pump for supplying liquid to the said liquid inlet of the carbonat ing chamber, a liquid duct leading from the outlet of the reservoir, a gas duct leading from the carbonating chamber, and communicating with the liquid duct, an inspirator connected with said ducts. and located in the liguid inlet of the pump, and a pipe communicating with said dncts and inspirator, and adapted to be connected to a fountain, sulstantially for the purpose set forth. 27 th . A float comprising an outer shell, and an interior body of relatively light material. 28th. A float of the character described, comprising an imner body of solid light material, and an outer metallic casing, or shell formed of two parts, with their meeting edges secured together. $29 t h$. A float of the character described, comprising an inner body of solid light material, an outer metallic casing or shell formed in two parts, with their meeting edges secured together, and a rod passed through sald body and secured to said shell. 30th. An apparatus of the charactor specified, conprising a carbonating chamber, independent inlets for the liquid and gas, a casing in the upper portion of the chamber having provisions for mechanically mixing the gas and liquid and for discharging the mixture, and a wire sponge in the lower portion of the carbonating chamber which receives the said mixture, the said carbonating chamber having an outlet below said wire sponge through which the carbonated liguid passes. 31st. An apparatus of the character specified, comprising a reservoin or casing for holding the carbonated licuid and having a gas supply inkt, a chamber communicating with said reservoir or casing and arranged therein, gas supply openings in satid chamber, a liquid supply inlet independent of said gas supply inlet and communicating with said chamber by a perforated nozzle wherehy gas is drawn directly from said reservoir through said openings int satid chamber by the liguid from said nozzle, and means located
adjacent to said nozzle for retarding the fow of the liguid and gas and through which the liguid and gas are forced under pressure for sub)dividing and mechanically combining the same. 32nd. Anapparatus of thecharacter specified, comprising a reservoir or casing for holding the carbonated liguid and having a gas supply inlet, a chamber communicating with said reservoir or casing and arranged therein, gas supply ope nings in said chamber, a liquid supply inlet independent of saidgassupply inlet and commmicating with said chamber hy a perforated nozale whereby gas is drawn directly from said reservoir through said openings into said chamber by the lipuid trom said nowzle, and a wires jonge located adjacent to said nozale for retarding the flow of the liquid and gas and through which the liguid and gas are forced under pressure for sub dividing and mechanically combining the same. 33 rd . In an apparatus of the character specified, a reservoir or casing having a gas supply inlet, a chamber commmicating with said reservoir or casing and arranged thertin and having a tubular neek provided with gas supply openings and connected with a liquid supply inlet independent of said gas supply inlet, and gas inducing liquid supply nozzle connected to said liquid inket and located in said neck to draw gas directly from said reservoir through said openings, and means for retarding the fow of the liquid and gas and through which said liguid and gas are forced under pressure for sub-dividing and mechanically combning the same. 34th. In an apparatus of the character specified, a reservoir or casing having a gas supply inlet, a chamber communicating with said reservoir or casing and arranged therein and having a tubular neek provided with gas supply openings and connected with a liquid supply inlet independent of said gas supply inlet, a gas inducing lifuid nozzle connected to said liquid inlet and located in said neck to draw gas directly from said reservoir through said openings, and foraminous means for retarding the flow of the liquid and gas and through which said liquid and gas are forced under pressure for sub-dividing and mechanically combining the same. 35th. An apparatus of the character slecified, comprising a reservoir or casing for holding the carbonated liquid and having a gas supply inlet, a chamber communicating with said reservoir or casing and arranged therein, gas supply openings in said chamber, a liquid supply inlet independent of said gas supply inlet and communicating with said chamber by a perforated nozzle whereby gas is drawn directly from said reservoir through said openings inte said chamber by the liquid from said nozzle, a strainer for the liquid located in said nozzle, and means loceted adjacent to said nozzle for retarding the flow of the liquid and gas and through which the liguid and gas are forced under pressure for sub-dividing and mechanically combining the same. 36th. In combination with a closed receptacle, a valve casing on said receptacle and having a portion projecting into the interior of xaid receptacle, a liquid inlet connected to said valve casing, a licpuid conduit between the inner and outer portions of the valve casing and opening into the interior of said receptacle, a main valve located in the portion of the valve casing outside of the closed receptacle and controlling the main liquid passage leading to said closed receptacle, an auxiliary valve located in the portion of the valve casing within the closed receptacle and controlling the said liguid conduit in the valve casing and adapted noon closing said licpuid conduit to cause the closing of the main valve controlling the said main ligud passage by the pressure of the liquid entering through said liquid inlet, and a float within said receptacle arranged to act on said auxiliary valve which is adapted to close or open said liguid conduit by the rise and fall of the float. 37 th. In combination with a closed receptacle, a valve casing on said receptacle and having a portion projecting into the interior of said receptacle, a liquid inlet connected to said valle casing, a liguid conduit between the inner and outer portions of the value casing and olening into the interion of said receptacle, a main valve located in the portion of the value casing outside of the closed receptacle and controlling the main liguid passage leading to said close treceptacle, an auxiliary valve lucated in the portion of the valve casing within the closed receptacle and controlling the said liquid conduit in the valve casing and adapted upon closing said liquid conduit to cause the closing of the main valve controlling the said main liquid passage by the pres. sure of the liguid entering through said liquid inlet, a float within said receptacle arranged to act on said auxiliary valve which is adapted to close or open said liquid conduit by the rise and fall of the float, and a stean, pump, the action of said pump being stopped by the closing of said liguid conduit by said amxiliary valve.

## No. 61,601. Electric Regulator. (Regulitenrélectrifuc.)

Morris Moskowit\%, Newark, New Jersey, U.S.A., 3rd November, 1898; 6 years. (Filed 25th July, 1898.)
Claim: 1st. The herein described electric regulater, comprising, in combination with a coil $r$, a movable plunger, a pair of contact arms connected with a frame $r$ which is also connected with the ends of said plunger, and contact posts $y$ and i between which said contact arus are adapted to vibrate, substantially as and for the purposes set forth. 2nd. The herein described electric regulator, comprising, in combination with a coil $c$, a movable plunger in said coil, a frame $e$ connected with the ends of said plunger, a pair of contact arms $e^{3}$ and $e^{+}$connected with said frame $e$, contact posts $g$ and $i$, and $g^{\text {t }}$ and $i^{\prime}$, between which said arms $e^{3}$ and $e^{4}$ are adapted to vibrate, and mechanical means comnected with said frame to cause contact between said arms $e^{3}$ and $c^{4}$ and the contact posts, 9 and $i$, when there is no current of electricity passing through said coil $r$, sulustan-
tially as and for the propeses set forth. 3rd. The herein described electric segulator, comprising, in comblination with a coil $c$, a


## 61601

movable plunger in said coil, a frame connected with the ends of said plunger, a pair of contact arms $e^{: 3}$ and $c^{+}$connected with said frame $r$, contact posts $g$ and $i$, and $g^{\prime}$ and $i^{\prime}$ between which said arms and are adapted to vibrate, and mechanical means connected with said frame to cause contact between said arms $e^{3}$ and $e^{4}$ and the contact posts $g$ and $i$, when there is no current of electricity passing through said coil $c$, and means consisting, essentially of a pair of arms $a^{3}$ and $a^{4}$ pivotally connected with said plunger, and also pivotally arranged on posts on the frame or base of the device, and a tension spring connected with one of said arms and with a post on said base, substantially as and for the purposes set forth. 4th. The herein described electric regulator, comprising, in combination with a coil $c$, a movable plunger in said coil, a frame $e$ connected with the ends of said plunger, a pair of contact arms $\epsilon^{3} \epsilon^{4}$ connected with said frame $e$, contact posts $g$ and $i$, and $g^{1}$ and $i^{1}$ between which said arms,$^{3}$ and $e^{4}$ are adapted to vibrate, and mechanical means connected with said frame to cause contact hetween the arms $e^{3}$ and $e^{4}$ and the contact posts $g$ and $i$, when there is no current of electricity passing through the coil $r$, said means consisting, essentially, of a pair of arins $a^{3}$ and $a^{4}$ pivotally connected with said plunger $d$, and also pivotally arranged on posts on the frame or base of the device, and an adjustable tension spring connected with one of said arms and with a post on said base, sul)stantially as and for the purposes set forth.

No. 61,602 . Brick Making Machine.
(Mrochine it faire la brigur.)


Frederick Clifford Nomes, Detroit, Michigan, I.S.A., 3rd Novemher, 1898:6 years. (Filed 28th June, 1898.)
Chaim. $\cdots 1$ st. The method of making brick, which comsists in sup. plying a mould with plastic material, subjecting this to requisite pressure, and removing lateral pressure previous to discharge, to permit expansion within the mould, whereby roughening or break ing of the sides and corners of the brick will beotiated, substantially as describnd. 2nd. In a brick-making machine, a mould hav.
ing expanding walls, the corners of which are closed, when the walls are opened, substantially as described. 3rd. In a brick-making machint, the combnation with a reciprocating die and a punger, of a mould having expanding walls, the corners of which are closed when the walls are opened, substantially as destribed. 4th. In a brick-making machine, the combination with an expanding mould. of a reciprocatory die and plunger, the movements of the dif and plunger heing so timed that the monld will expand the instant the plunger ceases to impart pressure, substantially as doseribed. Eth. In a brick-making machine, the combination with an expanding mould, of a die and a plunger, a toggle-joint for operating the planger to calle it to move upward and thus raise the plunger, a lever comnected by interposed mechanism with the die, and a cam for oprerating said mechanism to raise and lower the die, sulstantially as described. (ith. In a brick-making machine, the combination with a die and a plunger, of a mould having movable sides, a frame or boxing inclosing the walls of the mould, fulcrums interposed between the walls and the inner sides of the loxing, levers connecting with the boxing, a shaft carrying a plate to which the levers are secured, and a cam adaptel, at predetermined times, to rotate the shaft and, through the levers, to turn the boxing, thereby to open and close the members of the mould, substantially as described.

No. 61,603. Kim for Bath Tubs. (Entomrige pour hains.)


Davids. Chuff, (ionderich, Ontatrio, ('anada, 3rd November, 1sis: 6 years. (Filed 3uth September, 189 s .)
Chaim. 1st. A rim for hath tubs, consisting of hent wond haviug itsends joincol hy atorne and groove or dovetail joint, substantially as deseribed. End. A rim for hath thlos, comsisting of two st ctions of lent wand each substantially in the form of a crosk comprising one side and one end of the ring, said sections being joined at their ends to form a complete rim by means of dovetail or tongue and growe joints, substantially as described.

## No. 61,60 . Acetylene fian Making Apparatus.

(.tpintril it fairc le afe: acctyleur.)

John D. Forsyth, Claremont, Ontario, Canada, Brd Nowember, 1801s; 6 years. (Filed 20th July, 18:18. 1
Claim.- 1st. In a gasometer, a generator embracing in its eonstruction a shell adapted to be attached to the under side of the top, of the Hoating part of the gasometer, a carbide holder sustained within the shell, and openings through the shell and carbide holder, substantially as specified. こ̈d. In a gasometer, a generator embracing in its construction a collar fitted to the under side of the top of floating part of the gasometer, a socket adapted to be detachally comneted on the collar, a carbide holder sustained within the socket, a perforated dise within the collar above the carbide bolder, and openings through the collar to the dise, substantially as specified. 3rd. In an acetylene gas apparatus, a generator embracing in its construction a screw-threaded collar adapted to be fitted to the under side of the top of the gasometer, a perforated dise within the collar intermediate the top and lottom, a pipe passing centrally through the dise, openings through the collar above the dive, it socket adapted to be detachably fitted to the collar, and a carbide holder sustained within the socket, substantially as specified. 4th. In an acetylene gas apparatus, agenerator embracing in its construetion a crew-threaded collar adapted to he fitted to the under side of the top of the gasometer, a ${ }^{n+r f o r a t e d ~ d i s c ~ w i t h i n ~ t h e ~ c o l l a r ~ i n t e r-~}$ mediate the top and bottom, a pipe passing centrally through the dise, openings through the collar above the dise, a socket adapted to be detachably fitted to the collar, an internal whoulder for the socket, a carbide holder within the socket, and a Hange for the carbide holder to rest upmon the internal shoulder, substantially as specified. ith. An acetylene gas apparatus embracing in its construction a gas-well, an outle-pipe extending from substantially the top of the gas-well through the leotem to purifier. to which is adapted to be commected the gas mains, a lell for the gas well, a safety eseape pipe
within the gasometer, embracing in its construction a gas-pile, extending from substantially the top of the gas-well through the

bottonn, and adanted to be comected to the ontlet from the building, a pipe connected to the outlet and having an opening through its side in close proximity to its lower ends and adapted to telescope within the pipe of the well, an air-pipe fitted to the bell provided with a valve, a coupling between the air-pipe and safety-escape pipe, and a generator embracing in its construction a screw-threaded collar fitted to the under side of the top of the bell, a perforated disc for the collar intermediate the top and bottom, a pipe passing centtrally through the dise openings through the collar above the dise, a socket adapted to. lee detachably fitted to the collar, sluoulder for the socket, a carlide holder within the socket, and a fange for the carbide holder to rest upon the shoulder of the socket, substantially as specified. lith. In an acetylene gas apparatus, a generator connected to the floating part of the gasometer consisting of a case, a carbide holder within the case, openings through the case above the carbide hoider to iulmit water to the carbide only when the floating part of the gasmmeter is in its most lowered position, the case lexing so arranged as to prevent the carbide falling from the carbide holder inte the bottom of the gasemseter, sulntantially as specified.



Johm Matherson, Bourke, New South Wales, Australia, Brd November, 1898; 6 years. (Filed 14th July, 1898.)
Cheim.-1st. In an improved broon or brush, a handle having $A^{\prime}$, bored therein for the insertion of the hair or fibre, substantially as herein set forth. 2nd. In an improved hroom or brush, a handle. having holes $A^{2}$. bored therein for the purpose of holding the wire or other material which hinds the hair or filire to the handle, substantially as herein set forth. 3rd. In the handles of brooms and brushes, the combination and arrangement of one or more fibre-holes $A^{\prime}$, with a set of wire-holes $A^{2}$, substantially as herein set forth. 4th. In an improced broom or hrush, the arrangement of the fibre or hair passing through a hole in the palm of thr handle and being doubled over on the other side thereof and duly seremed by wire or
other binding passing through holes in the handle, substantially as herein set forth and as illustrated in the drawings. oth. In the manufacture of brooms and hrushes, the combination, and arrangement of a handle provided with fibre-holes and wire-holes $\mathrm{A}^{2}$, with branchess of fibre or hair C , passing through said fibre-holes, and lxound to the handle with wive or other binding passing through the said fibre-holes, substantially as hrein set forth.

No. $\mathbf{6 1 , 6 0 f}$. Bayonet Froṣ. (Fomrran de miomncttex.)


Angus Mumbo and the firm of Knight \& Munro, all of Halifax, Nova
Scotia, Canada, 4th November, 1898: 6 vears. (Filed 13th August, 1898.
Cheim.--In a bayonet frog constructed with two carrying loops, for carrying besides the bayonet an additional tool or weapon, the construction of the front part, which forms the loops, of one piece of leather, or other material, said piece being cut of suitable shape and donbled tack upon itself for the formation of the anxiliary loop, in manner substantially as shown and described.

No. 61,607. Centrifugal Drier. (Sorhoir centrifugr.)


David Aikman and Theodore Joucet, Montreal, Quebec, Canada 4th November, 1898 ; (Gyears. (Filed 2nd August, 1898.)
(laim. -1st. In a drier, the combination of a rotating distributor, cylindrical sieve encircling such distributor and rotating independently thereof, the speed of rotation of the distributor being faster than that of the cylindrical sieve, un inner main shaft on which such cylindrical sieve is carried, and an outer tubular shaft on which the distributor is carried, a helix located in close proximity to the inside face of such cylindrical sieve and within said open space and intermediate of the distributor and cylindrical sieve, and means for operating the shafts of such distributor, and cylindrical sieve at different spereds, for the purpose set forth. End. In a drier the combination of a rotating distributor, a rotating cylindrical sieve encircling such distributor and forming an open unobstructed space between such distributor and cylindrical sieve and throughout the interior leng th of the cylindrical sieve, a helix located in close proximity to the inside face of such cylindrical sieve and within snch
open space, and means for operating such distributor and eylindrical sieve, for the purpuse set forth. 3rd. In a drier, the combination of a rotating distributor, a rotating perforated cylindrical sieve. encircling such distributor and forming an open unobstructed space between such distributor and cylindrical sieve and thronghout the interior length of the cylindrical sieve, a helix located in close proximity to the inside face of such cylindrical sieve and within said open space and intermediate of the distributor and cylindrical sieve, an inner main shaft on which such cylindrical sieve is carried and an outer tubuiar shaft on which the distributor is carried, with means for operating the shafts of such distributor and cylindrical situeat different speeds. for the purpose set forth. th. In a drier, the combination of a rotating conical distributor, a rotating cylindrical sieve encircling such distributor, and forming an open unohstructed space between such distributor and cylindrical sieve atd throughout the interior length of the cylindrical sieve, a wall encireling such cylindrical sieve, a helix located in close proximity to the inside face of such cylindrical sieve and within such open space and intermediat of the distributor and cylindrical sieve, and means for operating such distributor and cylindrical sieve. for the purpose set for th. 5th. In a drier, the combination of a rotating distributor, a rotating cylindrical sieve encircling such distributor and forming an unobstructed space hetween such distributor and cylindrical sieve and thronghont the interior length of the cylindrical sieve, an imer main shaft on which such cylindrical sieve is carried, and an outer tabular shaft on which the distributor is carried with means for operating such shaft, a wall encircling such cylindrical sieve, a rotatable helix in the form of an open helix freely working within such open space alwove and intermediate of the distributur and cylindical sieve and the periphery of which is located in close proximity to the inside face of nich cylindrical sieve and means for operating such distributor, cylindrical sieve, and helix, for the purpose set forth. 6ith. In a drier, the combination of a conical distributor secured rigidly upon a hollow shaft, a cylindrical sieve, encircling such distrubutor secured rigidly to a shaft partially within such hollow shaft and fonming an unobstructed open space between such distributor and cylindrical sieve and thronghout the interior length of the cylindrical sieve, a stationary wall encircling such cylindrical sieve, a rotatable open helix freely working within such open space and intermediate of the distributor and cylindrical sieve and connected to such hollow shaft, the periphery of such helix being located in close proximity to the inside face of such cylindrical sieve, and means for operating such distributor, cylindrical sieve and helix, for the purpose set forth.

No. $\operatorname{sig}$,fos. Procens of Producing Extracts of Malte,
 (li. milt, houblom, (tr.)
(ieorge (iordon Cave, Fenny Stratford, Buckingham, and Herbert Skyring Stoneham, 70 Cornhill, London, all in England, th November, 1898; 6 years. (Filed 19th Jnly, 1898.)
Ckim.--1st. The process of producing edible extracts of malt, hops and other substances, and consisting in suljeecting a filtered infusion or other liquid preparation or natural liquid to a double. concentration in separate vessels, at a higher and lower temperature, and finally boiling the concentrate for a short time, as set forth. 2nd. In the process of producing edible extracts of malt, hopis and other substances, concentrating the filtered infusion, or other liguid preparation, or natural liquid by boiling f( $1 r^{\text {any }}$ length of time, short of caromelisation taking place, and subsequently treating the concentrate in a separate vessel at a lower temperature, as iescribed.

(Bruleur de !fr: incendesent.)


Joseph Blasco de Lery, New York Gity, State of New York, U.S.A., 4th November, 1898; 6 years. (Filed 2 sth $^{\text {th }}$ Imuary, 18! 1 .)
Claim. $\cdots 1$ st. An incandescent element for gas burners, consisting of a plurality of layers of incendencing material bunched and secured
tugether with its layers in supporting contact along ome edge, the onn usite edges of the several layets being free and separated, sub. stantially as described. 2nd. In an incandescent gas-murnet, an incandescing element consisting of a plurality of layers of incandescing material, secured or placed toge ther in suppunting contact along one edge, the opposite edges of the several layers being free and separated in conbination with a burner arranged to direct its Hame against the separated edges of the incandescing material, substantially as described. 3rd. An incandescent gas-burner consisting of an incandescing element in the form of a ring made up of layers of incandesc ng material secured together in supporting contact along one edge and depending from a suitable support, the lower or depending edges of said layers being separated and free, in combination with a gas-burner located inside of the ring and provided with a series of gas-outlets which direct the flames against the separated edges of the incandescing material. th. An incandescent gasburner consisting of an incandescing element in the form of a ring and made up of layers of incandescing material secured together in supporting contact along one edge, and depending from a suitable support, the lower or depending edges of said layers being separated and free, in combination with a gas-burner located inside of the ring and provided with a series of gas-outlets which direct the flames laterally against the separated edges of the incandescing material. 5th. In an incandescent gas-burner, a plurality of bunched layers of incandescing material in combination with a supporting rod or frame, the bunch of layers being folded and saddled wer the rod or frame and secured thereon, sulstantially as described.

No. 61,610. Gam Burner. (Brulur de git:.)


The De Lery Light Company, assignee of Elverton K. Chapman, New York City, assignee of Joseph Blasco De Lery, New York, U.S.A., 4th Nowenber, 1898; 6 years. (Filed 2sth Jimuary, 1898.)
Claim.-1st. An incandescent burner consisting of a plurality of conical mantles secured together at their apexes for mutual support, in connbination with a gas outlet arruged to direct its Hame or Hanes into said cones, substantially as described. End. An incandescent burner consisting of a plurality of conical mantles constructed from a single piece of fabri secured together at their apexes for mutual support, in combination with a gas outlet arranged to direct its flame ur flames into said cones, sulstantially as described. 3rd. An incandescent hurner consisting of a single sheet of incandescent material subst intially rectangular in shape having two opposite sides folded towards each other and again folded transversely so that the other two edges will he. brought together and provided with a binding thread or device adjacent to the transverse, fold, substantially as and for the purpose set forth. 4th. An incandescent burner consisting of a single sheet of incandescent material substantially rectangular in shape having two opposite sides folded towards each other, in combination with a support over which the folded material is saddled and a binding device for bolding the material on the support and opening the free edges of the material, sulstantially as described:

## No. 61,611. Fish Offal Digenter.

> (Muchiue your le prequeration denemenis de poissom.)

Thomas Herbert Wymond, assignee of Thomas Watts, both of Vancouver, British Columbia, Canada, 4th November, 1s98; 6 yarars. (Filed 9th July, 1898.)
Cluim. - 1st. In an apparatus for handling and digesting fish offal, and for extracting the marketable products therefrom, the combination of a series of hopper tanks 11, having sloping bottons, and contracted outlets at their lowest plane, and means for depositing the offal into one, or more of them simultaneously, as spectified, of vertical slidatle trap doors 14" arranged in the said contracted outlets, means for opening and for closing the same, of digesting tanks 20 having openings 19 in their upper ends, arranged in proximity to, the outlets in the tanks 11, and movable ducts 18 pivoted to the projecting lips of the said outlets, and designed to commanicate with the openings in the digesters, whereby the offal will be deposited therein, as set forth. 2nd. In an apparatus for handling, and for extracting the marketable products from fish offal, the combination of a series of hopper tanks 11, the same having forwardly sloping huttous, means for depesiting the raw offal inter said tanks, openings at the lowest plane in the bottoms of said tanks, vertically slidable closures for such openings, digesting tanks arranged in proximity to the oquenings in the tanks, but on a lower plane to such openings, openings in the upper ends of said digesting tanks. and means for commumicating. by ducts between the tanks 11 and the digesters, as set forth. 3rd. In an apparatus for handling, and for
extracting the marketalle products from fish and offal, the combination of a series of tanks, for first receiving the offal, and

digesters to receive the same therefrom, said digesters being of cylindrical form having conoidal ends, perforated bottoms, arranged sloping, just above the depending cones of the lower ends, and closable openings alove such bottoms, for the ejectment of the residue after being treated, as set forth. 4th. In a digester for extracting the marketable products from fish and fish refuse, a closeable vessel having conoidal ends, and an opening in the upper end of same, foraminous lottom supported on an uneven plane just above the cone of the lower end, and a closable door 24 on the lower plane of and above such bottom, and ducts for injecting steam above and below the suid bottom, as and for the purpose specified. 5th. In a means for handling and a vessel for treating fish and offal, in conbination with the tank or tanks described, for the reception of the raw material, means for closing said tanks, and for injecting steam to the interior thereof on top of the matter to le treated and to beneath a foraminous supporting bottom in the kottom of said tank or tanks, until all the gelatine is dissolved, and then means of forcing the released liquids downwards through the perforated botton, as set forth. (ith. In an apparatus for the purpose described, the combination of receiving tanks 11 for the offal, and of means for transferring it from one or more of them continuously to closable tanks 21 , of means for applying a disolving agency to the offal, while in the closed vessels, and of finally ejecting the oily and aqueons matters therefrom by steam pessure, as set forth.

No. 61,612. Electric Furnace formaking Caldinm Carbide. (Fournaise itertrique puerl" fuhrication de curburr il relcium.)


Corydun L. Wison, Charles Muma, John W. Vnger, Henry Schase klorh, A inos P. Brosuis, Joseph C. Kuchel and Robert H. Smith, all of Holstein, Lowa, I.S.A., 4 th November, $1 \times 98$; 6 years. (File 126 th May, 1898.)

Claim.- 1st. An electric furnace for producing calcium carbide, comprising a lase, an electrole momated in the hase, a second elece trode shidingly supported abose the hasf, and having a momber of longitudinal openings extended the wothrogh, a somrer of electical supply comected with the said electrode, a block of insulating material fixed to the upper electrode, and also provided with a number of longiturdinal openings arranged to coincide wath the opening in the electrode so that a number of sticks of lime and carbon may be fed manually to the space between the electrode, said upper and lower electrode being so arranged that the said sticks passed through the 口pper electrode will rest upon the lower flectrode until melted when they are free to run from betwern the electrode, and means for raising and lowering the elecrode and insulator jointly, substantially as and for the purposes stated. 2nd. An electric furnace for producing ealcimm carbide, comprising a base, an electrode in the base. a source of electrical suply, a metal casing divided vertically into two parts, a latch at the opposite side thereof from the hinges, a hook on each part slides hinged to the top of the casing to cover the openings therein, an Hectrode having one or more vertical openings, a metal hand at its top, an electric cable leading therefrom to the said scource of electrical supply, a metal collar at the upper end of the electronle to the projection alowe it, hooks at the opposite sides thereof, cables for connecting the said hooks with the aforesaid hooks on the casing, an insulator resting in the said collar and having openings to coincide with the openings in the elpctrode, a crane and two cables laading therefrom and to the said hroks in the collar, all arranged and combined substantially as and for the purpuses stated.

No. 61,613 . Lithographif Machine.
(Mochine 'ithorerrephigur.)


James Christopher Malligan and James Fergison, both of Queen Street, Brisbane, Stanley, Queensland, Australia, 4th Nowember, 1898; 6 years. (Filed 21st January, 189x.)
Claim. -1 st. In a lithographic machine, a feeding board A. having its upper top portion hollowed as shown, and its lower edge $\mathrm{A}^{3}$ hevelled off, for the purposes described, slot $A^{+}$centrally and vertically formed therein, and a feeding lay $A^{\prime}$, fitting said slot, and adjustably secured thereto, substantially as shown and for the purposes herein set forth. 2nd. In a lithographic machine, the combination of the vertical central slot $A^{4}$, formed in the feeding board, with the feeding lay $\mathrm{A}^{\prime}$, adjustably secured therein, substantially as and for the purposes herein set forth. 3rd. In a lithographic machine, the combination with a feeding board $A$, constructed as described, of a guide $\mathrm{A}^{2}$ adjustably secured thereto, substantially as and for the purposes herein set forth. 4th. In a lithographic machine, the combination of the metal shield $C$ and the rollers I) and $\mathrm{I}^{1}$, substantially as and for the purposes herein set forth. $5 t h$. In a lithographic machine, the combination of the adjustable plates $K$ and $K^{1}$ with runners M, substantially as and for the purposes herein set forth. 6th. In a lithographic machine, the combination of the starting lever $\mathbf{E}$ and the forst brake $\mathbf{F}$, fitted to the front of the machine, substantially as and for the purposes set forth.

No. 61,614 . Nlectric Battery. (Pilf électrique.)


Nathan 13. Stubblefield and William G. Love, both of Muray, Kentucky, I.S.A., 4th Nowember, 1898; 6 years. (Filed 29th March, 1898.)

Claim. 1st. A combined electric hattery and electro-magnet for use with water as an electrolyte comprising a soft iron core piece, and a voltaic couple of copper and iron wites insulated from each other and elosely and compactly wound together in separate insulated layers to promuce a solid coil body surrounding the soft iron core piece, substantially as set forth. 2nd. An electrical hattery for use with water as an electrolyte comprising a voltaic comple of insulated copper wire and hare iron wire closely wound into a coil body, substantially as described. Brd. An electrical battery for use with water as an electrolyte comprising a voltaic couple of insulated copper and hare iron wire wound side by side in separate insulated layers to produce a coil body, substantially as described. 4th. An electrical battery, for use with water as an electrolyte: comprising a voltaic couple having its separate electrodes insulated from fach other and closely wound into a compact coil hody forming a self-generating wrimary coil when moistened, and a solenoid or secondary coil fitted on the coil hady of the couple, substantially as set forth.

No. $61,615$. Ipparatis for Manufacturing Articles of
dians. (Apraril powr la falriation de wrerric.)


Homer Brooke, Jersey City, New Jersey, (i.S.A., 4th November, 1898; 6 years. (Filed 16th August, 1898.)
Claim.-1 1st. The combination of a device for containing glass, in a moltens state, an outlet thereto in the form of a projecting condut, a connection of glass between the condinit and the containing device, and means for maintaining the glass connection plastic, substantially as specified. 2nd. A device for containing glass in a molton state, an outlet thereto in the form of a projecting conduit. waid outlet being free from any intermal ohstruction, and provided with means for adjusting its onter end, and means for maintaining said conduit hot to permit the flow of molten glass therethrough, substantially as specified. 3rd. A revice for containing glass in a moltenstate, an outlet thereto in the form of a projecting conduit. saidontlet being free from any internal olstruction and provided with means for adjusting its onter end, a connection of glass le tween said conduit and containing device and means for maintaining the glass comnection plastic, substantially as specified. 4th. A device for containing glass in a molten state, an outlet in the form of a projecting condui-, said outlet being free from any internal obstruction and provided with means for adjusting its outer end, and flanges on said device engaging the projecting conduit, substantially as specified. Sth. A device for containing glass in a molten state having an outlet in the form of a conduit made in two sections, the inner one having its end above the bottom of the device and the outer one being adjustable, said outlet being free from any internal obstruction and provided with means for adjusting its outer end, and means for maintaining said conduit hot to permit the flow of glass therethrough, substantially as specified. (ith. Thecombination with a device for containing glass in a molten state, of an outlet in the form of a conduit, said conduit being free from internal obstruc tion, means for adjusting the outer end of aaid conduit, and a t eating chamber for the projecting portion of said conduit, substantially as specified.

## No. 61,616. Procens of Monlding diams.

(Procede pour mouler le rerre.)
Homer Brooke, Jersey City, U.N.A., 4th Nowember, 1898; 6 years. (Filed 16th Angust, 1898.)
Claim.-1st. The process of giving formation to a mans of plastic glass, which consists in supporting said mass and thereby moulding and giving final shape to a portion of the surface of said glass, and subsequently moulding the remaining portion of the surface thereof by subjecting the mass to a rotary motion, substantially as specified. End. The process of giving formation to a mass of plastic glass,
which consists in supporting a mass of plastic glass until tinal formation is giving thereto, the supporting of said mass acting alse to

Fig. I. Fig. $2 . \quad$ Fig. $3 . \quad$ Fig. 4.

mold and give a final shape to a portion of the surface thereof, and then completing the formation of the glass by moulding the remaining portion of the surface by subjecting the mass to a rotary motion, substantially as specified. 3rd. The combination of a portalle hand rod and a mould form attached thereto for supporting a mass of plastic glass, substantially as specified. 4th. The combination of a portable hand rod, an inner mold form attached thereto for supporting a mass of plastic glass, and a receiver of molten glass into which the inner mould form is projected, substantially as specified. $\tilde{5}$ th. The combination of a portable hand rod, an inner mould form attached thereto for supporting a mass of plastic glass, a receiver for molten glass into which the inner mould form is projected, and a detachable connection between said receiver and the inner mould form, substan tially as specified. 6th. The combination of a portable hand rod, an inner mould form attached thereto for supporting a mass of plastic glass, a receiver for moulden glass into which the imner mould form is projected, and a frame or support for gauging the pesition of the inner form relatively to the receiver, substantially as specitied.

No. 61,617. (ixame. (Jeu.)


John Henry Tickner and George Lambert Tickner, lwoth of Syracuse, New York, U.S.A., 4th November, 1998; 6 years. (Filed 21st September, 1898.)
Claim.-1st. The combination with a box comprising sides, ends, bottom and transparent cover, of an intermediate movable partition or table dividing said lex into two chambere, said table being provided with central recesses open on top, only arranged in a predetermined form or figure, and corner apertures which are opened by moving the table in one direction, so that balls can pass through into the lower chamber, while being rolled upon said table to seat them in said recesses, whereby the hazard of the game is increased, and suitable balls normally placed in the upper chamber. 2nd. The combination with a box, having sides, ends, and transparent cover, of a bottom provided with recesses arranged in the form of a pyramid, substantially central to said bottom, balls upon said bottom, and recesses exterior to said pyramid, creating obstacles to the rolling of said balls into said pyramidal recesses and increasing the difficulty of the game, such rolling being effected by manually tilting the lox.

No. 61,6i8. Centrifugal Eoller Mill.
(Moulin is roulanir centrifucge.)


Walter Palmer Wymne, Nos. 33 to 47 Armstrong Street, Ballarat. Victoria, Australia, 4th November, 1898; 6 years. (Filed 29th Septeniber, 1898.)
Claim.--1st. In a centrifugal roller mill the combination with a mumber of rollers such as D , mounted on depending shafts such as $C$, of a pan such as A, rotated in the opposite direction to the main central spindle such as B, substantially as and for the purpose herein described and explained and as illustrated in the accompanying drawing. 2nd. In a centrifugal roller mill, a circular pan such as A, fitted with an inner coarse screen such as $\mathbf{H}$, and an outer fine screen $\mathrm{H}^{1}$, substantially as and for the purpose herein described and explained and as illustrated in the accompanying drawing.

No. 61,619 . Newing Machine. (Mochine atoulre.)


Joseph Eli Bertrand, Boston, Massachusetts, I.S.A., 4th Novemher, 1898 ; 6 years. (Filed $22 n$ d June, 1898.)
Cluim. -1 st. The combination of a needle carrier provided with the stop shoulder $c^{2}$, and mounted upon and movable about a fixed stud or journal, a curved barbed needle set in said needle carrier, means for oscillating said needle and carrier about said stud. the needle guide mounted loosely upon said fixed stud and provided with the lug or shoulder $\varepsilon^{2}$, the pin $f$, set in said needle guide, the tubular stud $d^{1}$, set in a fixed position in the frame and provided with the stop shoulders $m$ and $m^{1}$, the rocker-shaft $!^{1}$, the arm $g^{2}$. the spring $j$, and the tack-puller $n$, secured directly to, and movable only with said needle guide. 2nd. The combination of the stand L. the stud $o^{1}$, the tension wheel $\mathbf{N}$, the friction hub $\mathbf{N}^{1}$, provided with the circumferential groove $r^{1}$, the elbow lever $M$, the drum or grooved wheel R, mounted on a fixed fulcrum, the handle U, connected to said drum, and a flexible connection between said lever M, and drum R, substantially as described. 3rd. In a sewing machine, the combination with a wax pot comprising a thick cuplike base and a thin cylinder $c^{1}$, projecting upward from said base, a thread receiving tube set in said hase, within, and projecting
upward to or above the top of said thin cylindrical portion of said wax pot and provided with a lateral opening through its fall near its lower end, and a thread delivering opening through said hase within the lower end of said thread receiving tube. 4th. A wax pot composed of a thick cup-like base provided with a thread delisering opening in its bottom and a cylindrical chamber of larger diameter below said opening, and a comparatively thin cylinder recured to said base and projecting upward therefrom, in combination with a thread guiding tube set in said base within the walls of said wax pot and projecting upward to the top of said wax pot, and provided near its lower end with a lateral opening communicating with the interior of the wax pot, a thread stripper enclosed in the cylindrical chamber beneath said tube, and a longitudinally perforated set-screw set in the lower end of said chamber and adjustable to regulate the operation of said stripper. 5th. The combination in a sewing machine of the bracket L , provided with the steam passages $b^{2}$, and $f^{2}$, the pipes $c^{2}, c^{3}, c^{4}$, and $y^{3}$, connecting said passages, and means, as the valves $d^{4}$ and $d^{5}$, for controlling the passage of steam through one or both of said passages $l^{2}$ and $f^{2}$, at the will of the operator, as set forth.

No. 61,620. Folding Bed and Lounge. (Lit-sofit p/iant.)


Napoleon Joseph Coté, Montreal, Quebec, Canada, ith November, 1898; 6 years. (Filed 30th September, 189R.)
Chim.--1st. A folding lounge-bed having a main frame, a movable bed bottom within the frame and a hinged section adapted to be turned outward, with means for supporting the bed loottom, substantially as described. End. A folding lounge-bed having a main frame, a movable bed bottom within the frame, a hinged section adapted to be turned outward, and an operative connection between the movable bed bottom and the hinged section the turning outward of the latter serves to raise the former, substantially as described. 3 rd . A folding lounge bed having a main frame, the side lazards of which are cut away to lower their upper sides and a movably bed bottom shaped to fit within such frame and bave its side bars flnsh with the outside faces of the said side boards of the main frame, substentially as shown and described and for the purpose set forth. th. In a folding lounge-bed, the combination with the main frame of the lounge, of a vertically movable bed bottom within the frame, hinged sections $f,!$, cords $k k$, pullies $n m$, and suitahle guides and stops for the movable bed bottom and rests for the hinged sections, substantially as shown and described.

No. 61,621. Animal Trap. (Pieqк.)
Edmund Piggott, Dresden, Ontario, Canadit, 4th November, 1895 ; 6 years. (Filed 28th October, 1897.)
Claim.--1st. In a trap, a base, a block secured thereon, a top secured to the block and projecting over the base, a dead-fall secured to the base, a lever secured to the top and projecting slightly beyond the upper edge thereof, a catch for the opposite end of the lever and a trigger secured to the catch and projecting beneath the top, substantially as described. 2nd. In a trap, a base, a trap carried thereby and projecting forwardly over the same, a dead-fall and means for holding the same in a raised position, and a mirror interposed between the base and the top in rear of the dead-fall, substantially as described. 3rd. A trap comprising a base, a block secured thereon having an inclined transverse groove in front face, a top, secured in the groove having its free end projecting over the base, a lateral groove in the under side of the top and in the lower edge of the block, a mirror having its edges seated in the said grooves, a dead-fall having a movement partially across the ends of the minror whereby the mirror is held from end movement, and means for holding the dead-fall in a raised $p$ osition, substantially as deseribed. 4th. A trap comprising a base, a block secured thereto, a top secured to the bock and projecting over the hase, recesses in each,
side of the lower prortion of the block, a dead-fall having its ends coiled forming a spring, said coils being lucated in the recesses of

the block and means for holding the clead-fall in a raised position, substantially as described. 5th. A trap comprising a base, a block secured thereto, a top secured to the block and projecting upwardly upon an incline over the base, a slot in the top and in the block and a groove in the top of the base, the slots and groove being in vertical alignment it catch pivotally secured to the top and extending into the slots in the top and block, a trigger pivotally secured to the lower end of the catch and located in the groove in the base, a lever for engagement with the catch and a dead-fall carried by the base, substantially as described.

## No. 62,622. Apparatus for Conveying Loads.

(Appereil it transpurt.)


Juseph Temperley and John Ridley Temperley, both of the Temperley Transporter Company, 72 Bishopsgate street, London, Eng lind, 4th November, 1898; 6 years. (Filed 24th June, 1898.)
Claim. 1st. An apparatus of the kind or class hereinbefore referred to, in which the load-susiender is permanently coupled to the device that fastens the traveller to the track, for the purposes specified. end. The double locking togele-joint comprising two pivoted levers and a link coupling the same together and forming a part of the connecting mechanism between the load-suspender and the device that fastens the traveller to the track, substantially as described and for the purposes specified. 3rd. The horned lever or caun coupled by levers and links to the load-suspender, substantially as described and for the purposes specified. 4th. The third toggle-joint coupled to one of the joint-pins of the double locking toggle $\cdot$ joint and having its middle-joint pin coupled by links to the load-suspender, substantially as and for the purposee described. 5th. The load-sustaining blocks formed on the frame of the fall-block and adapted to be engaged by the load-suspender. for the purposes specified. 6th. The load-suspending hooks adapted to be raised by the load-sustaining block, and provided with means whereby, when thus raised, they will be moved into engagement with the said loadNustaining block, so that, when the traveller is unlocked from the track, the load will lee sustamed in the position to which it has been raised. Tth. The pivoted load-suspending hooks coupled by links
to the double locking toggle-joint for alternately locking the traveller to the track and the said hooks in position to sustain the load, and provided with means for moving them into and ont of engugenent with the lowl-sustaining block, substantially as deseriborl and for the parpenses apecified. Sth. The guide-frame for facilitating the entrance of the load-snstaining hall orblock into the load-suspender, which gude-frame is hinged or pionted to the traveller-frathe su that it is free to swing longitudmally or laterally or both longitudinally and laterally, for she phrposes specitied. "Oth. The combination, with the traveller-frame, of the lower frame comected therewith by-hinge-joints so that it is frew to swing laterally with the load, and the guide-frame shapended by a pivet from the said lower frame so that it is free to swing longitudinally, substantially as described. 10th. The guide-frame for facilitating the entrance of the load-sustaining ball or block into the load-suspender, which guide-frame together with the load-suspender is compled to the device that fastens the traveller to the track, so that it will move "up and down with the said load-suspemder relatively to the travell. $r$ frame, substantially as described. 11th. The luad-suspender coupled by links to a slotted lever or cam which is connected liy a sliding pin with a slotted horned lever for fastening the travelle $\dot{r}$ to the track, substantially as and for the purpose's described. 12 th. The described load-sustaining hall or block hwing a hollow stem and a double eye at the lower end of the said stem, as and for the purpose specified.

No. 61,623. Cun Noldering Machine.
(Mferhine it somder Its boitss mitulliques.)


Fig. 2 6/623
Walter Morris, Victoria, Britis!, Colmmbia, (innada, th November, 1898: 6 years. (Filed and September, 1898.)
Claim.-The combination with the rack 13, pinions $1 ;$, Fi and wheel F, with the holder (i, wedge J, spindle I and dise II, sulstantially as and for the purpose bereinhefore set forth.

No. 61,62. ('urd Cutter. (Machine do coupurles ruillex.)


Jean Evangelinte Cayowette, Ste Claire, Quebec, Canada, 4th November, 1898; 6 years. (Filed 15th August, 18!n.)
Glaim. - 1st. A curd cutter, comprismg a frame, a cutter receiving chamber formed at the front end thereof. a piston movable within said chaniber, and ueans for imparting a mowement to said pistom, wherehy the cutter located therein will lue freed from extraneons matter, substantially as described. end. A curd cutter, comprising a frame, a cutter receiving chamber formed at the front end thereof, a piston movable within said chamber, a cutting frame mounted in said chamber and removable therefrom, and means for imparting a movement to said pistom, whereby the curd will he freed from extranoous matter and be cut into smatl particles, substantially as described. 3rd. A curd cutter, comprising a frame, a cutter receiving chamber formed at the front end thereof, a hopper opening into said chaniber, a cutting frame, removably monnted within said chamber, a piaton monnted to have movement in said chamber in
rear of said cutting frame, a similar piston rod pivotally comnected to said frame and having a comnection to said piston, a slotted arm comnected to one of said sections, a wheel monnted on said frame, and having a pin connection with said slotted arm, whereby when said wheel is rotated, said piston will be caused to move backward and forward wi hin satd chamber, and means for rotating said wheel, mbstantially as described.

Vo. 61,625 . Von-refillable Hottle.
Boutille nom-rémplissolle.)


John MeCafferty and John James Mce 'atory, both of Wall,
 Xth ( ctober, 1898.)
Claim. - 1st. The combination with the neck of a lottle, of a serew phag provided with a vertical recess adapted to register with a slot in the upper edge of the said neek, and mechanism retamed below said plug by means of which a ball valve is kept in querative position, substantially as herein shown and set forth. Bul. 'The combination with the neck portion of a bottle, previded with a slotted lip and interiorly screw-threaded in its upher potion, of a screw plug adapted to engage with said interionly screw-threaded neck, a central depending portion secured to or formed integral with said plug, a dise upon said depending portion, another phing provided with lateral springs adapted to engage with an annular growe formed upen the inmer surface of the neck, a batl valve seated within a recess within said lower plug, said ball being limited in its movement ly the depending portion of said screw plug, and means for maintaining said depending portion in a central vertical position, all substantially as herein shown and set forth. 3rd. In a nonrefillable bottle, the combination with the interiorly screw-threaded and vertically slotted neck portion thereof, of a screw-threaded plug adapted to engage with said interiorly screw-threaded neek, said plug provided in its lower portion with a lateral vertical slot or recess, a portion depending from said plug, a dise secured or formed uponsaid depending portion, a cross-plate secured upon the lower edge of said jurtion, another phug adapted to be depressed into the lower end of said neck, springs secured upon said lower plag having their upper ends adapted to form retaining fingers in connection with an annular groove interionly furmed in the neck of the bottle, a ball valve within the recess in said lower plug, said recess provided with a downwardly extended aperture leading through said plug, and means as herem shown for limiting the movement of said valse, all substantially as and for the purpose herein shown and set forth. 4th. The combination with a bottle having an interiorly screwthreaded slotted neck provided with an imner annular groove, of a screw plug with a vertical slot adapted to be tengaged by said screwthreaded neck, another plug recessed and apertured inserted below the first-mentioned plug, a ball valve adapted to have proper play within said recess in the lower phag, spring catches for retaining said lower plug kejow the said annular groove, means for limiting the play of said ball valur, and a projected lug portion for rotating the first-mentioned plug, all sulntantially as herem shown and set. forth. Eth. The combination in a non-refillable bottle, of a neck portion interiorly screw-threaded, and provided with a vertical slot in the lip of an inner annular groove, and a screw phug adapted to be engaged by said serew-threaded neck, said plug having a depending portion with a cross plate secured to the lower end thereof, another phug adapted to be depressed to a point helow said inner groove and retained in sald pesition by spring catches, a ball valve located in a recess provided in satid lower plag, above an aperture leading downwardly therethrough, means for limiting the phay of said valve, and a dise on the lower end of the screw plug, all sub. stantially as herein shown and sot forth.

## No. 61,626. Loromotive Protertor.

(Protertenr ale lemometiors.)


Amnir Beasley, Prophitt, West Point, (ieorgia, I'S.A., and Rohert Law, Silverdale, Ontario, Canada, ith Novemher, 18!8: is years. (Filed 29th September, 18! 8 m .)
Claim. 1st. A protector fon locomotivers comprixing a cushion mounted upon a truck and located between the locomotive and the cow-catcher, substantially as shown and described. 2nd. it protector for locomotives, comprising a cushion embodying a plurality of flexible rolls encastd within a telesenpe cover, the same monnted upon a truck and adapted to be coupled betwern a locomotive and a cow-catcher, substantially as shown and describecl. Brd. In a protector for locomotives, the combination of a phrality of flexible rolls and a metallic framework binding them together, and a telescopic cover surrounding the said rolls, and a truck supporting the device and means for coupling the truck between a locomotive and its cow-catcher, sulstantially as shown and deseriberl.

No. 61,627. Tool. (0util.)

(162)

The Jenkins Iron and Toml Company, Howand, Pemsylvania, assignet of William R. Jenkins, Bellefonte, Pennsylvania, Eth November, 1898; 6 years. (Filed 4th October, 18! N.)
Claim.-1st. As an article of manufacture, a toml comprising principally a head made in a simgle piece of metal and a hade, the posterior part of the latter inserted between the side walls of the eye of the tormer and extending therein martly or to the full depth of the ve, so ats to rest in line-with the oquerating axis of the tool. 2nd. As an article of manufacture, a tool comprixing primeipally a head or pole made in a single piece and a blate, the blade boeing inserted in the eye of the head so that the two parts rest solidly tegether in line with the operating axis of the tool. 3rd. A tool consisting of a herd having an eyte and a blade inserted in the eye and extending the full depth of the latter until its inner end abnts solidly against the inside wall of the eye so that a portion of the metal of the tool extomde continuously from orerating ends or edges throngh the operating axis or longitudinal centre of the tool. th. A tond comprising a hoad having an eyo and open sides and a hade inserted hetween the sides int, the eye and extending the full depth of the eye so that the inner end ahuts on the imner or rear wall of the aye, and rivets secured through the sirles and blade. Dth. A tosl consisting of a head having an eye therein, a blad inserted in the eye and extending the full depth of the latter, and a handle inserted in the ey and straddling the shank, the latter art. ing as a wedge therein and the end of the handle affording lateral support for the shank. lith. A tool consisting of a head, a blade extending the full depth of the eve thereof and serored in phace therein, the end of the hade within the eve being narrower than the eye and a handle split at one end to a depth equal to the width of that portion of the blade which is inside the (yeso that an unsplit portion of the handle is held in the eye.

## No. $\mathbf{i} 1,628$. Eution Hole Sewing Marhine.

(Murhine is mudre les boutommieres.)


Williom Mamming Homse, New Vork City, New York assignee of .James' ''. Hogan, Jersey City, New Jersey, I.s.A., ôth November. 1s!s; if years. (Filed lixth July, 189s.)
Cluim. 1st. In a stwing machine, the combination of a work clamp, a feed cam for moving the same lengthwise of the buttonhole, and means intermediate of the foed cam and work elamp comprising a detachable combection whereby it may ly. varied to increase the fued of the work clamp above the greatent diametrer of the feed cam or decrease the feed of the work clamp, substantially as specified. 2nd. In a swing machine, the combination of a work clamp, a feed cam, for moving the same lengthwise of the huttonhole, a leverintermediate of the feed cam and work clamp, and adjustable connections where's it may be varied to change the feed of the work clamp, substantially as specificel. 3rd. In a sewing machine, the combination of a work carrying clamp, a cam for operating said work clamp, a newdle and concomitant parts for stitching work beld in the work clamp, and means operated by said cam for gradually varying the amplitude of the jogging movement of the needle at predetermined times, substantially as specified. the. In a sewing machine, the combination of a work carrying clamp, a cam for operating said work clamp, a needle and concomitant parts for stitching work held in the work clamp, an oscillating lever and reciprocating rod for producing the jogging movement of the needle, said reciprocating rod being capable of engagement with said lever at different distances from the fulcmu of the latter, and a rod comected at one and to said lever and having its other end operated on by said cam wherehy the reciprocating rod is changed with relation to said oscillating lever, mustantially as specified. 5th. In a sewing machine, the combination of a work carn ying clamp, mechamism for operating said work clamp, a netelle and a concomitant parts for stitching work held in the work clanm, and means for poducing jogging movemont of the needle in differ+nt amplitudes comprising a vertically extending rod and a cam undur the bed of the machine, substantially as described. 6th. In a srwing machine, the combination of a work carrying clamp, a needle and conconsitant parts for stitching the work held in the work clamp, means for prorlucing jogging move ments of the nerdle of different amplitudes, and a feed cam for producing a longitudinal novement of the work clamp, said feed can having dwells at opposite points for suspending the longitudinal movement of the work clamp, while the amplitude of the jogging movement of the needle is increaserd, sulistantially as speecified 7th. In a sewing machine, the combination of a needle and con comitant parts, means for producing a jogging movement of different amplitudes in the nefdle, a work carrying clamp, a ferd cam for producing a longitudinal movement of the said clamp, and having dwells for suspending lougitudinal motion at eertain times, and a change can for moving the work clamp transversely to vary the position of stitches relatively to the mindle line of the work clamp at abont the time of the bergiming of the shifting of the work clany, by the change cam, and at about the time of the end of the shifting of the work clamp by the change cam, substantially as specified. Xth. In a sewing machine, a work clamp, comsisting of a plate having a largeopening, two serrated hars crossing such opening, weh of sad serrated bars having at the emds resilitnt supporting arms extending across the line of the other serrated har, suhstantially as specitied. !th. In a sewing machine, the combination with the main shaft, a dise affixer to said main shaft and having a protuberance upon one face, of a stopextending adjacent to said disc, and means for locking said stop, in pesition in front of the dise so that the protuberance of said dise will engage the stop as the dise is rotated, substantially as specified. 10th. In a s+wing machine, the combination with a nain shaft, a medle and means in commection therwith operated by said shaft for reciprocating the needle, a disc moving with said shaft, and having a protuberance upon one face, of a stop extending adjacent to said face and means for operating said stop comprising a spring actuated reciprocating rod having a projection, and a wiping actuated lever, said lever loeing alapted tomowe in the rear of the projertion
when the spring of the rod moves the rod to engage with the said projection to prevent the rod being moved by the protuberance, substantally as dessrilued. 1lth. In a sewing machine for making buttonholes having side rows of stitches and barring stitches, the combination of a tension device and means for operating as a part of the machine varying the effect of the temsion device with reference to the thread while the barring stitches are to be formed. 12th. In a sewing machine for making buttonholes having side rows of stitches and barring stitches, the combination of a tension device and means omerating as a part of the machine comprising a cam, for varying the effect of the tension device with reference to the thread while the barring stitches are to be formed. 13th. In a sewing machine for making buttonholes having side rows of stitches and barring stitches, the combination of two tension devices and means for making a change in one of them for said rows of stitches and the barring stitches. 1 th. In a sewing machine for making buttonholes having side rows of stitches and barring stitches, the combination of a temsion device, a stop, mechanism and means for chang. ing said tension device when said step mechanism operates.

No. 61,629. Velocipede dear. (Engrencec de velocipides.)


The Welland Vale Manfacturing Company, assignee of Bert Dumbar Harris, all of St, Catherines, Ontario, Canada, 5th November,

Claim.-1st. The combination with the crank shaft and the hal, of the rear wheel each cirrying a gear wheel, of a hanger supporting the crank shaft and having on its rear side a bracket which is rigidly and permanently secured thereto. a rear bracket carrying the ande of the rear wheel, a nom-detachable rear fork tube brazed at its ends to said front and rear brackets, whereby said fork tube forms a permanent part of the bicycle frame, and a shaft removably arranged in said fork tube and provided at its ends with removable gear pinions which mesh with the gear wherls of the crank shaft and the rear wheel hul, substantially as set forth. ?nd. The combination with the crank shaft and the hub of the rear wheel each carrying a gear wherl, of a hanger supporting the crank shaft and having on its rear side on open sided bracket which is rigidly and permanently secured thereto, an open-sided rearbracket carrying the axle of the rear wheel, a non-detachable rear fork tube secured at its ends to said front ind rear brackets, a shaft remowably arranged in said fork thbe, and gear pinioms removably monnted on the ends of said shaft in such mamer that the shaft can lee sid in the hubs of the pinions on the shaft, sulnstantially as set forth. 3rd. 'The combination with the crank shaft and the hab of the war wheel each carrying a gear wheel, of a hanger supporting the crank shaft and having on its rear side a bracket a rear bracket carrying the rear whet axle and composed of a herad or dise provided on its rear side with an integral yoke having an integral perforated lug to which the rear axle is secured, a rear fork tube permanently secured at its front end to said hanger bracket and at its rear end to said rear bracket and a shaftextending through said fork tube and supported at its rear end in said rear bracket and providedat its ends with removahle pinions which mesh with the rear wheels of the crank shaft and the rear wheel hub and which are secured to the shaft by serew nute on similar fastenings, the shaft being free to slide through the bores of said pinions after removing said fastenings and said front bracket being of the requisite length to permit the shaft to be shifted forwardly sutficiently to detach the rear pinion therefrom, substantially as set forth.

## No. 61,630. (ix raphophone Tablet.

(Iribetter de (rriphophones.)
The American (iraphophene Company, Washington. I).C., assignew of Thomas H. Macolonald, Bridgeport, Commecticnt, I I.S.A., ath N wember, $1898 ; 6$ years. (Filed lath April, 1sik.)
Claim. 1st. The pocess of making a sombdrecording material by dissolving aluminium in soda lye, and adding the solution to stearic acid, substantially as deseribed. End. Thip process of making a sound recording material by melting stearic acid, free fromglyerine and oleates, adding thereto sodalye and aluminium, and heating the mass, substantially as deseribeci. 3rd. In a process of making sound-recording material, the improvement consisting in adding to stearic acid soxia lye in which a metal such as almminium has been ineorporated in such quantity as to prodnee partial sapmification, and heating the mixture, substantially as aescribed. th. The process of making a graphophome tabliot ly forming a soma lye,
heating to alout its boiling print, dissolving a small quantity of aluminuin therein, heating pure stearic acid to about the same temperature, adding the solution, conatiming the beating until the moisture is expelled, moulding into the desired shape and then quickly cooling, sulntantially as described. Sth. The process of naking sound-recording material, by dissolving almminium in a soda lye. adding the same to stearic acid, heating the mixture, and adding a softening material such as paraffin, substantially as descriled.

## No. 61,631. Method of and Machinefor Labelling and Wrapping Tins and Veasels. (Method et murhine pour etiquetter it encolopier les boitex de for indrur, etr.)



Samuel Fyfe, 46 Nott Street, Port Melbourne, and Walter Chamberlain Peacock, Equitable Buldings, Collins Street, Melbourne, both of Victoria, Australia, 5th November, 1898; 6 years. (Filed (th July, 1898.)
Claim. -1st. In a machine for labelling ot wrapping tins and other vessels a roller mounted upon pivoted arms and an inclined support for same arranged as shown and for the purpose specified. 2nd. In a machine for labelling or wrapping tins and other vessels a roller for applying adhesive mattrial in combination with a series of small wires arranged parallel to and a short distance from the surface of said roller, substantially as and for the purpose described. 3rd. In machine for labelling tins and other vessels, a wire revolving in suitable bearings and extending across the rear ends of the labels substantially as and for the purpose described. fth. In a machine for labelling tins and other vessels a lalol sipport made with two inclined surfices $d d$, substantially as and for the purpose de seribed. ith. In a machine for labelling tins and other vessels a label support (i, projecting under a wire $E$, and having the part projecting under said wire arranged at such an angle that it will bend the end of the label backwards or inwards to :on angle of about $!0$ as it is being withdrawn from under said wire, substantially as and for the purpose described. lith. In a machine for wrapping tins and other ressels a counterbalanced vertically adjustable wrapper support having a weighted cord $h^{\prime}$, passed over a tixed bar other support $h^{+}$, sutstan tially as and for the purperse ine citied. Tth. In a machine for labal. ling or wrapping tims and other vessels a pivoted paste carrier $F$, connected by a cord or other connecting device with the rocking spindl. of a roller 13 , used for applying adhesive material to the tins or other vessels and designed to lie depressed hy the passage of the tin or other vessel over it, substantially as and for the purpose described. 8th. In a machine for labelling tins and other vesssels a small spring catch $d^{\circ}$. bearing against and cutting slightly into the edges of the pile of bainels, sulstantially as and for the purpuse specified. Oth. In a machine for wrapping tins and other vessels folding guide wires J, arranged substantially as and for the purpose described. 10 th. In a machine for wrapping tins and other vessels, the fingers $K$, for smoothing down the folds in the ends of the wrappers, substantially as and for the purpose described. 11th. In a machine for labelling or wapping tins and other vessels, as inclined race $L$, leading from the delivery end of the machine back to the opposite end, in combination with an endless travelling carrier or elevator M, substantially as and for the purpose described. 12th. In a machine for labelling and wrapping tins and other vessels, an endless travelling belt $P$, in combination with supporting guides or rails formed with depressions $p$, suhstantially asand for the purpose described. 13th. In a machine for lahelling and wrapping tins and other vessels, and endless travel ling pmemmatic belt $P$, sulstantially as and for the purpose described.

No. 61,632. Nethod of Treating Neparated Milk.
(Mothode de treitement de lait)
Hubret Higgins, Cambridge, Fingland, 5th November, 18:18; is years. (Filed 1 ith March, 18:77.)
Cluin. - 1st. The method of procuring a commercial food product from spenated milk which consists in treating the milk with a dilut volution of hydrochloric acid, and afterwards freeing the precipitated caseinogen from the supernatant liquil and drying it, substantially as described. End. The method of provaring a commercial ford priduct from separated milk which comsists in treatime the milk with :
dilute solution of hydrochlonic acid suhstantially in the proportion of 10 parts of the milk to 1 part of a j per cent solution of hydrochloric acid and afterwards freeing the precipitated caseimogen from the supernatant liquid and drying it, substantially as described. 3rd. As a food, a mixture of sulstantially 4 parts of carlohydrate fats and salts and 1 part of caseinuren, shintantially as described. th. As a frexd. a mixture of 88 to 94 parts of dried caseingen and 6 to 12 parts of glaten, sulstantially as described

No. 61,633 . Bottle Stoppering Device.
(Bomehon de boutrillo.)


Albert Thiems, Lehmweg, 33 Hamburg, (ierman Kmpire, sth November, 1898 ; 6 years. (Filed 20th August, 1898.)
Cluim.--A stoppering-device removable from a vessel, characterized by a ring in halves $\epsilon$, encircling the vessel and linked into it the hasp $b, c, d$, catching the stopper, the ends of the split ring as well as of the hasp $b, a, d$, constituting projections opposite one another $\kappa^{2}, d^{1}$. over which is placed a hoop acting as a lever, with a sector nearly of the shape of a rectangular triangle $f$, in the direction of the cathetus A, B, its hypothenuse $f^{1}$, forming a curve and destined to produce a gradual contraction of the projections $d^{1}$, and $r^{2}$ the comers of the cathetus $A, B$, being somewhat rompded out $\sigma^{2}$, and $f^{2}$, securing the closing position.

No. 61,634. Explonive. (E.rploxif.)
Paul Cornet. Verviers. Belgium, ith Nowember, 1898; ; years. (Filed 1st April, 1898.)
Claim. - The addition to the mixture of nitrates and nitro naph thalene compounds of variable explosive power, of resins dissolved in alcohol for the purpose of enabling said mixture to take place in the cold and furthermone the addition of Quebracho saw dust in order to absorb a portion of the carbmic acid gas, generated during the explosion.

No. 61,635. Nattresw. (Matcles.)
Fig. ${ }^{1}$


Otto William Grollhamn, Billwärder, Hamburg, Prussia, 5th November, 1898; 6 years. (Filed 6ith October, 1898.)
Claim.--The improved bouyant mattress with cork filling wherehy the cork filling 2 is secured in place by the number of stitches 1 , preferrably passing through the dises 3 for additional security, whereby the form of the mattress is retained, substantially as described.
No. 61,936. Mitre Box. (Brite it omght.)
Thomas Musgrove tirittith, New York City, New York, Canada, 5th November, 1898; 6 years. (Filed 6ith Octolker, 1898.)
Clum.-1st. A mitre-box inverted-C shape in cross-section and provided with guide-kerfs extending through the top and drawninto the sides of the box, said kerfs leitug similarly inclined in parallel planes and evenly spaced apart, sulistantially as deseribed. Ond.

A mitre-box inverted-l shape in cross-section and provided with guide-kerfs extending through the top down into the sides of the


Lox, said kerfs being similarly inclined in parallel planes and evenly spaced apart, and a longitudinally-adjustably gauge-block on the under surface of the top at one end thereof, substantially as described. 3rd. A mitre-hos, comprising spaced sides, one of which is recessed and a top integral therewith, the top and sides being provided with kerfs extending through the top and down into the sides, said kerfs being smilarly inclined in parallel planes and evenly spaced apart, a slotted gange-block on the under surface of the top, at one end thereof, a set-screw passing through the slot of the block into the top, a clamping-plate in the recess of the side, and a set-screw passing through the said side of the box and engaging the clamping-plate, substantially as herein shown and described.

No. 61,637. Can Washing Machine.
(Mfochine io liver les boites de for blame.)


Tamex Des Brisay, New Westminster, British Columbia, Canadia ith November, 1898; 6 years. (Filed 7 th (October, 1898.)
Claim. 1st. In combination with the rotary carriage having the upwardly movable supports for cans, a ring 50 rigidly fixed to and at a suitable distance above the carriage, spindles having dises $51^{\text {a }}$ journalled therein, pinions on the upper ends of said spindles, a wheel 54 secured to the vertical shaft 13 , which meshes with the pinions and travels in an opposite direction to the pinions, and the rotary carriage whereby the said spindles and dises will be revolved rapidly as they pass round. 2nd. In a machine for washing e.ns, the combination with a rotary can carriage 17 having upwardly movable can-supports 20 , and means for elevating and de ressing the same, of a brush supporting frame 38 adjustably fixed above the axis of the rotary carriage, and having bushes on its outer side mesented in an are forne to the inner path of passing coms, of a water-box 41 baving the flat or hade-like outlet suspended in proximity to the outer bath described by the cans, and means for
ejecting water or stean therefrom, and of whisk brushes 47 arranged in a frame 48 so that as the cans are carried round they will he hrushed. as specitied. Brd. In a can washing mandine, the combination with the frame 10, having upwardly projecting colmm $10^{\text {t }}$, and the rotary carriage arranged to turn thewon, and upwarily mowable can supports in such carriage, of a ring iof rigidly connected to and supported above the rotary carriage, spindles arranged to turn in said ring and tohave slight sertical movement in bearing. directly over the can supports in the talbe, can engaging covers on the depending ends of said spiudles and pinions secured to the upper thds of the same, of a shaft 13 passing vertically through the column $10^{1}$, a gear wheel te secured to the top end thereof ind the same meshing with the pimions on the spindles, and means for imparting an oprosite movement to the shaft 13 to that of the carriage 17 and ring 50 whereby the spindles will be revolved rapidly on their planetary movement round the wheel 54 . 4th. In combination with the frame and the rotary carriage having the vertical movable can supports therein, and means for raising and depressing the same, as specified, a ring 50 fixed to and supported above the table, vertical movablespindles in such ring, can closing members on sheh spindles, springs interposed between the ring and the can closing members, whereby they will be pressed downwards, means for rotating the spindles at comparatively a high speed, and for introblucing a can het ween the upwardly movable can supports and the rewhlsing dise or closures and of passing the can through a hot-water spray-hath and between brushes arranged in its path, as quecitied. ith. In combination with the frame 10 and the mory carriage mounted thereon, having the can supports 20 arranged to turn on stoms 21 , and means for ratising and lowering same at intersals, of a ring secued to and at some distance above the outary carriage, rotatable can closures $51^{*}$ journalled in said ring at intervals over the can supports, and means for introducing cans between the sipports 20 and the closures $51^{n}$, and for mowing the cans upward and the compacting them with the closures and supports while being revolvod against the ayuenus bath and the brushes, as specified. 6th. In combination with the frame 10 with the upwardly projecting columm $10^{\prime}$ and a rotary can table there $n$ and means for passing cans thereromud, of the brushes 39 adjustably fixed and projecting into the inner side of the path of the cans, a hot water supply arranged on the other side of the can track and whisk brushes 47 fixed in a vertical, adjustable frame 46 , for the purposes as specified. Th. In a machine for the purposes deseribed in combination with a rotary carriage having the vertical movable can supports therein and the can closures alove the said supports, a shaft 11 and transmitting gears 14, 19 and 18 imparting a slow movement to the talle 17 , a shaft 13 having movement imparted thereto by the gears 15, which is two to one in relation to the mosement of the table 17 and in the opposite direction, and means of imparting comparatively fast movement to the can closures from the shaft 13 , as set forth. Kth. A can washing machine having the frame 16 and a motatable can carrirr and vertical moveable and rotatable can supports therein, means for passing cans round a common centre on the support in the carrier, ani for moving said cons upward and compacting thens with rapidly revolving closure members above, whereby the cans will be closed and revolved hy such closure members, and hrushes arranged on each side of the can path, as specified. 9th. In a can washing machine, a water box 41, divided into sections $41^{\prime \prime}$ and $41^{6}$ for the discharge of the water, members 4le in the outlets, and means for adjusting the same to eontrol the discharge, as set forth. 10th. In a can washing machine having a frame 10 and a rotatable can carrier mounted thereon, and means for passing cans thereon in a rotary manner, a rigibly fixed brush to engage in the imner sides of the can-track, in combination with a water-box 41 supported on standards $4: 2$ and 43 , and a brush frame 46 supported by the standard 43 , and a similar ont 45 , the water-irox and the said brush-frame foming an arc round the outer path described ly the cans, and of slots 43 in said standards for raising or lowering the water-box and bush-frame, as specitied. 11th. In it machine of the class described having the frame 10 with the column $10^{1}$ and the rotary can carriage mounted thereon and guide-hrackets 33 and 34 comnected with the said column and passing horizontally over a feed belt 29 and connecting with the outer side of the machine's frame, in combination with a trigger mechanism, 6 having the fingers fie for spacing the cans, as speritied. $1 \geq 2$ th. In a machine for washing cans having the rotary can carriage with a crescent-shaped frame $2 s$ on one side thereof, and an +mdless fred and delivery helt passing therover, and means for bassing cans from and to said belt, a slot $28^{*}$ in theouter side of saidere seent frame, a pin of secured therein, a trigger piooted onsaid pin having fingers thereom, projecting laterally wor the said belt, a slot $2 s^{\prime \prime}$, in the frame $2 s$, lying parallel with the helt from the slot $28:$, a $p$ in 64 , in said slot, a lever 65 fulcrumed on said pin, a slot in $^{\circ}$, in the rear end of the trigger, a sliding pin i8, in said slot, means for holding the pin is, mormally to the inmer side of the slot $5 \sigma^{2}$, and means for oseillating the lever 65, whereby the fingers of the trugger will be thrust into the track of the cans. 13th. I can feed mechanism in combination with an endless feed lelt for feeding cans to a rotary carriage, and for delivering the same therefrom, a trigger mechanism having lateral altermately mowable fingers obs, which engage and retard the cans, and a rotatable elliptical can mechanism fi3, having resillient arms 69, projecting from its major axis, which feeds fom cans to the carriage for each revolution thereof. 14th. A feed mechanism for cans, in eombination with an endless belt for supplying cans to and delivering same from a rotary carriage in combination with a
cencent frame 28 , for the said helt to pass owrer on a plane with said carriage, a trigger 36 pivoted to the frame $2 x$, a cam 63 arranged to turn on a shaft 60, at a sured two to one to the carriage, a lever bis fulcrmed on the frame $2 s$, the one end of which connects with the elliptical growe in the can 133, and the othere end lies against a slidable pin ox, in the toigere onf, which pin is normally a fixed peint in the trigger whereby the same will he turned back and forth on its picot, as and for the purposes set forth. loth. Incombination with a can washing machare hating the frame 10 , and the rotary can carriage momed thereon, and the concave guides for passing cans t, and from the carriage, the endless ferd belt 29 , for suphlying the cans to the carriage and delivering them the efoom, as specified.

## No. 61, 63 S . Hox or Packate. (Buit, of prifut.)



Henty Theodore Mason, Philadelphia, Pennsylvania, I.S.A., Eth November. 1898: (i years. (Filed 8th October, 1898. )
Cluim. 1st. The combination of a $b_{x, x}$ containing medicinal pills or tablets of different colours, with a cover or casing containing spaces coloured to conespond with the pills or tablets, each coloured space containing information concerning its respective pills or tablets, substantially as specified. Ind. The combination of a compartment lmx each compartment containing medicinal pills or tablets of a colour distinguishing them from those in each of the other compartments, with a cover or casing having spaces coloured to correspond with the different colours of the pills or tablets, each coloured space corresponding as to position with the compartment containing the comrespondingly coldmed pills or tablets, and having information concerning the latter, substantially as specitied. 3rd. The combination of a compartment box having in each compartmont medicinal pills or tablets of a colour distinguishing them from those in each of the other compartments, said box heing combined with a rover or casing and hwing a wall or walls of each compartment coloured to correspond with the colour of the pills or tablets contained in said compartment, substantially as speecified. th. The combination of a compartment box having in rach compartment medicinal pills or tablets of a colour distinguishing them from those: in each of the other compartments, said box heing combined with a cover or casing and having a wall on walls of eact compartment coloned to corresfond with the colour of the pills or tablets contained in said com partment and containing information relative to said pills or tablets. substantially as specified. 5th. The eombination of a compartment box having in each compartment medicinal pillsor tablets of a colour distingushing them fiom those iu each of the other compartments, said box having a wall or walls of each compartment coloured to correspund with the colour of the pills or tablets contained therein, and being combined with the case or cover having spaces corresponding as to colour and position with the coloned portions of the tron. substantially as sperified.

No. 61, 639 . Kallway Npike. (Cherille de chemin de fer.)


Michael Smith and Vatrick Mc.Mahon, West Bay ('ity, Michigan, U.S.A., Eth Noventher, 18:K; 6 years. (Filed 8th Octoler, 1898.)

Cluim.-1st. A railway spike provided with straight sides extending from the neck or under side of the head through a greater portion of the length, and tapered from thence to the point of the spike, the two straight portions of two opposite sides being separated by notches, sulstantially as described. ©nd. A railway spike provided with straight side's extending from the neck or under side of the head through a greater portion of the length, and tapert portions from the lower end of said straight side to the point of the spike, the straight and tapered portions being separated by notches in two opposite sides, the upper straight portion of one side being lower than that of the other side, whereby the notches are not located at opposite points, substantially as described. 3rd. The railway spike herein described, provided with the ordinary side-projecting head, the front and back being swell tapered from the neck to the point of the spike, said point being chisel-shaped, and the sides being formed with two swell tapers, one extending from the point upward and the other from the neck downward, said swell tapers being connected by ledges or shoulders inclined inwardly and upwardly and located at different points in the length of the spike, substantially as describerl.

No. 61,640. Pneumatic Straw Stacker.
(Marhine pacmatique pour ameulommer.)


Jacob Walker Miller and Edward Huber, both of Marion, Ohio,
U.S.A., 5 th November, 1898; 6 years. (Filed Sth October, 1898.)

Claim.-1st. In a pneumatic straw-stacker, the combination with a pneumatic delivery-pipe, of a hood, and its operating device actuated by air-currents delivered by said pneumatic pipe, wherehy said hood will direct the discharging straw to different places. 2nd. In a pneumatic straw-stacker, the combination with a pneumatic delivery-pipe, of a hood mounted thereon and adapted to direct the discharging straw in different directions, and operating devices for said hood including a fan arranged to receive operating air-currents from said pneumatic pipe. 3rd. In a pneunatic straw stacker the combination with a delivery-pipe, of a fan carried therehy and projecting within said pipe, a hinged hood extending over the end of said delivery-pipe, and nechanisn. between said fan and said hood whereby when the fan is operated said hood is also operated. 4th. In a pneumatic straw-stacker, the combination with a delivery-pipe, of a fan having a shaft carried thereby and projecting within said pipe a hood hinged to said pipe and adapted to extend across and be removed from the end of said pipe, and mechanism between said fan and said hood whereby when said shaft is operated said hood is also operated. 5th. In a pneumatic stacker, the combination with a delivery-pipe, of a fan having a shaft carried thereby and projecting thertin, a worm on said shaft, a lworm-driven gear meshing with and driven by said worm, a swinging hood hinged to said pipe, and a pitman connecting said hood and said driven gear whereby motion is transmitted from said gear to silid hood. 6ith. In a pneumatic stacker, the combination with a delivery-pipe, of a fan carried thereby having a worm on its shaft, a worm-driven gear meshing with said worm, a hood hinged to said pipe, a crank secured to said bood, and a pitman connecting aaid driven gear and said crank and adjustable on said crank, wherely when the fan is driven, the hood is vibrated across the outer end of said delivery-pipe. 7th. In a pneumatic stacker, the following instrumentalities:-a pneumatic delivery-pipe, a fan and its casing carried thereby, said fan extending within said delivery-pipe, and having a shaft with a worm, a worm-driven gear mesbing therewith and carried by said casing, a hood hinged to said pipe, a crank secured to said hood and having a
series of holes, a pitman having a vertical joint and a horizontal joint therein connecting said crank and said driven worm-gear and adapted to engage with any one of said holes in said crank, substantially as shown and described.
No. 61,641. Drier. (Scchoir.)


Valerius 1). Anderson, Cleveland, Ohio, U.S.A., 5th November, 1898; 6 years. (Filed 13th September, 1898.)
Claim.-1st. In a drier, the combination of a chamber, a rotary shaft in the lower part of said chamber, provided with beaters, an air inlet on the descending side of said shaft, and a guard covering said inlet and serving todirect the air downward toward the bottom of the chamber, and to exclude material from the inlet. 2nd. A drier, consisting of a sliell or casing, a rotary beater located in the lower part of said casing and extending lengthwise thereof, a heating chamber extending lengthwise of the shell, a flue or passage connecting the heating chamber and the interior of the shell or casing, and means substantially as described and shown for controllably heating the air in said chamber. 3rd. The herein described heater, consi-ting of a shell or casing 1, a rotary beater 3, 4, located in the lower part of said casing, means for rapilly rotating said beater, a heating chamber 5 extending lengthwise of the shell or casing, a thue 2 connecting the casing and the heating chamber at a point above the axis of the beater, heat-controlling devices for regulating the temperature in different portions of the heating chamber, and an exhausting device for withdrawing air from the shell or casing. 4th. In a drier, the combination of a shell or casing, a rotary beater located within said casing, an air inlet at one side of the casing, and a shield or guard extending downward from the upper side of the air inlet to a point near the periphery of the beater, whereby air drawn in by the beater is directed downward into the mass of material in the lower part of the casing. 5th. In a drier, a shell or casing having upright side walls connected at the top, and a curved hottom forming a continuation of one side wall but extending outward and upward beyond the lower edge of the other side wall substantially as shown, whereby an inlet fiue is formed, and the lower edge of the side wall is made to serve as a wall and guard for said flue.

## No. 61,642. Bottle Sealing Device.

(Appareil à secller los boutcilles.)


Henry Harding and Thomas Oliver Harding, both of Markham, York, Ontario, Canada, 5th November, 1898 ; 6 years. (Filed 1st Octoleer, 1898.)
Claim.-1st. The combination, in any bottle, jar or pot, made of glass, earthenware, metal or other suitable material or the body of one material and the cap of another, of a bottle, jar or pot having a groove on the outside of the neck of the bottle, jar or pot of sufficient depth to receive one-half a rubber ring so as to allow the remaining one-half of the rubber ring to project above the surface of the outside of the neck of the bottle, jar or pot, a rubber ring to
fit into the groove in the neck of the bottle, jar or pot, and a cap having a corresponding groove cast in the inside of the Hange of the cap to receive the remaining one-half of the ribber ring when the cap is fitted to the neck of the loottle, jar or pot, all substantially as set forth. 2nd. In any bottle, jar or jot, a cap made of vulcanized rubber having a circular groove in the inside of the cap to fit on the ring at the month of any bottle, jar or pot, substantially as aet forth.

No. 61,643. Washing Machine. (Muchine it laver.)


Lehman Weil, New York City, New York, U.S.A., 5th Novembrer, 1898; 6 years. (Filed 3rd October, 1898.)
Claim.-1st. A collapsible washing machine, comprising a rack with legs thereon adapted to rest within a tub, said rack being segmental in cross section and composed of end walls and cross-bars, the said end walls being serrated or corrugated upon their inner surfaces, and a rocker journalled by means of extended trunnions in vertical grooves or sockets in the end walls of the said rack, the said rocker having a removable operating handle attached thereto, substantially as shown and described. 2nd. As a new article of manufacture, in a collapsible washing machine, the combination of a rack adapted to rest within a tub, with a rocker journalled in the end walls of said rack, the said rack being composed of closed end walls having interior corrugations thereon and cross-hars or slats and cross-bolts and nuts for maintaining the end walls and cross-bars in rigid engagement with each other, substantially as shown and described. 3rd. As a new article of manufacture, a washing machine adapted for use in connection with an ordinary tub and embodying a fixed rack which is segmental in cross section and is composed of end uprights, walls and cross-bars whose ends engage sockets of said walls, the said end walls being corrugated upon their interior surfaces and being connected to each other by means of cross-bolts, whereby the rigidity of the structure is maintained and cross rods are securely retained within the said sockets, in combination with a rocker journalled in the end walls of the said rack, said rocker comprising end frames of segmental contour and cross-bars or rubbers, said bars engaging sockets in the end frames of the said rack, the end walls of the rack being held together by cross-holts, and a removable handle for operating the rocker, substantially as shown and described. th. In a washing machine, a segmental fixed rack consisting of corrugated side members having sockets therein and parallel bars connecting said side members and engaging the said sockets, and removable lolts and nuts comecting and holding said structure together, thumb screws adapted to hold the rack in position in the tuib and legs supporting the deviet, said legs being provided with cushions adapted to prevent injury to the tub, and said thumb screws having rubber caps upon their outer ends, the side walls of said rack pheing corrugated and provided with sockets to accomodate the rocker trunnions, with a rocker consisting of side members provided with quadrangular sockets, paralle rubbing bars fitted into said sockets, removable rods and nuts connecting said side members and holding the structure together, supporting trunnions adapted to fit into the sockets on side walls of the said fixed rack and upon which the rocker swings, a removable handle, said handle consisting of side and crosi-pieces, said side pieces being adapted to slide into suitable sockets on said rocker side members, substantially as shown and described.

## No. 61,6t4, (hin Rest for Horses.

(A ppui pour sous-barles de chereaut.)
Charles S. Baum, Williamsport, Pemnsylvania, U.S.A., Eth Nuvember, 1898; 6 years. (Filed 4th October, 1898.)
Claim.-1st. In a governor for horses, the combination with the nose-band thereof having a spring within the same, of angular levers pivotally connected to the nose-band, said connection being at and within the angle of said levers, overdraw-rings on said levers for attachment to the overdraw or check, and chin-strap rings on the levers for attachment of the chin-strap, so that the pressure on the chin-strap and overdraw will be uriform. 2nd. In a governor for
horses, the combination with the angnlar levers thereof, of a nosehand pivotally commected to and lying within said levers, the pivotal

connection being at the angle of said levers, rings on each of the free ends of the levers for attachment of the overdraw and chin-rest straps, and face-pieces connected with the nose-band, so that the nose-band may be properly adjusted upon the horse.

No. 61, 645. Seed Drill Dise Shoe.
(Srbot ì disque pour semoirs en liames.)


William Stephenson, Morris, Manitola, Canada, ith November, 1898; 6 years. (Filed 8th October, 1898.)
Claim. -1st. In a seed drill, the combination of a grain spout, revolving discs mounted on axles upon the opposite sides thereof, and a tapering scraper adjustably mounted upon an arm (straight or curved) of the grain spout and betwern the discs, below the line $x$, $x^{1}$, of contact and widest part of the discs, so as to be self-cleaning and noisless in operation, substantially as and for the purpose specified. 2nd. A seed drill, the combination of a grain spout, revolving discs mounted upon axles upon the opposite sides thereof, and a bearing projection cast upon the grain spout, by which to tolt arms to carry a press-wheel or fasten a drag-chain, and lugs on the sides of the grain spout to receive and hold the inner ends of the arms, substantially as and for the purpose specified. 3rd. In a seed drill, the combination of a grain spout and oil reservoir, revolving dises mounted upon the axles on the opposite sides thereof, and horizontal oil slots cut in ends of the said axles to facilitate the egress of oil to the axles, substantially as and for the purpose specified. 4th. In a seed drill, the combination of a grain spout, and oil reservoir, revolving discs monnted upon axles on the opposite sides thereof, and side scrapers made to impinge on tie discs on a line with the outer periphery of said discs, substantially as and for the purpose specified.

No. 61,646. Sap-Spout. (Siphon pour la sive.)
Fiben Willis, Colton, New York, U.S.A., हैth November, 1898; 6 years. (Filed 10th October, 1898.)
Claim.-1st. A sap-spout provided with a longitudinal channel, a depending hook from said spout, a plugging portion at the rear por-
tion of said hook, bearing extensions from said plugging bortion on the sides thereof and of equal width therewith, and anchoring-lugs

projecting from said extensions in opposite directions and of less width than said extensions, substantially as described. 2nd. A sapspout provided with a longitudinal channel, a cylindrical plugging portion at the rear of said channel, horizontal extensions merged into and of equal width with said plugging portion, a web connecting said extensions at their inner end, and oppositely-extending anchoring-lugs of less width than said plugging portion, substantially as described. 3rd. An improved sap-spout consisting of a body portion with a depending lip at its outer end, a depending hook having a flattened inner face, a ribupon the face of said body portion in the plane of said hook, a cylindrical plugging portion, extensions extending therefrom at the sides thereof, a web connecting the inner end of said extensions, and oppositely-extending lugs carried by said web and of less width than the plugging portion, substantially as described.

No. 61,647. Phonograph. (Phonoyraphe.)


Gianni Bettini, New York City, New York, U.S.A., 7th November, 1898; 18 years. (Filed 25th August, 1897.)
Claim.-1st. In an instrument for reproducing sound, the combination of a revoluble record surface, a horizontal diaphragin located above said surface, a stylus supported only by said diaphragm and located beneath the diaphragm and between it and the record surface, a sound chamber carrying said diaphragm, and a tubular sound conveyor connected to the sound chamber and supported by it at one end and provided with a joint allowing its vertical and lateral movement, substantially as described. 2 nd. In an instrument for reproducing sound, the combination of at revoluble record surface, a horizontal diaphragm located above said surface, a stylus supported only by said diaphragm and located beneath the diaphragm and between it and the record surface, a sonnd chamber carrying said diaphragm and supported by it, and an amplifying horn connected to said chamber and supported by the diaphragni at one end and provided with a joint allowing its vertical and lateral movement, substantially as described. 3rd. In an instrument for recording and reproducing sound, means for transforming a rotary motion and imparting to the stylus-carrying part a motion longitudinally of the record cylinder, said means consisting of a worm wheel and a spiral gear surface formed of a soft material capable of receiving and retaining the track of the worm wheel, substantially as described. 4th. In an instrument for recording and reproducing sound, the combination with the sound chamber having a diaphragns provided with a centrally located stylus carried only hy said diaphragm which is located in juxtaposition to the record cylinder, and a part adapted to interchangeably support different
forms of sound conduit, substantially as described. 5th. In an instrument for recording and reproducing sound, the combination of a sound chamber having a diaphragm carrying a stylus and located in juxtaposition to the record cylinder, of an adjustable post consisting of a fixed part 11 and a removable part 21 adapted to interchangeably support different forms of sound conduits, substantially as described. 6th. In an instrument for reproducing sound, a pressure device consisting of a rod having pivotal arms in line with the pivotal point of the stylus carrying part, and a spring attached to said rod and to the stylus carrying part, substantially as described. 7 th. In an instmment for reproducing sound, the combination of a pivoted sound conduit having at its free end a horizontal diaphragin carrying a stylus supported only by it at about the centre of the diaphragm, means for moving said stylus carrying part about its pivotal point, means for interchangeably supporting different forns of sound conduits, and a pressure device operating to cause the stylus to press upon the record cylinder at right angles to the axial line thereof throughout its path of movement, subtantially as described. 8th. In an instrument for reproducing sound, a pivoted stylus carrying part and a pressure device consisting of a rod having arins pivoted in line with the centre about which the stylus carrying part oscillates, and a spring secured to said rod and to the stylus carying part, substantially as described. 9th. In an instrument for reproducing sound, a bell-mouthed tube pivoted at its flaring end and a horizontal diaphragm provided with a central stylus carried in the smaller end of the bell-mouthed tube, substantially as described.

## No. 61,6.8. Gold Extracting Procens. <br> (Procedé pour extraire l'or.)

.John Laudin, 40 Drottninggatan, Stockbolm, Sweden, 7 th Novem ber, 1898; 6 years. (Filed 24th September, 1897.)
Chain.-The process for extracting gold from gold ores or ore waste consisting in leaching same with chlorine or cromine containing or chlorine or cromine-evolving solutions to which are added, before or during the leaching chlorine or cromine compounds of those metals which by free chlorine or cromine can form higher and less constant chlorine or cromine compounds, superchlorides or supercromides.

No. 61,649. Typewriting Machine. (Clavigraphe.)


Frit\% Mayer, Meilen at Zurich, Switzerland, 7th November, 1898; 6 years. (Filed 2nd August, 1898.)
Claim. 1st. In a typewriting machine having the types divided in group and having as few keys only as there are such groups, the combination with a carriage adapted to be disposed in the direction to and from said keys, of type-frames $b^{1,}, b^{2}, b^{3}$, suspended from said carriage, and arranged so as to be adapted to be thrown upwards against the paper and means for transmitting the movement of the said keys to said type-frames, for the purpose as described. 2nd. In a typewriting machine having the types divided in group, and having as few keys only as there are such groups, the combination with a carriage adapted to be displaced in the direction to and from said keys, of U-shaped type-frames $b^{1,}, b^{4}$ and $b^{6}, b^{9}$ and a type-bar $l^{5}$, suspended from said carriage, and adapted to be swung upwards against the paper, said type-frames being arranged so as to move in a direction rectangularly to that of the carriage, and the type-har moving in a direction equal with that of the carriage, and means for transmitting the movement of the said keys to the type-frames and the type-bar, for the purpose described. 3rd. In a typewriting machine having the types divided in groups and having as few keys only as there are such groups, the combination with a carriage adapited to be displaced in the direction to and from said keys, of U-shaped type-frames $b^{1}, l^{4}$ and $b^{6}, b^{9}$, and a type-bar $b^{5}$, suspended from said carriage, and adapted to be swung upwards against the paper, said type-frames being arranged so as to move in a direction rectangularly to that of the carriage, and the type-bar moving in a direction equal with that of the carriage, means for transmitting the movements of the keys to the type-frames, and a double frame $" "^{\text {i }}$, intercalated between the type-bar and the key for the same, the parts $u^{1}$, of said double-frame having crooked portions $"^{2}$, strving for uncoupling said frame from the means of transmission, substantially as described. 4th. In a typewriting machine having the types divided in groups and laving as few keys only as there are such groups, the combination with a carriage adapted to be displaced in the direction to and from said keys, of
type-frames $b^{1}, b^{2}, b^{3}, 1^{4}$, suspended from said carriage and arranged so as to be adapted to be thown upwards against the paper, axles holding said frames, and located loosely in groove-like bearings of the said carriage, springs alapted to retain the axles in their hearings by suitable intermediate means, and levers arranged so as to trans er the movements of the keys to the said frames, substantially as and for the purposes described.

## No. 61,650. Process of Waterproofing Textiles. <br> (Procédé pour rendre les tissus émprrwéables it l'ぃu.)

Josef Rudolf, Gera Reuss, Germany, 7 th November, 1898 ; 6 years. (Filed 25th June, 1898.)
Chaim. - -1 st. The improvi d process for rendering textile materials, paper, word substances and the like waterproof and for finishing and protecting thems against spottings and moths which consists in conveying on the said materials, substances insoluble in water, such as solid hydrocarbons, resins, stearine and palmetine as well as their metallic compounds, vegetable wax, beeswax and the like in the form of an emulsion of such substances, substantially as hereinbefore described. 2nd. The improved process for rendering textile materials, paper, wood substances aad the like waterproof and for finishing and protecting them against spottings and moths which consists in melting solid hydrocarlons, resins, stearine and palmetine as well as their metallic compounds, vegetable wax, bet'swax and the like, and conveying the said melted substances on to the materials by means of pressure rollers, substantially as hereinbefore described.

No. 61,651. Tanning Apparatus. (Apparcil à tunnte.)


Edward Henry Dewson, Quincy. Massachusetts, U.S.A., 7th November, 1898; 6 years. (Filed 3rd August, 1898.)
Claim.-An apparatus for quick tanning of hides, skins and the like comprising a plurality of liquor tight compartuents, independent of and non-communicating with each other, and severally having a charging hole and cover therefor, and adapted to contain tanning liquor and hides, the several compartuents being assembled in a single plane around a common centre of motion, and means to move said compartments in the same path of travelabout waid centre, substantially as described.

No. 61,652. Pulley, (Poulie.)


Fred Hazelton Spear, Burlington, Vermont, U.S.A., 7 th November, 1898; 6 years. (Filed (ith September, 1898.)
Claim.-lst. A self-oiling pulley, comprising a hub having therein an oil chamber of greater diameter at one end than at the other, and having a bearing surface, and a separate bushing or sleeve within said surface and adapted to be fixed on a shaft or support, one of said parts having a longitudinal duct along said bear ing surface, and said parts having at the inner portion of the smaller end of the chamber, a communication with one end of said duct and at the
outer portion of the larger end of the chamber, a communication with the other end of said duct. 2nd. In a self-oiling pulley, the combination with a lmshing having a disc formed with inwardly extending ducts, ducts leading from its periphery, and transverse ducts or grooves leading longitudinally across its bearing face, of a pulley having a hub fitting on said bushing, an oil chamber of larger diameter at one end than at the other enclosing said disc at its larger end. the smaller end of said chamber communicating with the rear ends of the said ducts in the bushing, substantially as set forth. 3rd. In a self-oiling pulley, the combination of a bushing having the dise B, and formed with the ducts ( $\mathbf{x}$, the grooves T, and the annular chamber $J$, the pulley fitting on said bushing and having the oil chamber D, of greater diameter at one end than at the other end formedwith the openings $H$ by which said chamber communicates at its smaller end with said grooves J , and the enclosing cap engaging the bushing and secured to the hub of the pulley, substantially as set forth. 4th. The combination with the pulley having the oil chamber 1 ), of the bushing having the dise 13 , inclined ducts ( $i$, formed in the disc, transverse grooves leading from the inner euds of the said ducts across the hub and bushing between their bearing surfaces, and means whereby the rear ends of said grooves comunicate with the smaller end of the oil chamber $D$, substantially as set forth. 5th. In a self-oiling pulley, the combination of the bushing having the disc $B$, formed on its outer face with the chambel $O$, ducts formed in the bushing and extending from the outer portion of the disc inwardly and across the bushing and communicating with the rear end of the oil chamber, the ring $B$, situated at the outer side of the disc and serving to cover the ends of the ducts, holes $G$, formed in the disc and leading from the chamber $O$, to the chamber $D$, and an enclosing cap $F$, secured to the hub of the pulley and having the filling aperture, substantially as set forth.

No. 61,653. Hoof Trimnier. (Appareil à dégrossier les subots.)


Alvia Byron Smith, Middlebury, Vermont, U.S.A., 7 th November, 1898 ; 6 years. (Filed 10th September, 1898.)
chaim. -1st. In a device of the class described, the combination with a hanger bracket having a hub, of a shaft journalled in the hub, pulleys carried by said shaft, an arm comnected to the hul, a rotary tool carried by the arm and operated by a pulley, and a belter running over the tool and a pulley of the shaft. 2nd. In a device of the class described, the combination with a hanger bracket having a hub, of a shaft journalled in said hub, pulleys carried by said shaft, a coupling on the hub which has sockets, hanger rods secured in the sockets and extending in opposite directions, flexible shafts depending from the hanger rods, tools carried by said shafts, pulleys on the shafts and band running over the said pulleys and on the shaft journalled in the hub. 3rd. In a device of the class described, the combination with a hanger coupling and a spindle journalled therein, of a tool actuated by the spindle, a clutch carried by the spindle, a pulley running on the spindle and provided with a clutch, and neans for shifting the phlley. 4th. In a device of the class described, the sombination wlth a hanger coupling, of a spindle journalled therein, a tool operated by said spindle, a clutch member on the spindle, a pulley running on the spindle and having a clutch member, a slidable shifter connected to the hanger coupling and adapted to actuate the tool, an eye secured to the hanger coupling, and cords connected to the shifter, one of which passes through the eye. כth. In a device of the class described, the combination with a hanger coupling, of a spindle journalled therein, a tool operated by the spindle, a pulley running on the spindle, a shifter for said pulley, a spring connected thereto, a locking pin connected to the spring and adapted to work through an opening in the shifter and be received in oprenings in the
hanger coupling, an upper eye and cords both of which are connected to the lower portion of the shifter and one of which runs through the locking pin and through the upper eye. 6th. In a device of the class described, a tool holder consisting of a shank having a means for holding the tool and provided with a collar, a box that loosely encircles the shank and abuts on the collar, and a nut on the shank which abuts on the box. 7th. In a device of the class described, a tool holder comprising a shank having tool holding means and provided with a collar, a box loosely encircling the shank and provided with an enlarged mouth and an inner shoulder, which nouth receives the collar and the shoulder abuts thereagainst, a nut secured on tbe shank and abutting against the other end of the box, and a coupling slueve fitted over the hox. 8th. In a device of the class described, a tool holder comprising a shank and tool holding means carried thereby, a box loosely encircling the shank, and arms or handles pivoted to the box on opposite sides and adapted for attachment. 9 th. In a device of the class described, a tool hulder comprisiug a shank having tool holding means, a box loosely encircling the said shank, clamping members encircling the box, handles fitted in between the end of the clamp members and bolts passing through the handles and the clamp memhers. 10th. In a device of the class described, a flexible shaft comprising inter locking links having shoulders, and separable boxes encircling the links and located between the shoulders. 11th. In a device of the class described, a flexible shaft comprising links interlocked with each other and having shoulders, and boxes encircling the links between the shoulders and formed in separable halves, and hands encireling the sections of the boxes and holding them together. 12th. In a device of the class described, a flexible shaft comprising linksinterlocked with each other, and a hook made from a single piece of material which is interlocked with the last link and has its ends bent into separated hooks.

No. 61,654. Wool idrying Apparatun.
(Abmereil à secher lu luime.)


John Fielden, Rochrlale, Lancaster, England, ith November, 1898 ; 6 years. (Filed 9th March, 1898.)
Claim.-1st. In an apparatus of the chatacter described, a feeding meshanism consisting of a plurality of roliers, steam cylindere mounted in each of said collers and in communication with a boiler and metal cores concavo-convex in form and in cross section mounted in each of said cylinders, substantially as and for the purpose described. End. In an apparatus for drying, carbonizing or cooling fibrous or other material, the combination of a plurality of trays or tables mounted one aboveanother in a suitable casing, and capable of intermittent longitudinal movement, said trays being supported by suitable hangers, and each being provided at the end thereof with a lug or projection, a camplate mounted aljacent thereto and provided with means for revolving the same, said camplate being each adapted to engage the corresponding lug or projection for a predetermined part of its revolution, a lug or projection secured to the bottom of each of said trays and a corresponding lug or projection secured to the sides of the said casing and adapted to angige the same, substantially as and for the purpese described. Brd. In an apparatus for drymg, carbonizing or cooling fibrous or other material, the combination with the shaking trays of a supplemental shaker con sisting of a reciprocating plate momoted bentath the end of one of the shaking trays, a crank armi secured thereto, said crank arm being pioctally and eccentrically countected withra revolving dise, substantially as and for the purpose described.

## No. 61,65\%. (irain Ntripping Nachinc.

(Mfrbine is eplucher le armin.)
Edward Paul Jignan, Wimington, South Australia, 7th November, 1898; ; years. (Filed 24th March, 18:5.)
C/amo.-1st. In combination with the road wheel and its axle upon which said wheel is journalled, a sprocket or gear wheel also,
journalled upon the axle for imparting motion to the operative parts, and clutch mechanism for connecting and disconnecting

the said two wheels, all as described. 2nd. In combination with the road wheel and its axle, a wheel also journalled upon said axle outside of said road wheel and arranged to be operated by the same, and also arranged to impart motion to the operative parts, the machine body having its sides near the road wheels, and one side or nked or lent away from the near wheel, all as described. 3rd. In e.mbination with the road wheel and its axle, a bar supported on said axle outside of the road wheel, the fly wheel, and the axle of said wheel supported on said bar and on a portion of the machine frame, all as described. 4th. In combination with the fly wheel and the axle supporting said wheel, a pinion or other wheel secured to or integral with said fly wheel, and to which motion is imparted by the traction wheel, and said fly wheel and pinion enclosed thet ween two sides of the frame that supports the fly wheel axle, as described. 5th. In combination with the fly wheel and a pinion or other wheel to which motion may be transmitted keyed to or integral with said fly wheel, and a fixed axle supported on the machine frame, and on which said wheels are loosely journalled, substantially as described. 6th. In combination with a damp weather thresher and its operating pulley, the fly wheel, the said wheel and pulley connected by belting whereby the revolution of said fly wheel in either direction will actuate the pulley by a pulling motion from the fly wheel, as described. 7th. In combination with the main axle for supporting the traction on road wheels, vertical standards secured to and extending upward from said axle, stays extending diagonally downward from the upper ends of said standards, and the lower ends of said stays connected with and supporting the body of the machine, as described. 8th. In combination with the box or body of the machine. the roof or apron extending from said box or body on its off side in a substantially straight line over the off side wheel, all as and for the purpose described. 9th. In combination, the machine body having its sides near the road wherls, and at one side cranked or bent away from the near wheel, and the roof or apron extending from said bux or hody on its off side in a substantially straight line over the off side wheel, all as and for the purposes described. 10th. In combination with the road wheel and its axle, a wheel also journalled uxon said axle outside of said road wheel, and arranged to be opreated by the same, and also arranged to impart motion to the operative parts, the machine body having its sides near the road wheels. and one side cranked or lent a way from the near wheel, and the roof or apron extending from said box or body on its off side in a substantially straight line over the off side wheel, all as and for the purposes described. 11th. A comb tooth consisting of a wearing plate for attachment of the comb har, the tooth front and the tooth stay for bracing said front, all combined as shown and described. 12th. In combination with the comb tooth, the flat metal piece $\mathbf{H}$, attached to said comb tooth, one end resting upon the tooth and the other end extending beyond the tooth point and downward in front of the same, all as shown and described. 13th. In combination with the comb tooth, the flat metal piece If, held within a slot in the thimble of the comb tooth and one end resting upon the tooth and the other end extending beyond the tooth point and downward in front of the same, all as shown and described. 14th. The cheeks of the machine having a slotted hole or holes $\mathrm{F}^{14}$, in combination with the comb bar for supporting the combs, and adjusting bolte passing through said bar and slots, all as shown and described. 15th. The raising and lowering mechanism consisting of the rack L , a pinion or cog $\mathrm{L}^{1}$, engaging with said rack, a level gear $\mathrm{L}^{2}$, concentric with said pinion and integral with the same, a handle lever and a pinion L:", supported on the lower end of the handle lever and engaging with said bevel gear, all combined and operating as described. 16th. In combination with the lifting rack, the pinion engaging with the same, and the hand lever for operating said pinion the arc M, fixed to the main frame, and means for adjustably fuleruming the lever to said are, all substantially as described. 17 th . In combination with the lifting rack and its operating pinion, a spring detent or bolt normally serving tolock said pinion, and a lever connected with the rear of said bolt or detent hy a connecting rod, for releasing said bolt or detent, all substantially as described. 18th. In combination with the lifting rack and its operating pinion, a spring detent or bolt normally serviug to lock said pinion, a lever connected with said bolt or detent for releasing the same, a lrake for said pinion, and
said lever being adapted to operate said brake to bind the pinion, all substantially as described. 19 th. In combination with the lifting rack and its operating pinion, a spring detent or bolt normally serving to lock said pinion, a lever coomnected with said bolt or detent for releasing the same, a lever brake for said pinion and the holt operating levar provided with an arm resting upon the lever brake for operating the same, all substantially as described. 20th. In combination with the damp, weather thresher, a series of knives situated in front of the same, all substantially as described.

No. 61,656. Liger Tenter. (Ajparvil it éproucer les ocufs.)


61656
Ezra Edwards, Webster, Iowa, U.S.A., 7th November, 1898; 6 years. (Filed 12 th July, 1898.)
Claim. --1st. An egg tester and separator comprising a frame adapted to support a $h$ opper, a table at one end of the frame adapted to support a basket or egg case, a hopper fixed in the frame and provided with an opening at its bottom and one in its side, means for closing said openings, a wire screen fitted in the top of the hopper, a candle-holder detachably connected with the open bottom of the hopper and a cover fitted over the top of the hopper and frame and provided with an upening at its central portion, arranged and combined to operate in the manner set forth for the purposes stated. 2nd. In a device of the class described, the combination of the supporting frame, a hopper in said frame, an artificial hght-producing means in the bottom of said hopper, a screen in the upper fortion of said hopper, a cover over the screen and a gate in the hottom of the hopper. 3rd. Ina device of the class described, the combination of a supporting frame, a hopper in said frame, a lamp, in said hopper, a frame H , in the upper portion of said hoperer, a screen fixed to said frame $\mathbf{H}$, an opracue cover fixed to the frame $\mathbf{H}$, and arched above the sereen, means of access to the interior of the cover and a gate in the bottom of the hopper.

## No. 61,657. (over for Kitchen Vemsels.

(Courerle pour usterisiles ife rusiner.)


Thomas Edward Hough, Toronto, Ontario, Canada, 7 th Nowember, 1898; 6 years. (liled 26th July, 1898.)
Cluim. 1st. In a cover for kitchen vessels, having a circular base E, with solid semi-circular portion D, and epposite perforated portion $C$, and inner circular portion $\mathbf{F}$, the perpendicular circular rim $G$, and guide $H$, as and for the purpose hereinbefore set forth. 2nd. In a cover for kitchen vessels, having a semi-circular solid cover $A$, and revolving rod 3 , as and for the purpse hereinbefore set forth.

## No. 61,65s. Bottle, etr. (Boutrille, retr.)

(ieorge Adam Jiemer, Newburg, N+w York, I'S.A., 7 th Nowember, 1898; 6 years. (Filed 10th Octoter, 1898.)
Chrime. 1st. A bottle or other vessel, the neek of which is contracted at the opposite sides thereof so as to form a narrow transverse passage or opening, a stopper which is adapted to be inserted into said neck, and a strip of spring metal which is passed through said stopper, and the ends of which are bent downwardly and adapted to lif passed through said natrow transverse passage or opening,
substantially as shown and described. Znd. A loottle or other vessel, the neck of which is contracted at the opmosite sides thereof

so is to torm a narrow transverse passage or opening, a stopper which is adapted to le inserted into said neck, and a strip of spring metal which is passed through said stopper, and the ends of which are bent downwardly and adapted to be passed through said narrow transverse passage or opening, one end of said strip of metal being wider than the other and provided with a transverse slot or opening, and the other end being adapted to be passed therethrough, substantially as shown and described. 3rd. A bottle or other vessel, the neck of which is contracted at the opposite sides thereof so as to form a narrow transverse passage or opening, a stopper which is adapted to be inserted into said neck, and a strip of spring metal which is passed through said stopper, and the ends of which are bent downwardly and adapted to be passed through said narrow transverse passage or opening, one end of said strip of metal being wider than the other and provided with a transverse slot or opening, and the other end being adapted to be passed therethrough, said last-named end being also provided with a transverse loop or bend whereby a shoulder is formed which is also adapted to be passed through said slot or opening, substantially as shown and described.
No. 61,659 . Weather strip. (Bourrelt de portc.)


John T. Watts, (Golden, Mllinois, U.S.A., 7 th November, 1898 ; 6 years. (Filed 10th October, 1898.)
Cluim.- In a weather-strip, the combination with a stationary section, having a securing-face by means of which it is attached to the door, an Intemediate $p$ rtion inclined outwardly and downwardly from the securing portion, a downwardly-extending stob member, a movable section laving its inner end bent at an angle to form an attaching portion, binges secured to the outer surface of the attaching portion, and to the under side of the intermediate portion of the stationary section, whereby said sections are hinged together, said attaching portion adapted to abut against the stop member when the deor is open, spring-rod having its end loent at an angle and $+x t e n d i n g$ in reverse directions, one of said angular ends leeing secured to the under side of the intermediate portion of the stationary vection adijacent one end of the weather-strip, and the opposite angular end secured to the under side of the movable section adjacent the oppesite eud of the strip, of an annular stop-plate stcured to the door-frame and adapted to leengaged by the movable section of the weather-strip, whereby said section is held in engagement with the door sill when the door is closed, suhstantially as described

No. 61,660. Sole Cutting Marlinine.
(Murline pentr thiller les semelles.)


Prancis Joseph Freese, Montreal, Quebec, Canada, 7 th November, 1898; 6 years. (Filed 6th October, 1898.)
Cucim. -1st. In a sole cutting machine, the combination of a frame, a work support and a portion of said frame overhanging the work support and having a vertical guideway therein and a divided cutter or die, the parts of which coincide to pr cduce a complete die, with a pair of plungers located in said guideway for carrying the parts of the cutter and means for imparting alternative reciprocating motion in parallel lines of movement to the parts of said cutter or die, for the purpose set forth. 2nd. In a sole cutting machine, the combination of a frame, a movable or travelling work support or table and a portion of said frame overbanging the work support and having a vertical guideway therein aud a divided culter or die, the parts of which coincide to produce a complete die with a pair of plungers having parallel movement, for actuating same, for the purpose set forth. 3rd. In a sole cutting machine, the conbination of a frame, a yielding and movable or travelling work support or table, and a portion of said frame overhanging the work support and having a vertical guideway therein and a divided cutter or die, with a pair of plungers, means for actuating said tahle and imparting alternative reciprocating motion in parallel lines of movement to the parts of said cutter or die, for the purpose set forth. 4th. In a sole cutting machine, the combination of a frame, a yielding work suport and a portion of said frame ovelhanging the work support and having a vertical guideway therein and a divided cutter or die with a pair of phongers, means for imparting alternative reciprocating motion in parallel lines of movement to the parts of said cut er or die, for the purpose set forth. 5th. In a sole cutting machine having a vertically reciprocating cutter or die, a yielding work support normally held in contact with the cutter or die and adapted with such cutter to maintain a constant pressure upon lwoth sides of the stock. for the purpose set forth, and adapted to be depressed for a limited distance, with means for limiting such depression. 6ith. In a sole cutting machine, the combination of a frame, a yielding work sopport or table adapted to vield vertically and travel in a horizontal plane and a portion of said frame overhanging the work support and having a vertical guideway therein and a divided cutter or die with a pair of plungers, means for imparting alternative reciprocating motion in parallel lines of movement to the parts of said cutter or die, for the purpose set forth. 7th. In a sole cutting machine, the combination of a frame, a cutter or die and a yielding work support or table normally held by a spring in contact with the cutter or die, and a support for such table limiting the depression of same and such table adapted to lse depressed for the distance determined by such support, and further adapted with such cutter to maintain a constant pressure upon both sides of the stock, to travel in a horizontal plane and be adjusted in working distance relatively to said cutter or die and means tor actuating said die and effecting the travel of said work support and of adjusting same, for the purposes set forth. 8th. In a sole cutting machine, the combination of a frame, a divided cutter or die, the parts of which coincide to produce a complete die and a yielding work support adjustable in working distance relatively to said cutter or die and a portion of said frame overhanging the work support and having a vertical guideway therein with means for actuating said cutter or die and of adjusting said work support, for the purpose set forth. . Oth. In a sole cutting machine, the combination of a frame, a driving shaft
carried therein, a work support and a portion of said frame overhanging the work support and having a vertical guideway therein, a divided cutter or die, the parts of which coincide to form a complete die, a pair of carriers or plungers located in said guideway for carrying the parts of said cutters, a pair of dises mounted eccentricaily upon said shaft acting to depress said carriers and springs normally elevating same for the purpose set forth. 10th. In a sole cutting machinc, the combination of a frame, a driving shaft carried therein, a work support, and a portion of said frame, orerhanging the work support and having a vertical guideway therein, a depressible divided cutter or die with its parts normally elevated, and a pair of dises eccentrica!ly carried by said shaft for acting upon the cutter carrying parts to depress same in parallel lines of movement. 11th. In a sole cutting machine, the combination of a frame, a driving shaft carried therein, a vertically movable cutter or die, a yielding work support normally held in contact with the movable cutter or die, a driving pulley mounted loosely on said shaft and clutch mechanism for connecting and disconnecting said pulley with the shaft for the purpose set forth. 12 th . In a sole cutting machine the combination of a frame, a driving shaft carried thertin, a verti cally movable cutter or die, a driving pulley mounted loosely on said shaft and clutch mechanism carried in part by said pulley and in part by said shaft with which the latter part has a sliding connec tion with means for connecting and disconnecting the parts, as and for the purpose set forth. 13th. In a sole cutting machine, the combination of a frame, a driving shaft carried therein, a vertically movable cutter or die, a yielding work support normally held in contact with the movable cutter or die, a driving pulley mounted liosely on said shaft and adjustable clutch mechanisin for connecting and disconnecting said pulley with the shaft, as and for the purpose set forth. 14th. In a cutter, a stationary interior frame or body piece and an outer encircling cutter or die with continuous trans formable cutting edge adjustably carried thereby and variablein form thereon. 15tin. A divided cutter or die having a pair of interior'integ ral body pieces and a pair of integral cutter encircling edgeqpieces adjustably secured to the outer faces of such body pieces and the ends of the separate parts of which edge pieces abut each other and coincide to produce a complete die for the purpose set forth. 16 th . A cutter or die formed in two cutting parts the ends of which abut each other and coincide to produce a complete die and which are independently operative with a plunger or carrier for independently carrying each part upon its end and operating same in parallel lines of move ment, for the purpses set forth. 17th. The combination with the cutter or die formed of two main cutting parts adapted to be independently carried and operated and either of which is adjustable, of an auxiliary or enlarging plate or section carrying two cutting edges and adapted to be interposed between and attached to either of said main cutting parts, for the purpose set forth. 18th. The combina tion with the cutter formed of the two main cutting parts comprising frame pieces and cutting blades or strips attached therein adapted to be independently carried and operated and either of which parts is adjustable, of an auxiliary or enlarging cutting part fitting longitudinally of the dies and eomprising a frame piece with cutting hlades at each end adapted to be interposed between and attached to either of said main cutting parts, for the purpose set forth. 19th. The cutter or die formed of two main cutting parts, and an auxiliary or enlarging cutting plate or section having a body portion and cutting blades at each and thereof and adapted to be interposed longitudinally between the main cutting parts tolocate such cutting blades in line with the blades of the main cutting parts, for the pur pose set forth. 20th. The cutter or die formed of two main cutting parts comprising integral stationary frame pieces and separate con tinuous flexible cutting blades or strips removably attached and adap ted to conform to the outer configuration of the sides thereof, said frame pieces having their side edges to which said blades are attached formed with a series of notches or recesses, for the purpose set forth. 21 st. A cutter or die having a frame or body piece and a movable flexible cutting blade or strip attached to the edge thereof by means of screws mounted so as to rotate but held against longitudinal movement in said blade and entering said frame piece, for the purpose set forth. 22 nd. A cutter or die having a frame or body piece and a removable flexible cutting blade or strip attached to the side edge thereof, such side edge being formed with a series of notches or recesses, for the purpose set forth. 23 rd . In a cutting machine, a divided cutter or die, the parts of which coincide to produce a complete die, and means for imparting alternative reciprocating motion in parallel lines of novement to said parts, for the purpose set forth 24th. In a sole cutting machine, a rotatable work supporting table having a base mounted on a suitable rotating spindle, a detachable. top or block to carry the work, intermediate annular bearing sections or rings each having two separate inclined faces and means for retaining the parts in position when adjusted, for the purpose set forth. 25th. In a sole cutting machine, a work supporting table having a base, an adjustable top or block to carry the work and a pair of intermediate amnual bearing rings each having inclined faces movable relatively to the other with clamping devices passing through and clipping such rings, for the purpose set forth. 2 fith. In a sole cutting machine, a rotatable work supporting table having a base with upwardiy projecting lugs carrying set screws, an adjustable top or block to carry the work, intermediate annular bearing sections or rings, each having an inclined face adspted to be moved one upon the other and clamping devices passing through said sections between their edges aud adapted to clip both edges for securing such sections
in position when adjusted, for the murpose set forth. 27th. The combination with the fraue, the vertically movable entter or die, the rotatable work supporting table and the vertical shaft carrying same, of a gear-wheel supported hy the frame and having a rotary connection with said shaft, a countershaft suitably carried, a worm on said countershaft in mesh with said gear-wheel, a ratehet on said countershaft and an operating pawl movable intorand out of engagement with said ratchet, for the purpose set forth. '2Sth In a sole cutting machine, the combination of a driving shaft, a divided cutter or die, the parts of which concide to produce a complete cutter or die, a work support, an operative comnection between said cutter or die and the driving-shaft, means for operating said drivingshaft and adjustable mechanisn for connecting and disconnecting said driving-shaft and its means of operation, for the purpose set forth.

No. 61,661. Nkirt. (J'/и\%.)


Willian J. Hay, Oshkosh, Wisconsin, U.S.A., ith November, 1898; 6 years. (Filed 10th Octoler, 189\%.)
Claim. - -1st. The combination with a dress skirt, of a facing piece folded near its edge forming a groove and complementary rib, a covering piece inserted in the gronve and sewed to the facing strip against it on both sides, said covering piece being folded over and about the folded edge or rib of the facing and sewed to the other surface of the facing, said facing and covering piece including the roll formed thereby being secured to the skirt forming a laterally inwardly projecting roll at the bottom of the skirt. End. A dress protector and distender comprising a facing strip folded near its odge forming a groove and complementary rib, and a covering piece, the edge of which is inserted in said groove and is sewed to, the facing strip at both sides thereof, said covering piece being therefron folded about the folded edge or rib of the facing strip and sewed at its other edge to the other surface of the facing strip forming a laterally projecting roll.

No. 61,662. Heating Apparatus. (Appureil de chruffet!e.)


Tohann Schumann, Lemberg, Galicia, Austria, 7 th November, 1808 ; 6 vears. (Filed 10th October, 1898.)
Claim.--1st. A heating apparatus distinguished by two clearing pipes leading into the chimney and which can be stopped in such a way that the stopping of the one corresponds with the opening of the other, a dranght pipe in intimate connection with the said smoke
clearing pipes and return pipes with them discharges to allow the completecombustion of the unburnt smoke and gas coming from the fire, substantially as and for the purpose set forth. 2nd. In a heating apparatus the arrangement of two tire-places the upper of which receives the combustion air shrough a slit and the lower is arranged as a secondary fire-place, with a grate directly under the first and serves to light this latter and to receive the lumps of coal which, being comsumed to the size corresponding with said slit fall on the grate where they are completely burnt and serve to heat the combustion air, substantially as and for the purpose set forth. Brd. In a heating aplaratus the combination of a respirator composed of a water reservoir or tank and of wing wheels cowered with an absorbing substance, of small thbes arranged on the hollow axle of said whels and which plange into the water, said wheels heing worked hy the circulation of the air, substantially as described. 4th. In a heating apparatus the combination of a layer of cement covering the interior sides, composed of a wire ganze arranged on a thin finely corrugated sheet so that the dilatation of the iron sides of the stove camot exercise any injumons influence on the layer of cements, substantially as described

No. 61,663. Neparator. (Sipuratrur.)


Albert Roe Penprase and John Law, both of Duluth, Minnesota, U.S.A., 7 th Novemher, $1898 ; 6$ years. (Filed 24th September, 1898.)

Cluim.- -1 st. In a separator and grader, the combination with a suitable casing, of two inner diverging screens, two inner converging Hoors connecting the said inner screens, two outer converging screens parallel with the said converging floors, two outer diverging floors connecting the said outer covering screens and parallel with the inner diverging screens, the imner foors and scretens being so arranged as to discharge particles of dirt or waste material through a space centrally between them into a suitable receptacle, and the outer diverging flows to discharge waste material at the sides of the casing, the arrangement of the inner and outer floors also preventing the dust from re-entering the grain and also forming with the screens two zigrag passages for the descent of the grain, and an inclined floor located at a suitable peint in the central dust chute for conducting the dust to the dust compartment, the said dust compartment also connecting with the side dust passages or chutes, one set of the outer diverging floors being extended to meet the sides of the outer casing to form a screening compartment helow the same, and prevent the further descent of the dust into said compartment and also direct the dust in the side passages to the dust compartment, the mesh of the screens below the said extended divergent dust floors in the side dust passages being larger than the mesh of the screens above the floors, and forming a grain grader which pernsits small grain or screenings to pass through the large mesh, the construction and arrangement being such that the dust is conveyed to one compartment, screanings to another compartneent, and good grain to a third compartment, substantially as described. 2nd. In a sepmator and grader, the combination with a suitable casing, of two inner diverging screens, two immer converging floors connecting the said inner screens, two outer converging screens paralle] with the said converging floors, two outer diverging floors connecting the said outer converging screens and parallel with the inner diverging screens, the imner floors and s reens being so arranged as to discharge particles of dirt or waste material through a space centrally leetween them into a suitable rrcepitacle. and the outer diverging floors to discuarge waste material at the sides of the
casing, the arrangement at the inner and outer floors also preventing the dust from re-entering the grain, and also forming with the screens two \%igzag passages for the descent of the grain, a centrally arranged inclined floor located at a suitable point in the central dust chate for conducting the dust to the dust compartment, the said dust compartment also connecting, with the side dust passages, or chutes, one set of the onter diverging floors being extended to meet the sides of the onter casing toform ascrennings compartuent below the same and prevent the further descent of the dust intes said compartment and also to direct the dust in the side passages to the dust compartment, the mesh of the screens below the extended dust floors in the side dust passages being larger than the mesh of similarly arranged screens above the inclined dust floors in the side dust passages, so as to jermit the emall grain or screenings to pass throngh the large mesh of said screens, and another centrally arranged floor lacated below the first mentioned centrally arranged floor in the line of the central dust passages for conducting the centrally discharged screenings into the screenings compart ment, the construction and arrangement bring such that the dust is conveyed to one compartment, screenings to another compartment, aud good grain to a third compartment, substantially as described. 3rd. In a separator, the combination with a suitable casing, of a feed hopper, a feed regulating device attached to said hopper, couprising two jaws pivoted to the walls of the hopper at the lower end of the same, links pivoted to said jaws, a lever pivoted in the casing and secured at one end to said links and an operating rod arranged outside the casing and connected to the other end of the lever for operating the same to partially or entirely close or open the lower end of the hopper, a series of diverging screens and a series of converging floors connecting said screens, a series of onter converging floors parallel with the inner diverging screans, the inner floors and screens being so arranged as to discharge particles of dirt or waste material through a space centrally between them into a suitable receptacle, and the outer diverging floors to discharge waste material at the sides of the casing, the arrangement of the inner and outer floors also preventing the dust from re-entering the grain and also forming with the screens two zigzag passages for the descent of the grain, substantially as described. 4th. A separator and grader com prising an outer casing provided with a dust compartment, a screen ings compartment, and a good grain compartment, the dust com partment being arranged exteriorly of said casing and surrounding the same on three sides, two sets of zigzagly and parallelly arranged sereens and floors arranged in the casing as described, forming a central dust passage and side dust passages, and a downwardly inclined floor arranged in the central dust passage for conducting the dust into the dust compartment, one set of diverging floors below the said centrally arranged foor being extended to the sides of the casing and forming a screenings compartment below them and prerenting the descent of the dust into said screenings compartment, the large grain passing into a separate compartment, substantially as described. 5th. In a separator, the combination with a suitabje casing, of a feed hopper, and a feed regulating device attached to said hopper, comprising two jaws pivoted to the walls of the hopper, links pivoted to said jaws, a lever pivoted in the casing and secured at one end to said links, and an operating rod arranged outside the casing and connected to the other end of the lever for operating the same to partially or entirely close or open the lower and of the hopler, whereby the supply of grain to the separator can be uniformly regulated, and inereased and diminished as desired, substantially as described.

## No. 61,664. Alternating Novement Machine.

(Machine a mouvement alternatif.)


Elizabeth Moore, Meductic, New Brunswick, Canada, 7 th Noven ber, $18!8 \%$; yaus. (Filed 2th June, 1898.)
Claim. -1 st. The combination with a shifting member, of dogs for mparting movement successively to said shifting meniber, a train of pivoted wheels alternately operating upon said dogs and an elec-roo-magnet having connections for imparting step, by step movement to the train of wheels, sulstantially as explained. 2nd. The combination with a shifting member of a train of integral ratchet wheels having teeth cut to alternate, dogs operated upon by the respective wheels and having connection with the shifting member, a magnet with its armature and a rigid connection between the armature and the train of wheels, substantially as and for the purposes set forth. 3rd. The conbination with the shifting member, of a train of integral ratchet whec.ls, provided with teeth cut to alternate, a dog engaging one of said wheels, a magnet with its armature, means connecting said dog with said armature, dogs co-operating with the other
ratchet wheels, and means connecting the latter dogs with the shifting members. 4th. The combination with a shifting membes of a train of integral ratchet wheels each provided with teeth cut to alternate with the terth on the other wheel, a dog co-operating with one of said ratchet wheels, a magnet having operative connection with said dog, dogs resiliently mounted and co-operating with the other two ratchet wheels, and means for connecting the said dogs with the shifting member, substantially as described. 5th. In an electric switch, the combination with the switch tongue, of resilient yokes connected with said tongue, dogs mounted respectively on one end of said yokes, integral ratchet wheels having their respective teeth cut to alternate, and adapted to engage the dogs on the said yokes, and means for operating said ratchet wheels substantially as described. 6th. In an electric switch the combination with the switch tongue, of integral ratchet wheels cut with teeth to alternate respectively, co-operating dogs with said tongur and a magnet with its armature connected with said ratchet wheeis, substantially as described. 7th. The combination with a tram of integral ratchet wheels, and their co-operating dogs, one of said wheels having a greater number of treeth than the other two, and means for connecting the dog of the last-named ratchet wheel with a suitable source of power and means for connecting the first-named ratchet wheels with a member to lo operated, substantially as described. 8th. The combination with a train of integral ratchet wheels, one of which has a greater number of teeth than the other two, of resiliently mounted dogs adapted to engage the other two ratchet wheels alternately, and a slotted plate connected to said dogs and adapted to have bearing and slide on the axis of said train of wheels, substantially as described. 9th. In an electric railway switch, the combination with the switch tongue, resilient yokes connected with said tongue, dogs mounted on one end of the respective yokes of a train of integral ratchet wheels with teeth cut to alternate, another integral ratchet wheel, an operatiug dog engaging the same, and means to operate said dog, substantially as described. 10th. In an electric railway switch, the combin ation with the switch tongue, a cross arm rigidly connected with said switch tongue, of spring yokes, one end of which is connected to said cross arm, a dog and a slotted plate secured to the other ends respectively of said yokes, a train of ratchet-wheels with teeth cut to alternate, said dogs adapted to alternately engage said ratchet-wheels and guided in their engagement by the slotted plate working on the axis of said train of wheels, of another ratchet-whee having a greater number of teeth than the train of wheels, a nagnet withits armature, a pivoted bar carrying said armature and a dog pivoted to said carrying bar adapted to engage the last-named ratchet-wheel, substantially as described. 11th. In an electric railway switch, the combination with the switch tongue, a pin depending from said tongue, a cross-arm rigidly mounted on said pin, arms pivotally connected with said cross-arm and spring yokes connected respectively to the last-named arms, a dog and slotted plate mounted on the other ends of the respective yokes, of a train of integral ratchet-wheels, two of which have teeth cut to alternate and adapted to be engaged by the dogs on the resilient yokes, said slotted plates working on the axis of said train, an operating dog co-operating with the other ratchet-wheel, and pivoted arm on which said dog is mounted, said armature being secured to the above-named carrying bar, substantially as described. 12th. In an electric railway switch, the combination with the switch tongue, of a train of integral ratchet-wheels with teeth cut to alternate, dogs adapted to fengage said train, a resilient connection between the switch tongue and said dogs, an integrally operating ratchet-wheel, a pivoted carrying bar provided with a dog pivotally mounted on the same and adapted to engage the operating ratchet-wheel, a magnet and its armature, said armature being mounted on said carrying bar, substantially as described.

## No. 61,665. Paper Making Machinery <br> (Murhine it fuire le papier.)

Dennis Bernard McMurray and George Rodney Wallace, both of Fitchburg, Massachusetts, U.S. A., 7th November, 1898; $\mathbf{6}$ years. (Filed 15th September, 1898.)
Claim.-1st. In a paper making machine, a couch roll, combined with a pressure bar, guard board or device, having at its acting edge an inflated tube, substantially as described. 2nd. In a paper naking machine, a couch roll, combined with a pressure bar, guard board, or device having at its acting edge an inflated tube, said tube being enclosed by a covering, substantially as described. 3rd. In a paper making machine, a couch roll, combined with a pressure bar, guard board or device, having at its acting edge an inflated tube, said tube having a comected valve stem, substantially as described. 4th. In a paper making machine, a couch roll, combined with a pressure bar, guard board or device, having at its acting edge an inflated tube, said tube being provided at its ands with rigid blocks, substantially as described. 5th. In a paper making machine, a couch roll, combined with a pressure bar, guard board, or device having at its acting edge an inflated tube, said tube being provided at its opposite ends with blocks, one of said blocks having a valve stem, substantially as deucribed. 6th. In a paper making machine, a couch roll, and means to sustain its shaft, combir ed with a pressure bar, guard board or device having at its acting edge parallel to said roll, a tube, and a fibrous covering enclosing said tube, said covering being con-
nected with and carried by said pressure lar or device, substantially as described. 7 th. In a paper making machine, a pressure bar,

guard board, or device, provided at one edge with a concare, consbined with an inflated tube seated in said concuse, and a covering for said tube, substantially as described.

## No. $\mathbf{6 1 , 6 6 6}$. Mathine for Making Cell-casen.

(Machine pour la falricution de crisse ì cellules d'rbe illes.)


Henry C. Herr, Port Huron, Michigan, U.s.A., Sth November, 1898 ; 18 years. (Filed 12th March, 18!8.)
Chaim.-1st. In a machine for making cell-cases, a supporting base or table having two freding, punching and cutting mechanisms located to the table at right angles to each other, means for operating them and for holding the paper to be fed therein, one strip heing moved in a direction transversely to the movement of the other, in combination with two endless sprocket-chains mounted on sprocketwheels at right angles to each other on shafts set in boxes on the frame of the machine and carrying clamping and holding jaws for receiving, holding and delivering the cell-case blanks, parts of each sprocket-chain passing between the upper and lower portions of the other, and means for giving each sprocket chain and its co-operating mechanism an intermittent movement, for the purposes described. 2nd. In a machine for making cell-cases, the combination with the beaters, the two endless carrier sprocket-chains and sprocket-wheels mounted at right angles to each other, their holding and clamping jaws and means for giving them an intermittent movement, of means for turning the hook portions $5^{1}$, $i$, of the lower cell blanks to one side out of the way while the upper cell blanks are being forced into place by the beaters, substantially as describred. 3rd. In a machine for making cell-cases, the combination with the freding, punching and cutting mechanism, and the lower endless sprocket-chain mounted on the sprocket-wheels on shafts set in bearings on the frame of the machine and carrying a series of clauping jaws, the movable jaws of each clamping jaw carrving an operating bar, of means for giving the sprocket-chain and its clamping jaws an intermittent forward movement, cirmlar dises mounted on the sprocketwheel shaft opposite the feeding, punching and cutting mechanism, over which the lower ends of the clamping jaw operating bats move and keep the jaws open to receive the paper blanks from the cutting mechanism, and tracks over which the operating bars pass and close the clamping jaws and hold the lower paper blanks in parallel rows
in position to receive the upper blanks, substantially as described. 4th. In a machine for making cell-cases, the combination with two endless sprocket-chains mounted on the sprocket-wheels at right angles to each other, on shafts set in boxes on the supporting table, means for giving the reguired intermittent movement to each sprocket-chain and the feeding, punching and cutting mechanism, of a series of clamping jaws mounted at erqual distances apart on the lower sprocket-chain, and means for operating them, for receiving and carrying the lower cell blanks as they pass in succession, into each clamping jaw from their feeding, punching and cutting mechanism, and a series of holding jaws and means for operating them mounted on the upper sprocket chains for receiving and carrying the upper cell-blanks as they pass into each holding jaw from their feeding, punching and cutting mechanisu, and mechanism as described for forcing the upper parallel series of cell-blanks down into engagement with a lower parallel series of cell-blanks assembled at right angles to the upper series. 5th. In a machine for making cell-cases, two sprocket-chains mounted on sprocket-wheels in suitable boxes on the machine so that one side of each chain extends at right angles to and through between the upper and lower sides of the other, and means for giving said chains a simultaneous intermittent forward movement in combination with a series of clamping jaws mounted upon the lower chain and means for operating them, for receiving and carrying a series of lower cell-blanks in parallel order, a series of holding jaws and means for operating them mounted on the upper chain for receiving and carrying a corresponding series of upper cell blanks in a corresponding parallel order at right angles to and above the lower series of cell-blanks, prepartory to forcing them down into engagement with the lower series of cell-hanks and thereby completing a cell-case, substantially as described. 6th. In a machine for making egg cases, the combination with the upper endless sprocket-chain, the beaters and their operating mechanism for forcing the upper cell-blanks into engagement with the lower cell-blanks, of a series of holding jaws mounted on the upper endless sprocket-chain, each holding jaw being provided with a series of vertical recesses which, when the two members of the jaws are closed, form vertical openings through which the beaters operate, for the purposes described. 7 th. In a machint for making cell-cases, the combination with the Olurating bars, the clamping-jaws, the sprocket-chain and its operating mechanism, of cisc-wheels mounted on the sprocket-wheel shaft at the head of the sprocket-chain carrying said clanıping-jaws, for limiting the opening of the clamping-jaws as the operating-bars are carried by the sprocket-chain around said dises. 8th. In a machine for making cell-cases, the combination with the operating mechanism, the shafting and sprocket-whels mounted at the ends of said shafting of two duplicate sprockt-chains, arranged parallel to each other and adapted to engage with the sprocket-wheels on the shafting, a base portion arranged between and extending from each link on one chain to its companion link on the opposite chain so as to locate the said hase portion at substantially right angle to the rumning direction of the chains, and a series of clamping-jaws mounted on said base portions. Gth. In a machine for making cell-cases, the combination with the operating mechanism and sprockets monnted on the shafting thereof, of a clamping-jaw sprocket-chain each link of which consists of a phurality of clamping-jaws arranged along and extending from a base portion, a plurality of movable jaws co-operating with said clamping-jaws, and chain links at each end of said base portion fitting said sprockets. 10th. In a machine for making cellcases, a base portion, a suries of clanping jaws extending upward from the base portion, and provided with openings 50, and a chain link rigidly secured to each of said base portion, in combination with series of movable clamping-jaws extending upward from a base portion pivoted between the chain links, an inward extending curved portion on each jaw and means for operating them, for turning outward the hook portion 51, on the lower blanks, for the purposes described. 11th. In a machine for making cells, the combination with the olerating mechanism of devices forming a portion of said operating mechanism for hending and holding the hook portions of the lower or male hanks at substantially rightangles theretoduring the interval of time required to press the upper or female blanksinto proper engagement with the said lower blanks. 12th. In a machine for making cell-cases, the comhination with the beaters, the upper holding jaws, the sprocket-chain upon which they are mounted and means for operating them, of the pivoted plates 88 , and means for turning them out of the way to allow the upper cell-hlanks to be forcerl down through the holding-jaws by the beater, substantially as deseribed. 13th. In a machine for making cell cases, the combination with the operating mechanism, of means substantially as described for hending the hook portions of the male blanks out of the way to form an unobstructed opening for the female blanks to pass into. 14th. A machine for making cell cases, consisting of mechanism for freding, punching, cutting and assembling an upper and lower series of cellblanks simultaneously, mechanism for temporairly turning the hook portions of the lower blanks sufficiently to leave free openings, and mechanism for forcing the upper series of blanks into engagement with the lower series to form a cell case. 15th. In a machine for making cell-cases, the combination with the cperating mechanism, of a series of combined sprocket chain links and clamping jaws, each of said series consisting of a base portion, fixed jaws rigidly depending from said pase portion, a series of pins projecting from said base, at substantially right angles to fixed jaws, and a series of movalble jaws. 16th. In a machine for making cell blanks, the combination of two endless sprocket
chains mounted at right angles to each other, on sprocket wheels and shafts located on the machine so that one side of each chain passes between the uperer and lower sides of the other, nechanism for operating said spocket chain, sprockets and shafts intermittently, freding mechanism, clamping and holding jaws mounted on said rhains for receiving the paper blanks fed to each simultanewusly and siuultaneously carrying a series of lower and upper transverse paper cell blanks and holding them, and means for releasing and moving the transverse cell blanks down into engagement with the lower cell blanks during one of said intermissions, substantially as described. 17 th. In a machine for making paper blanks, a combined sprocke $t$ chain link and clamping-jaw, consisting of a stries of clamping-jaws 45 , having side openings 50 , extending up from a base portion $45 a$, provided with a series of pins 45, and a chain-link rigidly secured tw each end thereof, in combination with a corresponding series of clamping-jaws 46, extending upward from a hase portion 4fio, pivoted between the chain-links the base portion 4 in, having a series of openings $45 d$, to receive the pins $45 c$, as described. 18th. In a machine for making cell-cases, the combination with the operating mechanism, of a series of combined sprocket chain links and clamp-ing-jaws, each of said series consisting of the base portion 40a, jaws 45, chain links 44, 44a, and pins 45e, all formed in one integral piece, and the movable jaw, 46 r, pivotally connected to said base portion. 19 th. In a machine for making cell-cases, the combination with the feeding, punching and cutting mechanism, of two endless sprocket chains mounted on sprocket wheels set in boxes on the machine frame, the chains being mounted at right angles to each other so that one side of each moves between the upper and lower sides of the other, a series of holding and clamping-jaws and means for operating them mounted on said chams, means for giving said chain a simultaneous step-by-step movement with simultaveous stationary intervals between each step, for receiving and carrying a series of seven uprer and seven lower cell blanks to a point where the seven upper celi blanks are located directly above and at right angles to the lower cell-blanks, and a series of beaters and means for operating them for forcing the upper cell-blanks down into engagement with the lower cell-blanks while the two sprocket chains and their holling and clamping jaws remain stationary, substantially as described. 20th. In a machine for making cell cases, the combination with the beater frame and its connecting mechanism, of the vertical hars $3 \%$, attached to said beater frame so as to opelate with it, and the pivoted plates 88 , and cam $3 i$, for operating it, substantially as described. 21st. A machine for making cellcases, consisting of the following elements, means located at right angles to each other for feeding, punching and cutting an upper and lower series of cell-blanks simultaneously, means for receiving and assembling the lower cell-hlanks in parallel rows during regular intervals of time until a sufficient number has been assembled, means for simultaneously receiving and assembling during the same intermissions of time, a corresponding series of upper transverse cell hanks, and means for releataing and forcing the upper series of cellhanks down into engagement with the lower cell-blanks during the interval that follows the completion of the two series of cell-blanks and therehy completing a cell-case, as atove set forth. 22 nd. In a machine for making cell cases, the combination of step-hy-step mechanism for feeding, cutting, punching aud assembling a lower series of cell-hanks and simultaneously therewith, an upper series of cell-hanks, mechanism for stopping said assembling mechanism for a brief interval, and mechanisin for forcing said upper series of hanks into engagement with said lower series during said interval. 23 r . In a machine for making cell-blanks, the combination with the sprocket chains and mechanism for intermittently operating the same, of mechanism for feeding the paper blanks, mechanism mounted on said sprocket chains for receiving, holding and carrying an upper and lower series of cell-blanks, and mechanism for releasing and directing the upper series into engagement with said lower series during an intermission of the sprocket chain operating mechanism. 24th. In a machine for forming cell-blanks, the combination with the feeding, cutting and punching mechanism, of mechanism operated intermittently for assembling an upper series and lower series of blanks simultaneously, and mechanism for bending the hook portions of the male blanks to afford a free passage for the female blanks into engagement with said uale blanks. 25 th. In a machine for forming cell-cases, the combination of step-ly-step, mechanism for feeding, cutting and punching an upper and lower series of cell-blanks coincidently for assembling the upper series of hanks in proper position above the lower series for bending the booked portionson the lower series at an angle therefrom, for forcing said upıer series into engagement with said lower series, and for releasing the hooked portions and allowing them to spring into engagement with and upper series of blanks to the lower series to form a complete cellcase. 26th. In a machme for forming cell-cases, the combination of step-by-step mechanism for feeding the paper into the machine, for cutting the strips, for punching said strips into blanks and for assembling a lower series of cell-blanks in parallel order, step-by-step mechanism for feeding the paper into the machine, for cutting the strips, for punching said strips intoblanks, and for assembling an upper series of cell-blanks in parallel order, vertically above and transversely to the lower series, each step on the upper series being performed coincident with its companion step on the lower series, mechanism for bending portions on the lower blanks out of the way to leave a free passage, mechanism for forcing said upper series into ngagement with its lower series, and mechanism for measing said
bent portions and allowing them to spring into engagement with the upper series thus locking the two series together and forming a complete cell-cane. 27 th. In a machine for making cell-cases, the combination of mechanism for forming and assembling an upper and lower series of cell-blanks, mechanism for turning the locking portions on one series sufficiently to leave free openings for the introduction of the other series and nechanism for forcing said upper and lower series of blanks into engagement to form a cell-case. 28th. In a machine for forming cell-cases, the combination of mechanism for feeding, punching and cutting a series of upper blanks and by one successively, mechanisnı for feeding, punching and cutting a series of lower blanks, one by one successively, mechanism for assembling a suitable number of said upper blanks in parallel order and a similar number of lower blanks in parallel order, vertically below and transversely to the upper hanks, and mechanism for forcing said upper series vertically downward into engagement with said lowet series. 29th. In a machint for forming cell-cases, the combination of mechanism for feeding, cutting and punching one by one the blanks of one series and simultaneously therewith the blanks of the other series, mechanism for assembling the blanks of each series in parallel order, and one series transversely to the other, and mechanism for forcing the two series into engagement to form a complete cell-case. 30 th. In a machine for forming cell-blanks, the combination of feeding mechanism, mechanism for cutting strips of suitable length, mechanism for punching said strips and thus producing vroperly formed male and female blanks, neechanism for assembling a series of male blanks and an equal series of female blanks, and mechanism for freeing said male blanks from the assembling mechanism, and forcing them into engagement with the female blanks to form at complete cell-case. 31st. In a machine for making cell-cases, the combination of a roller disc, a series of friction rollers mounted in a circle thereon at equal distances apart, the sprocket-chains carrying the clamping and holding-jaws and their connecting operating mechanism, and means for giving the roller dise an intermitting rotary movement and for automatically locking said roller disc during said intermissions. 32nd. In a machine for forming cellcases, the combination of step-by-step mechanism for feeding, cutting and punching an upper and lower series of cell blanks co-incidently, for assembling a series of lower cell blanks and simultaneously therewith an equal number of upper cell blanks, and for forcing said upper and lower series into engagement with each other to form a complete cell-case. 33 rd . In a machine for making cell-cases, the combination with the operating mechanism and the sprocket-wheels, and chains of said operating mechanism, of a disc for imparting an intermittent movement to the sprocket-wheels and chains, and aseries of friction wherls corresponding in number to the teeth in the sprocket-wheels nountcd on said disc. 34th. In a machine for making cell-cases, the combination with the operating mechanism, a disc mounted on the shafting of said mechanism, and a series of rollers mounted on said disc, of a cam wheel, a mutilated gear rigidly mounted thereon, and a peripherial locking flange surrounding said mutilated gear and having a portion broken away to allow the said mutilated gear to engage with the friction rollers, as set forth.

No. $61,667$. Threshing Machine. (Machine it buttro.)


Thomas S. Culbreth, Antrim, Kansas, U.S.A., 8th November, 1898 ; 6 years. (Filed 11th October, 1898.)
Claim. - In a threshing machine, the combination with a threshing cylinder and its driving shaft arranged at one end of the machine, and driving shafte arranged towards the other end of the machine, of a main driving shaft provided with cranks for operating the the shaker and arranged crosswise of the machine at its middle part, belt pulleys and belts operatively connecting all the said shafts, a motor shaft, and a universal coupling connecting the said motor shaft to (oue end of the said main driving shaft, suhstantially as ret forth.

No. 61,668. lee creeper. (rympil.)


Richard C. Goff, Charlottetown, Prince Edward Island, 8th November, 1898: 6 years. (Filed 14th Octoler, 1898.)
Claim.-1st. An ice creeper, comprising two portions, each formed of a single piece of resilient material, said $j^{\text {rortions }}$ baving at their opposite ends inturned Hanges adapted to rest on the sole and heel of the shoe, each of said inturned flanges having ice engaging teeth, and a bolt pivotally connected to one of said nembers and adjustably mounted in the opposite member, whereby the distance between the members can be rfadily regulated, substantially as described. 2nd. An ice creeper, comprising two portions each formed of a single piece of resilient material, each of said members having its ends provided with inwardly bent tooth-portions, and also having inwardly extending flange portions, each of the latter being provided with ice engaging teeth, and a bolt pivotally connected toone of said members and adjustably mounted in the opposite menber, wherely the distance between said members may be regulated, substantially as described.

No. 61,669. Nger Came. (Boite it a ufs.)!


David D. Demorest, Chicago, Illimois, U.S.A., Sth November, 1898; 6 years. (Filed 15th October, 1898. )
Cluim.-1st. A folding case comprising front, rear and side walls hinged together, a removable bottom fitting within said walls and resting on projections at their lower edges, and a removable cover sliding in grooves in the upper inner faces of two opposite, substantially as described. 2nd. A folding case comprising front, itar and side walls hinged together, a removable bottom fitting within said walls and resting on projections at their lower edges, a removable reversible cover sliding in grooves in the upper inner faces of the side walls and abutting against the front wall, a bolt on said cover projecting through an aperture in said front wall, a hole in the end of said bolt, and a fastening device inserted through said hole, substantially as described. 3rd. A folding case comprising front, rear and side walls $a_{:} a^{1}$ and $a^{2}$, respectively, secured together by hinges $B$ and provided on their lower inner faces with cleats a", and with the grooves $a^{3}$ in the upper inner faces of the side walls, the rear wall being cut-off at its top, flush with the lower edges of said grooves a removable bottom $\alpha^{4}$ adapted to rest upon the cleats $u^{:}$, a removable cover $a^{: 3}$ sliding in said grooves over the top of the rear wall, and abutting against the front wall and fastening devices for securing said eover in closed $\mathrm{m}^{2}$ sition. th. A fastening device for boxes and the like, comprising an aperture in the wall of the box, a bolt projecting from the cover of the box through said aperture and provided with a hole in its projecting end, and a ring divided angularly and threaded through said hole. Sth. A fastening device for boxes and the like, comprising an aperture in the wall of the box, a bolt projecting from the cover of the box thriugh said aperture and provided with a hole in its projecting end, and a ring divided angularly on a plane and threaded through said hole, substantially as described. 6th. A folding case comprising front, rear and side walls hinged together, a removable bottom fitting within said walls and resting oni, projections at thrir lower edges, a removable
cover sliding in growes in the upper inner faces of the two opposite walls, a lolt projecting from said cover, a countersunk aperture casing in an adjacent wall throngh which said bolt is adapted to project, a hole in the end of said bolt, and a ring divided angularly and threaded through said hole, substantially as described. Tth. A folding case comprising front, rear and side walls hinged together by hinges having continuous straps, a removable bottom resting on projections at the lower edges of said walls and having transverse sheet metal strips secured to its under side, a removable cover sliding in grooves in the npper inner taces of the side malls, under-cut reinforcing strips secured to the outer faces of said side walls opposite said grooves and forming handles, a bolt projecting from the cover through an aperture in the front wall, a hole in the end of said bolt, and a ring divided angularly, and threaded through said hole, substantially as described.

No. 61,670. Neat for Shop Connters. (Siryt pour comptoirs.)


Samuel Clarke, Perth, Ontario, ('anada, Sth November, 1898; ; years. (Filed 11th October, 18:18.)
Claim. - 1st. A folding seat for counters. (י)mprising a brarket, an arm pivotally mounted thereon, said arm being adaped to be moved into and out of a horizontal position, a seat secured at the outer end of said arm, a supporting arm pivotally commected to the lower end of said bracket and having a sliding comnection with said seat carrying arm, and a catch secured in said seat carrying arm and located in the path of movement of said supporting arm, substantially as described. gnd. A folding seat for cominters, comprising a bracket secured to the face of the counter, a seat carrying arm pivotally commected to said bracket, said arm having a movenent intoand out of a horizontal position, a partially enclosed slot or recess formed at the outer end of said seat carrying arm, said slot or recess extending longitudinally of said arm, a supporting arm pivotally connected to the lower end of said bracket, said arin having an enlarged head adapted to fit in said slot and have a sliding connection with said seat carrying arm, and a spring actuated catch connected to said seat carrying arm and extending across said slot or recess within the path of movement of said supporting arm, said catch forming a stop for the novement of said supporting arm when moving in one direction, substantially as described. 3rd. A folding seat for counters, comprising a bracket secured to the face of the counter, a seat carrying arm pivotally comnected to said bracket, said arm having a movement into and out of a horizontal position, a partially enclosed slot or recess formed at the outer end of said seat carrying arm, said slot or recess extending longitudinally of said arm, a supporting arm pivotally comected to the lower end of said bracket, said arm having an enlarged head adapted to fit in said slot and having a sliding connection with said seat carrying arm, a spring actuated catch connected to said seat carrying arm and extending across said slot or recess within the path of movement of said supporting arm, said catch forminz a stop for the movement of said supporting arm when moving in one direction, and a spring secured to said bracket adapted to hold said seat carrying arm in its folded prosition, substantially as described.

Arthur Whittaker Banister, Boston, Massachusetts, [T.S.A., 8th November, 1898; 6 years. (Filed 12th October, 1898.)
Cluim.--A dust-separator comprising the casing A, consisting in the upper rectangular portion 10 , within which is the recerivingchamber (: the top, chamber (i, and the lower cownwardly-tapering chamber 15, terminating in a dust outlet $b$, a horizontal plate I), spaced from the inner wills of chamher $C$, and separating it from the lower chamber 15, an inlet 13 , in one of the upper corners of the front side of the chamber $C$, a plate or partition separating the chansters C , f , and having an enlarged opening $m$, and a down-
wardly-inclined front edye forming a deflector across the upper front angle of chamber C, and also forming a downward incline 30 , within

the chamber $1 x$, an outlet $p$, from chamber ( $;$, at the lower edge of said incline 30, an air-outlet tube $k$, extending down through top of chamber $(i$, into the enlarged opening $m$, and vertical plates $g g$, and $h$, crossing the angles formed by the two rear corners of chamber $C$, and that front corner farthest from the opening $B$, said plates extending from the top to the bottom of said chamber C, and forming deflectors, substantially as described.

No.61,672. Insulator. (Insolatemr.)


Fred Murton Lacke, Victor, New York, I.S.A., 8th November, 18!18; 6 years. (Filed 11 th Novenber, 1897. )
Claim. 1st. An insulator having its outer skirt oblong, and means for conducting the moistuce towards its lateral extremities. 2nd. An insulator having a skirt constructed oblong, and means for condncting the moisture towards its lateral extremities, its top being provided with tie-wire, lugs or bosses. Brol. An insulator which is as broad or hroader than it is high, aud which is provided with semi-circular troughs or grooves $d$, extending around the periphery of the skirt, and inclining toward the points of the skirt having the greatest breadth, substantially as specified. 4th. An insulator which is oval or oblong in shape, and which is as broad or broader than it is high, and which is provided with semi-circular troughs or grooves $d$, extending around the periphery of theshirt, and inclining toward the points of the skirt, which have the greatest breadth, substantially as shown. 5th. An insulator having a spread greater than its height and shaped so as to be somewhat elliptical, and provided with a groove or trough upon its periphery so as to discharge the water at the ends of the longest diameter substantially as described. 6th. An insulator having a spread greater than its height, and having its skirt provided with means for conducting the m isture toward its lateral extremities, sulostantially as shown.

## No. 61,673. Noot Neraper and Wiper.

(Jeicrotteur pour les pieds.)
Istat Kenney, Detroit, Michigan, I'S.I., Sth November, 18:8; 6 years. (Filed 1 ith Jume, 1s08.)

Claim.- In a foot-scraper and wiper, the combination of the plate, the scraper on said plate, the frame at the end of said plate, the bar

formed integral therewith and extending across the opening in said frame, the wiping material extending under said bar over the sides of said frame, as set forth.

No. 61,674. Vehicle Wheel. (Roue de roiturcs.)


Julian A. Foster, Salem, Wisconsin, U.S.A., 8th November, 1898 ; 6 years. (Filed 22nd August, 1898.)
Claim. -1 st. A clip for the purpose described, comprising a plate, legs extended therefrom and having their extremities corrugated on opposite sides and adapted to overlap when positioned upon the felly, substantially as described. 2nd. The combination with the felly-sections having elongated slots, of the elongated plate provided with slots registering with the slots in the felly, said plate being adapted to be positioned upon the felly, said plate having legs extended therefrom and adapted to be overlapped on the opposite side of the felly, the overlapping portions being corrugated and bevelled on opposite side, sulstantially as described.
No. 61,67\%. Wheel Tire. (Burnda!f de rours.)


James . Iamieson, Hamilton, Ontario, Canada, 8th Novembe", 1898; 6 years. (Filed 20th June, 1898.)
Claiי!.--1st. A series of tubular-shaped elastic sheet-ınetal sections formed with openings at the ends, each surrounded with a concavo-convex-sbaped depression, for corresponding bolt-heads and nuts, grooves on the section for strength and elasticity, and lags or projections to hold a part all constructed when spokes and nut are attached thereto to form a wheel-tire for bicycles or other vehicles, sulstantially as specified. znd. A series of elastic sheet-metal sections constructed with raised lugs 1 , for clasping a pad attached to each section, grooves $a$, $a$, for elasticity, lugs $b^{1}, b, 1$, to elasp the sides when bent in tubular form, bolt openings $c$, $c$, surrounded with concavo-convex recesses for corresponding bolt-heads and nuts, and of $*$ nings $d$, $d$, for serews or rivets to fasten the sides together with a pad, and a lap, substantially as and for the purpose specified. 3 rd . A stries of metallic tubular sections A , each provided with an opening $c$, for the end of a spoke bolt $j$, and each provided with a nolid-rublar pad-section $B$, secured directly and detachably thereto, these sections A and $B$, collectively constituting a continuous, com. bined rim and tire, substantially as set forth. 4th. In combination
with the sheet metal flastic sections, having bolt openings surrounded with concavo-convex recesses, bolts having the underside of the head formed convex to fit said recesses, a screw-thread on the outside for a concase-faced threaded out to screw thereon and a threaded hole on the inside to receive a spoke, substantially as and for the purpose specified. 5th. A stries of tubular sections A, each having formed therewith one or more spoke-openings $r$, and two rows of ontwardly-bent parts $b$, in combination with rubber-pads 1 , fitted between these outwardly-bent parts and fastened to the said sections, the latt+r and the bads thereon, forming a complete, continuous. combint dire and rim with rubber tread, substantially as set forth.

No. 61,676. Vehirle Wheel. (Rom de ruitures.)


James Napoleon Johnson, Hattieshurg, Mississippi, L.S.A., Sth Nosember, 1898: Giyears. (Filed eith August, 189k.)
Claim. 1st. In a vehicle-wheel, the combination of a ring ti, comcentric with the hub, a second ring $\overline{7}$, concentric with and survonding the ring 6 , springs placed between the rings 6 and 7 , near their onter edges and in alternate relation, and spokes connecting the inner ends of the springs with the rings 6 , and the latter with the hub, a rim concentric with the ring 7, and other spokes set staggering and comecting the outer ends of the springs with the ring 7 , and the latter with the rim, substantially as descriled. 2nd. In a vehicle-wheel, the combination of concentric rings interposed between the hub and rim, approximately V -shaped springs interposed between the concentric rings and disposed in pairs, and having the springs of each pair arranged with their end portions overlapping, and inner and outer spokes connecting the pairs of springs together and to the rings and the latter to the hub and rim of the vehicle-wheel, respectively, substantially as set forth. 3rd. In a vehicle-wheel, the combination of concentric rings interposed between the hub and rim, and having ribs on their inner or opposing sides, springs arranged upon opposite sides of the ribs with their end portions in engagement with the sides thereof to prevent the springs from turning, and means for connecting the springs to the rings and the latter to the rim hub of the wheel, substantially as described. 4th. The herein described vehicle-wheel, comprising a hub, a rim, concentric rings between the hub and rimh having ribs on their opposite sides, approximately $V$-shaped springs arranged in pairs upon opposite sides of the rihs and having their end portions overlapping, and inner and outer spukes comnecting the springs in pairs and to the rings and the latter to the hub and rim, respectively, substantially as set forth.

## No. 61,677. Vehicle Tire. (Butulage de romex.)

Lestock Weatherly Cockburn, Hamilton, Ontario, Canada, 8th November, 18:98; 6 years. (Filed 12th'S September, 1898.)
Cluim.-1st. A pneumatic or other wheel-tire provided on either side therenf with a band or strip of waxpd canvas or similar material to form a suitable surface against which to apply a brake, substantially as hereinbefore set forth. 2nd. The combination of a wheel provided with a pneumatic or other tire having on either side thereof a band or strip of waxed canvas or similar material, and a brake so constructed and arranged that, when in operation, the brake-shoes thereof will lear against the said bands or strips, substantally as
hereimbefore set forth. 3rd. A band or strip of waxed canvas or similar material of the shape: hereinbetore described and adapted to

lee readily applied and caused to adhere to the side of a puematic or other tire, for the purpess above specified.
No. 61,678. Vehicle Wheel. (Rinu de reitures.)


James Charles Hoskins. Vaught. Philipsburg, Montana, U.S.A., 8th November, 1898; 6 yrars. (Filed 29th September, 1898.)
Chim. -1 st. In the construction of waggon and vehicle-wheels, rim sections having their matching ends obliquely jointed, the rim sections having the end outwardly bevelled loing formed with an opening adjacent to the joint for the reception of the tenon of a spoke, and a dowel-pin extended across the oblique joint and fitted into registering openings formed in the matching ends of theadjacent rim sections, sulstantially as set forth. End. In a vehicle or waggonwheel, rim sections obliquely jointed, the section having its end outwardly bevelled being provided with an opening adjucent to the joint, a spoke having its tenoned end fitted into said opening, and a dowel-pin extending across the oblique joint and passing through the matching ends of adjacent rim sections and enteing the tenoned end of the aforesaid spoke, substantially as set forth. 3rd. In a vehicle-wheel, the combination of rim sections jointed on an obligue line, the section baving the outwardly bevelled end being provided with an opening contiguous to the oblique joint, a spoke having its tenoned end fitted into the said opening, a dowel-pin extending across the oblique j,int and entering the tenoned end of the spoke, a plate overlapping the joint and having its portions flanged and entracing the sides of the rim sections, and provided near one end with an opening for the reception of the tenon of the afore described
spoke, and means for securing the ends of the plate to the rim sections bordering upon the said oblique joint, substantially as set forth.

No. 61,979. Kituhen Table. (Tuhl, de cuisiur.)


Charles W. Fox, letroit, Michigan, U.S.A., Bth Novemler, 1898; 6 years. (Filed 17 th October, 1898.)
Claim.--1st. A kitchen taible consisting of a body, a depressed moulding board and a series of receptacles, substantially as described. 2nd. A kitchen table consisting of the depressed moulding loard, a series of receptacles and a pivoted cover adapted to cover the whole, substantially as described. 3rd. In a kitchen table, the combination of the body provided with the depressed moulding board and the receptacles with a cover pivoted to the body adapted to move downward back of the table on the pivots, substantially as described. 4th. In a kitchen table, the combination of the body provided with the monlding board and the eceptacles with a cover pivoted to the body adapterl to move downward hack of the tahle on the pivots, substantially as descrihed.

No. 61, $6 \times 0$. Pneumatic or Spring Tirc.
(Bendr!fr purumutiquer oll it ressort.)


Thomas McKinnon, 2 Oswald Street, and James Pringle, 124 Stanley Street, both in Glasgow, Scotland, 8th November, 1898; 6 years. (Filed 28th September, 1898.)
Claim.-1st. In a wheel tire, the combination with the felloe or rim of an outer tread ring, a series of cups adjustably secured to the rim and fitted with hollow rubber balls and a corremponding series of inverted cups secured to the tread ring engaging said balls, substantially as described. 2nd. In combination with a wheel felloe or rim formed with cavithes or fitted with cups for the recention of balls, hollow rubber balls fitted thertin and an outer tread ring having formed or secured on its inner surface a series of cavities or cups adapter to engage said balls, substantially as described.



Edward Turney, Portland, Oregon, U.S.A., Xth November, 1898; 6 years. (Filed 21st October, 1898.)
Claim.--1st. The combination with a drum, its shaft and endwisemovable clutch-adjusting serew-spindle carried by said drum shaft, of a brake mechanism substantially as described having a brake arn pivoted and arlapted to move in the direction of movement of said spindle and adapted to retard the latter when the shaft and spindle are in motion, for the punpose described, substantially as set forth. 2nd. The combination with a drum, its shaft, a nut carried thereby, and an endwise movable spindle mounted in said nut and carrying a band wheel, of a brake arm hung by a transverse pivot and movable toward or from the face of the band-wheel in the direction of the endwise adjustment of said spindle, a brake shoe carried by said brake arm tor ride against the face of the hand-wheel, and means connected to the brake arm to adjust the latter, substantialiy as described.

No. 61,682. Parkage for Icre Cream.
(Vaissemte powe réme is lu glacr.)


George W. Pierce and James G. Pierce, both of Detroit, Michigan, U.S.A., 8th November, 1898; 6 years. (Filed 17th October, 1898.)

Cluim.-1st. In a package for the purpose described, the combination of the outer case, the inner case located within the outer case and spaced therefrom, the filling of non-conducting material lncated in the intervening space between the sides and bottoms of said cases,
the layer of cement between said cases at their ends and upon said non-conducting filling, the inner and outer covers adapted to close the upper ends of said cases respectively, said covers being provided with a lining of non-conducting material. Ind. In a package for the purpose described, the combination of the onter case, the inner case located within said outer case and spaced therefrom, the top of said inner case being slightly lower than the top of the outer case, the filling of non-conducting material locaced in the intervening space between the sides and bottoms of said cases, the layer or tilling of impervious material between the upper portion of said cases and upon the top of said non-conducting filling, said layer or filling of impervious material being located below the extreme top of said cases, the flanged inner cover adapted to tightly close the top of said inner case and provided with a lining of mon-conducting material, the ruter cover adapted to close the upper end of the outer case and to fit tightly over the top of said inner cover, and the attaching means for detachably securing said outer cover in place.

## No. $61,683$. Milk Preserving Method.

(Mêthorle de preserver le lutit.)
Niels Soren W. K. Buchtrup, Bjornehedegaard, Jutland, Demmark, 8th November, 1898; 6 years. (Filed 17th October, 1898.)
Claim. Method of preserving milk or cream consisting in heating the said liquid to from $60^{\circ}$ to $90^{\circ}$ centigrade and adding, whilst the liquid being stirred, 5 to 20 grammes sugar and $3-16$ grammes boric acid for each kilogram of the liquid, whereafter the liguid is cooled down as quickly as possible and filled in hermetically closed tanks.

No. 61,684 . Belting, (arding-Cloths, Noling, etc.



Charles Fidward Shaw, Rickers, Stafford, assiguee of Frederick Weaver, assignee of The Publishing, Advertising and Trading Syndicate, all of 40 King Street, Cheapside, Londom, England, 9 th November, 189 i ; 6 years. (Filed 1st December, 1896.)
Claim.-Belting consisting of strips of woven fabric saturated with liquid celluloid and enveloped in a wapper slightly wider than double the width of the strips similarly saturated and folded over and cemented to the strip and with its two elges meeting in the middle of the inner face of the belt, the whole united by celluloid acting as cementing medium, substantially as shown and described.

No. 61,685. Self-Sealing can.
(Bidon se fermant cutomutiquement.)
Inavid Macdonald and Williain Tassie Tassie, Toronto, Ontario, Canada, 9 th November, 1898 ; 6 years. (Filed 19 th October, 1898.) Claim.-1st. In a self-gealing can, a body provided with an enlarged rim, in combination with a cover having an anvular recess formed round its edge, the sides of which are adapted to tightly embrace the aforesaid rim, substantially as and for the purpose specified. 2nd. In a self-sealing can, a body provided with an enlarged rim, in combination with a cover having an annular recess formed round its edge, the sides of which are adapted to tightly embrace the afortsaid rim, and an annular strip of packing inserted in the said recess, substantially as and for the purpose specitied. 3rd. In a self-sealing can, a body provided with an enlarged rim, in conbination with a cover having an annular recess formed round its edge, the sides of which are adapted to tightly embrace the aforesaid rim, a lug fast on the side of the body, and a screw thruaded through the cover and adapted to engage the said lug, substantially as and for the purpose specified. 4 th. In a self-sealing can, a body and a cover held upon the body by frictional engagement between suitably shaped portions of the boly and cover, a lug fast on the side of the body, and a serew threaded through the cover and adapted to engage the said lug, substantially as and for the purpose specified. Eth. In a selfsealing can, a body provided with an enlarged rim of curved section as to its upper surface, in combination with a cover having an annular recess formed round its edge curved in section to fit the aforesaid rim, and having its sides adapted to tightly embrace the rim, substantially as and for the purpose specified. Gth. In a selfsealing can, a body provided with an outwardly turned enlarged rim of curved section as to its upper surface, in combination with a
cover having an ammar recess formed romod its edge curved in section to fit the aforesaid rim, and having its sides adapted to

tightly embrace the rim, and an annular strip of normally flat packing placed within the recess, substantially as and for the purpose specified. 7th. In a self-sealing can, a body provided with an outwardly turned enlarged rim of curved section as to its upper surface, in combination with a cover having an annular recess formed round its edge curved in section to fit the aforesaid rim, and having it sides adapted to tightly embrace the rim, an annular strip of normally flat packing placed within the recess, a lug fast on the side of the body, and a screw threaded through the cover and adapted to ongage the said lug, substantially as and for the purpose specitied. 8th. In a self-sealing can, the body $A$, provided with an outwardly turned enlarged rim $B$, curved in section as to its upper surface, in combination with the cover $C$, the upwardly turned flange 1), formed on the cover and adapted to fit closely witnin the body $A$, the flange E, formed on the cover, and so shaped as to tightly embrace the rim $B$, and also to form the recess $F$, with curved bottom, substantially as and for the puryose specified. 9 th . In a self-sealing can, the body A, provided with an ontwardly turned enlarged rim B, curved in section as to its upper surface in combination with the cover C, the upwardly turned flange $D$, formed on the cover and adapted to fit closely within the body $A$, the flange $\mathbf{E}$, formed on the cover and so sbaped as to tightly embrace the rim B, and also to form the recess, $F$, with curved bottom, the nut H , secured to the cover, the screw 1, threaded through the mut and the lug ( $x$, secured to the side of the body, substantially as and for the purpose specified.

No. 61,686 . Heel. (Talom.)


O'Sullivan Brothers, assignee of Humphrey O'Sullivan, Lowell, Massachusetts, U.S. A., 9th November, 1898 ; 6 years. (Filed 18th October, 1898.)
Chaim.-1st. As an article of manufacture, a top lift of elastic material for beels for boots or shoes having a plurality of small burrs or washers embedded therein, each being adapted to recesve a nail or screw to secure said lift to the body of the heel, substantially as described. 2nd. As an article of nanufacture, a top lift of elastic material for heels for boots or shoes, provided with outwardly fiaring suction-recesses in its outer face, extending partially through the thickness of the lift and having burrs or washers rmbedded in said lift under said recesses, adapted to receive nails or screws to secure said lift to the body of the heel, substantially as described.

No. 616,87. Shoe. (Chaussure.)


## 61(8)

Arthur Ivey and Emil Wienert, both of 'Toronto, Ontario, Canada, 9th November, 1898: 6 years. (Filed 17th October 1898.)
Claim.-1st. An extension shoe for cripples embracing in its construction an inner sole having an upward projection forming a rest or support for the ball of the foot and toes between the upward projection and toe of the inner sole, substantially as specified. 2nd. An extension shoe for cripples embracing in its construction an inner sole having an upward projection forming a rest or support for the heel, and a seat forming a rest or support for the ball of the foot and toes between the upward projection and toe of the inner sole, and a covering for the inner sole having a legging projecting alove the top of the upward projection to embrace the ankle and leg, substantially as specified. 3rd. An extension shoe for cripples embracing in its construction an inner sole having an upward projection forming a rest or support for the heel, a seat forming a rest or support for the ball of the foot and toes between the upward projection and toe of the inner sole, a covering for the inner sole having a legging projecting above the top of the upward projection to embrace the ankle and leg, an opening in the back of the legging, and a brace connected to the sides of the upward projection having a cross piece at the back curved to correspond to the leg, substantially as specified.

No. 61,688. Concentrutor. (Concentratenr.)


61688
Archibald Francis Perks, Port Hope, and Alvin Gronk, Aylmer, lxith in Ontario, Canada, 9th Novemler, 1898; 6 years. (Filed 12th April, 1898.)
Cluim. -1 st. In a concentrator, the combination with the coneshaped lower casing supported on a suitahle shaft suitably driven, and a similar cone-shaped caaing extending over the lower casing and having a central orifice, means for supporting such casings in posi tion, of a ring haviug annular recesses into which the edges of the casings extend and areaffixed, and means for removing the separated material from both the upper and lower annular recesses as the casings and ring are caused to rotate as and for the purpose specified. 2nd. In a concentration, the combination with the cone-shaped lower casing supported on a suitable shaft suitably driven, and a similar cone-shaped casing extending over the lower casing and having a central orifice, means for supporting such casing in position, of a ring having amular recesses in which the edges of the casings extend and are affixed and tubes extending into the ammular recesses tangentially as the casings and ring are caused to rotate as and for the purpose specitied. Ind. In a concentrator, the combination with the
cone-shaped lower casing supported on a suitahle shaft suitably driven, and a similar cone-shaped casing extending over the lower casing and having a central orifice, means for supporting such casing in position, of a ring having annular recesses in which the edges of the casing extend and are affixed and tubes extending into the annular recesses tangentially as the casings and ring are caused to rotate as and for the purpose specified. 3rd. In a concentrator, the combination with the cone-shaped lower casing supported on a suitable shaft suitably driven, and a similar cone-shaped casing extending over the lower casing and having a central orifice, means for supporting such casing in position, of a ring having annular recesses into which the edges of the casing extend, means for removing the separated material from both the upper and lower annular recesses and means for vibrating the lower casing and ring as they rotate as and for the purpose specified. 4th. In a oencentrator, the combination with the cone-shaped lcwer casing supported on a suitable shaft suitably driven, and a similar cone-shaped casing extending over the lower casing and having a central orifice, means for supporting such casing in position, of a ring having annular recesses into which the edges of the casing extend, means for removing the separated material from both the upper and lower annular recesses, a toothed ring encircling the casing and a spring hammer designed to engage therewith as and for the purpose specified. 5th. In a concentrator, the combination with the cone-shaped lower casing supported on the end of a suitable shaft suitably driven, so as to rotate the casing, and a similar cone shaped casing extending over the lower casing parallelly with same, a central tube leading into the casing and a hopper at the top of the tube, a ring having annular recesses into which the edges of the casing extend and means for supporting the hopper and upper cone-shaped casing in position as and for the purpose specified. 6th. In a concentrator, the combination with the cone-shaped lower casing supported in the end of a suitable shaft suitably driven, so as to rotate the casing, and a similar cone-shaped casing extending over the lower casing parallelly with same, a central tube learding into the casing and a bopmer at the top of the tube, a ring having annular recesses into which the edges of the casing axtend and a supporting frame through which the tube extends, as and for the purpose specified. 7th. In a concentrator, the combination with the cone-shayed lower casing, the shaft supporting the same, suitable bed-plate and bearings for the shaft on same, the upper cone-shaped casing provided with a central orifice, the rings provided with annular recesses and divided into three parts and a suitable ring bearing for supporting the ring upon the frame, as and for the purpose specified.

No. 61,689. Hailway Nignal. (Signal de chemin de frr.)


The Electric Fog Signal Syndicate, 16 Cockspur Street, and Herbert Tomlins, 100 Hammersmith Road, all of London, Fngland, 9th November, 1898; 6 years. (Filed 24th November, 1897.)
Claim. -1 st. In the berein described explosive signalling apparatus, a revolving cartridge-holding disc having pairs of cartridge-holding chambers or barrels arranged in a circle, the two members or barrels of each pair being on the same radius, in combination with a breechbl ck common to the two chambers or barrels, and hinged to swing outward toward the circumference when opened, firing-pins for the two barrels yoked together, and a firing-hammer adapted to act on both firing-pins, substantially as specified. 2nd. In the herein-des-
cribed explosive signalling mechanism the combinatoon, with a revolving cartridge-holding disc provided with breech-closing and firing neechanism as described, of a spring projected retractable wiper for acting on the firing-hammer as described, the wiper being carried by an arm on a ti eadle-operated rock-shaft, an electro-magnet whereof the armature is connected to the wiper soas, when attracted, to retract the wiper from operative position, a switch comnected to the signal-operating mechanism so as to close the circuit of the elec-tro-magnet when the signal is moved to all right, and of retaining mechanism consisting of a lever-bolt caused to engage the wiper and retain it in the retracted inoperative position until, by the oscillation of the rock-shaft by the depression of the treadle, the lever bolt is tripped by contact with a fixed abutment and the wiper is permitted to resume its operative position in readiness for acting when next the signal is put to danger, substantially as specified. 3rd. In the herein described explosive signalling apparatus, the combination with a revolving car tridge-holding disc, of a gravity or spring operated pawl-arm, engaging with the dise so as to give step by step motion thereto, and fast on a rock-shaft provided with another arm adapted when raised to be acted on by a wheel-depressed treadle, retaining mechanism consisting of a latch-lever engaging with a catch for preventing the action of the lever, and of electro-magnetic releasing mechanism for disengaging the latch on the closure of the magnetcircuit by a switch operated by the movement of the signal to danger, so that when the pawl-arm is thus permitted to act, the cartridgecarrying dise will be partially rotated to bring the next chamber to firing pesition and raise the other arm on the rock-shaft into position to be acted on by the depression of the treadle as specified. tth. In the herein-described explosive signalling mechanism, the combination with a revolving disc having cartridge-holding chambers provided with breech-closing blocks, tire-pins and a spring-actuated hammer pivoted in position to act on the firing mechanism which is in firing position, of a radial wiper mounted on a rock-shaft concentric with the cartridge-disc so as toswing through an arc by the rocking motion of the shaft, the wiper being mounted adjustably in such position that it may either we projected so as to act on the said fire-hammer, or to be retracted so as so pass clear of the hammer without acting on it, according as the fog-signal is or is not to be fired, as specified. 5th. In the herein-described explosive signalling mechanism, the combination with each breech mechanism having its own firinghammer, of an indicator consisting of a spring-plate pivoted to the breech-block in position to beswung beneath the fire-hammer of the mechanism to which it pertains, a spring tending to swing such indicator-plate from beneath the hammer, and a lip on the indicator-plate adapted to be swung into locking engagement with the said hammer and to be released therefrom by the cocking of said hammer, stibstantially as specified.

No. 61,690 . Process and Apparatus for Sterilizing Suroleal Dressing, etc. (Procédé et apparcil pour steriliser les apperfils de penarment, etc.)


61690

Theodore Young Kinne, Paterson, New Jersey, U.S.A., 9th November, 1898 ; 6 years. (Filed 2nd August, 1898.)
Claim. -1 st. The herein described method of sterilizing surgical dressings together with metallic containers therefor consisting in subjecting said dressing to a temperature of from 100 to $120^{\circ} \mathrm{F}$, and in subsequently subjecting said dressing to the action of an electric current, substantially as specified. 2nd. The herein described method of sterilizing surgical dressing, which consists in first introducing the same in suitable containers having the quality of electri-
cal conductivity, in afterwards subjecting the same to a temperature of from 100 to $120^{\circ} \mathrm{F}$, and in subsequently subjecting said dressings and the containers therefor to the action of an electric current, substantally as specified. Brd. The herein described method of sterilizing surgical dressings, which consists in first introducing the same into metallic containers, in then expelling the air from and heremetically sealing said containers in kubjecting said dressings and the containers therefor to a temperature of from 100 to 120 F , and in subsequently subjecting the same to the action of an electric current, substantially as specified. 4th. In a sterilizing apparatus, a sterilizing chamber adapted to receive the article or articles to be sterilized, supports for said article or articles arranged in said chamber and connected with a source of electricity and constituting electric conductors between said article or articles and the source of electricity, and means for heating said chamber and its contents, substantially as specified. 5th. In a sterilizing apparatus, the combination with containers for the article to be sterilized and a chamber adapted to receive said containers, of a pair of supports for the containers arranged in said chamber and adapted to be electrically connected by said containers, means for heating said chamber and its contents, and an electric circuit including said supports and the containers, substantially as specified. 6th. In a sterilizing apparatus, the combination with metallic containers for the articles to be sterilized and a chamber adapted to receive said containers, of a pair of substantially parallel metallic supports arranged in said chamber and adapted to be electrically connected by said containers, means for heating said chamber and its contents, and an electric circuit including said supports and the containers, substantially as specified. 7th. In a sterilizing apparatus, the combination with a chamber, of a horizontal metallic dises arranged one above the other, in said chamber, one of said dises being adjustable with reference to the other, metallic containers for the article to be sterilized resting upon the lower disc and in contact with the upper disc, means for heating the said chamber and its contents, and an clectric circuit including said dises and the containers, substantially as specified. 8th. In a sterilizing apparatus, the combination with ac hamber, of vertical insulating rods mcunted therein, a pair of parallel metallic discs carried by said rods the one above the other, the upper disc being adjustable on said rods, metallic containers for the article to be sterilized resting upon the lower disc and in contact with the upper disc, means for heating the chamber and its contents, and an electric circuit including said dises and the containers, substantially as specified. !th. In a sterilizing apparatus, the combination with a chamber comprising two hinged sections and securing said sections together, vertical insulating rods momited having a common botton secured to one of said sections, means for on the bottom parallel metallic discs arranged one above the other and mounted upon said rods, metallic containers for the article to be sterilized resting uon the lower disc and penetrating and in contact with the upper disc, heating means situated beneath and adapted to heat said chamber and its contents, an electric circuit including said metallic dises and the containers. and a thermometer suitably mounted on and projecting into said chamber, substantially as specified.

No. 61,691. Ball. (Boulc.)


Bertram (xeorge Work, Akron, and Coburn Haskell, Cleveland, both in Ohio, W.S.A., 9th November, 1898; 6 years. (Filed 9th August, 1898.)
Claim.-1st. A ball, comprising a core formed with a rubber thread wound into spherical form under tension approaching the
elastic limit, and a shell of relatively hard inelastic material inclosing said core, substantially as and for the purpose set forth. 2nd. A ball, comprising a core composed wholly or in part of rabber thread wound under hightension, and a gutta-percha shell inclosing said core, substantially as and for the purpose set forth. 3rd. A hall, comprising a central core-section, rubber thread wound thereon under tension, and an inslosing shell of relatively hard inelastic material, substantially as and for the purpose set forth. 4th. A hall, comprising a central core-section of relatively non-elastic material, rubber thread wound thereon under tension, and an inclosing shell of gutta-percha, substantially as and for the purpose set forth.

No. 61,692. Radiographic Apparutun.
(Appareil radiographique.)


John Demnis and sanmel Willis Juffer, leoth of Rochester, New York, U.S.A., 11th November, 18:18; G years. (Filed 27 th April, 1898.)
Chime.-1st. The combination with a source of X-rays, of a fluorescont or sensitivesurface, and two non- permoable bars arranged
in the same plane in the radiographic field between the source and in the same plane in the radiographic field between the source and the surface, one between the source and the radiographic object. and the other between such object and the said surface, substantially as described. 2nd. The combination with a source of X-rays, of a Huorescent or sensitive surface, and two non-permeable bars arranged in the same plane in the radiographic field between the source and the surface, the said source, surface bars being relatively adjustable, and one of the bars being placed between the source and the radiographic object and the other between the said object and the said surface, substantially as described. 3rd. The combination of a source of X-rays, a fluorescent or sensitive surface, and an intermediate non-permeable angle-plate, consisting of two parallel hars separated ly an interval and arranged in a plane coincident with the direction of the rays, su that the two bars project but a single shadow on the screen, substantially as described. 4th. The combination of a source of X-rays, a fluorescent surface, a metallic or non-permeable grating, and an intermediate injermeable angleplate, having arms arranged at an angle with each other, substantially as described. 5th. The combination of a source of X-rays, a sensitive surface, an interposed metallic or impermealle grating, an intermediate impermeable bar or plate, and an iadjustable table, substantially as described. 6th. The combination with a source of X-rays, of an apertured glass table, a metallic or impermeable grating, and a sensitive surface, substantially as described. 7 th. The combination of an adjustable source of X-rays, a suitable supporting-tabie, two impermeable gratings arranged at angles with each other, two corresponding sensitive surfaces, and an impermeable bar or plate adapted to establish a base-line for measurements, substantially as described. 8th. The combination of an adjustable source of X-rays, an apertured glass supporting-table, two impermeable gratings arranged at angles with each other, one of said gratings being placed across the aperture in the table, two corresponding sensitive surfaces, and an impermeable bar or plate adapted to establish a base-line for measurements, substantially as des ribed. 3th. The combination of a source of X-rays, a fluorescent or sensitive surface, an interposed metallic or non-permeable grating, and an intermediate non-permeable angle-plate, consisting of two parallel hars separated by an interval and arranged in a plane coincident with the direction of the rays, whereby the two hars project but a single shadow and an undisturted image of the grating is secured on
the sereen, substantially as described. 10th. The combination with a source of X -rays, of an apertured glass table, a metallic or impermeable grating, a sensitive surface, and an interposed impermeable bar or plate, substantially as described.

No. 61,693. Rotary Clearer for Cotion Machinery.
(Apmercil is hettouer lex roulteuter des murhines it coton.)


James Thomson, Pawtucket, Khode Island, assignce of Socrates Scholtield, Providence, both in Khode Island, I.S. A., 11 th November, 1898; 6 years. (Filed 14th March, 1898.)
Cloim.-1st. The combination of the drawing-rolls, with a clearing dise having its side arranged to bear upon the top rolls, and means for imparting rotary movement to the clearing-disc, substantially $a^{\text {s }}$ describerd. Snd. The combination of the drawing-rolls, with a clear ing-dise having its side arranged to bear upon the top rolls, and means tor cansing the clearing-disc to bear with greater pressure upon the rolls at one side of its axis, than upon the other side, thus causing the rotation of the disc, substantially as described. 3rd. The combination of the drawing-rolls with a rotary clearing dise provided with an opening or recess, adapted to receive the collected waste, substantially as described. 4th. The combination of the drawing-rolls and the cover for the rolls, with the clearing-dise held for rotation in the cover, substantially as described.

## No. 61,694. Paint. (Printurr.)

The Siderosthen Paint Syndicate, 91 Queen Victoria Street, London, Fingland, assignee of Karl Ludwig Valentine Zimer, 49 Scaferkampallie, Hamburg, Prussia, 11th November, 1898; 6 years. (Filed 18th April, 1898.)
Cluim. - 1st. A solvent for paint consisting of hydrocarbons produced by the fractional distillation of tar obtained in the manufacture of gas from oil or fat, the said hydrocarbons being the fractions distilling approximately between $150^{\circ}$ and $250^{\circ}$ centigrade, substantially as hereinbefore described. 2nd. A solvent for paint consisting of hydrocarbons produced by the fractional distillation of American, or Kussian petroleum or shale oil, the said hydrccarbons being the fractions distilling approximately between $150^{\circ}$ and $250^{\circ}$ centigrade, substantially as hereinbefore described.

## No. 61,695. Wlatirom. (Fer hlat.)

George F. Calkin, St. John, New Brunswick, Canada, assignee of Fdward Hedges, Boston, Massacnusetts, U.S.A., 11th December, 1898; 6 years. (Filed 3rd October, 1898.)
Cluiim. -1 st. In combination with the body of an inplement and a burner for heating the same, a coiled jet-block and nozzle discharging into the said burner and also constituting a gasoline generator and means for supplying gasoline to the coil thereof and through said coil to the interior of the jet-nozzle, substantially as set forth. 2nd. In combination with the lordy of an implement and a burner for heating the same, a spool-shaped jet-block which also constitutes the jet-nozzle, a gasoline supplying pipe which is coiled on the said jet-block and discharges into the interior thereof, and a casing for the said block and coil, sub-tantially as set forth. 3rd. A combined jet-block and generator wound with a feeding coil and enclosed as described in combination with a heating pan arranged under the same, adapted to contain gasoline, and movable at will out of the way, and a burner and implement heated thereby, substantially as sett forth, 4 th. In combination with a jet-nozale and packing in the
lore thereof, a tubular follower for compressing said packing, a screw plag turning into said follower and provided with an enlarga-

ment of the outer part of its bore, a needle-pointed rod protruding through the jet-nozzle and having its knob in the enlarged part of the said bore and a screw bearing on the said knob to hold the said rod removably in place, substantially as set forth. Sth. In combination with the bollow body of an implement, a burner within the same, means for securing the outer end of the said burner thereto and a flange raised from the bottom of the said implement and rigidly attached to the middle of the said burner, substantially as set forth. 6th. In combination with the body of a flat-iron, a handle therefor and a support connecting the said handle to the said body, the said support being broad enough to protect the hand of the operator, substantially as set forth. Tth. In combination with the body of a flat iron, a standard arising therefrom and having at its top an annular casting with lateral sockets and means for ingress and egress of liquid fuel and air and two half cylinders which fit at their open ends into the said sockets and constitute with said casing a cylindrical oil reservoir for the supply of said implement, substantially as set forth. Sth. The combination with the body of an implement, a cylindrical casing of copper fitting into the end thereof, a burner fitted into the inner end of this casing, a bobbin-shaped jet-block fitted into the outer end of the said casing with its flanges against the inner face thereof; and a gasolene feed-pipe which winds on the said bobbin between the said flanges and discharges into the said jet-block, as set forth.

## No. 61,696. Tanning Process. (Procede pour tanner.)

Charles S. Dolley, Philadelphia, Pennsylvania, assignee of James F. Crank, Los Angles, California, all in the U.S.A., 11th November, 1898; 6 years. (Filed 30th I)ecember, 1897.)
Clain-lst. As a new article of manufacture, a tanned hide or skin, consisting essentially of a combination of formic aldehyd with the collagen and other gelatinous constituents of the said hide or skin, substantially as herein set forth. 2nd. As a new article of manufacture, leather obtained by treating animal hide or skin with formic aldehyd, thereby rendering insoluble and non-putrescible the collagen or connective tissue substances of the skin, such leather consisting exsentially of a combination of formic aldehyd with the collagen and other gelatinous constituents of the said hide or skin, substantially as set forth. 3rd. The herein described process of tanning, that is to say, subjecting the hide or skin to be tamned to the action of formic aldehyd $\mathrm{C}, \mathrm{H}^{2}, \mathrm{O}$, substantially as herein set forth. 4th, The process herein described of tanning, that is to say, subjecting the hide or skin to be tanned to the action of formic aldehyd $\mathrm{C}, \mathrm{H}^{2}, \mathrm{O}$, comingled with aqueous vapour, substantially as herein set forth. 5th. The process of tanning, which consists in subjecting the hide or skin to be tamed, to the action of formic aldehyd $\mathrm{C}, \mathrm{H}^{2}$, O , employed in solution, substantially as set forth.

## No. 61,697. (heck Rein. (Rênes.)

Joseph F. Woort and Carlos Worth, both of the Township of stanstead, assignee of Austin F.. A. Smith, Stanstead Plain, both in Quebec, Canada, 11th November, 1898; 6 years. (Filed 14th October, 1898.)
Claim. -1st. A device of the character described comprising a suitable casing, a longitudinally movable rod in said casing and provided near one end with a disc or projection, said rod extending through one end of the casing and being provided with a loop,
adapted to receive the check rein, a spiral spring interposed between the end of the casing and the dise or projection thereon, whereby

the rod is kept normally retracted, and means for attaching the other end of the casing to the saddle hook, substantially as described. 2nd. The herein described device presenting a cylindrical casing perforated at one end, a longitudinally movable rod having a disc on its inner end and having its outer end extended through a perforation in the casing and provided with a loop for the reception of the check rein, a spiral spring encircling the rod and interposed between the end thereof and the disc thereon, whereby said rod is kept normally retracted, and a loop upon the closed find of the casing adapted to be secured to the saddle hook, substantially as described.

## No. 61,698. Pneumatic Tire Fantener.

(Attachede bendrof pmenmutique.)


Iosewh A. Berger and John P. Larson, Chicago, Illinois, U.S.A., 11th November, 1898; 6 years. (Filed 3rd september, 1898.)
Cluim. - 1st. A spoke-nipple having a flange 2, and a neck extending above said Hange of sufficient length to pass through the outer lap of tire-jacket, and terminating in a head, substantially as and for the purpose specified. 2nd. A sook-nipple having a flange 2 , and a neck extending above said flange of sufficient length to pass through the outer lap of a tire-jacket, and terminating in a head, in combination with a tire-jacket having eyelets in the outer and inner laps for receiving such head, substantially as described. 3rd. A spoke-nipple having an integral fange 2 , and an integral neck extending above said Hange of sufficient length to pass through the onter lap of a tire-jacket, and terminating in a liead, substantially as and for the purposes specified. 4th. A spoke-nipple having an integral flange 2, and an integral neck extending above said flange of sufficient length to pass through the outer lap of a tire-jacket, and terminating in a head, in combination with a tire-jacket having eyelets.
in the ${ }^{-}$outer and inner laps, for securing said head, substantially as described. oth. A spoke-nipple having an integral flange 2, an integral neck 3 , extending above same and terminating in an integral head $t$, in combination with an inner pnematic tube 12 , and a tirejacket having the eyelets 9, 91, in its laps, adapted to pass entirely below said head and engage the neek and head when said imer tubeis inflated, substantially as described.

No.61,699. Pneumatic Tire. (Brmdetr pnomutique.)

'I'he Wapshare 'Tube Company, No. 3 Cross Lane, Eastcheap, Lomdon, assignee of Richard Wapshare, Major 3rd Lancers, Nitrramore. Hamstead, Devonshire, England 1ith November, 1898; 6 years. (Filed 19th July, 1898.)
Cluim. The hereinbefore described method of repairing air-inflated articles, wherein previously inserted loose tibrous material is enployed, some of which, when adhesive solution is introduced at or near the puncture, forms with the sslution or matted patch, adhering to the interior of the air chamber and serving to seal the hole and repair the damaged part.

No. 61,700. Pnenmatic Tire. (Bundage pı"umetiqu.)


Unaiel I'utnam Smith and Thomas Kane, both of Chicago, Mhinois, U.S.A., 11th November, 18!8; 6 years. (Filed (ith June, 1898.)

Claim. As a new article of manufacture, a pmeunatic tire provided with an outer sheath slitted circumferentially at its inner surface and provided with two continuous Hat metallic Haring bands the inner diameter of which is smaller than the outer diameter of the wheel rim and embedded in the sheath at or near its lateral edges, and a wheel rim provided with a concave peripheral groove of larger diameter at its lateral edges than the inner diameters of the flaring rings, sitstantially as described.

No. 61,701. Rubber Tire. (Bumlıige de cooutchour.)
Henri Bergeron. Montreal, Quebec. Canada, 11th November, 1898 ; 6 years. (Filed 5th August, 1898.)
Claim. - - sts. A vehicle-wheel having a metal tire and two flanges forming a chamel and a rubber tire filling the said chamel and provided with a binding metal band passing the whole length of the
said rubber tire, substantially as described. 2nd. A vehicle-wherl having a metal tire and two flanges to receive and maintain the

rubber tire as almove specitied. 3rd. A vehicle-wheel rubber tire having a retaining metallic band, and laid in a channel formed by a metal tire and two flanges, for the purpose above specified.

No. 61,70\%. Letter File, (Enfile-lrttres.)


Charles David John Christie, assignee of Samuel Markhann Brydges, both of Nelson, British Columbia, Canada, 11th November, 1898; 6 years. (Filed 19th September, 1898.)
Glaim.-1st. In a letter filing device, the combination with a hollow case having transverse pins near its back edge, of a series of strips having inclined slots formed in one edge adapted to receive the pins, and having upon their other edge gummed ears, substantially as described. 2nd. In a letter filing device, the combination with a hollow case having transverse pins near its back edge, and index sheets mounted $u$ um said pins, of a series of strips having inclined slots formed in one edge and adapted to receive the pins, and having upon their other edge gummed ears, substantially as described. 3rd. In a letter filing device, the combination with a hollow case having transverse pins near its back edge, of a series of strips having inclined slots furmed in one edge and adapted to receive the pins, and having on its other edge gummed projections adapted to receive the latter, substantially as described. 4th. In a letter filing device, the combination with a hollow case having its sides hinged to the back similarly to a larok cover, one end of the back portion being closed by a hinged board, and the hack having transverse pins forward of its rear edge, of a series of strijes having notches in one edge adapted to engage the transverse pins and having on their edge gummed projections adapted to secure and hold a letter, substantially as described. 5th. A letter securing strip for files, consisting of a strip of paper or smiliar material having hooked notches extending inward from one edge, and having gummed tars on the other edge, substantially as described.

No. 61,703, Filter. (Filtr.)


Willian B. Lindsay and William E. Tonner, both of Steubenville, Ohio, U.S.A., 11th November, 1898; $\mathrm{i}^{\mathrm{i}}$ years. (Filed 30th September, 1898.)
Claim. $\cdots$ 1st. In a filter, the combination with the casing, of the inner filtering-cylinder arranged eccentrically within said casing, the detachable cover, the cleaner arranged between the casing and filtering-cylinder, the supply-pipe and the tubular piston lucated in said supplypipe and provided with the discharge opening, the filtering-cylinder having the pipe leading from each end, substanthally as shown and descibed. End. In a filter, the combmation with the casing having a base provided with a pluralty of passages, each passage heing provided with a draw of rock, the filteringcylinder arranged eccentrically within the easing and provided with a tube stated within the opening therein and communicating with one of the passageways of the base, a detachable cap, means for securing the same, the cleaner having the tubular pistom attached thereto, and the supply pipe learling into the casing, substantially as shown and described. 3rd. In a filter, the combination with the casing having a base constructed as described, of the revolving filtering-cylinder arranged within the casing and having a tule: extending entirely through said filtering-cylinder, a draw-off cock connected to the upper and lewer ends of said tube, and the reservoir detachably connected to the umer end of said tube, substantially as described. fth. In a filter, the combination with the outer case and the filtering-cylinder arranged as describedand the cleaner arranged between the casing and filtering-cylinder, and the reservoir attached to the upper end of the tube pissing into the filtering cylinder, substantially as shown and described. 5th. In a filter, the combination with the casing having the base provided with a plurality of passage ways, each having a draw-off cock commected thereto, the filtering cylinder arranged eccentrically within the case, the cleaner arranged between the case and filtering-cylinder, the tubular piston having an aperture therein, the plate provided with the champinglugs, the gude-pins, the detachable top and guide-lugs, the clampingring, all arranged and adapted to operate substantially as shown and descriled. Gih. In a filter, the combination with the casing having a base constructed as described, and the filtering-cylinder arranged therein, the cleaner constructed as described and arranged between the filtering-cylinder and the casing said cleaner having a tubular piston connected the rewith, said tubular piston being arranged in the supply-pipe leading into into the casing, the tube extending from the filtering-cvlinder the detachable cap and means for securing the same and the revolving cylinder arranged upon the uper end of said tule, the draw-off cock, the dischargespout, all arranged and ialapted to operate substantially as shown and described.

No. 61,704. Govermor. (iomicrneur.)
Mark A. Keplogle, Akron, Ohio. U.S.A., 11th November, 1898: 6 years. (Filed ith December, 1897.)
Claim.-1st. In a govennor, the combination with revolving pendulums of a weight suspended from them by universal joints the satid weight adapted to perform the operation required of the governor independent of a rise or fall of the pendulums by reason of retrogrtssion or advancing of the said weight in its relation to the said pendulums. znd. In a speed governor, the combmation of contrifugal weights, having suspended from them, by universally jeinted supperts, an inertia weight, the said inertia weight heing
integrally made with a sleeve sliding on the spindle of the governor, ind adapted to rise and fall in conjunction with the centrifugal

weights, and also to rise and fall independently, in its relation to them, in the manner described, and for the purpose set forth. 3rd. In a suspended weight mechanical speed governor, the combination of centrifugal weights or pendulums, designed to be affected by greater changes of speed, a weight suspended from them adapted to be raised or lowered in conjunction witsaid pendulums, and in addition thereto adipted to be moved upwards or downwards in its relation to said pendulums by minor changes in speed, hy means as specified. 4th. The herein described mechanical governor consisting of a spindle, adipted torevolvecentrifugal weights, centrifugal weights suspended therefrom, and an inertia weight suspended from said centrifugal weiglits, said inertia weight being integrally made or rugidly attached to a sleeve sliding upwards and downwards of said spindle, and attached to a lever intermediate of its fulerum and operating end, for the porpose of amplifying the action of the governor, substantially as speritied.

No. 61,70\%. Printing Apparhtion und Procemin.
(Apparvil at prociele pour int, miner r.)

61)05

William Friese-fireene, London, Fingland, 11 th November, 189'; 6 years. (Filed 28th June, 1898.)
Cluim. -1 st. The herein described process of printing of reproducing words, figures, designs or the like upon paper, textile fabric or other material, which consists in passing a current of electricity through said paper or other material and through two conducting media on opposite sides respectively of said paper or material, and in contact therewith, one of said niedia bearing the words, designs or the like to be reproduced, substantially as set forth. 2nd. The herein described process of printing or reproducing words, figures, designs or the like upon paper, textile fabric or other material, which consists in first passing a current of electricity through said paper or other material, and through two conducting media on opmente sides respectively of said paner or material, and in contact
therewith, one of said media bearing the words or designs or the like to be reproduced, and in then developing the resulting image, substantially as set forth. 3rd. The herein described process of printing or reproducing words, figures, designs or the like upon paper, textile faioric or other material, which consists in first passing a current of electricity through said paper or other material and through two conducting media on opposite sides respectively of said paper or material, and in contact therewith, one of said media bearing the words or designs or the like to be reproduced, and in then immersing the said paper or other material in a liquid which will secure permanency of the resulting image, substantially as set forth. 4th. In apparatus for printing or reproducing words, figures, designs or the like upon paper, textile fabric or other material, the combination of a conducting medium contacting with one side of the material, a conducting form contacting with the other side of said material, and positive and negative electric wires connecting respectively with said conducting medium and with said form, whereby with an electric current is sent through said wire, the words, figures, designs or the like represented by said form are printed or reproduced upon said material, substantially as set forth.

No. 61,706. 'Trunk. (Coffrr.)


Margaret A. White, Nouthampton, New York, U.S.A., 11th Novemler, 1898; 6 years. (Filed 3rd October, 1898.)
Claim.-The combination with the trunk body having a hinged lid or cover and separate openings at the lower and intermediate portions of the front thereof, of cleats arranged at varying elevations and secured against the inner surfaces of the ends of the said body, a false botton secured in position at a short elevation above the lottom of said body, a drawer movably momented in the space between the said false bottom and the bottom of said body, a tray slidingly monnted in the body above the false bottom, a door hinged to the front of the body to cover the opening through which the said tray is movable, a strip hinged to the front edge of the bottom of the body, and a door hinged to the said strip, whereby the door hinged to the strip may be opened independently of the latter, and the tray, drawer and false bottom made independently accessihb.
No. 61,707. Moniment. (M, mument.)


Henry Harding and Thomas Oliver Harding, both of Markham, Ontario, Cunada, 11th November, 1898; 6 years. (Filed 1st Octuber. 1898.)
Claim.-In any monument, the combination of a cap die and plinth cast in glass with suitable bases made of stone, granite or
metal having the die composed of two glass end plates and two glass side plates having the moder plates cast with solid corners with a groove in each corner to receive the glass side plates, so as to form a complete corner joint with means for lolding the same together substantially as shown and described.

No. 61,gos. Elamtic Wheel. (Rour chatique.)


Tacol, H. Peterson, Des Moines, Iowa, U.S.A., 11th November, 1898; 6 years. (Filed 12th July, 1898.)
Clrim.--1st. A vehicle-wheel, comprising an outer rim, a second double rim arranged within and concentrically of the tirst. spokes connecting the outer rim and the donble rim, a hub, a third rim mounted within the spokes of the other rims and capable of a rotary movement relative thereto, and springs for connecting the said hub and the double rim, for the purposes stated. End. A vehicle-wheel, comprising an outer rim, a double rim arranged within and concentrically of the first, and having cross-pieces for connecting thenn, spokes for connecting the outer rim and the dooble rims, guides fixed to the outer rim and to the crosspieces of the double rims, a hub having two or more outwardly projecting arms at its central portion, a third rim arranged for motation within the said guides, spokes for connecting the third rim with the hub, and a series of contractile springs connected with the said cross-pieces of the double rim and also with the said hub, and having the said extensions on the hub admitted into the central portion of two or more of the springs, substantially as and for the prirposes staterl.
No. 61,709. Fabric Printing Procesm.
(Procede pour imprimer les tixsums.)


Alexander Bellnere Sherword and /ephaniah S. Holbrook, both of Chicago, Illinois, U.S.A., 12th Nowember, 1898; 6 years. (Filed 9th August, 1898.)
Claim. 1st. The method of producing a pattern or design upon plane surface, which consists in covering one side of a sheet of
fabric woven with the design to lre produced with ink of desired colour, and then impressing the side of the fabric to which the ink has been applied upon the plane surface, sulstantially as described. -nd. The method of reproducing a design or pattern upon the surface of flexible material, which consists in securing a sheet of fabricwoven with the design to be reproduced upon the cylinder or bed of a printing press, covering one side of such fabric with ink of desired colour, and then impressing the side of the fabric to which the ink has been applied upon the surface of Hexible material, substantially as described. Brd. The method of producing an embossed and printed pattern or design upon a sheet or web of paper or like flexible material, which consists in covering one side of a sheet of fabrie woven with a design to be produced wich ink of desired colour, and then impressing the side of the fabric to which the ink has been apphed upon the paper or the like, with force sufficient to emboss as well as print the pattorn or design upon the latter, substantially as deseribed.

No. 61,710. Manifold Book. (Livre de cente.)


The Carter-Crume Company, Niagara Falls, New Y'ork, I'.S.A., assignee of John Robert Carter, Boston, Massachusets, 12th November, 1898; 6 years. (Filed 21st April, 1898.)
Claim.-1st. The combination with a manifold salesbook comprising a series of sheets of paper arranged in a pile, of a clamp for holding the pile of sheets of paper, of a thin flat bottom plate having hinge members on one edge and spaces for springs to protrude, springs secured to the bottom plate and extending throngh the openings, a thin flat top plate having hinge members and ears to engage the said springs, and a pintle extending through said hinge members, as set forth. 2nd. The combination with a manifold salesbook comprising a series of sheets of paper arranged in a pile, of a clamp for holding the pile of sheets of paper, of a thin flat bottom plate having tinge members on one edge and a pair of spaces for springs to protrude, a pair of springs formed of thin strips bent at their centre upon themselves, their ends lying normally apart, said springs being secured to the bottom plate, a thin flat top plate having hinge members, and a pair of ears on the edge of the top plate between the hinge members engaging the upper ends of the springs, substantially as described and shown. 3rd. The combination, with the pile of sheets of paper and the cover of a salesbook, of a clamp, secured to one side of the cover at one edge thereof, convisting of a thin flat lottom plate having hinge members on one edge and spaces for springs to protrude, springs secured to the bottom plate and extending through the openings, a thin, Hat top plate having linge members and a pair of ears to engage the said springs, and a pintle extending through said hinge members as set forth. 4th. 'The within described manifold salesbook, comprising a pile' of sheets of paper and the cover, a clamp constructed of a thin loottom plate baving hinge members on one edge, and a pair of spaces for springs to protrude, a pair of springs formed of thin strips at their centre upon themselves, their ends lying normally apart. said springs being secured to the bottom plate, a thin flat top plate having hinge members, and a pair of ears on the edge of the top plate between the hinge members engaging the upper ends of the springs, said pile of sheets having one edge engaged by the clamp, to securely hold them in the cover without destroying the compactness of the book when folded, the top plate of which clamp lies in substantial parallelism with said sheets, and the black leaf, substantially as deseribed and shown, tth. The within deseriled mainfold salesbook, comprising the cover, a clamp constructed of a thin flat bottom plate having hinge members on one odge and a pair of spaces for springs to protrude, a pair or springs formed of thin strips bent at their centre upon themselves, their ends lying normally apart, said spring being secured to the bottom plate, a thin flat top plate having hinge members, and a pair of ears on the edge of the top plate between the hinge members engaging the upper ends of the springs, a pile of sheets having their stub ends united togeth $\rightarrow$ and engaged by the clamp, to securely bind thein in the cover without destroying the compactness of the book when folded, the top plate of which clamp lies in substantial parallelism with said sheets, said sheets beting also
provided with suitable lines of perforations to aid in the separation of the duplicate and main bills from the stubs and fron, each other, and a black leaf, substantially as shown and described.

No. 61,711. Vehirle Wherl. (Rome dr miture.)


Robert (reorge Mclowell, Ispeming, Illinois, Albert Matthew Mclowell and Joseph Irving Mclowell, both of Anaconda, Montana, all in the I.S.A., 12th November, $1898 ; 6$ years. (Filed 5th August, 1898.)
Claim.-1st. A wheel-hub, conprising a front ring-like portion having inwardly extending wedge dhaped projections to engage between spokes at the outer side of the first-named projections, a ring-shaped inner portion for the hul, means for securing the two sections of the hub together, a box, a tapered sleeve having an exterior screw-thread engaging with an interior screw-thread of the inner section of the hub, and means for securing said sleeve to the tox, substantially as specified. end. In a wheel, a hub, comprising inner and outer ring-shaped sections, means for securing the two sections together, a box, a tapered sleeve movable on said box for forcing the wheel-spokes outward, the said tapered sleeve having screw-threan engagenient with the inner section of the limb, and a ring having a screw-thread engagement with the box and engaging against the end of the sleeve, substantially as specified. 3rd. A wheel-hub, comprising front and rear ring-like sections, the said sections having wedge-shaped projections to engage the sides of spokes, means for securing the sections together, a box, a tapered nleeve movable on the lox to force spokes outward, and means for holding said sleeve in position, substantially as specified.

No. 61,712. Gaiter and Puitee. (Guetre et landage.)


Francis Hugh Fox, Tondale Mills, Wellington, Somerset, England, 12th November, 1898; 6 years. (Filed 12th August, 1898.)
Cheim. 1st. As a new article of manufacture, a spat or short gititel combined in one piece with a puttee by jointing end on to the end of the short part of the spat a puttee or leg-bandage, substantially as set forth. 2nd. In a combined spat and puttee, the combination of a long and a short part composing the spat seamed on the instep and the seam re-enforced, a stiffener in the re-enforced sean, a strap, secured to one side and a buckle on the other, re-enforcing pieces at the place of attachment of said strap and buckle, a hook secured to the re-enforcing piece on the short part, a re-enforcing piece secured to the long part having a series of button holes adiapted to engage the said hook, a puttee sewn end on to the end of the short part of the spat and a tape secoued to the free and of said putter, substantially as set forth.

No. 61,713. Kite. (Cerf-volant.)
Walter Samuel Baker, Newark, New Jersey, U.S.A., 1 thth November, 1898; 6 years. (Filed 24th August, 1898.)
Chim.-1st. A kite, comprising a frame composed of the usual central longitudinal cross sticks, said sticks being detachably connected, and said sticks being also provided at their ends with short slots, and a lowly portion or covering for said frame, the sides of which are proviled with cords, said cords being connected at their ends with short wires or rods which are adapted to be inserted into said slots, substantially as sifown and described. 2nd. A kite, comprising a frame composed of the usual central longitudinal and cross sticks, said sticks being detachably connected, and said sticks being o.lso provided at their ends with short slots, and a lody portion or covering for said frame, the sides of which are
provided with cords, said cords being connected at their ends with short wires or rods which are adapted to be inserted into said slots,

said body portion or covering being also provided with a longitudinal pocket through which the longitudinel stick of the frame is passed, substantially as shown and described. 3rd. A kite, comprising a frame composed of the usual central longitudinal and cross sticks, said sticks being detachably connected and said sticks being also provided at their ends with short slots, and a body portion or covering for said frame, the sides of which are provided with cords, said cords being connected at their ends with short wires or rods which are adapted to be inserted into said slots, and the body portion or covering being also provided with means for connecting it with the longitudinal stick of the frame, said sticks being also provided at the point where they are commected with rings or eyes which are pivotally secured to one of said sticks on the opposite side of said connection, and adapted to swing into alignment across the other stick, substantially as shown and described.

No. 61,714. Wrench. (Clé à écrou.)


Samuel S. ('irove, Summit, Pennsylvania, U.S.A., 12th November, 1898; 6 years. (Filed 6th October, 1898.)
Claim.-1st. A wrench adapted for use in connection with a bit stock or brace, comprising a bit-shank having an extended head at the lower end thereof and a slide thereon, the said slide being supplied with swinging jaws which engage apertures of the same head, whereby downward movement of the slide willopen the jaws, substantially as shown and described. 2nd. In a wrench adapted for use in con-
nection with a bit-stock, the combination of a bit-shank and a movable slide therton, the said slide being supplied with pivotally attached levers having jaws upon their outer ends, said jaws having recesses therein for receiving a bolt or nut head, substantially as shown and described. 3rd. As a wrench, the combination of a bit-shank adapted for engagement with an ordinary bit-stock, and a slide engaging the said bit-stock, the said slide having swinging levers thereon which pass through an extended head of the bit-shank, and from part of jaws having square recesses therein for engagement with a bolt head or mut, substantially as shown and described.

No. 61,715. Method of Decorating. (Méthode de décorer.)


Stanislas Rosenberg, Paris, France, 12 novembre $1898 ; 6$ ans. (Déposé 5 octobre 1898.)
Résumé.-Produits décoratifs par la céramique dont les dessius consistent en petites boules colorées saillantes et noyées d'environ les deux tiers dans une couche de ciment de même couleur.

No. 61,716. Caisson Shaft. (Arbre de caisson.)


Fig. 5.
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John F. O'Rourke, New York City, New York, U:S.A., 12th November, 1898 ; 6 years. (Filed 11th October, 1898.)
Cluim.-1st. The combination with the shaft, of a ladder formed by a slotting the shaft, and an air seal for the slots whereby the escape of air from the shaft is prevented, substantially as described. 2nd. The combination with the shaft and the ladder slots therein, of an external cover for the slots, said cover leing secured to the shaft so as to form an air seal, substantially as described. 3rd. The combination with the shaft, adapted to permit the passage of a bucket, cage, or similar article, of the ladder sunk in the side of the shaft, whereby the wall of the latter is left essentially plain. 4th. The combination with the shaft and the ladder-slots therein, of the bulging cover extending the full length of the ladder formed by the slots, said cover being secured at its edges to the shaft, substantially as described.

## No. 61,717. Air Lock for Caissons.

(Ecluse à air pour caissons.)


John F. O'Rourke, New York City, New York, U.S.A., 12th November, 1898; 6 years. (Filed 11th Octuber, 1898.)
Claim. -1 st. The combination of the shell, opposite swinging gates, crossing armis secured to the gates and independently journalled, and gears connecting the adjacent arms, substantially as described. 2nd. The combination with the shell, and opposite and aligning gate-shafts therein, of means for turning the shafts or gates to close the shell opening, and over-lapping arms secured to opposite sides of the gates, one arm of each gate being secured to one shaft and the opposite arm loose on the opposite shaft, substantially as described. 3rd. The combination with the shell having a bucketopening and a ring enoircling said opening, of swinging gates having flanges adapted to come to rest opposite the ring, and a flap-gasket held to effect a closure between the ring and flanges, said gasket being pressed to its seat by the air-pressure in the shell, substantially as described. 4th. The combination with the shell, of an essentially tubular ladder therein. 5th. The combination with the shell, of an internal tubular structure held rigidly to the walls of the shell, said structure having inwardly-projecting flanges forming steps, substantially as described. 6th. The combination with the shell, of an internal tubular structure having steps thereon, the said structure having its lower end formed into a seat against which the lower closure of the shell can abut, substantially as described. 7 th. The combination with the shell, of an internal tubular structure formed of ring-sections secured together, said sections having inwardly projecting step-forming flanges thereon, substartially as described. 8th. The combination with the air-lock having suitable end closures, of an internal ladder secured to the lock, the lower end of the ladder carrying a valve-seat, substantially as described. 9 th. The combination with the shell and an internal essentially tubular structure having steps thereon, of a skeleton ladder projecting upward from the said tubular structure, substantially as described. 10 th. The combination with the shell and ring-sections with steps thereon held within the shell, of uprights secured to the ring sections, and cross-pieces forming rungs secured to the uprights, substantially as described. 11th. The combination with the air-lock and cylinders or motors constructed to work the moving parts of the lock, of a valve mechanism controlling the cylinder or motor air-supply, and an automatic locking device whereby the valves operate in regular sequence, substantially as described. 12th. The combination with the air-lock having its movable parts worked by cylinders or motors, of a valve-mechanism controlling the air-supply of the cylinders or motors and air-lock, and an automatic locking device for the valve mechanism constructed to cause the movement of the first valve to unlock the next, and so on in sequence through the whole series of valves. 13 th. The combination with the air-lock and cylinders or motors constructed to work the moving parts of the air-lock, of an automatic locking device constructed to permit the operation of the valve mechanism only in regular sequence, and a movable latch locking the valve mechanism and serving as a circuit-closer for the alarm circuit, substantially as described. 14th. The combination with the air-lock and cylinders or motors working the removable parts of the air-lock, of a series of valves controlling the air-supply to the cylinders or motors and lock, a gear mechanism connecting to the several valves, and interlocking dises connected to the valvestems and constructed to move successively, the movement of one disc unlocking the next. substantially as described. 15th. 'The combination with the air-lock and cylinders or motors constructed
to work the moving parts of the air-lock, of an air-supply pipe, valve-controlled connections between the air-supply pipe, the cylinders or motors, and the inner and outer sides of the air-lock, a gear neechanism connecting the several valve-stems, and interlocking discs connected to the stems and constructed so that the movement of one disc releases the next, and so on in sequence, substantially as described. 16 th. The combination with the shell and an internal tubular structure terminating at its lower end in a fixed seat or ring, of a lower closure adapted to close opposite the said ring, and a flapgasket arranged to be pressed by air so as to effect a closure between the said ring and the said lower closure, substantially as described.

No. 61,718. Umbrella Carrier. (Portc-parapluie.)


Charles H. McCormack, Towners, New York, U.S.A., 12th November, 1898; 6 years. (Filed Sth October, 1898.)
Claim.-A device for carrying uinbrellas and parasols consisting of a bar or rod, clasps carried at the ends thereof and adapted to receive and hold the umbrella, and a chain or cord secured at its ends to the respective clasps and by means of which the parasol or nmbrella is suspended from the person of the wearer, substantially as described.

No. 61,719. Rotary Engine. (Machine rotutoire.)


Robert Harris Ishell, New York City, New York, U.S.A., 12th November, 1898; 6 years. (Filed 15th July, 1898.)
Cluim. - 1st. A rotary engine, comprising a case and its heads and a stationary hub carried by one of the heads, a main shaft and its head, a cylinder carried by the head and pistons at equal distances around the cylinder, each having a leaf projecting inward and a leaf projecting outward, there being' a port for the high pressure steam jorts in the revolving head through which the high pressure steam
passes to act upon the inner leaves of the pistons, a transfer port for the high pressure steam to pass from the inner chamber to the outer chamber, and act upon the outer leaves of the pistons, and an exhaust port from the outer chamber, substantially as set forth. 2nd. A rotary engine, comprising an outer casing and its heads, a hub carried by one of its heads, a shaft eccentric to the hub and a head upon such shaft, a cylinder composed of sections and intermediate pistons having inner and outer leaves, a ring for connecting the sections of the cylinder together and pivot pins passing through the ring and head and upon which the pistons swing, a steam inlet port, and ports through the head to which the cylinder is connected, a segmental transfer port and branch for allowing high pressure steam from the inner chamber, to pass into the outer chamber, and an exhaust pipe or port from the outer chamber, substantially as set forth. 3rd. In a rotary engine, a main shaft and head, a cylinder supported by such head and pivoted pistons in the cylinder having inner and outer leaves, the cylinder being recessed for the reception of such leaves and ports or pipes for allowing steam to pass into the recesses and beneath the respective leaves of the pistons for moving such leaves outward and inward to bring their edges into contact with the interior surface of the case of the exterior surface of the hub, substantially as set forth. 4th. A rotary engine, comprising a case and its heads, a hub carried by one of the heads, a main shaft, cylinder and pistons carried by such shaft, the pistons having inner and outer leaves to act within the crescent-shaped steam spaces between the cylinder and the case, and the cylinder and the hub respectively, the cylinder being recessed for receiving the leaves of the pistons, steam ports for admitting pressure into the recesses for swinging the respective pinions out of such recesses, and a U-shaped port in the head of the case for allowing such steam pressure to act in moving the outer leaves of the pistons out of their recesses, substantially as set forth. 5th. A rotary engine, comprising a stationary case and a stationary central hub, an intermediate cylinder placed eccentric, and pistons passing through and pivoted upon the said cylinder and having one leaf acted upon by pressure in the inner chamber and the other leaf by pressure in the outer chamber, there being recesses into which one leaf of each piston is swung while the other leaf is in action, substantially as the forth.

## No. 61,920. Electrically Heated Roll.

(Cylinulre chauffe al l'electricite.)


Fred P. Snow, Lynn, Massachusetts, U.S.A., 12th November, 1898 6 years. . (Filed 8th August, 1898.)
Claim.-1st. A hollow cylindrical shell of iron, or of other materia that has low electrical conductivity, two cylinder hrads of copper, or of other highly conductive material, united with said hollow shell, and a shaft of copper, or of other highly conductive material, uniting said cylinder heads, in combination with an annular cor $\epsilon$, formed of magnetic material, encircling said shaft, and wound with insulated conductor, all adapted to be rotated about a common axis, substantially as and for the purpose specified. 2nd. A cylinder shell formed of material that has low electrical conductivity, two cylinder heads, formed of highly conductive material, united electrically with that shell, and a shaft, formed of highly conductive material, uniting said cylinder heads, and provided with terminal bearing-pieces, in combination with an annular core, formed of magnetic material, wound with insulated conductor, and encircling said shaft all arranged symmetrically about a common axis of rotation, substantially as and for the purpose specified. 3rd. A hollow shell, formed of iron, or of other material of low electrical conductivity, and having its wall predetermined cross-sectional area, increasing toward the middle, and diminishing toward the ends of said shell, two cylinder heads, formed of highly conductive material, and electrically united with said hollow shell, a shaft formed of highly conductive mat-rial, and electrically uniting said cylinder heads, and an annular core, formed of magnetic material, wound with insulated conductor, and encircling
said shaft, in combination with current collectors, connected with said insulated conductor, all being rotable about a common axis upon suitable bearings, substantially as and for the purpose specified. 4th. A hollow cylindrical shell formed of material that has low electrical conductivity, two cylinder heads that are formed of conductive material, and are united with said shell, a magnetic core, which is contained in said shell, and is wound with insulated conductor, in combination with a shaft, that is formed of conductive material, uniting said cylinder heads, and is provided with terminal bearingpieces, and with rotary current collectors for supplying current to said insulated conductor during rotation, substantially as and for the purpose specified. Oth. An annular core, wound with a primary conductor, and contained in a rotary shell, which forms the choking portion of a secondary circuit about the same core, substantially as and for the purpose specified.

No. 61,921. Lock Rod for Waggon Brakes.
(Biclle d'enrayage pour freins de wagons.)


James H. Hoover, Phoenix, Pennsylvania. U.S.A., 12th November, 1898; 6 years. (Filed 15th July, 1898.)
Chim-1st. A lock-rod having a head provided with a series of studs or pins, in combination with a pivoted spring closer to cover said studs or pins, substantially as and for the purpose specified. 2nd. A lock-rod formed with a head having a series of inclined studs or pins, the first one being longer than the others and a swinging cluser to cover said studs or pins pierced with an opening to receive said longer pin, substantially as and for the purpose set forth.

No. 61,722. Waggon Brake. (Frein de wagon.)


John R. Kinkade, Sonora, Kentucky, U.S.A., 12th November, 1898; 6 years (Filed 15th July, 1898.)
Claim.-1st. The combination with the running-gear of a waggon, of brake mechanism, rods extending from the brake mechanism forwardly to the front of the pole, a movable ring mounted on the front of the pole and to which said rods are attached, inclined guides on the pole, and a stay-chain connected to said guides and ring, substantially as and for the purpose specified. 2nd. The combination with the running-gear of a waggon, of brake mechanism, including brake-chains, rods connected to the brake mechanism and extending forwardly to the pole, a ring movably engaging the front end of the pole and to which said rods are connected, inclined guides on the pole, stay-chains attached to said rings and guides and adapted to be connected to harness, and means for limiting the movement of the ring to permit backing of the vehicle, substantially as described. 3rd. The combination with the runninggear of a waggon, of brake mechanism, rods connected therewith and extended forwardly to the front end of the pole, a ring movably engaging said front end of the pole to which said rods are attached, a chain connected to said ring, means for adjusting said chain and ring, and stay chains attached to said ring and adapted to be connected to harness, substantially as described. 4th. The combination with the running-gear of the waggon, of the brake beam or rod having brake shoes thereon, a rock-shaft connected to said brake-beam, rods attached to pendent arms on said rockshaft, a ring movably engaging the front end of the pole and to which the front ends of said rods are connected, a stay-chain comnected to said ring, and means for suspending said stay chain separate from said pole-ring, substantially as described. 5th. The
combination with the ruming-gear of the waggon, a rock-shaft 12 having pendent arms secured to the brake-bean by suitable connecting rods, pendent lever-arms 14 , rodsextending fromsaid lever-arms, and having their forward portions connected with a ring sliding on the front end of the pole, stay-chains connected with said ring, pendent chains comected with said stay-chains and movable on angle-irons connected with the pele, and means connected with said pole-ring for limiting its throw for preventing the application of the brakes in backing the vehicle, substantially as described.

## No. 61,7\%3. Reverage. (Breurag.)

Frnest Uhlmann, Dobbs Ferry, New York, l.s.A., 12th November, 1898; 6 years. (Filed 29 th September, 1898.)
Claim. -1 st. A process for producing a beverage from fermented malt liquor, consisting in boiling the same sufficiently to remove all alcohol and carbonic acid, but substantially none of the water, such boiling being effected at a temperature sufficient to coagulate thealbumenoids, removing the albumenoids, and subsequently adding krausen thereto and fermenting to restore the taste, appearance and effervescence of beer. ?nd. A process for producing a beverage from fermented malt liquor, consisting in boiling the same sufficiently to remove all the alcohol and carbonic acid, but substantially none of the water, such boiling being effected at a temperature of substantially 212 F., to coagulate all the albumenoids, removing the albumenoids, and subsequently adding krausen of low original gravity and fermenting to restore the taste, appearance and effervescence of beer. 3rd. A process for making a non-intoxicating beverage which consists in mashing malt at a temperature of substantially from $170^{\circ}$ F., to $175^{\circ}$ F., extracting the wort therefrom, and fermenting same until all fermentable matter has been converted, boiling the resulting product to remove alcohol and carbonic acid gas while retaining substantially all of the water, adding a small proportion of krausen and fermenting to restore the taste, appearance and effervescence of beer. 4th. A process for making a non-intoxicating beverage which consists in mashing malt at a temperature of substantially from 170 to $175^{\circ}$ F., extracting the wort therefrom and fermenting same until all fermentable matter has been converted, boiling the resulting product sufficiently to remove substantially all the alcohol and carbonic acid, without removing any substantial proportion of water, such boiling being effected at a temperature of substantially $212^{\circ} \mathrm{F}$., so as to coagulate the albunenoids, removing such albumenoids, and subsequently adding a small proportion of krausen and fermenting the mixture to restore the taste, appearance and effervescence of beer. 5 th. A process for making a non-intoxicating beverage consisting in mashing malt at a cemperature of substantially $170^{\circ}$ to $175^{\circ} \mathrm{F}$. , extracting therefrom, and fermenting same with yeast of high fermenting power, until all fermentable matter has been converted, boiling the resulting product sutficiently to remove all the alcohol, and carbonic acid, but sulstantially none of the water, adding a small proportion of krausen of low original gravity and fermenting so as to restore the taste, appearance and effervencence of lager leeer. 6th. A process for making a non-intoxicating beverage which consists in mashing malt at a temperature of $170^{\circ} \mathrm{F}$., to $175^{\circ} \mathrm{F}$., extracting the wort therefrom and fermenting same with yeast of high fermenting power, passing air through the wort until it has reached the hochkrausen stage, then allowing the fermentation to continue until all fermentable matter has been converted, boiling the resulting product to remove alcohol and carbonicacid gas without removing any substantial proportion of water, and adding a small proportion of krausen of low original gravity so as to restore the taste, appearance and efferscence of lager beer.

No. 61,724. Wirelinsulator. (Ivoloir.)


George Ashby, Hamilton, Ontario, Canada, 12th November, 1898; 6 years. (Filed 12th August, 1898.)
Ciaim.-1st. An insulator consisting of a stem provided with an arm 4 having a lug 6 , a bolt 15 conneeted with the stem, and a cylindaical piece 5 mounted upon said bolt, sulstantially as described. 2nd. In an insulator, the insulator 5 consisting of a cylindrical piece
provided with an exterior groove, and recesses, and a central opening,
and dises 10 situated on either side of said insulator 5 and provided with losses 11 situated within said recesses, and tubes situated within said ope-ning, substantially as described.

No. 61,725. Dintment. (On!meut.)
Adelmar Caderre, St. Jacques, Québec, Canada, 12 Novembre $189 x$; 6 ans. (Déposé 27 Aout 1898. )
Risume. Ine composition de matiere compossée de racines d'an ssauvage, décailles d'hêitres, d'huile d'anquille et de saindouse dans les proportions et ponr les fins indiquées.

No. 61,726. Sewing Machine. (Machinc ì coudre.)


The Special Sewing Machine Company, Chicago, Illinois, assignee of Lansing Onderdonk, Boston, Massachusetts, all in the U.S.A., 16th November, 1898; 6 years. (Filed 10th October, 1898.)

Claim.-1st. A sewing machine comprising a driving shaft, a second shaft arranged forward of the main shafts and with its axis at right angles thereto and supported in fixtd learings on the machine frame, an inclined crank or rocking fork connection between the driving shaft and the transverse, and a longitudinally and circumferentially adjustable looper support armanged on said transverse shaft independently of the rocking fork, substantially is described. 2nd. A looper mechanism for sewing machines comprising a looper shaft, a plurality of looper supports carried by said shaft, means for adjusting said supports circumferentially and longitudinally of said shaft, loopers carried by said supports, and means for adjusting the loopers in said supports vertically and laterally, substantially as described. 3rd. A looper mechanism for sewing machines comprising an actuating shaft, a looper shaft, and a iovper support, actuating mechanism for imparting to the looper support a rocking and laterally vibrating novement comprising a rocking fork, and means for adjusting said support independently of said fork, substantially as described. $4^{t}$ th. A looper nechanism for sewing machines comprising an actuating shaft, a looper shaft, and a looper support, actuating mechanism for imparting to the looper support a rocking and laterally vibrating movement comprising a rocking fork arranged near gne end of the looper shaft, the looper support being arranged near the other end of the looper shaft, and means for adjusting said support upon said looper shaft, substantially as described. 5th. A sewing machine comprising a looper operating shaft, and a plurality of split collars on said shaft, with means for securing them in any position thereon, said split collars being provided with sockets for the reception of loopers, whereby the distance apart or the position on the shaft, of said loopers may be varied, substantially as described. 6th. A sewing machine comprising a driving shaft, a looper supporting shaft mounted to slide and rork in fixed bearings on the machine frame, means on the forward end of the main shaft for oscillating and reciprocating the second shaft, comprising an inclined pin ardjustably secured to the main shaft and operatively connected with the second shaft, whereby both the sliding and oscillating movements of said second shaft may be varied, and a circumferentially and longitudinally adjustable clannping collar arranged on said second shaft, and a looper secured thereto, substantially as described.

## No. 61,727. Swimming Appliance. (Appareil ìmger.)

Patrick Andrew Devers, Payette, assignee of Jacob Stroup, also of Payette, Idaho, U.S.A,, 16th November. 1898; 6 years. (Filed 6th October, 1898.)
Claim.-1st. In a swimming appliance, the combination of an ankle plate, means for securing the same on the ankle and foot, a pair of wings pivotally connected with the ankle plate, and a web secured to the ribs and to the contiguous edges of the wings, substantially as described. 2nd. The combination with an ankle plate and hinged wings, of a main weh connected to the contiguous edges of the wings and seconciary webs intermediate of the ankle plate and wings respectively, substantially as specified. 3rd. The combination with an ankle plate and hinged wings provided with inclined lower edges, of a plurality of ribs pivoted to the ankle plate and
located intermediate of the wings and main web secured to the ribs, and to the wings respectively, and secondary webs secured

intermediate of the wings and ankle plate, substantially as speci fied. 4th. The combination with an ankle plate, a stirrup and securing straps, of a pair of hinged wings, a main web intermediate of the wings, pivoted ribs secured to said web, and secondary webs intermediate of the wings and ankle plate and located substantially at right angles to the wings when extended, substantially as specified.

No. 61,728. Paper Bag Holder. (Porte-sac de papier.)

H. N. Bate \& Sons, assignee of Willian .J. Nagle, all of Ottawa Ontario, Canada, 16th November, 1898; 6 years. (Filed 4th October, 1898.)
C/aim.-1st. In a paper bag holder, the combination with a pigeon hole or bag receptacle having a bar or rod $E$, horizontally across the interior, of a wire door or closure having fingers B, B1, within the receptacle and extending downwardly and outwardly, and a tongue or loop ID, extending downwardly, inwardly and inclinedly to the bottom of the receptacle, said door having an open space between the fingers and tongue, as and for the purpose set forth. 2nd. A paper bag holder or pigeon hole having internally a transverse rod or bar, and a wire door closing the entrance to said hole, said door having an upper inwardly bent portion terminating in fingers B , $\mathbf{B}^{1}$, which incline downwardly and outwardly, and a lower portion bent inwardly and inclining downwardly to spring against the floor of the receptacle, and forming a tongue or loop D , on which the bags partly rest, said fingers and tongue retaining the parcel of bags in a

U-shaped position, the bottoms upwardly and outwardly, substantially as set forth. 3rd. A paper bag holder, comprising a pigeon hole to contain a parcel of loosely arranged bags, sa d hole provided internally with a horizontal bar or rod $\mathbf{E}$, transversely, a door made of one piece of wire and bent inwardly at the top, thence extending downwardly and ontwardly to form fingers $\mathrm{B}^{1}, \mathrm{~B}^{1}$, and the lower portion of the door bent inwardly and downwardly to form an inclined tongue D , extending to the louttom of the pigeon hole, whereby a space or opening separates the end of said fingers from the top of the tongue, to make a passageway for the bags, substantially as set forth.

No. 61,729. Canh Heginter. (Régistre ì monnuic.)


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The Oslorn Cash Register Company, assignee of Francis Conrad Oskorn, all of Detroit, Michigan, U.S.A., 16th November, 1898; 6 years. (Filed 23rd May, 1898.)
Cleine. -1 st. In a cash register, the combination of a vertically movable tablet rod, a lifting bar ly means of which the tablet is elevated, a pivoted foot carried by said tablet rod and held normally out of the path of said lifting bar by a spring, a pivoted key lever Whose inner end is adapted to engage with said foot to move it into the path of the lifting bar, and an operative connection between said lifting bar and the movable element of the till, whereby the tablet rod is elevated in opening the till, substantially as set forth 2nd. In a cash register, the combination with a register wheel, of a tablet rod having a spring-actuated pawl pivoted thereto and adapted to engage with said wheel, and a guide-plate for guiding said pawl into and out of engagement with the register wheel, substantially as set forth. 3rd. In a cash register, the combination with a tablet rod and a toothed register wheel, of a spring actuated pawl carried by the tablet rod adapted to engage directly with the teeth of the register wheel to rotate the same, a key lever, a lifting bar operated by means independent of the key lever, and a device carried by the tablet rod adapted to be moved by the key leverinto the path of the lifting bar without shifting the tablet rod, substantially as set forth. 4th. In a cash register, the combination with a tablet rod and a toothed register-wheel, of a spring-actuated pawl carried by the tablet rod adapted to engage directly with the teeth of the register-wheel to rotate the same, a key lever, a lifting bar for raising the tablet rod, a device carried by the tablet rod adapted to be moved by the key lever into the path of the lifting bar, and means actuated by the movable element of the till for operating said lifting bar to move the tablet to indicating position and operate the register-wheel, substantially as set forth. 5th. In a cash register, the combination with a tablet rod and a toothed register-wheel, of a spring-actuated pawl carried by the tablet rod adapted to engage directly with the teeth of the register-wheel to rotate the same, a key lever, a lifting bar for raising the tablet rod, a device carried by the tablet rod adapted to be moved by the key lever into the path of the lifting bar, means actuated by the movable elfment of the till for operating said lifting bar to move the tablet to indicating position and operate the register-wheel, and a locking bar for holding the tablet in the indicating position, substantially as set forth. Gth. In a cash register, the combination with a tablet rod and a toothed register-wheed, of a spring-actuated pawl carried by the tablet rod adapted to engage directly with the teeth of the register-wheel to rotate the same, a ke! lever, a lifting bar for raising the tablet rod, a device carried by the tablet rod adapted to be moved by the key lever into the path of the lifting bar, and means actuated by a rotary till cover for operating said lifting bar to move the
tablet to indicating position and operate the register-wheel, substan ${ }^{-}$ tially as set forth. 7 th. In a cash register, the c mbination with a tablet rod and a register wheel, of a device carried by the tablet rod for rotating the register-wheel a lifting bar for raising the tablet rod to expose the tablet and rotate the register-wheel, a device carried by the tablet rod andoperated by a key lever to move it into the path of the lifting bar, said lifting bar being operated by the till cover in opening the same, a locking bar for holding the tablet rod in its elevated position, a pivoted frame carrying said locking bar and operated by a key lever to release the tablet rod on the downward movement of the key, and means for returning the locking bar to its normal position to lock the tablet rod last operated, substantially as set forth. 8th. In a cash register, the combination with a tablet rod and a register-wheel, of a key lever for placing the tablet rod in position to be elrvated, a catch for locking the till cover, a pivoted frame having a locking bar acapted to bold the tablet rod in an elevated position, and a foot adapted to engage with the catch for locking the till cover, said pivoted frame being operated in one direction by a key lever to release the cill cover and in an opposite direction ly the cover to throw the locking bar into engagement with the tailet rod, substantially as set forth. 9th. The combination with a tablet rod, a key lever and the till, of an operative connection between said tablet rod and till controlled by the lever, whereby the tablet rod is elevated by the opening of the till, and a pivoted locking bar for holding the tablet rod in its elevated position, said bar buing placed into locking position by the opening of the till, and out of locking position by the key lever, substantially as set forth. 10th. A register-wheel stamped from sheet metal, having ratchet-t eth and provided with a charter-bearing flange stamped from the body of the whetl. 11th. A registering-wheel stamped from sheet metal, having ratchet-terth cut in the periphery of the wheel, and a character-bearing flange a or $a^{1}$ stamped from the body of the wheel. 12th. A set of register-wheels for cash registers, consisting of two sheet metal discs having ratchet-teeth stamped therefrom and provided with character-bearing flanges, said flanges heing arranged to tolescope and the outer flaige being open at regular intervals to expose the characters on the inner flange, substantially as set forth. 13th. A set of register-wheels for cash registers, consisting of two sheet metal dises having character-bearing flanges and ratchet-teeth stamped therefrom, the characterbearing flanges being arranged to telescope, and the outer flange being spaced at regular intervals to expose the characters on the imner flange, substantially as set forth. 14th. In a cash register, the combination of a series of register-wheels arranged in pair and provided with telescoping character bearing flanges, a normally nonrotating shaft upon which said wheels are loosely mounted, spacing blocks on said shaft between the wheels of each pair, and friction devices carried by said shaft between adjacent pairs or sets of wherls and adapted to rotate the wheels when the shaft is rotated to reset the wheels to zero, substantially as set forth. 15th. In a cash register, the combination with a series of register-wheels, of a shaft upon which said wheels are loosely mounted, a locking device for normally holding said shaft against rotation, a lock for preventing the disengage ment of said locking device, and means for releasing said locking device to permit the rotation of said shaft to reset the registerwheels to zero, substantially as set forth. 16th. In a cash legister, the combination with a series of registe $r$ wheels, of a shaft upon which said wheels are loosely mounted, a locking device for normally holding said shaft against rotation, means controlled by the cover for the sight-opening for releasing the locking device and permitting the rotation of the shaft to reset the register wheels to zero, substantially as set forth. 17 th . In a cash register, the combination of a series of register wheels, a cover for the opening through which the register wheels are visible, a shaft upon which said wheels are mounted, said shaft being capable of endwise and rotary movement to reset the whecls to zero, means for locking said shaft against rotation, said means being disengaged by moving the shaft endwise. and means for locking said shaft against endwise movement, said means being disengaged by the opening of the cover for the sightopening, substantialy as set forth. 18th. In a cash register, the combination of a series of register wheels, a cover for the opening through which thre register wheels are visible, a shaft upon which said wheels are mounted, said shaft being capable of endwise and rotary movement to reset the wheels to zero, an arm carried by said shaft and engaging with the Hange to lock the shaft against rotation, said arm being disengaged by moving the shaft end wise, and a wedge for locking saiil shaft ayainst endwise movement, said wedge being disengaged by the opening of the cover for the sight-opening, substantially as set forth. 19th. A key lever for cash-registers having a body portion essentially U-shaped in cross section and adapted to he pivoted upon a shaft, an inner end adapted to engage with a tablet rod, a depressing end and a character-bearing plate, all stamped and shaped from one piece of sheet metal, substantially as set forth. 20 th. In a cash-register. the combination with a keylever shaft, of key-levers having springs engaging with grooves or depressions in said shaft to hold then against lateral movement on said shaft, substantially as set forth. 21st. In a cash-register, the combination with a key-lever shaft, of a key-lever stamped from sheet metal and having a projection struck from its body portion for engaging with a groove or depression in said shaft to hold the key-lever agrainst lateral movement on said shaft, substantially as as set forth. 22nd. In a cash-register, the combination with a key-
lever shaft, of a key-lever stamped fiom sheet metal and having a spring struck from its body portion for producing friction between said key-lever and shaft, substantially as and for the purpose sut forth. 23rd. A tablet rod for cash-registers made from sheet metal, having a spring struck therefrom for moving a pawl or lever carried by the tablet rod into engagement with a registering-wheel, substantially as set forth. 24th. A tablet rod for cash registers made from sheet metal, provided with a movable device adapted to be engaged by an actuating device and having a spring struck therefrom for holding said device normally out of the path of said actuating device, substantially as set forth. 25th. A tablet rod for cash registers made from sheet metal and having a movable foot pivotally connected thereto by bending the upper part of said foot twice, each bend being substantially at a right-angle, and passing part of same through ia slot in the rod, and said rod having a spring struck from its body and acting against said f(o)t to maintain it in its normal position, substantially as set forth. 26ith. A tablet rod for cash registers made from sheet metal and having a movable lever pivotally connerted thereto and carrying pawls for operating register-wheels, said lever being pivoted to the rod by bending one end thereof twice, each bend being substantially at a right-angle, and passing part of same through a slot in the rod, and said rod having a spring struck fromt its body and acting against said lever, substantially as set forth. 27 th. A tablet rod for cash registers consisting of a body stamped from sheet metal, a foot $b$ pivoted thereto, a part of said body being so cut and bent as to form a spring for said foot, a lever $g$ pivoted to said tablet rod and provided with pawls for operating a register-wheel, and a part of said body leing so cut and bent as to form a spring for said lever, substantially as set forth. 28th. A tablet rod for cash registers made from shert metal of substantially U-shape in cross-section, provided with a movable device beld normally ont of the path of a lifting rod by a spring struck from the back of the rod, a lug on either or both front edges of the rod with which a locking bar engages to hold the tablet in an elevated position, and a lug struck from the upper end of the bar for supporting the rod in its normal position, substantially as set forth.

No. 61,730. Valve. (Soupape.)


Linc. In Alexander Lang, Yule, assignee of Edward Freeman Walsh, St. Paul, berth in Minnesota, U.S.A., 16th November, 1898; 6 years. (Filed 15th Srptember, 1898.)
Claim. - 1st. In a valve gear, the combination substantially as set forth, of a single eccentric, a rodless strap therefor, a first pivot and a second pivot carried by said strap, a pivot fixed near the ecsentric, a link supporting arm mounted thereon, a link pivot carried by the free end of said arm, a link pivoted on said link-pivot, a block adjustable in said link, a connecting bar pivoted to the link and to the first pivot of the eccentric strap, a connection from the second pivot of the eccentric strap to said fixed pivot to restritin the turning of the eccentric strap, and a connection between the second pivot of the eccentric strap, and said link pivot whereby said link pivot is moved toward and from the eccentric. 2nd. In a valve gear, the combination, substantially as set forth, of a single eccentric, a rodless strap therefor, a first pivot and a second pivot carried by said strap, a pivot fixed near the eccentric, a link supporting arm mounted thereon, a link pivot carried by the free end of said arm, a link pivotad on said link-pivot, a block adjustable in said link, a connecting bar pivoted to the link and to the first pivot of the eccentric strap, and an arm mounted on said fixed pivot and connected with the second pivot of the eccentric strap and rigidly connected with said link supporting arm. 3rd. In a valve gear, the combination, substantially asset forth, of a single eccentric a rodless strap therefor, a first pivot and a second pivot carried by said stiap, a givot fixed near the eccentric, a bell-crank mounted on said fixed pivot and having one of its arms connected with the second pivot of the ecerntric s rap, a link pivoted to the other arm of the bellcrank, a link-block adjustable in said link, and a comnecting bar pivoted to said link and to the first pivot of the eccentric strap. 4th.

In a valve gear, the combination, substantially as set forth, of a single eccentric, a rodless strap, a link-block adjustable therein, a connection pivoted to the link and to the eccentric stratp to impart an oscillating movement to the link, and a bell-crank interposed between the link and eccentric and serving to reciprocate the link and to restrain the turning of the eccentric strap. 5th. In a valve gear, the combination, substantially as set forth, of a single eccentric, a ronless strap therefor, a link-supporting pivot mounted ne:ar the eccentric and capable of movement to and from the eccentric, mechanical connections between said pwot and strap for cansing said pivot to nove toward and from the eccentric, a link mounted on said pivot, a block adjustable in said link, and a connection pivoted to said strap and link for oscillating the link upon said supporting pivot.

No. 61,731. Feed Water Filter.
(Filtre pour alimentateurs d'cau.)


William Dougherty, Chester, and William Josiah Alexander, Media, both in I'ennsylvania, U.S.A., 16th November, 1898; 6 years. (Filed 5th July, 1898.)
Claim. - 1st. In a feed water precipitator and filter, the combin ation of a shell, a feed water pipe entering the upper portion of the shell and terminating in a spray head, a stean pipe, upper and lower branch pipes connected with said steam pipe, said branch pipes entering said shell and terminating in spray heads, one above and one lelow the spray head of said feed water pipe, the spray heads of said branch pipes arranged to discharge towards the other, a scum blow-off pipe, a britom blow-off pipe, a lox supported within said shell and having a perforated bottom, a filter situated within said box, and a boiler feed-pipe having its mouth within said box, said piping provided with suitable valves, substantially as described. 2nd. In a feed water precipitator and filter, the combination of a shell, a feed water pipe entering the upper portion of the shell and terminating in a spray head, a steam pipe, upper and lower branch pipes connected with said steam pipe, saidupper branch pipe entering the upper portion of said shell and terminating in a spray head, said spray heads arranged to discharge t wards each other, a perforated diaphragm secured beneath said spray heads, said lower branch pipe entering said shell and terminating in a spray head arranged below and adapted to discharge towards said diaphragm, a scum blow-off pipe, a bottom blow-off pipe, a box supported within said shell and having a perforated bottom, a filter situated within said box, and a boiler feed-pipe having its mouth within said box, said piping provided with suitable valves, substantially as described. 3rd. In a feed water precipitator and filter, the combination of a shell, a feed water pipe entering the upper portion of the shell and terminating in a spray head, a steam pipe connected with said feed water pipe, a steam pipe having upper and lower branches, said upper branch pipe entering the upper portion of the shell and terminating in a spray head, said spray heads arranged to discharge towards each other, a perforated diaphragm secured beneath said spray heads, said lower branch pipe entering said shell and terminating in a spray head arranged below and adapted to discharge towards said diaphragm, a scum blow-off pipe, a bottom blow-off pipe, a box supported within said shell and having a perforated bot$\mathrm{t} \cdot \mathrm{m}$, a filter situated within said box, hand-holes affording access to said box and shell, and a boiler feed-pipe having its mouth within said box, said piping provided with suitable valves, substantially as described. 4th. A water feed precipitator, consisting in the combination of a feed water heater having an inlet pipe adapted for connection with a purp or teed water source, a shell supported higher than said feed water heater, a pipe connected with the outlet of said heater and terminating within the upper portion of said shell, a circulation pipe connected with the inlet pipe of said feed water heater and terminating within the lower portion of said shell, said circulation pipe having a check valve onening from said shell, a boiler feed pipe terminating within the lower portion of said shell, the mouth of said boiler feed pipe opening within the shell above the level of the month of said circulation pipe and below the
mouth of the pipe from the heater outlet, said shell provided with a blow-off pipe, substantially as described. 5th. A feed water precipitator, having in combination with a boiler, a feed water heater, a shell supported higher than said boiler and feed water heater, a feed water pipe connected with the outlet of said heater and entering the upper portion of said shell, said feed water pipe possessing a check valve opening towards the shell, a circulation pipe entering the lower portion of said shell and having a check valve opening from said shell, said circulation pipe connected near the inlet of said feed water heater, a steam pipe connected with said boiler and entering the upper portion of said shell, a boiler feed pipe entering the lower portion of said shell and passing into said boiler, said shell provided with pipes arranged to discharge scum and deposited matter, the piping having suitable cut-off valves, substantially as described. 6th. A feed water precipitator and filter, having in combination with a boiler, a feed water heater, a shell supported higher than said boiler and feed water heater, a feed water pipe connected with the outlet of said heater and entering the upper portion of said shell, said feed water pipe possessing a check valve opening towards the shell, a circulation pipe entering the lower portion of said shell and having a check valve opening from said shell, the mouth of said circulation pipe within said shell opening downwardly, said circulation pipe connected near the inlet of said feed water heater, a steam pipe connected with said boiler ant entering the upper portion of said shell, a box supported within said shell and having a perforated bottom, a filter situated withon said box, a boiler feed pipe entering said shell and box and opening above said filter, said feed pipe passing into said boiler, said shell provided with pipes arranged to discharge scum and deposited matter, the piping having suitable cut-off valves, substantially as described.

No. 61,732. Separator. (Séparateur.)


The A. A. Griffing Iron Company, No. 449 Communipan Avenue, New Jersey, assignet of Edward Peter Waggoner, Syracuse, New York, all in the U.S. A., 16th November, 1898; 6 years. (Filed 14 th April, 1898.)
Claim.-1st. A separator comprising a frame having openings for the passing fluid, separating surfaces arranged in the path of said fluid, and enclused conduits for the oil or other material to be separated, said conduits being arranged at the rear of the separating surface, and having inlet-openings arranged in proximity to said separating surfaces, and means for conducting the passing fluid to and from the frame, substantially as and for the purpose described. 2nd. A separator comprising an enclosing shell or casing, a frame removably arranged within the enclosing shell or casing and having openings for the passing fluid, separating surfaces arranged in the path of said fluid, enclosed conduits for the oil or other material to be separated, said conduits being arranged at the rear of the separating surfaces and having inlet-openings arranged in proximity to the separating surfaces, and having outer-openings in their lower ends, conduits for conducting the passing fluid to and from the enclosing shell or casing, and a re eiving chamber arranged beneath the enclosing shellor casing and communicating with the outlet-openings of the conduits of the frame, substantially as and for the purpose specified. 3rd. A separator comprising an enclosing shell or casing a frame removably arranged within the casing or shell and composed of separable sections, each section having openings for the passing fluid, separating surfaces arranged in the path of said fluid, and enclosed conduits for the oil or other material to be separated having inlet-openings extending forwardly from the separating surfaces, the openinge of one of said sections being arranged out of alignment
with the corresponding openings in an adjacent section, and means for conducting the passing Huid to and from the enclosirg shell or casing, substantially as and for the purpose set forth. 4th. A separator comprising a frame provided with a plurality of bars having adjacent edges thereof separated, said bars being each formed with transverse shoulders, grooves extending upwardly from the shoulders, and a lengthwise enclosed conduit communicating with the lower ends of the grooves, and means for conducting the passing fluid to and from the frame, substantially as and for the purpose described. Eth. A separator comprising an enclosing shell or casing, a frame composed of separable sections removably arranged one in advance of the other within the enclosing shell or casing, each section being provided with a plurality of hars united at their opposite ends anil having adjacent edges thereof separated, the bars of one section being arranged out of alignment with the bars of contiguous sections, and having their front and rear faces separated from the bars of said contiguous sections, and each of said bars having its front or advance face formed with transverse shoulders, and grooves interposed between the shoulders and decreased upwardly in depth and being provided with a lengthwise enclosed conduit communicating with the lower ends of the grooves and having an outlet-opening in its lower end, conduits for conducting the passing fluid to and from the enclosing shell or casing, and a receiving chamber communicating with the outlet-openings of the lengthwise conduits in said bars, substantially as and for the purpose specified.

No. 61,733. Mustache Guard. ( (iarde'moustache.)


61733

Flizabeth C. Donaldson, Detroit, Michigan, U.S.A., 16th November, 1898 ; 6 years. (Filed 18th July, 1898.)
Claim.-lst. A detachable mustache guard consisting of an elongated body curved in cross-section and convexed on its upper surface adapted to be placed inside of and below the top edge of a drinking vessel to which it is attached, combined with movable hooks pivoted to opposite upper corners of the body, said hooks to be turned upon the body so as to adapt them to fit vessels of different sizes, the ends of the body being round so as to fit against the inner surfaces of said vessel, substantially as described. 2nd. A detachable mustache guard formed with an integral body to extend to opposite sides of a drinking vessel, combined with attaching hooks jointedly connected with the extremities of said lody by upright pivot pins, substantially as described. 3rd. A detachable mustache guard formed with an elongated body to extend to opposite sides of a drinking vessel and projecting downward from the rear edge to the front edge thereof, combined with movable attaching hooks pivoted to opposite edges of said body, each of said hooks having an arm projecting laterally from the lower portion of the hook, said arms being jointedly comnected with said body, substantially as described. 4th. A detachable mustache guard formed with an integral boxdy to extend to opposite sides of a drinking vessel curved in cross-section and projecting laterally from the rear edge to the front edge thereof, combined with movable attaching hooks at opposite ends of the body, each of said hooks formed with a laterally projecting arm jointedly connectet with said body, said hooks located at the rear of the extremities of the body and turned upward to fit against the inner surface of the drinking utensil, the outer ends of the attaching hooks bent over and downward to fit over the upper edge and against the outer surface of the vessel, said hooks arranged to turn in opposite directions upon said body, substantially as described.

## No. 61,734. Lobster Trap. (Parc ì homards.)

Charles A. Woodman, Alberton, Prince Edward Island, Canada, 16th November, 1898 ; 6 years. (Filed 15th August, 1893. )
Claim.-1st. A lobster trap, comprising a plurality of sides foldably commected together, and netted ends pivetally mounted in said sides, and adapted to be folied inwardly on to one of said sides, substantially as described. 2nd. A lobster trap, comprising a plurality of
sides foldably connected together, a catch located on one of said sides and adaped to hold said trap in its operative prsition, and

netted ends pivotally secured on said sides and adapted to be folded inwardly on to one of said sides, substantially as described.

No. 61,735. Sewing Marhine for Lasting Boots or Shoes. (Machine do coudre pour chaussures.)


Napoleon Goddu and George Goddu, both of Winchester, Massachusetts, U.S.A., 16th Noven!ber, 1898; 6 years. (Filed 12th October, 1898.)
Claim.-1st. A machine for lasting by sewing, made up of a sewing-machine, and its work-holder composed of a last as the inner clamping member and a plurality of independent pressers on all sides of the last, as the outor clamping nembers, organized to hold the edge of the upper and a lip on the inner sole in position to be sewed together by the sewing machine, substantially as described. 2nd. In combination, a lasting-machine comprising a support for the last, and independent pressers to hold the upper in place on the last with the edge of the upper in position to be srwed to a lip on the inner sole, a sewing-machine, and means for supporting and actuating the sewing-machine which permit it to be moved into all the positions necessary to sew the upper to the lip on the inner sole while held in the lasting machine by the last of the inner clamping member and the pressers as the outer clamping member, all organized to operate, substantially as described.

No. 61,736. Tent or Booth. (Tente et pacillom.)


Juan Watson Ernest, New York City, New York, U.S,A., 16th November, $1898 ; 6$ years. (Filed 12th October, 1898.)
Claim.-1st. In a tent or booth, a central member or frame comprising a series of rafters pivotally connected together at one of their ends, so that the ends impinge against and brace each other, and a serits of braces or bars forming a circuit at the other end of the rafters, the end of said braces or bars heing lapped upon the rafters, and attached thereto with pins or bolts, the braces being of a length to hold the rafters elevated at the centre, thus forming a strong self-supporting frame. 2nd. In a tent or booth, a central member or frame comprising a series of rafters pivotally connected at one of ther ends and adapted to fold upon themselves, a series of braces or bars in pairs pivotally attached at one of their ends to the onter ends of rafters, the other ends being detachably attached to the next rafter when the frame is expanded, forming a complete circuit of the ends of the rafters and swinging up parallel with the rafters when folded, said braces or bars being secured together near one end thereof by a shoulder rivet or similar device. 3rd. In a tent or booth, a central member or frame comprising a serif's of rafters pivotally connected at one of their ends so that they may bear against and brace each other and adapted to fold upon themselves, and a series of braces or bars which are provided with pieces of metal projecting at their ends, to lap upon the rafters, said braces being attached thereto with pins or bolts through their lapping ends to the rafters, and when expended forming a circuit of braces and constituting a self-supporting frame, substantially as and for the purpose set forth. 4th. In a tent or booth, a central member or frame comprising a series of rafters pivotally connected at one of their ends and adapted to be held rigid at the apex thereof by bracing against each other when extended, a series of metal anglebraces and sockets attached to the other end thereof, and a series of braces forming a circuit at the outer end of the rafters when expanded, the ends of said braces or bars being lapped upon the raftersand attached thereto, with pins or bolts, the braces being of a suitable length to hold the rafters elevated at the centre, and said angle braces also being suitably braced thus forming a frame that is self-supporting, substantially as and for the purpose specined. 5th. In a tent or booth, a central member or frame comprising a series of rafters pivotally connected at one of their ends and adapted to fold upon themselves, and when expanded to rise to an apex in their centre, a series of suitable braces the ends of which lap upon the rafters and are attached thereto with pins or bolts, said braces connecting the rafters and forming a circuit near the onter ends thereof and attached to the outer end of each rafter is a metal angle brace, provided with sockets and a series of legs removably attached to said sockets, substantially as and for the purpose suecified. 6th. A tent or booth, comprising the combination of a suitable skeleton frome of rigid material with a side covering of flexible material extending almost to the eaves and a flexible top covering extending over the eaves to connect with the said side covering to enclose the tent, and provided with strips of rigid material each of which is provided at one end with a small hole or opening by which it is secured to the outer-erge of said top, the opposite end being provided with a slot in the and thereof, ind a keyhole adjacent thereto, said slot and keyhole being adapted to ongage the shanks of screws or bolts which are partially inserted in said rafters adjacent to the outer ends thereof whereby the outer edge of the top covering may be held out to provide means for ventilating and lighting the interior and for a better external appearance. 7 th. In a tent or booth, a central member or frame, comprising a series of rafters pivotally connected at one of their ends and adapted to fold upon themselves, and then expanded to
rise to an apex in their centre, the outer ends of said rafters being provided with a series of suitable braces the ends of which lap upon the rafters and are attached thereto with pins or bolts, said braces connecting the rafters and forming a circuit, and a series of metal braces angling near the centre of their length and rectangular in transverse section, one end of which is provided with threaded bolts removably attaching a series of legs and to rigidly hold them to the rafters, substantially as and for the purpose specified. 8th. The combination in a tent or booth. of the central member or frame comprising a series of rafters pivotally connected at one of their ends, to fold upon themselves, and when extended to rise to an apex at the pivotal connection, the outer ends of said rafters being provided with metal braces with sockets angular in crosss-section, a series of braces or bars connecting the free ends of the rafters and forming a circuit and a serits of legs adapted to engage with sockets and support the frame. 9th. In a tent or booth, the combination of a series of rafters pivotally connected at one of their ends to fold upon themselves and a series of metal braces with sockets which are angular in cross-section, said braces being bent centrally to form an obtuse angle, and each being provided with a threaded bolt or thumb-screws to removably attach one end with a suitable leg. the other end being attached to the outer end of one of said rafters. 10th. The combination in a tent or booth, of a series of rafters, upon the outer ends of which are secured metal angle-braces with sockets provided with screw-threaded bolts, the other ends of said rafters being pivotally connected with a central ring and adapted to fold upon themselves, a series of legs adapted to enter said sockets, and a number of panels or sections of rigid material $4 x$ tending from one leg to the next, and being detachably secured thereto, substantially as and for the purpose herein specified. 11th. A tent or lwoth comprising the combination of a series of rafters pivotally connected at one of their ends, a series of legs adapted to support said rafters, a series of metal angle braces with angular sockets adapted to detachably unite said lags and rafters, and a series of bars or long braces adapted to grip the outer end of rafters between the ends of braces, substantially as herein specified. 12th. A tent or booth comprising the combination of a series of rafters pivotally connected at one of their ends and a hole through their other ends, a series of braces connecting said rafters, a series of metal keys consisting of a rod with a handle formed at one end thereof and a shoulder adjacent to said handle, the other end being provided with a lug or projection, and a washer having a circular inclined plane adjacent to an opening formed therein, to impinge the ends of braces against the rafters by the operation of said key upon the circular inclined plane. 13th. In a tent or booth, a flexible top covering and thin strips or hars of rigid material provided with attaching-holes whereby one end of said bar may be attached to the top covering of the tent or booth, and the other end being provided with a slot in the end thereof and a keyhole adjacent thereto, said slot and keyhole being adapted to tngage the shanks of screws or bolts suitably mounted on the central member, whereby means is provided to hold the flexible top covering extended at its edge. . 14 th . In a tent or booth, a series of suitable legs and a side covering of flexible material, extending nearly to the eaves, and which is provided with eye-lets at the lower edge thereof and with rings, loops or holes at the upper edge thereof, said legs having a pin or projection at their lower ends adapted to engage the eye-lets attached to the lower edge of the side covering, and having a strap, rope, or thong attached near the upper ends of legs to engage the rings, loops, or holes near the upper edge of the side covering, substantially as specified. 15th. In a tent or booth, an angular brace, the same being provided with a leg-socket and a rafter-sockets said sockets being rectangular in transverse section, the rafter-socket being adapted to be secured to a rafter by screws or bolts, and the legsocket being adapted to be spcured to a leg by a thumb-screw, substantially as and for the purpose specified. 16th. In a tent or booth, folded braces pivoted to suitable rafters near their outer ends and exten ling successively from one rafter to the next, and folding letween the rafters when packed for shipping but when extended for use holding the rafters rigidly fixed and bracing against each other, substantially as and for the purpose specified. 17th. In a tent or booth, a flexible top covering and thin strips or bars of rigid material provided with attaching hole whereby one end of said bar may be attached to the top covering of the tent or booth and the other end provided with suitable means for detachably attaching it to the frame of the tent to hold the flexible top covering to the frame and extend it beyond the sides of the tent.

## No. 61,737. Pneumatic Motive Power. <br> (Force motrice pmeumatiquc.)

Louis H. Mayer, Philadelphia, Pennsylvania, U.S.A., 16th November, 1898 ; 6 years. (Filed 9th September.)
Claim.--1st. In a device of the character described, gates for dividing the main tube into sections, consisting of an encasement divided into chambers, the forward one being of larger dimensions than the rear one, said chambers being separated by an air-tight partition, the forward chamber provided with a reciprocating movable gate having a rearward plate, from the centre of which extends a piston rod extending through stuffiing box of the partition that divides the chambers of the encasement and thence passes rearwardly and is connected by a nut bolt to a disc head, the periphery of which nonforms to the inner surface of the smaller cham
ber, in combination with branch pipes having inlets within said chamber at opposite sides of the disc head of the piston, the branch

pipes being connected to a main exhaust tube, and means for opening and closing said branch pipes, whereby as air is exhausted from either surface of the piston head disc, the gate connected to the piston will reciprocate within the encasement, as and for the purpose inetnded, substantially as described. 2nd. In a pneumatic motive device of the character described, a main slotted tube, a piston adjusted to travel within said main tube and having a grip arm extending outwardly through the slot of the tube connected to gear wheel of mechanism outside of the tube, said grip arm having an upturned branch, to the outer end of which is connected a bar for opening and closing valves of pipes connected to the main tube, said uptarned branch of the grip arm supplied with bent coulter, all in combination with slot valve gates having outwardly extending friction rollers, one above the other, which the coulter as the piston traverses the main tube will canse to consecutively open and close said slot, substantially as described, 3rd. In a pneumatic motive device of the character described, a tube with a slot extending lengthwise thereof, the tube at one side of said slot having an outwardly extending flange, the tube at the opposite side of the slot provided with an uprising back plate in combination with slot valves adapted to slide in alignment with said back plate, and when actuated to close the slot and rest upon the tube flange at side of the slot, said slot valves being each provided with two friction rollers, one above the other in vertical alignment, and bent conlter extending from grip arm of a piston moved within the tube by exhaust of air therefrom, the upturned bent portion of the coulter as it progresses by engagement with the upper friction roller extending from the valve gate lifts said valve gate outwardly from the tube slot and the downwardly bent portion of the coulter when brought into engagement with lower friction roller extending from the valve gate forces it within the tube slot and closes it, substantially as described.

No. 61,738. Machine for Forming Edges on Pipe Plates. (Marhine à former les rchords sur les plaques de tuyaux.)


Nephan Ferguson, Olderfleet, Collins Street, Melbourne, Victoria, Australia, 16th November, 1898; (i years. (Filed 22nd July, 1898.)

Claim. -1st. In a machine for forming dove-tail or approximately dove-tail edges on plates to be used in the manufacture of rivetless pipes a bed such as $A$, made in two parts longitudinally with distance pieces such as $A^{1}$, and having planed guide ways such as $a^{1}$, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings. 2nd. In a machine for forming dove-tail or approximately dove-tail edges or plates to be used in the manufacture of rivetless pipes, a travelling saddle such as $B$, comprising two castings adapted to slide along planed guideways and connected together by tie-bolts such as $b$, substantially as and for the purposes herein described and explained
and as illustrated in the accompanying drawings. 3rd. In a machine for forming dove-tail or approximately dove-tail edges on plates to ber used in the manufacture of rivetless pipes, a travelling saddle or saddles such as B E, fitted with a set of cutters such as F, arrangod slightly in advance of each other together with a set of correspondingly arranged rollers such as C , sulbstantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings. 4th. In a machine for forming dove-tail or approximately dove-tail edges on plates to be used in the manufacture of rivetless pipes the combination with a holding down beam or beams or girders such as $K$, of a pair or pairs of hydraulic cylinders such as $L, M$, the one to draw down and the other to raise said beam or beams, substantially as and for the purpose herein described and explained and as illustrated in the accompanying drawings. 5th. In a machine for forming dove-tail or approximately dove-tail edges on plates to be used in the manufacture of rivetless pipes a screw-threaded shaft such as $G$, in combination with a travelling support or supports such as $J$, moved at or about one-half the speed of the saddle or saddles operated by said screw-threaded shaft, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings. 6th. In a machine for forming dove-tail or approximately dove-tail edges on plates to be used in the manufacture of rivetless pipes, a screwthreaded shaft such as (i, for operating the tool carrying saddle or saddles in combination with a set of conical anti-friction rollers such as $g^{5}$, bearing against the face of a collar on said shaft, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings. 7th. In a machine for forming dove-tail or approximately dove-tail edges on plates to be used in the manufacture of rivetless pipes, a pair of vertically adjustable rollers such as D , for regulating the thickness of the upset or dove-tail or approximately dove-tail edge of the plate, substantially as and for the purposes herein deseribed and explained and as illustrated in the accompanying drawings.

No. 61,739. Wrench. (Clé ì éfrou.)


Virgile Delavelle, Montreal, Quebec, Canada, 16th November, 1898 ; 6 years. (Filed 27 th June, 1898.)
Claim.-1st. A wrench, conprising a handle, a rod extending outwardly therefrom, said rod being provided with oppositely-disposed screw-threads, and two jaws mounted on said rod, each jaw being mounted on a different screw-threaded portion, said jaw being movable toward and from each other caused by the rotation of said handle, substantially as described. 2nd. A wrench, comprising a handle, a rod extending therefrom, said rod being provided with oppositely-disposed screw-threaded portions, the screw-threads of said portions being arranged at a different pitch, and two jaws mounted on said screw-threaded portion, each jaw being on a separate portion, said jaws being movable towar 1 and from each other caused by the rotation of said hancile, said movement being at a different degree of rapidity, substantially as described.

No. 61,740. Medicine Spoon. (Cuillere.)


Franz Joseph Mohr, Kessenich near Bonn, Rheinweg 16, Germany, 16th November, 1898; 6 years. (Filed 2nd July, 1898.)
Claim-1st. A medicine spoon comprising a handle, a bowl having indicated thereon regular sub-divisions of the bowl, and a mouth
piece extending from said bowl and having therein depressions adapted to receive pills or pellets, substantially as described. 2nd. A medicine spoon comprising a jointed handle, a bowl having indicated thereon regular sub-divisions of the bowl, and a month piece extending from said bowl and having therein depressions adapted to receive pills or pellets, substantially as described.

No. 61,741. Wrapping Paper. 'Papier à enveloper.)


Horace Blackman, Henry Cone, and Burton J. Neill, all of San
Francisco, California, U.S. A., 16th November, 1898 ; 6 years. (Filed 12th October, 1898.)
Claim-1st. As a new article of manufacture, wrapping fabric having a series of bendable pieces secured thereto and located at intervals to permit the separation of portions of the tabric of various sizes, said bendable pieces being capable of remaining in any shape to which they are bent, substantially as described. 2nd. As a new article of manufacture, a roll or web of wrapping fabric having a series of parallel bendable pieces embedded therein and extending transver-ely across the fabric from one side to the other and located at intervals to permit portions of the fabric of various lengths to be severed from the main portion, the said hendable pieces being capable of remaining in any shape to which they are bent, substantially as described.

No. 61,742. Tire Shrinker and stretcher.
(Rétrécisseur ct tondeur de bandages.)


Walter A. Ellis, Altoona, Iowa, U.S.A., 17th November, 1898; 6 years. (Filed 12th August, 1898.)
Claim.-1st. In a tire shrinker, the plates 11 and 12 , pivoted to the base 20 and having ratchet faced top surfaces at their free ends, adjustable blocks 13 and 14 fitted to the said ends of the said plates, a block 27 , adjustably placed on the said base, eccentrics 18 , pivoted to the said plates 10 and 11 and means for operating the said plates and eccentrics in the manner set for ih for the purposes stated. 2nd. A tire shrinker comprising a flat base, two plates pivotally connected on top of the base to a lever, an eccentric pivoted on the top of each of said plates, an adjustable block connected with the free end of each one of the pivoted plates, a block slidingly placed between the said adjustable blocks, a lever pivoted to the base and connected with the said plates by means of links, and rods pivotally connected with said lever and the eccentrics, all arranged and combined to operate in the manner set forth for the purposes stated.

No. 61,743. Grinding Machine. (Aiguiserie.)


Walter Charles Baker, Cleveland, Ohio, U.S.A., 17 th November, 1898 ; 6 years. (Filed 25th August, 1898.)
Claim.-1st. In a grinding-machine of the character set forth, the combination with the wheel for grinding the exterior of the article, of a slide-rest upon which said wheel is mounted and is operated, said slide-rest being adjustable along the length of the bed of the machine, adjustable horizontally in a circle, in relation to its base, and adjustable in directions at right angles to each other, substantially as shown and described. 2nd. In a grinding-machine of the character set forth, the combination with a rotary chuck, adapted to hold and rotate the article, of a reciprocating exterior grinding. wheel mounted and operating upon an adjustable slide-rest, said slide-rest being swivelled to a base, the base, in turn, adapted to be adjusted along the bed of the machine, and means for automatically reciprocating said grinding-wheel above the swivelled connection, substantially as set forth. 3rd. In a grinding-machine of the character indicated, the combination with a rotary chuck, of a rotating and reciprocating grinding-wheel or cutter adapted to operate upon the exterior of the article, said grinding-wheel swivelled, in relation to the bed of the machine and the chuck, for the purpose of regulating the range of feed, and means for adjusting the extent of the reciprocation and the cut located above said swivelled portion, with means for automatically reciprocating the grinding-wheel or cutter along the range of feed, substantially as set forth. 4th. In a grinding-machine of the character set forth, the combination with a rotary chuck, of grinding-wheels mounted and operated upon slide-rests, said slide-rests beling adjustable along the length of the bed of the machine, and both provided with sections, which are automatically reciprocated, thus in turn reciprocating their respective grinding-wheels, and sections movable in relation to said automatically reciprocated sections, said movement being in the same direction as the reciprocation, whereby the wheels may be removed from their work quickly, substantially as and for the purpose set forth. 5th. In a grinding-machine of the character set forth, the combination with the rotating chuck for holding and rotating the article to be operated upon, of a grinding-wheel or cutter, said grinding-wheel or cutter being mounted upon and automatically reciprocated by a suitablyoperated slide-rest, said slide-rest, in turn, being provided with means substantially as set forth, whereby the grinding wheel may be quickly removed from the work, in line with its range of feed or reciprocation, substantially as and for the purpose set forth. 6th. In a grinding machine of the character set forth, the combination with the rotating chuck adapted to hold and rotate the article to be operated upon, of a grinding-wheel for operating upon the interior of the article, said wheel being mounted upon a slide-rest, which is automatically reciprocated in line with the axis of the article, thus, in turn, reciprocating said wheel, in combination with an adjustable lever, and a cam for operating in conjunction with said lever, to automatically reciprocate the said slide-rest and wheel, the cam, in turn, being so connected to said slide-rest as to move with the same as the slide-rest is adjusted along the length of of the machine, substantially as and for the purpose set forth. 7 th. In a grinding machine of the character set forth, the combination with a rotating chuck for holding and rotating the article to be operated upon, of a grinding-wheel or cutter for operating upon the exterior of the article, said grinding-wheel or cutter mounted upon an automatically reciprocating slide-rest, said slide-rest being swivelled and adjustable lengthwise, in relation to the bed of the machine, and a rack and pinion mechanism located above the swivelled portion of the slide rest, a shaft connected to said pinion and adjustable rocking levers connected with and operated by a cam, for the purpose of automatically reciprocating the upper portion of the slide-rest, said cam being so connected to the slide-rest as to move with the same, as the slide-rest is adjusted along the be of
the machine, substantially as and for the purpese set forth. 8th, The combination, in a grinding machine, of a rotating chuck. grinding-wheels operating upon the interior and exterior of the article, means for adjusting said grinding-wheels in relation to the work, means for removing said grinding-wheel from the work independent of the reciproating mechanism. and cans operating adjustable levers for automatically reciprocating the grinding-wheel, both cans bring mounted upon and operated by a single shaft, and both cams being removable along the shaft, sulostantially as and for the purpose set forth. 9th. The combination, in a grinding-machine, of a rotary chuck, a rotary reciprocating interior grinding whee], a rotary reciprocating exterion grinding-wheel, means for auto matically reciprocating troth wheels along their range of feed, means for adjusting both wheels in relation to the work, means for adjusting both wheels along the bed of the machine, and in relation to such ioed, means for horizontally adjusting both wheels in relation to the work, cams and adjustable levers with suitable intervening neechanism for automatically reciprocating said wheels along their range of feed, or line of work, and inderendent means for removing the wheels from the work, in a line with the range of feed, without interfering with a set of said wheels, subsiantially as and for the purpose set forth.

No. 61,744. Tire Tishtener.
(Apprereil it assujctir les lemeleyes.)


James Henry Osten, White City, Kausas, I.N.A., 17 th November, 1898; 6 years. (Filed 31st August, 1898.)
Claim.- A device of the class described, designed to be applied to a wheel after the same has become worn and adapted to tighten the tire, and comprising a strip, of metal designed to be driven between the tire and the felly and adapted to extend longitudinally of the same and provided at one side with a longitudinally-disposed bevelled edge 2, forming a wedge-shaped portion to enable the device to be readily forced in position, and the lips 5 arranged at intervals throughout the length of the strip at each of its side edges and adapted to be bent in opposite directions to engage the opposite faces of the wheel, the lips at the bevelled edge of the strip, being bevelled or wedge-shaped, substantially as described.

No. 61,745. Toy Boat. (Bateru-jouct.)


Josiah Thomas Crawley, Honolulu, Hawaiian Islands, 17th November, 1898; 6 years. . (Filed 19th September, 1898.)

Chaim.-1st. The herein described method for propelling a boat, consisting of partly filling the boat with a liquid and then generating a gas in the compartment containing the liquid, to force the latter through a minute outlet in a rearward direction into the water in which the vessel is floating, substantially as shown and described. 2nd. As a new article of manufacture, a toy boat, having a closed hull adapted to receive a liguid and gas producing substances, and a minute diseharge pipe leading from the botton of the hull in a rearward direction, substantially as shown and described. 3rd. As a new article of manufacture, a toy boat consisting of a closed hull adapted to be partly filled with water, a minute discharge pipe leading from the bottom of the hull in a rarward direction in aligmment with the keel of the boat, a shelf wichin the hull, and adapted to sustain chemicals, and a filling opening on said hull and normally closed by a screw cap, substantially as shown and described.

No. 61,746. Seeding and Fertilizing Machine.
(Semoir et muthine à engraisser.)


James Samuel Heath, Toronto, Ontario, Canada, 17 th November, 1898; 6 years. (Filed Sth October, 18:S.)
Claim.-1st. In a sueding machine in which independent drag bars are used, a drag bar, a divided puadrant plate pivoted to the drag bars, and locking mechanism connecting the quadrant plate with the drag bars, in combination with a drill hor, ribs or flanges formed on its front side and adapted to fit into grooves formed in the parts of the quadrant plate, and a pinch bolt passing through the said parts and adapted to clamp them on the aforesaid ribs or flanges, sulostantially as and for the purpose specified. 2nd. In a seeding machine in which independent drag bars are used, a drag bar, a divided quadrant plate supported by the drag bar, in combination with a drill hoe, ribs or flanges formed on its front side and adapted to fit into grooves formed in the parts of the quadrant plate, and a pinch bolt passing through the said parts and adapted to clamp them on the aforesaid ribs or flanges, substantially as and for the purpose specified. 3rd. In a seeding machine in which independent drag bars are used, a drag bar, a divided quadrant plate supported by the drag bar, in combination with a drill shoe, ribs or flanges formed on the front side of the grain tube of the shoe, and adapted to fit into grooves formed in the parts of the quadrant plate, a pinch bolt passing through the said parts and adapted to clamp them on the aforewaid ribs or flanges, a brace extending forward from the front of the shoe, and detachable connection between the front of the brace and the drag bar, substantially as and for the purpose specified. 4th. In a seeding machine in which independent drag bars are used, a drag bar, a quadrant plate supported ly the drag bars, in combination with a drill shoe, the grain tube of which is detachably connected to the said quadrant plate, a brace extending forward from the front of the shoe, and a detachable connection between the front of the brace and the drag lars, substantially as and for the purpose specified. 5th. In a seeding machine in which the inde pendent drag bars are used, a drag bar, in combination "ith a drill shoe, the grain tube of which is detachably connected to the rear of the said drag bars, a brace extending forward from the front of the shoe, and a detachable connection between the front of the brace and the forward part of the drag bar, substantially as and for the purpose speeified. 6th. In a seeding machine in which independent drag bars are used, a drag bar, a quardrant plate pivoted thereto, and having a notched slot formed therein, thecentres of the notches being on the arc of acircle struck from the pivot point, in combination with hraces having their lower ends connected liy a bolt adapted to enter the said notches, locking mechanism to which the other ends of the said braces are pivoted, a hook embracing the bolt connecting the braces, and extending up through a slot in the quadrant plate
and a spring arranged to act upon the said hook to retain the brace bolt in any of the notehes desired, substantially as and for the purpose specified. 7 th. In a seeding machine in which independent drag bars are used, a drag bar, a quadrant plate pivoted thereto, and braces pivo: ally connected to the said plate, in combination with a locking lever pivoted within the drag bar and having a rectangular gap formed in the underside of its forward end, an adjusting bolt having its certral portion square in section so as to fit the said zap in any position, square cheeks formed on the bolt and adaptel to rest on the drag bars, eccentric studs on the ends of the bolt upon which the braces are pivoted, and a spring acting on the drag bars and locking lever tending to retain the latter in its normal position, substantially as and for the purpose specified. 8th. In a seeding machine in which independent drag bars are used, a drag bar, a quadrant plate pivoted thereto, and braces pivotally connected to the said plate, in combination with a locking lever picoted within the drag bar and having a rectangular gap formed in the underside of its forward end, an adjusting bolt having it central portion square in section so as to fit the sa:d gap in any position, square cheeks formed on the bolt and adapted to rest on the drag bars, eccentric studs on the ends of the bolt upon which the braces are pivoted, a plunger pivotally connec ed to the lower end of the locking lever, and having a notch or hole near its forward end, a plunger guide secured to the drag bar and slotted for the passage of the plunger, and a spring setting against the said plunger guide, and a pin or washer on the plunger, substantially as and for the purpose specified. 9th. In a seeding machine, in which independent drag bars are used, a drag bar, a quadrant plate pivoted thereto, and braces pivotally connected to the said plate, in combination with a locking lever pivoted within the drag bar, an adjusting bolt adapted to engage the end of the locking lever in two or more positions, eccentric studs on the ends of the bolt upon which the braces are pivoted, and a spring acting on the drag bar and locking lever tending to retain the latter in its normal position, substantially as and for the purpose specified. 10th. In a seeding machine in which the independent drag bars are used, a drag bar, a quadrant plate pivoted thereto, and braces pivotally cennected to the said plate, in combination with a lccking lever pivoted within the drag bar, an adjusting bolt adapted to engage the end of the locking lever in two or more positions, eccentric studs on the ends of the bolt upon which the braces are pivoted, lips formed on one side of the outer end of each stud to retain the braces in position, and a spring acting on the drag bar and locking lever tending to retain the latter in its normal position, substantially as and for the purpose specified. 11th. In a seeding machine in which independent drag bars are used, a drag bar, a quadrant plate pivoted thereto, and braces pivotally connected to the said plate, in combination with a locking ever pivoted within the drag bar, and having the braces pivoted to its uppur end, means for shifting the relative position of the pivots of the braces and the locking lever, a plunger pivotally connected to the lower end of the locking lever, a plunger guide connected to the drag bars and slotted for the passage of the plunger, and a pring acting against the said plunger guire and a pin or washer on the plunger, the plunger having a notch or hole formed therein through which a pin may be passed to engage the forwand side of the plunger guide to maintain the spring in compression while the relative position of the aforesaid centres is being changed, substan tially as and for the purpose specified. 12 th . In a seeding machine in which independent drag bars are used, a series of drag bars pivotally connected with the forward part of the frame of the machine a vertical bar pivoted to each drag bar, a slipper on each vertical bar, a pin through the upper end of each vertical bar, in combin ation with two or more arms pivoted on the frame of the machine above the drag bars, a shaft rigidly sezured to the said arms, a series of arms corresponding in number to the drag bars rigidly secured to the said shaft, and each pivotally connected to a slipper, and means for adjusting the height of the said shaft, substantially as and for the purpise specified. 13th. In a speding machine in which independent drag bars are used, a drag bar pivotally comnected with the forward part of the machine, a vertical bar pivoted to the drag lar. a slipper sliding on the said vertical bar, trunnions on the said slipper, the centre line of which intersects the vertical axes of the slipper, a swinging arm in which the said trumnions are journalled and means for swinging and adjusting the said arm, sub) stantially as and for the purpose specified. 14th. In a seeding machine in which independent drag bars are used, a drag bar pivot ally connected with the forward part of the machine, a vertical bar pivoted to the dray bar, a sliper sliding on the sand vertical bar, trunnions on the said slipper, the centre line of which intersects the vertical axis of the slipper, lugs on the slipper behind the trunnion, an alm with jaws formed at the end, the jaws being gapped to receive the trumnions, shoulders formed at the back of each gap to engage the lugs on the slipper when the latter is in working position, and means for swinging and adjusting the said arm, substantially as and for the purpose specified. 15 th. In a seeding machine in which independent drag hars are used, a series of drag bars, two shafts journalled in the frame of the machine, a series of arms extending from each shaft to which alternate drag bars are pivotally connected. segment gears connected to the said shafts and meshing with one another, an arm extending from one of the shafts, a connecting rod pivoted at one end to the said arm, a notched quadconnecting rod pigidly supported by the axle of the machine, a hand lever
pivoted on the said quadrantbelow the level of the axle, and an arm extending upwardly from the lever to which the other end of the said connecting rod is pivoted, substantially as and for the purpose specified. 16ith. In a seeding machine in which independent drag bars are used, a series of drag bars, two shafts journalled in the frame of the machine, a series of arms extending from each shaft to which alternate drag bars are pivotally connected, segment gear connected to the said shafts and meshing with one another, an arm extending from one of the shafts, a connecting rod pivoted at one end to the said arm, a bar extending from end to end of the frame of the machine above the axle, a notehed quadrant rigidly secured to the axle and the said bar, a hand lever pivoted on the said quadrant below the level of the axle, and an arm extending upwardly from the lever to which the other end of the said connecting rod is pivoted, substantially as and for the purpose specified. 17 th . In a seeding machine, a grass seed distributor comprising a casing and a grooved feed roll journalled therein and fitted so that no seed can escape at the ends of the roll, the casing forming a bopper extonding down to feed roll and provided at one side of its lower end witl: a lip closely fitting the side of the roll, and at its other side with an easy fitting lipextending substantially to or beyond a vertical plane through the axis of the feed roll, the casing being also provided with a discharge opening extending up to the underside of the feed roll, in combination with a shaft fast to the teed roll, and which may be driven to revolve the feed roll towards the upper lip of the hopper, substantially as and for the purpose specified. 18th. In a seeding machine a grass seed distributor com prising a casing, and a grooved feed roll journalled therein, and fitted so that no seed can escape at the ends of the roll, the casing forming a hopper extending down to the feed roll, substantially to one side of a vertical plane through the axis of the feed roll, the casing being also provided with a discharge opening extending up to the underside of the feed roll, in combination with a shaft fast to the feed roll and which may be driven to revolve the feed roll towards the upper lip of the hopper, substantially as and for the purpose specified. 19th In a seeding machine and in the grass seed distributor thereof, a casing and a cover therefor forming between them a hopper, in com bination with a flange formed about the outer edge of an opening in the cover below the hopper, a feed roll ring set within the opening and resting against the said flange, and a downwardly projecting lip formed on the cover at the bottom of the hopper and extend ing the full width of the same over the upper edge of the said ring, substantially as and for the purpose specified. 20th. In a seeding machine and in the grass sped distributor thereof, a casing and a cover cherefor forming between them a hopper and a discharge opening, in combination with a grooved feed roll ring surrounding an opening in the cover below the hopper, a grooved feed roll set within a suitable recess into which open the hopper and discharge opening, and adapted to slide in the said ring, a sleeve angaging the inner end of the feed roll and extending through : closely fitting operning in the casing, a shaft to which the feed rol is secured, a pin through the shaft behind the sletve, a ribupon the sleeve fitting a notch in the orening in the casing and lying close to the lower edge of the frottom of the hopper, and a rib upon the sleeve fitting a notch in the ofening in the casing and extending below the upper edge of the bottom of the hopper, its back being sloped down to the body of the sleeve, substantially as and for the purpose specified. 21st. In a seeding machine a grass seed distributor comprising a casing, and a grooved feed roll journaller therein and fitted so that no seed can escape at the ends of the roll the: casing forming a hopper extending down to the feed roll sub stantially to one side of a vertical plane through the axis of the feed roll, the casing being also provided with a discharge opening extend ing up to the under side of the feed roll, and a sight opening behind the feed roll in an outwardly projecting portion of the casing, in combination with a shaft fast to the feed roll which may be driven to revolve the feed roll towards the upper lip of the hopper, substan tially as and for the purpose s;ecified. 22nd. In a seeding machine and in the grass seed distributor thereof, a casing and a cover there for, forming between them a hopper and a discharge opening, in combination with a grooved feed roll ring surrounding an opening in the cover below the hopper, a grooved feed roll adapted to slide within the said ring and set within a suitable recess into which open the hopper and discharge opening, a sleeve engaging the inner end of the feed roll and extending through a chosely fitting hole in the casing, a shaft to which the feed roll is secured, a pin through the shaft behind the sleeve, a lip at the bottom of the hopper fitting closely the forward side of the feed roll, an sasy fitting lip at the upper portion of the bottom of the hopper extending substantially to or bey ad a veitical plane through the axis of the feed roll, a rib ujon the aforesaid sleeve fitting a notch in the opening in the casing and lying close to the lip at the lower edge of the bottom of the hopper, and a ribupon the sleeve fitting a notch in the opening in the casing and extending below the lip at the upper edge of the bottom of the hopper, its lack being sloped down to the body of the sleeve, substantially as and for the purpose specified. 2 'rd. In a seeding machine, a fertilizer distributor eomprising a frame a circular platform supported thereby and having a discharge opening formed therein, in combination with a feed cup rotatable upon the said platform and having the upper surface of its bottom sutstantially on a level with the upper surface of the platform, a stationary ring within the upper part of the feed cup, a franie secured to the said ring, a shell covering the said opening in the
platform and having a vertical opening therein extending to the edge of the feed cup, a stem extending upward through the said platform, a gate secured to the said stem and adapted to regulate the size of the aforesaid opening, and means for adjusting the position of the said stem, substantially as and for the purpose specified. 24th. In a seeding machine a fertilizer distributor comprising a frame and a circular platform supported thereby and having a discharge opening formed therein, in combination with a feed cup rotatable upon the said platform and having the upper surface of its bottom substantially on a level with the upper surface of the platform, a stationary ring within the upper part of the feed cup, a frame secured to the sid ring, ribs upon the inside of the feed cup, a shell covering the said opening in the platform and having a vertical opening therein extending to the edge of the feed cup, a stem extending upward through the said platform, a gate secured to the said stem and adapted to regulate the size of the aforesaid opening, and means for adjusting the position of the said stem, substantially as and for the purpose specified. 25th. In a seeding machine a fertilizer distributor comprising a frame and a circular platform supported thereby and having a discharge opening formed therein, in combination with a feed cup rotatable upon the said platform and having the upper surface of its bottom substantially on a level with the upper surface of the platform, a stationary ring within the upper part of the feed cup, a frame secured to the said ring, ribs upon the inside of the feed cup, and a shell covering the said opening in the platform and having a vertical opening therein extending to the edge of the feed cup, substantially as and for the purpose specified. 26 th. In a seeding machine a series of fertilizer distributors each comprising a frame and a circular patform supported thereby and having a discharge opening formed theeein, in combination with a feed cup, rototable upon the said platform and having the upper surfaces of its button substantially on a level with the upper surface of the platform, a stationary ring within the upper part of the feed cup, a frame secured to the said ring, a shell covering the said opening in the platform and having a vertical opening therein extending to the edge of the feed cup, a stem extending upward through the said platform a gate secured to the said stem and adapted to regulate the size of the aforesaid opening, a lever rigidly connected to each stem, a connecting rod pivotally connected to all the levers, a graduated index plate connected to the frame of the machine above one of the levero and means for clamping the said lever to the index plate in any desired pusition, substantially as and for the purpose sprecified. 27 th. In a seeding machine a grain distributor comprising a casing forming a hopper, in combination with a circular elevator journalled on the casing lehind the said hopper which is arranged to discharge into the lower part of the elevator, a flange upon the hopper adjacent to the feed wheel at its lower part and forming tie mouth of the distributor, a wing extended inwardly fromi the ho; per to the back of the elevator from the hopper discharge opening to the top of the inside of the rim of the elevatur, a gear wheel formed on or connected to the back of the elevator, a shaft journalled in the casing at one side of the hopper and a pinion upon the shaft meshing with the said gear, substantially as and for the purpose specified. $2 x$ th. In a seed ing machine a grain distributor comprising a casing forming a hopper, in combination with a circular elevator journalled on the casing behind the said hopper which is arranged to discha ge into the lower part of the elevator, a flange upon the hopper adjacent to the feed wheel at its lower part and forming the mouth of the distributor, a wing extending inwardly from the hopper to the back of the elevator from the hopper discharge opening to the top of the inside of the rim of the elevator, a gear wheel formed on or comuected to the back of the elevator, a shaft journalled in the casing at one side of the hopper, a pinion upon the shaft meshing with the said gear, a cut-off adapted to vary the hopper opening, an arm extending outwardly from the cut-off bent forward and pivoted upon the casing, and means for adjusting the position of the said arm, substantially as and for the purpose specified. 29th. In a seeding machine a grain distributor conprising a casing forming a hopper, in combination with a circular elevator journalled on the casing behind the said hopper which is arranged to discharge into the lower part of the elevator, a flange upon the hopper adjacent to the feed wheel at its lower part and forming the mouth of the distributor, a wing extending inwardly from the hopper to the back of the elevator from the hopper discharge opening to the top of the inside of the rim of the elevator, a gear wheel formed on or connected to the back of the elevator, a shaft journalled in the casing at one side of the hopper, a pinion upon the shaft meshing with the said gear, an arm pivoted upon the casing and extending rearwardly and inwardly within the elevator, a cut-off secured to the said arm having its front side close to the loottom of the aforesaid wing and formed on an are of a circle struck from the pivot point of the said arm, and means for adjusting the position of the arm, substantially as and for the purpese specified. 30th. In a seeding machine a grain distributor comprising a casing forming a hopper, in combination with a circular elevator journalled on the casing trehind the said hopper which is arranged to dischang into the lower part of the elevator, a flange upon the hopper ad jacent to the feed wheel at its lower part and forming the mouth of the distributor, a wing extending inwardly from the hopper to the back of the elevator from the hopper discharge opening to the top of the inside of the rim of the elevator, a gear wheel formed on or connected to the back of the elevator, a shaft journalled in the casing at one side of the hopper, a pinion upon the shaft
meshing with the said gear, an arm pivoted upon the casing and extending rearwardly and inwardly within the elevator, a cutoff secured to the said arm having its front side close to the bottom of the aforesaid wing and formed on an are of a circle struck from the pivot point of the said arm and having its back so curved that the back is always nearer to the rim of the elevator at the point of cut-off than at the point of discharge, and means for adjusting the position of the said arm, substantially as and for the purpose specitied. 31st. In a seeding machine, a grain distributor comprising a casing forming a hopper, in conbination with a circular elevator journalled on the casing behind the said hopper, which is arranged to discharge into the lower part of the elevator, a flange upon the hopper adjacent to the feed wheel at its lower part and forning the mouth of the distributor, a wing extending inwardly from the hopper to the back of the elevator from the hopper discharge opening to the top of the inside of the rim of the elevator, a gear-wheel formed on or connected to the back of the elevator, a shaft journalled in the casing at one side of the hopper, a pinion upon the shaft meshing with the said gear-wheel, a cut-off adapted to vary the hopper opening, an arm extending outwardly from the cut-off bent forward and pivoted upon the casing, a pin upon the said arm, a suitably journalled shaft, a slotted arm upon the shaft engaging with the said pin, an index arm upon the said shaft, a graduated index plate secured to the frame of the machine, and means for clamping the arm to the plate in any desired position, substantially as and for the purpose specified. 32 nd. In a seeding machine, a grain distributor comprising a casing forming a hopper, in combination with a circular elevator journalled on the casing behind the said hopper, which is arranged to discharge into the lower part of the elevator, a flange upon the hopper adjacent to the feed-wheel at its lower part and forming the mouth of the distributor, a wing extending inwardly from the hopper to the back of the elevator from the hopper discharge opening to the top of the inside of the rim of the elevator, a gear-wheel formed on or connected to the back of the elevator, a shaft journalled in the casing at one side of the hopper a pinion upon the shaft meshing with the said gear, and ribs upon the inside of the rim of the elevator having their front faces inclined from the back of the elevator towards the outer edge to cause the grain to pass away freely wowards the discharge, substantially as and for the purpose specified. 33rd. In a seeding machine, a grain distributor comprising a casing forming a hopper, in combination with a circular elevator journalled on the casing behind the said hopper, which is arranged to discharge into the lower part of the elevator, a gear-wheel formed on or connected to the back of the elevator, a shaft journalled in the casing at one side of the hopper. and a pinion upon the shaft meshing with the said gear, substantially as and for the purpose specified. 34 th. In a seeding machint, a grain distributor comprising a casing forming a hopper, in combination with a circulator elevator journalled on the casing behind the said hopper, which is arranged to discharge into the lower purt of the elevator, a flange upm the hopper adjacent to the feed-whed at its lower point and forming the mouth of the distrituior, a wing extending inwardly from the hopper to the back of the elevatur from the hopper discharge opening to the top of the inside of the rina of the elevator, ribs upon the inside of the rint of the elevator having their front faces inclined from the back of the elevator towards the outer edge to cause the grain to pass freely away towards the discharge, and means for revolving the said elevator, substantially as and for the purpose specified.
No. 61,747. Bicyele Support. (Support de bicycles.)


George Hipwood, loston, Massachusetts, U.S.A., 17th November, 1898 ; 6 years. (Filed 19th September, 1898.)
Claim.--1st. In a bicycle support, the sustaining rods $C$ pivotally secured at their upper ends to the upper portion of the frame of the bicycle above the driving wheel and substantially under the saddle and adapted when dropped to rest on the ground on opposite sides of the rear-wheel and in front of the point of contact of the rear wheel with the ground, and being when in such dropeed position
substantially vertical, whereby a broad base having the effect of a trippod is provided for sustaining the bicycle, said rods C being provided centrally with the positive rearward cuvatures or recesses $C^{11}$ but being otherwise straight, substantially vertical and extending from the ground to a point well above the driving-wheel, whereby the rods may be well forward without interfering with the feet of the rider upon the pedals, and mechanism secured to the frame of the bicycle within reach of the rider whereby the sustaining rods may be swung rearward and upward, substantially as set forth. 2nd. In a bicycle support, in combination with a bicycle, the clip $B$ rigidly secured to the portion $\mathrm{A}^{1}$ of the frame, said clip being provided with the rearward extensions $\mathrm{B}^{1}$ and each said extension being formed with the tubular supports $\mathrm{B}^{11}$ extending oppositely at substantially the upward and rearward angles described, the supporting rods $\mathrm{C}^{1}$ inward at substantially right angles and with said ends extending into and swinging in said tubular supports $\mathrm{B}^{11}$, and mechanism secured to the frame within reach of the rider whereby the sustaining rods may be swung from a substantially vertical dropped position in front of the axle of the rear-wheel rearward, upward and at inward angles toward said wheel substantially as set forth. 3rd. In a bicycle support, in combination with a bicycle, the clip $B$ secured to the portion $A^{1}$ of the frame and provided with rearward extensions $B^{1}$, the tubular supports $B^{11}$ extending outwardly, rearwardly and upwardly therefrom at substantially the angles described, the sustaining rods $C$ swinging in said tubular supports by means of the right-angled upper prrtions $C$, the jointed lever or brace D pivoted at its opposite ends to and connecting said sustaining rods a handle pivotally connected to the frame of the bicycle within reach of the rider, and rods C connecting said sustaining rods, a handle pivotally connected to the frame of the bicycle within reach of the rider, and rods $L$ connecting said handle with the sustaining rods, whereby the sustaining rods are adapted to be swang from a substantially vertical pesition on the ground upward, and rearward at inward angles toward the driving-wheel, substantially as set forth. 4th. In a bicycle support, in co nbination, the sustaining rods $C$ pivotally secured at their upper ends to the frame of the bicycle, the curved or are-shaped frame H provided with the groove $H^{1}$ suitably perforated at $h$, said frame being secured to the frame of the bicycle within reach of the rider, the lever $K$ pivotally connected with the bicycle frame and set radially with relation to the curved frame H , said lever being provided with the stops or wings $N$, the handle $P$ pivotally connected at $P^{11}$ with the lever $K$ and provided at its lower end with the engaging $\operatorname{dog} P^{1}$, the rocking pawl $R$ pivotally secured to the lever K and adapted to drop into said perforations $h$, the spring $S$ secured to the handle and bearing upon the pawl. and the rods $L$ connecting the lower end of the lever $K$ with the supporting rods, substantially as set forth. 5th. In a bicycle support, the sustaining rods C pivotally connected at their upper ends with the frame of the bicycle and adapted to be located in a dropped position and swung rearward into a raised position, and castors hinged to the lower ends of said rods and set with the axles of the wheels slightly forward of the pivotal connection brtween them and said rods, ssubstantially as and for the purpose set forth.

No. 61,748. Hail. (Ruil.)


Thomas F. Davies, Dıquesne, Pennsylvania, U.S.A., 17th November, 1898; 6 years. (Filed 15th October, 1898.)
Claim.-The combination with the T-rail of the tram-rail having flanges projecting from one side, one at its top and the other at its bottom, the bottom one adapted to rest upon the flange or base of the T-rail and to project beyond the latter, so as to form an extension in the same plane with the base of the T-rail, and the top, flange adapted to rest at its inner edge against the head of said T-rail and slightly below the top thereof, together with means for securing it to said T-rail, substantially as set forth.

No. 61,749. Envelope. (Enveloppe.)
Fidward A. Burlingame, Clayton, New York, U.S.A., 17th November, $1898 ; 6$ years. (Filed 15th October, 1898.)
Claim.-A reversible envelope having a body with the return address printed on one side and a sending address applied to the
opposite side together with the sender's name and residence, and formed with integral side flaps having outer folding portions adapted

to interlock with each other when the said side flapa are turned over the body, end flaps connected to the said body and the side flaps by triangular corner folds which are bent upon each other and in part lie over the side when the latt+r are closed against the body, one of the end folds by its outer end being slotted and a fastener carried by the opposite end fold having a pair of legs adapted to alternately engage the slot in the opposite end fold when the parts of the envelope are reversed, substantially as described.

No. 61,750. Bolt. (Boulon.)


Thomas Pitkin Russell, Marquand, Missouri, U.S.A., 17th November, 1898; 6 years. (Filed 17 th October, 1898.)
Cluim.-A bolt formed with a mortise at one end, in combination with a locking-key having a tang and a head on the outer end of the tang, tang beting pivotally secured in the morti-e by a pivot-pin passed through a slot in the tang, and the head being adapted to bear normally against the ends of the mortise walls, the tang being shorter than the walls of the mortise, and the slot in the tang being of such length that its ends will not contact with the pivot-pin in the normal position of the key, substantially as described.

No. 61,751. Nail Holder and Ntarter.
(Machine pour tenir et enfoncer les clous.)


Ieonard W. Dexter, San Joze, California, U.S.A., 17 th November, 1898 ; 6 years. (Filed 17 th ()etober, 1898.)
Claim. - The nail-holder and starter herein described, consisting of the punch or body A, provided with lugs H and at its forward end with the jaws $\mathbf{E}$ E and F F , extending laterally and upwardly and having between them a seat for the nail body, a stat for the head of the nail bing formed between the jaws $F$ and the main body of the punch, in combination with the arm l. pivoted at $J$ between the lugs H and carrying at its forward end the jaws K K, extending downwardly and laterally and idapted to pass between the jows $E F$ and the jaws $F \mathbf{F}$, and the spring $L$ secured to the punch and bearing upwardly against the long end of the arm I to normally hold its forward end down in contact with the nail, substantially as described.
No. 61,75\%. Tie Plate. (Tirment.)


Frank Elden Cane, Montreal, Quebec, Canada, 17 th November, 1898; 6 years. (Filed 20th Octoler, 1898.)
Cluim.-1st. A tie-plate having a corrugated body and downwardly projecting abutment flanges along its side edges, as shown and described. 2nd. A tie-plate having its lody corrugated to present upper ribs $a$ and recesses $c$, lower ribs $b$ and recesses $d$, anxiliary ribs $f$, projecting from the lower ribs and abutment flanges $c$ along its side edges, as shoun and described.

## No. 61,753. (lothes Pounder. (Pilon ì lingf.)

Andrew .Jackson Ziegler, and Jaeoh Benner Ziegler, both of Hazleton, Pennsylvania, U.S.A., 17th November, 1898; 6 years. (Filed 17th October, 18!8.)
Chim.-1st. A chothes pounder comprising a lower casing, having spaces or compartments communicating with one another, said casing being provided with a central ofening, a valve casing or lox depending from the centre of the casing and composed of a horizontal bottom and vertical sides of walls and provided with a central ol ening and having a series of perforations at its sides, a valve arranged ing and having a series of perforations the valve casing and adapted to cover the opening of the
lower casing, and an upper shell mounted on the lower casing adapied to support a handle and provided with an opening, substantially as

described. 2nd. A clothes pounder comprising a cylindrical casing, concentric rings arranged within the cylindrical casing and provided with openings, a retctangular box or valve casing composed of a horizontal bottom and vertical sides or walls and secured to the top of the cylindrical casing at an opening thereof and provided with a bottom opening, and having perforations at its sides, a valve arranged within the lox or casing, a conical shell mounted upon the cylindrical casing and provided with cyenings, and a tube mounted within the conical shell to form a socket, and provided at its lower portion with openings and closed above the same, substantially as described.

No. 61,754. Huck Rest. (Appui-dos.)


Jennie Frew-West, (ilenwood, Florida, U.S.A., 17th November, 1898 ; 6 years. (Filed 17 th October, 1898.)
Cluim. - In a removable, ventilating back-rest, the combination with the U-shaped frame or yoke having integral hooks on the ends of its arms for engaging the back of the seat, of the ventilating backrest frame proper secured to said yoke, a ventilating cover on said back-rest frame, spring strips substantially parallel with the yoke arms and seecured at their ends to the back-rest frame, and springs intergosed between said strips and back-rest frame for holding the latter normally away from said strips intermediate their ends, and thereby from the seat to which the back-rest is applied, substantially as described.

No.61,75\%. Self Locking Hat Pin. (Epingle ì chopeat.)


41755
James Johnston, Robert Johnson and Joseph Mcequeen, all of Miami, Manitoba, Canada, 17th November, 1898; 6 years. (Filed 19th October, 1898.)
Cluim. --1st. A hat pin comprising a section secured to the hat, and a section having a securing pin detachably connected to said secured section. 2nd. A hat pin, comprising a section speured to the hat, a removable section having the securing pin adapted to co-act with said secured section, and means for holding said sections in operative connection. 3rd. A bat pin, comprising a section secured to the hat, a removable section having the securing pin adapted to co-act with said secured section, and a plurality of catch levers, mounted on said removable section, and adapted to be placed into and out of an operative connection with said secured section.

No. 61,756. Butter Box. (Boite ib brarre.)


Frederick William Wateridge, Marche Hall, near Shrewsbury, 1898 ; 6 years. (Filed 17 th OctJber, 1898.)
Chim.-1st. A transit box for butter and other commodities sub stantially as described and illustrated herein. 2nd. In transit boxes in combination, one of more trays divided into the required number of compartments by means of partitions, said trays being superposed in a suitable box or cating, said box or casing having a hinged lid provided with a lock, a bent plate adapted to prevent the contents of the trays especially at the ends and top from coming into contact with the box or casing, said plate keing maintained in position by means of a clip, substantially as described and illustrated herein.

## No. 61,75\%. Beer Distributing Machine.

(Machine à distriturr la biere.)
Edward 1). Case, Flint, Michigan, U.S.A., 17 th November, 1898 ; 6 years. (Filed 20th October, 1898.)
Claim.-1-t. A distributing apparatus for beer or the like, comprising an ice-chest, a water-container extended downward
therefrom, a series of pipes extended through said ice-chest as water-cooler, valve-controlled connections hetween the several pipe,

618.
above the ice-chest, valve-controlled connections between the several pipes at their lower portions, a valve in each pipe below the said valves at the lower portions of the pipes, and opening lines or wires extended from these several lower valves to the key-board located adjacent to the ice-chent, substantially as specified. 2nd. A distributing apparatus for beer and the like, comprising an ice-chest, a water holder or container extended downward therefrom, a pipe leading from the lower end of said water holder or chamber and extended upward to near its top where it is provided with an outlet, a series of pipes extended through the ice-chest and also through the water holder or container and adapted for connection at the lower ends with barrels, each of said pipes having a faucet at its upper end, valve-controlled connections between the several pipes above the ice chamber, valve controlled connections below the several pipes below the water holder or container, cords or wires extended from these last nanmed valves to a point adjacent to the ice-chest, valves in the pipes below the last named valves and having cords or wires extended upward to a point adjacent to the ice-chest, and a valve controlled water-pipe leading into one of the distributing pipes, substantially as specified. 3rd. A distributing apparatus for beer and the like, comprising a series of pipes, a refrigerating means through which such pipes extend, connections between said pipes above the refrigerating means, connections between the pipes below said refrigerating means, dispensing devices, means for connection with the barrels or other source of supply and independent valves controlling the connections between the pipes, whereby the pipes may be made independent and may be connected for circulation, substantially as described. 4th. In a distributing apparatus, the combination with a chamber or cooler, of a plurality of pipes extending through the same, valve-controlled connections letween the said pipes on opposite sides of said chamber or cooler, whereby the liquid may be caused to circulate back and forth through the said chamber or cooler, individual commections for each of suchpipes with the sources of supply and irdividual dispensing devices for such pipes, substantially as described. 5th. A distributing apparatus for beer or the like, comprising a cooler, a series of pipes extending through said cooler pipe connections between said pipes ahove the cooler, pipe connections between the pipes below the cooler, a keyboard connection between the same and the said lower connections and independent valves controlling the pipe connections, whereby the pipes may be made independent and may be connected for circulation, supply and dispensing connections, substantially as described. 6th. A liquid-distributing apparatus comprising a series of dispensing-pipes adapted for connection, each with a separate supply vessel, a plurality of cross comnections between the pipes, and independent valves controlling the cross connections between the pipes, whereby liguid may be drawn from either one of several of the supply vessels through either of the pipes, or may be caused to circulate back and forth between the cross connections, substantially as specified.

## No. 61,758. Huller for Oatm and Rice.

(Machine à éplucher l'aroinc et le riz.)
Arthur A. Bowen, Kemptuille, (irenville, Ontario, Canada, 17th November, 1898 ; 6 years. (Filed 21st October, 1898.)
Clain. - 1st. The combination of east iron dises EF, and HII, faced with emery or cormodum FF, and II, suhstantially as and for
the purpose hereinbefore set forth. 2nd. The combination of the supports AAA, the stones EF, the stones HH, the shafts E, the

brackets NN, and K, pot S, with step $L$, the adjusting screws PPP, and sprocket wheels KR , with connecting chain OO, the curbs AA, and the bonding pins VV, substantially as and for the purpose hereinbefore set forth.

No. 61,759. Egg Case. (Boîte à ceufs.)


Josef Motz, Lettowitz, Austria, 17th November, 1898; 6 years. (Filed 21st October, 1898.)
Claim.- In a case for carrying and preserving eggs, the combination with the case proper, the shelves or trays provided with suitably shaped and sized perforations to receive the eggs, and pins to secure the spacing or distance between the shelves or trays, the arrangement of said perforations in two successive trays being sudh that the perforations of one tray or shelf are opposite to the solid parts of the other shelf or tray and the empty spaces between the different shelves or trays and the lottom and the top of the case being filled up with straw, bran or other suitable material to protect the eggs from the contact with air and to facilitate their preservation, substantially as described.

## No. 61,760. Vehicle Seat. (Siege dc voiture.)

Charles H. Stratton, Buffalo, New York, U.S.A., 17 th November, 1898; 6 years. (Filed 28th October, 1898.)
Claim.-1st. The combination, with the front seat of the vehicle and the stationary front panels of the body terminating near the rear edge of the front seat, forming side entrances in rear of said seat, of a stationary upright rear frame rising from the rear end of the body, and provided at its top with a deck poition, a rear seat provided with side panels pivoted at their lower rear ends to opposite sides of said stationary rear frame, and adapted to close against the rear edges of said fixed panels when lowered, and a back for the rear seat attached to said pivoted panels, terminathg at a distance from the rear or lower ends of said pivoted panels and forming a continuation of the deck portion of said stationary rear frame when folded or lowered, substantially as set forth. 2nd. The combination with the front scat of the vehicle and the stationary front panels of the body terminating near the rear edge of the front seat, forming side entrances in rear of said seat, a rear seat provided with side panels pivoted at or near their rear ends to the rear portion of the vehicle body and arranged to close against the rear edges of said stationary panels when lowered, said seat being pivotally connected with its side panels, a back for the rear seat rigidly secured to said pivoted panels, extending above and below said seat, and forming a derk for the vehicle body when lowered, and a stationary frame
rising from the rear end of the body and carrying a deck portion which forms a continuation of said back when the latter is lowered,

and supports the front portion of the rear seat when said back is unfolded to its normal position, substantially as set forth. 3rd. In a convertible vehicle, the combination with a front seat capable of moving backward and forward on its supports, of an upright lever fulcrumed on the seat supports and having its upper arm pivoted to the front portion of the seat and adapted to engage with its lower arm against a stationary prition of the vehicle body for limiting the forward movement of the seat, sulstantially as set forth. 4th. In a convertible vehicle, the combination with a front seat capable of moving backward and forward on its supports or standards, and a cross-bar connecting said supports, of upright levers fulcrumed on the seat supports in front of and beiow said cross-bar, and having their upper arms pivoted to the front edge of the seat and adapted to engage with their lower arms against said cross-bar, substantially as set forth.

No. 61,761. Bicycle Support. (Support de bicycles.)


George Wesley Newson and John Porter Harris, 54 Lambton Quay, Wellington, New Zealand, 17 th November, 1898; 6 years. (Filed 27 th (October, 1898.)
Claim.-1st. A support for bicycle comprising in combination an a!mpivoted to a bracket by means of a swivelling stud said bracket leing secured to the frame of the bicycle and furnished with a catch for retaining the arm, substantially as and for the purposes set forth herein. 2nd. A support for bicycles comprising in combination an arm pivoted to a bracket by means of a swivelling stud said bracket being secured to the frame of the bicycle and furnished with a catch for retaining the arm and a spring within the arm operating upon the flat head of the swivelling stud, substantially as and for the purposes set forth herein. 3rd. A support for bicycles comprising in combination an arm pivoted to a dise and bracket by means of a
swivelling stud said disc and bracket being secured to the frame of the bicycle and said bracket being furnished with a catch for retaining the arm a spring within the arm operating upon the flat head of the swivelling stud a block upon the end of the arm and a slot in the disc, substantially as and for the purposes set forth herein. 4th. A support for bicycles comprising in combination an arm pivoted to a bracket by means of a swivelling stud said bracket being secured to the frame of the bicycle and furnished with a catch for retaining the arm and a clip for holding the arm when not in use, substantially as and for the purposes set forth herein. 5th. A clip for holding the arm of a bicycle support comprising a lonp for securing the same to frame of the machine and having its end extended, split, and shaped to grip a loop upon the arm, substantially as and for the purposes set forth herein.

No. 61,762 . Hearse. (Corbillard.)


Milton M. Guiley, Hartville, Ohio, U.S.A., 17th Novemiber, 1898 ; 6 years. (Filed 2nd November, 1898.)
Claim.--1st. The combination with the floor of a hearse, of casketclamps secured thereto, casket-rollers extending transversely across the floor of the hearse and having movement toward and away from said floor, parallel arms pivotally connected to the floor and carrying said roller slides having wedge-blocks adapted for raising and lowering said rollers, and means for moving the slides. 2nd. The combination with the floor of a hearse, of a swinging frame connected thereto adapted to be depressed forwardly or rearwardly and having a casket-roller, a second frame having a casket-roller which is movable toward and away from the said foor, and means for simultaneously raising said frames in relation to the floor and casketclamps. 3rd. The combination with the floor of a hearse, of a swinging frame connected thereto adapted to be depressed forwardly or rearwardly and having a casket-roller, a second frame having a casket-roller which is movable toward and away from the said fioor, slidable bars or rods having wedges arranged in sets adapted to engage with the frames and raise the same, means for moving said rods, and head and foot casket-clampis. 4th. The combination with the floor of the hearse, of casket-rollers movable toward and away therefrom, arms carrying said rollers and provided with cranks, spring-bars secured to the floor and bearing upon said cranks adapted to keep said rollers normally urged toward the floor, means for raising the rollers, and casket-clamps. 5th. The combination with the floor of a hearse, of a foot-frame journalled thereto and adapted to swing forwardly and rearwardly, said frame having cranks and a casket-roller, springs bearing upon the cranks and adapted to hold the roller and frame normally adjacent the floor, a head-frame having inherently-resilient arms connected to the floor, and a casketroller journalled in said arms, and means for raising said franes, and casket-clamps. 6th. The combination with the floor of a hearse, of a foot-frame journalled thereto and adapted to swing forwardly and rearwardly, said frame having cranks and a casket-roller, springs bearing on the cranks and adapted to hold the frame and rollers normally adjacent to the floor, a head-frame having inherentlyresilient arms connected to the floor, a casket-roller journalled in said arms, and a slide-rods having wedges adapted to engage with the frames to simultaneously raise the same, a crank-shaft and connecting rods extending from the same to the slide-rods. 7 th. The combination with the floor of a hearse, or a head casket-clamp secured thereto, a foot casket-clamp indeprendently adjustable toward and away from the head-clamp, and means for securing the foot-clamp independently of the head-clamp at any point. 8th. The combination with the floor of a hearse, of a foot-casket clamp adjustable longitudinally thereof, a swinging head casket-clamp, and a spring-catch for securing said head casket-clamp.

No. 61,763. Bicyele Support. (Support de bicıcle.)


61763
George Solomon Thurston, Santa Rosa, California, U.S.A., 17th
November, 1898 ; 6 years. (Filed 2nd November, 1898.)
Claim.-1st. The combination with the upper rear portion of the frame or saddle-post of a bicycle, of tubular supports connected therewith, and projecting downwardly and outwardly, adjustable rods mounted in the lower ends of said supports, a shaft mounted in the lower ends of said rods, and provided with wheels at its opposite ends and flexible and adjustable straps connecting each end of said shaft with the forward and rear portions of the frame of the bicycle, substantially as shown and described. 2nd. The herein described support, for bicycles comprising two tubes secured to the frame or saddle-post beneath the seat, rods telescopically mounted therein, an axle extending transversely of the bicycle in front of the rear-wheel, small wheels mounted upon the outer end of said axle, said telescopic rod being connected with said axle by means of circular heads and straps connected with each of said heads and with the corresponding side of the rear fork of the frame and a second strap secured to each of said heads and to an attachment mounted on the forward end of the frame said straps being adjustable, substantially as and for the purpose described.

No. 61,764. Fodder Shredder. (Machiné ì couper le fourrage.)


John K. Wilder, Monroe, Michigan, U.S.A., 18th November 1898; 6 years. (Filed 31st October, 1898.)
Claim.-1st. In a fodder shredder, a feed mechanism comprising a pair of rollers whose peripheries are revolved at different speeds, a lower feed roller being supported in a suitable frame, and having on the outer end of its shaft a gear which, with the roller and the shaft, remains at all times in the samo position, and the upper feed roller and shaft being suitably mounted and guided at its ends on eaid frame, and having a gear on the outer end of its shaft, which, with the rollers and shaft is movable up and down, and is adapted to be revolved either way, backward and forward, and an adjusting lever means for holding it in a fixed position, said lever having the oute
end of the shaft rotably connected $t o$ it, and an intermediate adjustable gear suitably located and supported in relation to the gears ef the two feed rollers, so as tw he always engaged with the gear of the lower feed roller, and is commected to the lever, so as to be operated by it to affect either the forward or backward feed of the machine, substantially as described. 2nd. In fodder shredder, the combination of a suitable suppo.ting frame and feed box, feed rollers, one of said rollers being capable of vertical movement, and having a gearwheel mounted upon its shaft, a pivoted lever carrying one end of said shaft, and adapted to move the same rertically, a pivoted arm: a link connecting said aren to said lever, two pinion gears, one of which is monter upon said pivoted arm, and adapted to respectively engage the gear-wheel on the shaft according to the position of the pivoted lever and the gear-wheel an said nhaft, and thereby turn the roller having the gear-whed either backward or forward, a shredeler-head provided with cutting teeth, and means for actuating said roller and shredder-head, substantially as described. 3rd. A fodder shredder, comprising a differenciating feed and reversing mechanism, and having a shredder-head, cutting tereth having their opposite ends provided with cutting edges, means for separating said cutting teeth, wherety their spacing may be increased or decreased to procluce tine or coarse results when desired, and means for removably securing said teeth together, substantially as described. 4th. In a fodder shudd r , the combination with a suitable supporting frame and feed box, of an operating shaft $d^{1}$ carrying an up, er ribbed feed roller at one of its ends, and provided with a gear-wheel $F$, a shaft $d$, carrying a feed roller of less diameter than that of the upper feed roller, and provided at one of its ends with a spur gearwheel $d^{3}$, a pivoted lever adapted to move the shaft $d^{1}$ vertically, and carying at its onter end a link $c^{2}$, a link e, loosely momnted upon said shaft connected to the link $e^{2}$ and carrying a spur gearwheel $e^{1}$, a shrudder-head consisting of cutting teeth and dividing washers, and means for operating the rollers and shredder-head simultaneously and one of the rollers may be stopped entirely or reversed without interfering with the driving mechanism of the machine, substantially as described. 5th. In a fodder shredder, the combination with a suitable supuorting frame and feed box, of an upper feed roller mounted upon a shaft, said shaft carrying a gear-wheel at its outer end, a lower roller and shaft, the latter carrying a gear-wheel at its outer end, which is adapted to mesh with the gear of the upper shaft, wherehy the rollers are revolved at different speeds, and the shredder-head, sub)stantially as described. 6th. In a fodder-shredder, the combination of an upper feed roller mounted upon a shaft, said shaft carrying a gear-wheel at its outer end, a lower feed roller and shaft, the latter carrying at its onter end a fixed gear-wheel, which is adapted to mesh with the gear on the upper shaft by baving the latter brought into mesh with it, a pivoted lever secured to the upper shaft adapted to adjust an interposed gear, which is at all times in permanent mesh with the gear on the roller shaft, neans for supporting the interposed gear, and means for connecting it with the operating lever, the construction and operation being such that the upper shaft and the gear carried therely, and the interposed gear are raised and lowered by the operating lever, while the gear on the lower shaft always remains fixed, substantially as described. 7 th. A shredder-head composed of independent treth, spacing-washers interposed between said teeth, mans for holding the said teeth in position by said pressure, bolts arranged longitudinally of the shredder-hear! between the said tecth and engaging their edges to hold them in place, the said washers being entirely within the said bolts but not engaying them, the said trolts also engaging the said holding means for binding the parts together, substantially as described. 8th. A shredder-head composed of independent teeth mounted upon a central shaft, means for holding the said teeth in position by side pressure and bolts passing between the teeth for holding them at the proper angle with relation to each other and adapted to engace said side holding means for binding the parts together, substantially as described. 9th. A shredder-head composed of independent removable teeth, washers for holding the teeth in place by end pressure, bolts adapted to pass between the teeth and engage the edges thereof for holding them in proper place, said bolts also engaging the end washers for binding the parts together, substantially as described. 10th. A shredder-head composed of independent teeth, spacing-washers interposed between said teeth, means for binding said teeth and washers together for forming the said shredder-head, and bolts adapter to pass betwern the teeth and engage the edges thereof for holding them in proper place, substantially as described. 11th. A shredder-head comprising independent teeth, said teeth being adapted to be mounted nuon a shaft, binding washers at the opposite ends of the head, bolts arranged longitudinally of the head for drawing the binding-washers together and engaging the edges of the teeth between the same for holding the said teeth in proper position, and incans for securing the washers to the shaft to prevent the same from being turned thereon, substantially as deseribed. 12th. A shredder-head composed of teeth provided with central apertures adapted to engage a suitable shaft, said teeth being arranged alternately at different angles, washers for inclosing said teeth upon each end of the head, bolts passing between said teeth and engaging their edges for holding them at the desired angles, the said bolts also engaging the binding-washers for holding the parts together, substantially as described. 13th. In a shredder-head, the combination with a suitable shaft, of independent cutting teeth provided with apertures for
angaging said shaft, the said teeth being arranged at different angles alternately, washers for inclosing the said teeth upon said shaft, bolts passing between the edges of the teeth and adapted to hold the same at the proper angle, said bolts being threaded at their ends and adapted to pass through apertures in the said washers, nuts for engaging the ends of the bolts to draw the washers toward each other, and spacing-washers interposed between the teeth, substantially as described.

No. 61,765. Kallway Nwitch. (Aiguille de chemin de fer.)


Jonathan E. Young and George Morden, lwoth of Conneaut, Ohio, U.S.A., 18th November, 1898 ; 6 years. (Filed 25th October, 1898.)

Claim.-1st. In a switch operating me;hanism, the combination with a pair of switch tongues, of a yoke har connecting the same, said bar being bowed intermediate of its ends, a piyoted oseillating member extending within said bow and adapted in its oscillations to move the yoke bar in one direction or the other, a pivoted lever (f located in advance of the switch points, and a pair of links.J, J connecting the lever on either side of its pivot with the oscollating meniber, substantially as described. 2nd. In a switch operating mechanism, in combination, a lever (i suitably pivoted on a vertical pivot substantially at its centre, a plate $K$ above said lever, a pair of depressions $k$ in said pate, a slot $k^{\prime}$ in the hase of rach depression, a tripping pin extending through said slot and comecting at its lower end with said lever, and springs nomally pressing said pins alove the plane of the upper surface of the plate K , but allowing them to be depressed into the recesses in that plate, and mechanism connecting said lever with a suitable switch point, whereby the movement of the lever may operate to shift the switch, sulistantially as described. 3rd. In a switch operating mechanism, the combination with a track and a switch point therefor, of a lever $G_{i}$ pivoted at substantially its centre on a vertical pivot below the plane of the track, a stationary plate $K$ above said lever, a pair of depressions $k$ in said plate over the ends of the lever, a slot $k^{1}$ in the base of each depression, a pair of T-shaped pins having square shanks, each shank extending through one of the slots and having its lower end in a square hole in said lever, a spring surrounding each shank and bearing at its lower end against the lever and at its upper end against the T-head of the pin and thus operating to normally press the pins alove the upper surface of the plate $K$, but allowing said pins to be depressed into the recesses, and mechanism connecting said lever (; with the switch point, whereby the movement of the lever may operate the switch, substantially as described. 4th. The combination with a truck frame and car body of a car, of a bracket N secured to a cross-lar of the truck frame, said bracket having the projecting arms $n, n^{1}$, a vertical bar $P$ passing through said arms, a spring surrounding the bar and bearing at its lower end against the lower arm of the bracket and at its upper end against a projection carried by the bar whereby the spring tends to elevate the bar, a foot lever carried by the body of the car, and a flexible connection between said foot lever and the bar $P$, wherely the depression of the foot levrr depresses the bar but the bar is independent of the individual movement of the car borly, substantially as described.

## No. 61,766. Nollar and Tie Holder.

(Porte-collet et crarate.)
Matthew B. Kendrick, Newport, Kentucky, U.S.A., 18th November, 1898 ; 6 yєars. (Filed 27 th October, 1898.)
Claim.-1st. The herein-described collar, consisting of the inner and outer portions, and the intermediate lining portion folded longitudinally and stitched at one bottom edge to the inner portion and at the other bottom edge to the outer portion, said outer portion and its lining having a slit near each end thereof and being stitched to said inner portion between said slit and the adjacent end thereof
and having the cut-away portion at the back or longitudinal centre, said part which is cut out being stitched to said inner portion and

its lining as a reinforcement, said inner portion and its lining being stitched together at the fold of said lining, substantially as shown and described.

No. 61,767. Grain Weigher. (Balance is arain.)


Angus McLeod and John H MeLeod, both of Marietta, Kansas, U.S.A., 18th November, 1898; 6 years. (Filed 2nd Augnst, 1898.)

Cluim.--1st. In a grain-motor, the combination, with a pivoted and weighted bucket-frame, of a grain-bucket pivoted to the frame, a gate for said bucket, a toggle-lever having one of its members connected to the gate and its other member pivoted to the bucket, a flexible connection between the pivoted member and the bucketframe, and a bracket for breaking the knee of the toggle-lever when the bucket desefnds. 2nd. In a grain-motor, the combination, with a pivoted bucket-frame, of a grain-bucket connected thereto, a weight for the frame, bars provided with guide-slots, a spring having one end fixed, and a lifting-bracket which is slidable in the slots and to which the other ends of the springs are connected, said lifting-bracket engaging with the frame and being adapted to assist the same in rising when the bucket dencends to discharge its grain. 3rd. In a grain-notor, the combination, with a pivoted bucket-frame, of adjustable weights therefor, rollers movable in the frame and adapted to shift their positions when the same is raised or lowered, a grain-bucket pivoted to the frame, cut-off mechanism, a gate for said bucket, a toggle-lever having one member connected to the gate and the other member pivoted to the bucket, a connection between the pivoted member of the toggle-lever and the bucketframe, and means for breaking the knee of the toggle lever.

## No. 61,768. Pneumatic Railway system.

(Systeme meumatique de chemin de fer.)
Charles Comstock, Richmond, Virginia, U.S.A., $18 t$ November. 1898; 6 years. (Filed 29th October, 1898.)
Claim.-1st. A pneumatic railway system comprising a propelling tube, an auxiliary tube extending parallel therewith and capable of having communication with the propelling tube throughout the length of the auxiliary tube, a piston within the propelling tube, and a member moved by the piston and adapted to effect communication between the two tubes in advance of the piston, substantially as described. 2nd. A pmeumatic railway syatem comprising a propelling tube, an auxiliary tube extending parallel therewith, the two tubes having a registering longitudinal opening forming conmunication between them, and a flexible closing moans for said opening, substantially as described. 3 d . A pneumatic railway system comprising a propelling tube, an auxiliary tube extending longitudinally of the same, the two tubes having registering longitudinal openings, a movable member or members closing the said openings, and the propelling tube having a longitudinal opening independent of the auxiliary tube for the propelling member, substantially as described. 4th. A pneumatic railway system comprising a propelling tube, an auxiliary tube extending parallel therewith the tubes having a longitudinal communication, a movable member or members closing said longitudinal communication, a piston placed in and adapted to
travel in said propelling tube, the piston having a member which engages and moves the closing member in advance of the piston to

effect a commmmication between the tubes, and a pump connected with the auxiliary tube, sulstantially as described. 5th. A pneumatic railway system comprising a propelling tube, an auxiliary tube extending parallel therewith the tubes having longitudinal openings forming communication between them, a movable member closing said openings, a piston within and adapted to travel in said propelling tube, means in advance of the piston for effecting communication between the two tubes, and a pump connected with said auxiliary tube for exhansting the air therefrom, substantially as described. 6th. A pnetumatic railway system comprisiug a propelling tube, an auxiliary tube extending longitudinally thereof, the tubes having a longitudinal opening effecting communication between them, a closing member or members for said openings, a piston adapted to fit and travel within said propelling tube, a pump connected with the auxiliary tube, for withdiawing the air therefrom, means in advance of the piston for effecting communication between the two tubes just in advance of the piston, and communication between the atmosphere and the propelling tube in the rear of the piston, substantially as described. 7th. A pneumatic railway system comprising a propelling tube, an auxiliary tube extending longitudinally of the propelling tube, means for closing the said tubes, a piston travelling within said propelling tube, a member travelling in advance of the piston and effecting communication between the said tubes in advance of the piston, a commmication betwern the atmosphere and the propelling tube in rear of the piston, and a controlling member for the atmospheric communication, substantially as described. 8th. A pneumatic railway system comprising a propelling tube, an auxiliary tube extending parallel therewith. a longitudinal opening in said tubeseffecting a communication between them, means for closing said opening, a pump connected with the allxiliary tube, a member in advance of and effecting a communication between the atmospbere and the propelling tube in advance of the piston, and a communication between the atmosphere and the propelling tube in rear of the piston and delivering air directly against the rear end thereof, substantially as described. 9th. A pheumatic railway system comprising a propelling tube, an auxiliary tube extending parallel with the same, an opening effecting communication between the tubes, a pump connected with the auxiliary tube to exhaust the air therefrom, a piston, netans in advance of the piston for effecting a communication between the tubes in advance of said piston, and a communication between the atmosphere and the propelling tube in the rear of the piston, substantially as described. 10th. An atmospheric railway system couprising a propelling tube, an auxiliary tube extending parallel therewith a longitudinal conmunication between said tubes, a closing member for said oleening, a means in advance of the piston for effecting communication to the tubes in advance of said piston, an atmospleric communication between the atmosphere and the propelling tube in front of the piston, for the purpose described. 11th. A puenmatic railway system comprising a propelling tube, an anxiliary tube extending parallel with the same, a longitudinal communication between the tubes, a member for closing said opening, a means for effecting communication between the atmosphere and the propelling tube both ahead of and behind the piston, substantially as described. 12 th. A pnoumatic railway system comprising a propelling tube, an auxiliary tube extending parallel therewith, a longitudinal opening for said tube, means for closing said opming, a member in advance of the piston effecting a communication betweren sail tubes, and means for closing the opening before it is reached by the rear end of the piston, substantally as described. 13th. A pmenmatic railway system comprising a propelling tube, an auxiliary tube extending parallel with the same, a longitudinal opening between said tubes, a movable member closing said oqeniuge
a means within the tubes for effecting a communication between said tubes, and a pump connected with an auxiliary tube, substantially as described. 14th. A pneumatic railway system comprising a propelling tube, an auxiliary tube having communication therewith, a member for closing the commmication, and a novable means carried by the piston for opening the closing means at the will of the driver, substantially as described. 15th. A railway system, comprising a propelling tube, an auxiliary tube extending parallel therewith, and having a longitudinal conmumication in the propelling tube throughont its length, the piston within the propelling tube, a movable member closing the communication between the tubes, and movable members situated respectively in front and in the rear of the piston for engaging the closing members and effecting communcation between the tubes, and means for operating the movable members, for the purpese described. 16th. A pneumatic railway system, comprising a propelling tube, an auxiliary tube, a longitudinal communication between the said tubes, a closing member for the communication, a piston situated within the propelling tube, a communication at each end of the piston with the atmosphere, and meaus for controlling the said communication, and movable members carried by opposite ends of the piston for acting upon the closing member in front and in rear of the piston, the parts co-operating, substantially as and for the purpose described. 17 th. A pneumatic railway system, comprising a propelling tube, formed into a series of sections, closing members for adjacent ends of the sections, and a piston adapted by contact with the closing members to open them as it moves in the propelling tube, substantially as described. 18 th. A pheumatic railway system, comprising a propelling tube composed of separate sections, automatically opening and closing members for the adjacent ends of the sections, and an auxiliary tube in communication with the sections of the propelling tube, substantially as described.

No. 61,769. Excavator. (Excachteur.)


Newsome Clark Wright, Nashville, Tennessee, U.S.A., 18 th November, 1898 ; 6 years. (Filed 2sth (betober, 1898.)
Cluim.-1st. In an apparatus substantially as described, the com bination of a bed frame or platform, power hoisting mechanism thereon and a longitudinally extended guideway, a derrick on said platform, the block frame movable along the guideway, the hoisting line, the backing line and the line for operating the block frame, such lines being commected with their respective drums of the hoisting mechanism, substantially as set forth. 2nd. An apparatus substantially as described, comprising a frame or platform, a guideway thereon, a block frame movable on the guideway, a pulley block comnected with said frame, a line extended from said frame for connection with the parts to be operated thereby and a guide at the front end of the guideway for said connecting line, substantially as set forth. 3rd. The combination of the bed or platform, the guideway extended longitudinally thereon, the guide rollers at the front +md of sad guideway, the pulley block at the rear end of said guidew:y, the block frame sliding on the guideway, the line extended from said block frame between the guide rollers at the front and thereof, and the line for operating said block frame, substantially as set forth. 4th. In an apparatus substantially as described, the com bination of the platform, the derrick having a pivoted upright bar, the "pright frame to which said bar is pivoted the strut braces for said upright frame, the cross brace between said strut braces and provided with a guide pulley, the guideway extended longitudinally on said platform and provided with a travelling pulley block frame, the line comnected with said pulley block frame and extended over the guide pulley of the cross brace, the power mechanism having a drum to which said line is connected, and means whereby the pulley block frame may be connected with the devices it operates, substantially as set forth. 5th. An apparatus substantially as described, comprising the platform, the derrick crane, the guideway, the block frame movable on said guideway the line for operating said block frame, the hoisting line, and the line for adjusting the boom of the derrick, the backing line, and the engine having drums to which the several said lines are connected, substantially as set forth. 6th. In an apparatus substantially as described, the combination of a suitable platform or frame, a guideway extended longitudinally
thereon, guide rails or wires secured at one end extended longitudinally of the guideway and adjusting connections for the other ends of said wire, and the block frame movable longitudinally of the guide frame and having portions engaging the wires or rails, substantially as set forth. 7th. An apparatus substantially as described comprising the main frame, the derrick on the same, the guideway mounted on the main frame and extended rearwardly from the derrick and elevated toward its rear end the block frame travelling in said guideway, the line for operating said block frame and the lime for connecting said block frame with the device to be operated, substantially as set forth. 8th. An alparatus substantially as described com orising the main frame, the guideway exterded over the main frame and supported at its front and rear ends thereon and the lines for operating the block frame and for connecting it with the device to be operated, such lines being also extended over the main frame, substantially as set forth.

No. 61,7\%0. Feed Regulator. (Retulat ur d'alimentation.)


Olaus Johnson and Peder Pederson Holt, both of Northwood, North Dakota. U.S.A., 18 th November, $1898 ; 6$ years. (Filed 28th October, 1898.)
Claim.-1st. In a feed regulator, the combination with a suitable casing, of a fluted feed roller mounted therein and having one end reduced in size, and a spring plate underlying the reduced end of said woller. substantially as described. 2nd. In a feed regulator, the combination with the casing and feed roller therein, of the series of rods arranged erosswise beneath the roller, and forming an inclined plane from one side of the casing to the other, as shown and described. 3rd. In a feed-regulator, the combination with the rotatable, corrugated ioller, having a reduced end portion as described of the slide arranged above the roller, and a spring plate arranged beneath the reduced portion, as shown and described.

## No. 61,7\%1. Curd ©utter. (Memoles de fromagerif,)

Fred B. Fuller, Gouverneur. New York, U.S.A., 18 th November, 1898; 6 years. (Filed 22nd September, 1898.)
Claim.-1st. In a curd-cutting machine, the combination with a suitable base or support, and twostationary curd cutters held therein and having sharp cutting edges, of a slide fitted to reciprocate in or upon said base or support and adapted to carry the curd fed thereto against the said cutters, together with means whereby said slide may le readily reciprocated, substantially as specified. 2nd. In a curd cutting machine, the con:bination with a suitable base or support, and two stationary but removable and reversible curd-cutters held therein and having sharp cutting edges, of a slide fitted to reciprocate in or upon said base or support, and means for reciprocating said slide, substantially as specified. 3rd. In a curd-cutting machine, the combination with a suitable base or support, and two stationary curd-cutters held therein and having sharp cutting edges, of a bottomless slide-frame fitted to reciprocate in or upon said base or support and carrying a plunger which wrorks between the two cutters and forces the curd against them alternately as the slide is reciproating said slide, substantially as specified. 4th. In a curd-cutting machine, the combination with a base or support having two parallel sills and a floor or platform, of the two parallel transcerse curd-cutters held at opposite ends of the said platform and having sharp cutting edges, and having open end portions which engage the said sills, means for temporarily securing said cutters in fixed positions, a bottomless slide fitted to reciprocate between said sills, and a transverse plate
or phunger carried by said slide and working between the said cutters, sulstantially as specified. oth. In a curd-cutting machine, the

combination with a base or support having two parallel transverse sills and a floor or platform, of the two parallel transverse curdcutters secured at opposite ends of the said platform, and consisting each of a central portion having a plurality of openings there-through whose division walls have cutting edges, and end portions adapted to embrace said sills, means for temporarily securing said cutters in fixed positions, a bottomless slide fitted to reciprocate between the said sills, a transverse plate or piunger carried by the said slide and working between the two cutters, and a curd-hox supported over said floor or platform, substantially as specitied.

No. 61,77\%. Urimal. (Urinoire.)


Anne Jane Arthurs, York, Ontario, Canada, 18th November, 1898: 6 years. (Filed 29th October, 1898.)
Cluim. -1 st. A portable urinal embracing in its construction a tube, a urine-receiver fitted to one end of the tube, and the opposite end of the tube arranged to deposit the urine in a suitable vessel, substantially as specified. 2nd. A portable urinal embracing in its construction a tube fitted at one end to receive the urine from the urinary organ, and arranged at the othor end to deposit it in a suitable vessel, substantially as specified. 3rd. A portable urinal embracing in its construction a urine-receiver, arranged to check the spilling of the urine as it passes and after passing into it, and a tube connected
to the urine-receiver to convey the urine from it, substantially as specified. 4th. A portable urinal embracing in its construction a urine-receiver consisting of a bowl-shaped receptacle, an apron attached to each side of the opening in the top of the receptacle, and a flexible tube connected to the receptacle to convey the urine from it, substantialy as specified. 6th. A portable urinal embracing in its construction a urme-receiver consisting of a bowl-shaped receptacle, two diametrically opposite lugs connected to the top of the receptacle, an apron attached to each side of the top of the receptacle and to the lugs, and a tube connected to the receptacle to convey the urine from it, substantially as specified. 6th. A portable urinal enubracing in its construction a tube, a urine receiver fitted at one end to the tube, and a cover for the vessel to contain the urine fitted to the opposite end of the tube, substantially as specified. 7th. A portable urinal embracing in its construction a urine-receiver consisting of a bowl-shaped receptacle, an epron attached to each side of the opening in the top of the receptacle, a flexible tube connected to the receptacle to convey the urine from it, and a cover for the vessel to recuive the urine attached to the opposite end of the tube, substantially as specified. 8th. A portable urinal embracing in its construction a urine-receiver consisting of a bowl-shaped receptacle, two diametrically opposite lugs connected to the top of the receptacle, an apron attc.ched to each side of the top of the receptacle and to the lugs, a tube connected to the receptacle to convey the urine from it, and a cover for the vessel to receive the urine attached to the opposite end of the tube, substantially as specified. 9th. A portable urinal embracing in its construction a urine-receiver, cousisting of two funnel-shaped sections, the topend of one section screw-threaded, and the opposite end titted with a spout to which is attached a flexible tube the other section nested within the first section, and provided with an annular plate having a depending flange to engage the top of the other section, substantially as specfied. 10th. A portable urinal embracing in its construction a urinereceiver, consisting of two funnel-shaped sections, the top end of one section screw-threaded, and the opposite end fitted with a spout to which is attached a flexible tulue the other section nested within the first section, and provided with an annular plate having a depending flange to engage the top of the other section, and a rounded inturned flange at its upper end, sulstantially as specitied.
No. 61,773. Door Fastener. (Arrêtr portr.) .


Charles Mellem Perrier Brockton, Massachusetts, U.S.A., 18 th November, 1898: 6 years. (Filed 28th October, 1898.)
Claim. -1 st. In a device of the class described, the combination of a frame or casing having a recess at its abutting face and a spring actuated bolt adapte I to engage a suitable keeper and provided with an outer hinged section arranged to fold within the recess and adapted to be swung downward to enable the bolt to be operated, substantially as described. 2nd. A device of the class described, comprising a substantially I-shaped frame provided at one of its arms with to longitudinal casing and having guide slots in the casing and the adjacent arm of the frame, the slot of the frame loing enlarged at one end, and a spring actuated bolt arranged within the casing and provided with a projection to engage the guide slot thereof, and having an arm arranged in the guide slot of the frame, said arm being grooved to receive the edges of the frame at the contracted portion of the slot, substantially as described. 3rd. A device of the class described, comprising a frame povided with a longitudinal casing and having a gruide slotenlarged at one end, a a pring actuated bolt disposed longitudinally of the casing and provided with a rigidarm
extending from its inner portion at right angles to the same, arranged in the guide slot and provided with the grooves to receive the edges of the frame, said arm having its outer end arranged to engage a suitable keeper, and spring interposed between the inner end of the bolt and the adjacent end of the casing, substantially as described.


Elgar (iardiner, Rapid City, Manitoba, Canada, 18th Novemher, 1808 ; 6 years. (Filed 27 th October, 1848.)
Cluim.-1st. A heating drum, comprising an enlarged section, having inlet and outlet pipes connected thereto, and a flange arranged vertically therein, said flange being adapted to form a contimation of the flue within said drum, substantially as described. 2nd. A heating drum, comprising an enlarged section having connection with the the inlet and outlet pipes of the smoke flur, said inlet and outlet pipes being arranged at the same end of the drum, and a flange extending vertically in said drum for a portion of its length, to form a contimuation of said smoke flue through the entire length of said drum, substantially as described. 3rd. A heating drum, comprising an enlarged section having inlet and outlet pipes for the passage of the products of combustion, said drum having a vertical Hange adapted to form a continuous passageway for said products within said drum, and means connected to one side of said drum, for passing the air outside of said drum contiguous to the floor into said outlet smoke the, whereby a circulation of the air within the room is provided, substantially as described. th. A heating drum, comprising an enlarged section, having inlet and outlet pipes for the passage of the products of combustion, said drum having a vertical flange adapted to form a continuous passageway for said products within said drum, a support for said drum located on the floor of the room, a series of air inlet openings formed in the sides of said support, and a pipe leading from and operatively connected to said support and said drum, the connection with said drum being above the lower end of said flange, wherely the passage of the products combustion through said drum will cause the cold air without said support to be drawn into and carried off with said products, substantially as described.

No. 61,775. Sled. (Traineam.)


Henry L. Ferris, Harvard, Illinois, U.S.A., 18th November, 1898 ; 6 years. (Filed 27 th October, 1898. )
Claim. --1st. In a sled, the combination with suitable framework and concave-convex rumers upwardly concave, of a series of knees, each composed of a pair of hraces extending downward into the concave upper side of the rumer and butting against each other therein, substantially as describerl. Und. In a sled, the combinatiom, with a suitable top and mwardly concave rumners, of the

U-shaped downwardly diverging braces, $D, \mathrm{D}^{1}$, secured at their lower ends in the concave upper sides of the rumners, and abutting each other at said lower ends, substantially as described.

No. 61,776. Suw-Hundle. (Manche de scic.)


William Benniet Prouty, Ridgway, Pennsylvania, U,S.A., 18th November, 1898; 6 years. (Filed 27th October, 1898.)
Claim.--1st. A device of the class described, comprising a bandle provided at one end with a socket and having longitudinal slots at opposite sides thereof, a nut fitted in the socket, terminating short of the outer end thr-reof and provided with longitudinal flanges arranged in said slots and extending leyond the nut to the outer end of the handle, a cap arranged on the handle and provided with an opeming, and an adjustable yoke having a threaded shank extending through the opening of the cap and engaging the nut, substantially is described. Ind. A device of the class described, comprising a handle provided at one end with a socket and having longitudinal slots at the sides thereof, a nut fitted in the socket, and provided with longitudinal flanges arranged in the slots, a cap fitted on the handle and composed of a ferrule provided at its ends with ligs, and a dise or plate having apertures receiving the lugs, and an adjustable yoke having a threaded shank engaging the nut, substantially as described. 3rd. A device of the class described, comprising a handle having a socket, a nut fitter in the socket, an adjustable yoke engaging the nut, and a cap arranged on the handle and composed of a ferrule having projecting lugs at its outer fond, and a dise or plate provided with apertures receiving the lugs, substantially as described.

No. 61,777. Acetylene Gas Generator.
(bénérateur dr !a: aretyline.)


1677
Benson Clothier Beach, Winchester, Ontario, Canada, 18th Novem. ber, $1898 ; 6$ years. (Filed 13th April, 1898.)
Clain. $\cdots$ Ist. In a machine of the class described, the combination with the water-tank $\mathbf{A}$, and gas reservoir C , of the guiding sleeves I) and E, connected to such gas reservoir, and fitting over the pipes $F$ and $F^{1}$, and a gas pipe leading from a carbide chamber into the gas reservoir, as set forth ind for the purpose specified. 2nd. In a machine of the class described, the combination with the water-tank

A, gas reservoir C, constructed and supported as described, and carbide chamber $\mathrm{H}^{1}$, connected by the pipe P , to the gas reservoir $\mathbf{C}$, cap or bell $\mathbf{P}^{1}$, fitting over upper end of said pipe, of the waterfeed tank Q, provided with a trough $S$, the rod $V$, connected to the gas reservoir C and the trap T , all arranged as described and for the purpose set forth. 3rd. In a machine of the class described, the combination with the water-tank A, gas reservoir C, supported and operating as described, water-tank Q, trap T, and carbide chamber $\mathrm{H}^{1}$, of the tap R , trough S , povoted off centre as described, pipe s, rod U , and rod V , all arranged and operating for the purpose specified. 4th. The combination with the carbide chamber $\mathrm{H}^{1}$, and ash chamber, $\mathbf{H}^{2}$, of the grate 1 supported therein, rod $\mathbf{K}$, and scraper-bar $I^{1}$, operating together as specified. 5th. The combination with the two chambers $\mathrm{H}^{1}$ and $\mathrm{H}^{2}$, and the grate 1 , of the flanges $h^{1}$ and $h^{2}$, connected together as specified, and the doors $L$ and M , as described and for the purpose specified. 6th. The combination with the water-tank and gas reservoir, of the carbide chamber provided with a central grate, and a water supply pipe having a funnel-shaped opening, and trap, as specified, and the gassupply pipe extending from the top of said carlide chamber into the gas reservoir, and above the level of the water in said reservoir, as set forth and for the purpose specified.

No. 61,778. Primary Battery. (Pile électrique.)


Carl Koenig, 5 Oranienburger Strasse, Berlin, Germany, 18th November, 1898; 6 years. (Filed 17th Felruary, 1898.)
Cluim.-1st. In primary batteries, the provision of two or more pairs of alternate concentric elements with insu'ating pots between each pair, and an exciting paste placed between each set of elements, substantially as described. 2nd. In primary batteries, alternate elements arranged concentrically with insulating pots or vessels between each pair, conducting strips in series or in parallel, and an exciting paste placed between each set of elements, substantially as described. 3rd. In primary batteries, the arrangement in a battery cell of a series of alternate elements insulated from each other, and provided with suitable exciting paste placed between the elenients, substantially as described. 4th. A primary battery consisting of a glass jar $a$, a zinc cylinder $b$, a carbon cylinder, the exciting paste between, the glass jar $f$, the zinc cylinder and carbon rod therein, the exciting paste between said cylinder and rod, the said inner zinc cylinder and the first carbon cylinder being electrically connected, substantially as described.

## No. 61,779. Fabric Willowing. (Lourtayp de tissues.)

Joseph Liebhold, Qupdlinburg, a Harz, Germany, 18th November, 1898; (6 years. (Filed 19th January, 1898.)
Clain.-1st. A willowing apparatus for disentangling or opening knit goods, tissues, rags, etc., and to loosen threads and raw material, consisting of a pin drum, feed rollers and tray concentrically arranged with relation to both feeding rollers and the drum, and in close relation thereto, each tray in conjunction with the rollers presents the material to be treated for a definite distance and time to the work of the drum, substantially as described. 2nd. The combination with a pin drum, two sets of feed rollers, and a tray or border extending from said feed rollers for a definite distance abont the pin drum, said sets of feed rollers feeding the material to different points on the pin drum, so that a division of the drum's labour will be obtained by a thin distribution of the material thereto at the successive feeding actions, substantially as described. 3rd. In a
willowing apparatus, the combination of a pin drum, the separators C , and the endless cloths $\mathrm{D}^{1}$, and $\mathrm{D}^{2}$, with their supporting and

guiding rollers, substantially as described. 4th. In a willowing apparatus, an elevating device consisting of the aprons $D^{1}$, and $D^{2}$, and the rollers $\mathbf{E}^{1}, \mathbf{E}^{2}, \mathbf{E}^{3}, \mathbf{E}^{4}, \mathrm{H}^{5}, \mathrm{E}^{6}, \mathbf{E}^{7}, \mathbf{E}^{8}$, supprorting and guiding said aprons, substantially as described.

No. 61,780. Pan for Washing Gold.
(Auye it laver l'or.)


Samuel (i. Stoodley, Toronto, Ontario, Canada, 18th November, 1898; 6 years. (Filed 4th February, 1898.)
Claim.-1st. A gold washing pan consisting of a substantially semi-spherical-shaped bottom, a rim or side united to the botton, a concaved false bottom within the pan, a bowl located centrally betwren the false botton and the true boitom, and a central opening through the false bottom into the bowl, substantially as specified. 2nd. A gold washing pan consisting of a substantially semi-sphericalshaped bottom, a rim or side united to the bottom, a concaved false bottom within the pan, a bowl located centrally between the false bottom and the true bottom, a central opening through the false bottom into the bowl, and a perforated plate or strainer supported above the false bottom, substantially as specified.

## No. 61,781. Bicyele Brake. (Frcin de bicycles.)

John Jacob La Burt, New York City, New York, 18th November, 1898; 6 years. (Filed 28th June, 1898.)
Clain.-1st. A bicycle brake comprising a frame consisting of side members having horizontally disposed upper portions mounted to swing on a clip, an endless band of yielding material extended around connecting hars of the side members, a plate mounted to swing on the lower bar and bearing against the band and means operated from the peelal shaft for applying the brake. 2nd. A bicycle brake comprising a frame consisting of slide members, a flexible band carried by the side memhers the said side portions having upper portions extended at an angle and each provided with a series of holes, a clip, a bolt supported hy the clip and passing through holes of the upper portions of the brake frame, a spring for holding the brake normally out of engagement with a wheel, and a part, operated by back movement of the pedal shaft to apply the
brake to the wheel. 3rd. A bicycle brake comprising a frame consisting of two side members, a roller at the upper end of the side

members, a plate connecting with a cross-bar at the lower end of said nembers, an endless strap engaging around the roller and the portion of the plate engaging around the lower cross-bar, said plate also engaging against the inner side of the rearstretch of the band, and means actuated by the pedal shaft for forcing the band against the rear wheel of a bicycle. th. In a bicycle brake, a carrier designed to be attached to a pedal shaft, a ring mounted to rotate on the carrier and having ratchet-teeth on its periphery, a sprocket-ring, dogs mounted in the carrier, one adapted to engage with the teeth of the ring and the other to engage with notches in the sprocket-ring, springs for moving the dogs into operative position, a brake having operative connection with the ring, and means for locking the carrier to the sprooket-ring. 5th. In a bicycle brake, comprising a carrier designed to be permanently attached to the pedal shaft, a ring mounted to rotate on the carrier, a loop on the ring, a brake having a lever engraging in said loop a sprocket-ring mounted to rotate relatively to the ring and carrier, a dog for locking the ring to the carrier, a dog for locking the carrier to the sprocket-ring and an eccentric for holding the sprocket-ring in engagement with its dog.

No. 61,782. Tea Kette. (Théiere.)


- 382

Edward Candish Millard, London, England, 18th November, 1898 ; 6 years. (Filed 24th October, 1898.)
Claim.-1st. The tea kettle, substantially as described and illustrated herein, and for the purpose set forth. 2nd. In kettles of the class herein described, a container of a wide diameter having a
pivoted handle adapted to be folded into the interior of the container when required, said container being provided with a perforated surfact, an interchangeable lid for use upon the container or kettle after the container has been removed, a handle pivotally connected to said kettle for the purpose of facilitating the removal of the lid aforesaid, substantially as and for the purpose set forth, and as described and illustrated herein.

No. 61,783. Brake Shoe. (Sabot de frcin.)


Alfred L. Streeter, Chicago, Illinois, U.S.A., 18th November, 1898; 6 years. (Filed 24th October, 1898.)
Claim.--1st. A brake-shoe, comprising attaching and guide lugs formed integral w.th the body of the shoe, and a strengthening plate or plates secured in the body of the shoe, adjacent to the back thereof, said plate or plates being cut away or notched at their sides and ends to form connections of desired strength between said attaching and guide luss and the body of the shoe, substantially as described. 2nd. A brake-shoe, comprising attaching and guide lugs formed integral with the body of the shoe, and a strengthening plate or plates secured in the body of the shoe in such position that the back or backs of said plate or plates will be substantially flush with the back of the shoe, said plate or plates being cut away or notched at their sides and ends to form a connection of desired strength between said attaching and guide lugs and the body of the shot, substantially as described. 3rd. A brake shoe, comprising attaching and guide lugs formed integral with the vody of the shoe, and a strengthening plate or plates secured in the body of the shoe in such position that the back or backs of said plate or plates will be substantially flush with the back of the body of the shoe, said plate or plates being cut away or notched at their sides and ends to) form a connection of desired strength between said attaching and guide lugs and the body of the shoe, and the exteeme ends of said strengthening plate or plates being entirely covered or enclosed by the body of said shoe, substantially as described.

No. 61,784. Hat Hanger. (Porte-chapeau.)


Denis Spelman, National Home, Wisconsin, U.S.A., 18th November, 1898 ; 6 years. (Filed 22nd October, 1898.)
Claim.-1st. A hat hanger comprising a clamp formed of a doubled strip of spring-sheet metal bent to form clamping-jaws at the end, and having integral bent tongues projecting from said strip, and an angularly-hent locking-lever pivoted to said tongues, in combination with a suspension device formed of a single strip of spring-wire
doubled and bent into a horseshoe shape with the ends of said wire formed into hooks and interlocked within the doubled upper end of the said clasp, substantially as set forth. 2nd. A hat-hanger comprising a clamp formed of a double strip of spring sheet metal, with a locking-lever pivoted thereto, in combination with a curved rivet uniting the opposite parts of said doubled strip adjacent to the upper end thereof, and a suspension device formed of a double strip of spring-wire bent into a horseshoe shape and having its ends interlocked within the said upper end of the clamp above the said rivet, whereby the clamp can be sprung within the suspension device and held locked in a closed position, substantially as set forth.
No. 61,785. Rutton. (Bouton.)


61785
William Andrew Ryan and Donald Campbell Nesbitt, both of Eau Claire, Ontario, Canada, 18th November, 1898; 6 years. (Filed 22nd September, 1898.)
Claim. -1st. A button, comprising a front, rearwardly extending stud secured thereto, said stud having a longitudinal recess, a washer removably arm slidably mounted on said stud, and means to normally prevent the removal of said washer from said stud, substantially as described. 2nd. A button, comprising a front, having a stud extending rearwardly therefrom, a longitudinal recess formed in said stud, a washer removably and slidably mounted on said stud, and a pivotally mounted stop mounted on said stud and adapted to normally prevent the removal of said washer, said stop having a movement to allow of said removal, substantially as described. 3 rd . A button, comprising a front, having a stud extending rearwardly therefrom, a longitudinal recess formed in said stud, a washer removably and slidably mounted on said stud, a pivotally mounted stop mounted on said stud and adapted to normally precent the removal of said washer, said stop having a movement to allow of said removal, and means automatically connected to said front for normally holding said stop in its closed position, substantially as described. 4th. A button, comprising a front, having a stud extending rearwardly therefrom, a longitudinal recess formed in said stud, a washer removably and slidably mounted on said stud, a pivotally stop mounted on said stud and adapted to normally prevent the removal of said washer, said stop having a movement to allow of said removal, and a spring connected to said front and extending into the path of movement of said stop, said spring tending to normally hold said stop in its closed prisition, substantially as described.

## No. 61,786. Pen Holder Support.

(Support de porte-plumcs.)


## 61786

Antoine Honorius Meloche, Perronville, Michigan, U.S.A.: 19th November, 1898; 6 years. (Filed 7th October, 1898.)
Claim.-1st. A support for pen holders, consisting of a lody portion having a finger opening and an opening to receive the pen holder, and a fastening device extending into the latter opening, as and for the purpose specified. 2nd. A support for $l^{\text {ren }}$ holders, consisting of a body portion provided with an opening near one end, the wall whereof is flared in direction of the outer surface of the
body, and a smaller opening, twoth of said openings extending throngh the body, and a set screw passed through the body into said smaller opening, as and for the purpose specified. 3rd. A support for pen holders, comprising a body having substantially an elliptical shape, the wader portion of said body having its outer surface tapered, the wider portion of said body being provided with an opening, the wall of which is flared in direction of the outer surface of the loody, the said body being provided near its contracted end with a smaller opening communicating with the larger one, the larger opening being adapted to receive a finger of the hand and the smaller opening the 1 en holder, and means, substantially as described, for adjustally securing the pen holder in the opening of the body designed to receive it, for the purpose set forth.

## No. 61,78\%. Aluminium Coating Process. <br> (Procédé pour enduire l'aluminium.)

Gaston Weil Ernest Quintaine and Clements Lepsch, both of Paris, France, 19th November, 1898; 6 years. (Filed 2nd November, 1897.)

Claim.--1st. A bath for plating aluminium or other metals which comprises an ordinary plating solution combined with an organic production belonging to the class of hydrates of carbon, substantially as described. 2nd. A bath for nickel plating aluminium or other metals which comprises a solution of double sulphate of nickel or other nickel salt combined with an organic production belonging to the class of hydrates of carbon, and more especially the class of saccharoses, cane sugar (before or after inversion) lactose, maltose, etc. ptc., substantially in the proportions described. 3rd. The process of gilding or silver plating aluminum, which consists first, in plating it with nickel or copper in a solution containing a nickel or copper salt combined with a hydrate of carbon, and then gilding or silvering the nickelled or coppered aluminium in an ordinary gilding or silvering bath. 4th. The process of plating aluminium, which consists first, in plating it in a solution containing a salt of nickel and a hydrate of carbon substantially in the proportions described, and then annealing it in a close vessel, afterwards rolling if required, substantially as described.

No. 61,788. Acetylene Gam Generator.
(Générateur de gaz acétylène.)


Johann Miicke, 14 Holzmarkestrasse, Berlin, Germany, 19th November, 1898; (Filed 24th January, 1898.)
Claim.--1st. In an acetylene gas generator, the combination of a generator, and a water supply to the same controlled by the generator, a regulating tank inserted between the control valve and the generator and having therein an adjustable syphon as specified and a series of carbide receptacles within the generator at various heights, covers loosely resting on the same and, having downwardly turned edges in the manner and for the purpose, substantially as described. 2nd. An acetylene gas generator, the combination of a generator, a water supply pipe thereto controlled by the generator, a regulating tank between the control valve and the generator having therein an adjustablesyphon, a series of carbide receptacles arranged within the generator and having loose covers as specified, a bell within each receptacle having upper opening aud containing the carbide, and means in connection with the gas supply pipe to carry off the water taken into the same by the acetylene developed substantially as described. 3rd. In an acetylene generator, the combination of a generator, a water supply thereto controlled by the gasometer, a water tank and a chamber thereunder, a plug valve to establish communication between said tank and chamber, a downwardly extending chamber to the regulating chamber or tank, and a syphon mounted therein, means for adjusting the said syphon, a series of c rbide receptacles mounted at various levels within said generator,
e covers to the same having downwardly turned edges, a bel
within each, to enclose the carbide and having upper opening, a gas outlet pipe howing water traps as suecified, in the manner and for the purpose substantially ass described. 4th. In an acetylene gas generator, the combination of a generator chamber and a water supply pipe thereto, a water supply valve controlled by the gasometer, a regulating chamber inserted between said valve and the generator and means within the same for regulating the suplly of water in the generator after the supply valve has been closed, a series of carbide receptacles arranged at various heights in the generator and having covers and bells as specified for the purpose, substantially as described and for the porpose specified.

No. 61,789. Children's Carriage. (Voiture denfant.)


George Chisholm, Sault Ste Marie, Michigan, U.S.A., 19th November, 1898 ; 6 years. (Filed 18th August, 1898.)
Claim.-1st. A children's carriage, comprising a body portion, a running gear secured thereto, and a sleigh attachment connected to said rumning gear, said sleigh attachment being adapted to be movable into and out of an operative position, means for moving said attachment into its operative and inoperative positions, and means for automatically retaining said attachment in its operative or inoperative positions, substantially as described. 2nd. A children's carriage, comprising a body portion, a running gear secured thereto, said lunning gear having a front and rear axle, comnections between said front and said rear axle, whereby said axles will have a common pivotal movement, a sleigh attachment connected to said axless and having an operative movement therewith, said movement heing adapted to pass said attachment to an operative or inoperative position, means for moving said attachment to its operative or inoperative position, and means for locking said attachment to any of its adjusted positions, substantially as described. 3rd. A children's carriage comprising a body portion, a running gear connected thereto, the axles of said running gear being adapted to have a pivotal movement, a sleigh attachment secured to said axles, having a movement therewith, said attachment being movable into an operative and an inoperative position, connections between said axles, whereby said axles will have a common movement, and operating lever connected to said connections, said operating lever being adapted to rotate said axles on their pivots, and a bail secured to said sleigh attachment, said bail being adapted to have an operative contact with said operating lever and the rear axle of said running gear, said contact being made when said attachment has been placed into an operative or inoperative position, substantially as described.

## No. 61,790. Compressed Air Engine.

## (Machinc ì air comprimé.)

Lucius Tuckerman Gibbs, New York City, U.S.A., 19th November, 1898; 6 years. (Filed 10th October, 1898.)
Claim. -1 st. The combination of a motor, a source of air under working pressure, a source of gas or inflammable vapour under pressure, valyes respectively controlling the admission of said air and said gas to said motor, and an igniter, the said parts being soorganized and timed that first air and then gas are independently admitted to the cylinder and an explosion or ignition then cansed to occur subsequent to the cut off of the working air, substantially as described. Ind. The combination of a motor, a source of air under working pressure, a source of gas or inflammable vapour under pressure, a valve controlling the admission of air to the fmotor, a valve con-
trolling the admission of gas to the motor and an igniter, the parts being so organized and timed that gas will be independently

admitted into the cylinder when the air is at a certain pressure therein and subsequently ignited when said air is at a certain lower pressure, substantially as described. 3rd. The combination of a motor, a source of air ender working presure, a source of gas or inflammable vapour under pressume, a valve controlling the admission of air to the motor, a valve controlling the admission of gas to the motor and an igniter, the parts being so rreanized and timed that gas will be independently adnitted into the cylinder before the point of cut off of the air and ignited subsequent to said point of cut off, substantially as described.

No. 61,791. Sole. (Chreussurc.)


Janiel Edward Smith and Frederick William Smith, both of 183 Hereford Street, Chrstchurch, New Zealand, 19th November, 1898; 6 years. (Filed 27th October, 1898.)
Clain. - 1st. An improved insole for boots and the like, consisting of sheet india-rubber, one face of which has a sheet of leather cemented $\quad 1$ mon it and the other face provided with a number of projectirg studs or bosses, substantially as and for the purposes herein described and illustrated in the drawings. 2nd. A slip sole for boots and the like, consisting of the combination of a sheet of india-rubber having projections from one surface and a sheet of leather secured upon the other, said leather extending beyond the
edges of the india-rubber to form a welting-strip through which stitches are passed in fixing the slip sole in position, substantially as and for the purposes described, and illustrated in the drawings.

No. 61,792. Hanger and Screen for Waves-Troughs. (Support et grillage de lemiors de toit.)


Franklin P. 1)ick, Bucyrus, Ohio, U.S.A., 19th November, 1898 ; 6 years. (Filed 6th October, 1898.)
Claim. - In an eaves-trough, the combination with a trough provided at the outer edge thereof with a lead, of a screen closing the mouth of the trough, a pair of main hangers serving as supports on which the screen rests, said hangers being provided at their outer ends with hooks engaging the bead of the trough and each lient on opposite sides of its center to form loops projecting upwardly through the meshes of the screen, and an auxiliary hanger also provid. $d$ at its outer end with a hook to engage the bead of a trough and arranged between said main hangers and bearing upon the upper surface of the screen, substantially as described.

## No. 61,793. Cycle Propulsion Mechanism.

(Mecanisme de propulsion de cyrles.)


George Brongham Hubert Austin, No. 60 Armadale Road, Armadale, Australia, U.S.A., 1! th November, 1898; fiyears. (Filed 22nd July, 1898.)

Claim.--1st. In mechanism for assisting in the propulsion of cycles a suddle as A carried by a short tube as a ${ }^{1}$ resting upon ball bearings as $a^{2}$ within a larger thibe as $B$ and having a cross bar as $b$ passing through slots in said tube $B$, and a screwed cap as $b^{1}$, substantially as herein described. 2nd. In mechanism for assisting in the propulsion of cycles a tube as 13 fitting loosely within the downwardly projecting tube as $C$ of the frame of the machine and having slots as $b^{4}$ in which work rollers as $b^{;}$removably fixed in said tube C and either with or without-guide wheels as $b^{5}$, substantially as herein described. 3rd. In mechanisu for assisting in the propulsion of cycles, a tube as $B$ actuated by the weight of the rider and fitted near its lower end with a pallet or rack as $B^{2}$ engaging with studs as $\mathrm{D}^{1}$ or cogs on a wheel as D , gearing directly or indirectly with the crank shaft or hub of the drive wherl, substantially as herein described. 4th. In mechanism for assisting in the propulsion of cycles, a saddle a $A$ pivoted at its forward end as at $A^{1}$ and having its rear end connected to a pair of levers as $A$ " fulcrumed on the saddle support and having their front ends connected to a tube as $B$ extending into a downwardly projecting tube of the frame of the machine, substantially as herein described. 5th. In mechanism for assisting in the propulsion of cycles, a tube as B actuated by the weight of the rider and extending into a downwardly projecting tube as $C$ of the frame of the machine and fitted at its lower end with a piston as $F$ working within a short cylindrical chamber as $F^{1}$ having an inlet valve as $F^{2}$ and outlet valve as $F^{3}$ and pipe as $\mathrm{F}^{4}$ substantially as herein described. 6th. In Mechanism for assisting in the propulsion of cycles a tule or tubes as 13 actuated by the weight of the rider and extending into the downwardly projecting tubes as $C C^{\prime \prime}$ of the frame of the machine and connected to a lever or levers as $B^{4}$ engaging with gearing learling to the crank shaft or hub of the drive wheel, substantially as heren described.

## No.61,794. Hide Unhairing Method.

(Méthode d'entever le poil des peaux.)

( feorge Dexter Burton, Boston, Massachusetts, U.S.A., 19th November, 1898 ; 6 years. (Filed 7 th June, 1898.)
Cluim. -1 st. The process of unhairing animal lides or skins which consists in subjecting the hides or skin to the action of an unhairing solution, and a current of electrisity passed through said solution. said current being of sufficient volume to raise the hair and permit circulation through it. 2nd. The process of unhairing animal hides which consists in subjecting said hides or skins to the action of a solution of quicklime, and red sulphide of arsenic, and an electric current passed through said solution, said current being of sufficient volume to raise the hair and permit circulation through it. 3rd. The process of unhairing hides or skins, which consists in subjecting said hides or skins to the action of a solution composed of quicklime, red sulphide of arsenic, and water in the proportions of about ten pounds of quicklime one pound of red sulphide of arsenic, and seventy gallons of water, and an electric current passed through said solution containing the hides or skins, said current being of sutficient volume to raise the hair and penr it circulation through it. 4 th. The process of unhairing animal hides or skins, which consists in subjecting said hides or skius to the action of an unhairing solution, and a suitable electric current passed through saia solution, and avoiding injury to said hides or skins by preventing their coming into direct contact with sediment should the solution remain too long unstirred, said current being of sufficient volume to raise the hair and $p$ ermit circulation through it. 5th. The process of unhairing animal hides or skins which consists in subjecting the hides to the action of an unhairing solution, and a current of electricity passed through said solution in lines parallel with the layers of skins, satid current being of sufficient volume to raise the hair and permit circulation through it.

No. 61,795. Bicyele saddle. (Selle de bicyrlex.)
Charles Franklin Webber, Boston, Massachusetts, U.S.A., 19th
Nowember, 1898; 6 years. (Filed 15th July, 1898.)
Claim. - 1st. A saddle-supporting spring for bicycles, provided at its rear with a post to enter the rear or seat-post tube, and having pivoted to its forward end a lower rearwardly extending nember, and a clamp, on the rear end of said member to engage the top-framebar or tube, substantially as described. 2nd. A saddle-supportingspring for bicycles, provided at its rear end with a pivotally connected seat-post to enter the rear or seat-post-tube, and having pivoted to its forward end a lower rearwardly extending member and a clamp pivotally comnected to the rear end of said member and adapted to engage the top-frame-bar or tube, substantially as
described. 3rd. The combination with a longitudinally extending seat supporting-spring, of an elongated slide adjustable along the

spring and open between its ends to permit the spring to bow or curve under the weight of the rider, a saddle-clamp on the rear end of the slide and an adjusting device at its forward end, substantially as described. 4th. A saddle-supporting-slide comprising boxlike front and rear members open at their ends for the passage of a spring therethrough, and having parallel elongated side connectingbars, a seat-clamp on the rear box like nember and a set-screw extending through the front box-like member, the front box-like member being far pnough in advance of the corresponding rear member to exprose the set-screw beyond the pommel of the saddle and within the reach of the rider, substantially as described. 5th. The combination with the longitudinal spring having means for connecting its ends to a bicycle-frame, of a slide having parallel side-bars at opposite edges of the spring, front and rear cross-pieces connecting the side bars above the spring, a saddle clamping plate under the rear cross-bar, a bolt connecting the plate and cross-bar, upper and lower cross-pieces or bolts below the clamping-plate and between which the spring extends, a cross-piece or bolt under the spring at the front end of the slide, and a set-screw extending down through the forward upper cross-piece into engagement with the spring, substantially as described. 6th. The combination with a bicycle, of a spring hinged at its rear end to the upper end of the seat-post, and extending longitudinally above the top-bar toward the head and provided with a hinged lowerextension having a clamp adjustable along the top-bar, and a saddle-supporting-slide mounted on the spring provided at its rear end with a saddle-clamp and at its front end with means for clamping it to a spring, substantially as described.

No. 61,796. Bob Sled. (Traineии-јинсси.)


Nathan T. Canfield, Lynxville, Wisconsin U.S.A., 19th November, 1898; 6 years. (Filed 2nd November, 868.)
Claim.-A bob sled or sled-rumner for attachment to the axle of a vehicle having an axle with spindles provided with an internediate shoulder, a runner, the knee thereof having a vertical member and a diverging member with eyes, the inner eye of the knee being adapted
to abnt against the inner shoulder of the spindle, the eye of the vertical member carrying a sleeve which abuts against the internediate shoul ler, substantially as shown.

No. 61,797. Apparatusfor Transporting Ships by Railway. (Aprarril pour transporter les mavires par chemtins de fer.)


Axel Bernhard Anderson, Brooklyn, New York, U.S.A., 19th November 1898 ; 6 years. (Filed 29th October, 1898.)
Claim.-1st. In apparatis for transporting ships afloat in a tank, the combination with the tank, of a system of trucks comprising two lines of main trucks placed side by side on parallel tracks, and end trucks placed centrally under the tank, and on the inner rails of the main truck tracks, substantially as described. 2nd. In an apparatus for transporting ships afloat in a tank, the combination with the tank, of a system of trucks comprising two lines of main trucks placed side by side on parallel tracks, consisting of outside rails for flanged wheels and intermediate bearing rails, said trucks having outside flanged wheels, and intermediate bearing wheels on each and all the axles, substantially as d-scribed. 3rd. In apparatus for transporting ships afloat in a tank, the combination with the tank, of a system of trucks comprising two lines of main trucks placed side by side on parallel tracks consisting of outside rails for flanged wheels and intermediate bearing rails, said trucks having outside flanged wheels and intermediate learing wheels, and end trucks placed centrally under the tank and on the inner rails for the main trucks, substantially as described. 4th. In an apparatus for transporting ships afloat in a tank, the combination with the tank, of a system of trucks compris. ing two lines of main trucks placed side by side on parallel tracks consisting of outside rails for flanged wheels and intermediate bearing rails, said tracks having outside flanged wheels and intermediate bearing wheels and also having intermediate side frames and axle boxes, supporting said intermediate frames, substantially as described. 5th. In apparatus for transporting ships afloat in a tank, the combination with the tank, of a system of trucks con:prising two lines of main trucks placed side by side on parallel tracks, a learing plate supported on the middle of the truck frames transversely, a series of supporting springs placed side by side along said bearing plate, a plate carried on the springs, a king-holt located at the middle of said plates, and trussed tank supporting bolsters extending the entire width of the tank and resting on said rollers on both lines or tracks, the trussed bolsters over the middle of the trucks also resting on the king fbolts, substantially as described. 6th. In apparatus for transporting ships afloat in a tank, the combination with the tank, of a system of trucks comprising two lines of main trucks placed side by side on parallel tracks, a bearing plate supported on the middle of the truck frames transversely, a series of supporting springs placed side by side along said bearing plate, a plate carried on the springs, a king-bolt located at the middle of the plates, bearing rollers at the extremities of the upper plate whereon and on the king bolt the tank is carried, the series of guide standards of the bearing plate embracing the edges of the upper plate, and the series of guide brackets of the upper plate intermediate of the standards, of the bearing plate controlling said upper plate against lengthwise and lateral play, sustantially as described. 7 th. In apparatus for transporting ships afloat in a tank, the combination with the tank, of a system of trucks com prising two lines of inain trucks placed side by side on paralle
tracks, a bearing plate supported on the middle of the truck frames transversely, a series of supporting frames, springs placed side by side along s.id bearing plate, a plate carried on the springs, a kingbolt located at the middle of the plates, bearing rollers at the extremities of the upper plate, springs located on the axle boxes, and rollers carried on the said springs whereon, and on the rollers and king-bolt carried by the bearing plates the tank is carried, substantially as described. 8th. In apparatus for transporting ships afloat in a tank, the combination with the tank, of trucks for carrying the tank, a system of braces for the ontsides of the tank, cantilever supports for said braces, and countel-braces for the cantilevers having support against the bottom of the tank, and against thrust bars suspended under the truck fraines between the wheels and others suspended between the trucks, substantially as described. 9th. The combination with the gate hinges, of the intermeshing ribs and grooves for packing the hinge joints, sulstantially as described. 10th. The combination with the gates, of the meeting edge plates haviug coincident groores and intermediate abutting ribs, of the key pivoted in one of said plates and having flanges intermeshing with the grooves of the two plates when the gates are closed, substantially as described. 11th. The combination with the gates, of the locking plates, the studs on one of said plates, and the hooks and the lock actuating bar on the other plate, said hooks having the eccentric connection with the actuating bar, substantially as described.

No. 61,798. Baker's Oven. (Fourneau de boulangerics.)


Werner Neuhs, Cleveland, Ohio, U.S.A., 19th November, 189: : 6 years. (Filed 25th October, 1898.)
Claim.- 1st. In a baker's oven, a base A of masonry, a fire-place $A^{1}$ at the frout or back, a central arch-flue $A^{2}$ extending forward with branches $\mathrm{A}^{3}$, or side flues $\mathrm{A}^{5}$ leading into the upward side flues $\mathbf{A}^{4}$, longitudinal bars C supported in the front and bark walls, a sheet-metal plate $D$ forming the oven bottom, supported on said bars, posts d d also supporting said plate and bars, longitudinal bars $E$ supported by front and rear walls, a covering plate $F$ supported on said bars $E$, a metal plate (i, forming the top of oven, hangers $g /$ suspended from said bars E and supporting said plate $G$, downward openings $h h$ connecting the space under the oven with the cross outlet flue K , all constructed to operate, substintially as and for the purpose specified.

## No. 61,799. Rotary Cutter. (Tranche rotatoire.)

James Albert Manning and David Frederick Maguire, both of Toronto, Ontario, Canada, 21st Noveniber, 1898; 6 years. (Filed 14th October, 1898.)
Claim.-1st. The combination, with suitable knives or cutters for producing a thin shaving, of two rotary cutters having a series of discs with double cutting edges so arranged that the dises of one cutter pass between the discs of the opposing cutter and thereby slit the shaving as it is passing up between the cutters, as and for the purpose specified. 2nd. The combination with the rotary cutters, having a series of dises with double cutting edges so arranged that the discs of one cutter pass between the dis's of the opposing cutter and therely slit the shaving as it is passing up between the cutters, of the comb-like strippers for each rotary cutter, having the teeth of the same projecting into the spaces between the discs
of the cutters, as and for the purpose specified. 3rd. The combination, with the rotary cutters having a series of discs with double

cutting edges so arranged that the discs of one cutter pass between the dises of the opposing cutter and thereby slit the shaving as it is passing up between the cutters, of the comb-like strippers for each rotary cutter, having the teeth of the same projecting into the spaces between the aiscs of the cutters, and the endless belt having a roughened surface to grip the shaving and hold it securely as it is being fed, as and for the purpose specified.

No. 61,800. Elastic Stocking. (Bas élastique.)


Arthur Brewin Kendrick and James Radford Kendrick, both of Philadelphia, Pennsylvania, U.S.A., 21st November, $1898 ; 6$ years. (Filed 20th Octover, 1898.)
Cluim.-1st- The integral blank for elastic stockings of the class recited, comprised of the leg and ankle portions having the transverse parallel rubber weft threads, substantially at right angles $t$., the axis of the blank, the opposite tri-angular or gored portions at the heel part, wherein the weft threads are parallel with each other but at an angle to those of said other parts, and the instep portions wherein the weft threads are at an angle to those of the ankle and leg portions of the blank, substant.ally as set forth. 2nd. An elastic stocking of the cla s recited, having in the heel portion thereof a gore, the rubber weft threads of which are parallel with each other, but at an angle to the weft threads of the other parts of the stocking, and having also the instep portion whose weft threads are at an angle to those of said gore, and at an angle to those of the said other parts, whereby the draw on saia weft threads throughout the stock:ng is always practically in a plane at right angles to the the axis of the particular part of the foot or leg which they embrace,
substantially as and for the purpose set forth.

No. 61,801. Glame Blowing Machine.
(Machine is sompter le verre.)


The Ball Brothers (ilass Manufacturing Company, Muncie, Indiana, assignee of Frank Clayton Ball, Minnetrista near Mumeit, 21st November, 1898; 6 years. (Filed 11th October, 1898.)
Cloim.-1st. The combination, in a glass blowing apparatus, of neck moulds, pressing monlds, blowing moulds, a blowing head, and a pressing head or plunger, suitably arranged in relation to each other, hooks adapted to engage with the neck moulds and lift the same from the pressing moulds, and means for operating said hooks. 2nd. The combination, in a glass blowing machine, of neek moulds, pressing moulds and blowing moulds arranged in stts on a suitable table, a vertically movable plunger arranged above the pressing moulds and adapted to press the glass therem, and hooks carried by the plunger head and adipted to engage with a neck mould and lift the same from the corresponding pressing mond as said plunger re-ascends, from whence said neck mould is adapted to be transferred to a blowing moald by hand. Brd. The combination, in a glass blowing apparatus, of neck moulds, pressing moulds, blowing monlds, a plunger arranged above the pressing moulds and adapted to press the glass therein, hooks adapted to engage with a neck monld and lift the wame from the pressing mould, and means actuated from the plunger for operating said hooks. th. The combination, in a glass blowing machine, of a neck nould, a plunger, hooks (i carried by the phuger hearl and adapted to engage with and lift said neck-forming mould, and springs a by which said hooks are normally beld to a predetermined position, while adapted to be noved therefrom by contact with the part to be lifted thereby. 5th. The combination, in a glass blowing machine, of a pressing mould, a blowing mould, and it neck mould adapted to be transferred from the pressing monld to the blowing mould, said blowing mould and said neek mondd heing each compose I of parts hinged together, and a suitable step or guide wherehy said neek mould is enabled to be easily positioned acenrately upon said blowing monld. 6th. The combination, in a glass blowing machine, of a blowing mould composed of parts united by a vertical hinge pisot, a neck mould also composed of parts mited hy a vertical hinge pivot and adapted to be placed upon said blowing mould, th: contacting surfaces of said moulds having a ring-and-groove formation whereby they are brought into proper vertical relation with each other, and a stud or stop on said blowing mould with which one side of said neck mould is adapted to be brought intocontact, whereby the hinge pivots are caused to assume a position in line with each other, substantially as and for the purposes set forth. 7th. The combination, in a glass blowing machine, of a suitable framewo $k$, a rotating table thereon, a series of sets of moulds each composed of a pressing monld and a blowing nould arranged alongside each other and attiached to the table and a neck mould transferrable from one to the other, a pressing head, and a blowing head, carried by a standard of the frame, means for transferring the neck mould from a uressing mould to a blowing mould, and means for rotating the table and for stopping the same in predetermined positions, said stops, pressing heads and blowing heads being so arranged, relatively to each other, that when a prsssing mould if below the pressing head a blowing mould is below the blowing head, substantially as shown and described. 8th. The combination, in a glass blowing machine, of a suitable framework having a central standard, a rotating table mounted thereon, a series of pressing, blowing and neck forming monlds carried hy said table, a pressing head and a blowing head carried by said standard, means for operating said pressing head,
and means consisting of a treadle I, a lever $\mathrm{H}^{1}$, and suitable connecting rods, for operating said blowing head, substantially as set forth. 9th The combination, in a glass blowing machine, of a suitable framework having a central standard, a rotating table mounted thereon, a series of pressing, blowing and neek forming moulds carried by said table, a pressing head and a blowing head carried by said standard, a suitable detent for locking said table at vartous pints, a treadle for operating said detent, and a lever and a treadle for operating said blowing head, said two treadles heing located alongside each other, whereby they may be conveniently operated from a single point, substantially as shown and described. 10th. The combination, in a glass blowing apparatus, of neck moulds, pressing moulds, blowing noulds, a blowing head, and a pressing head or plunger, suitably arranged in relation to each other, means adapted to engage with the neck moulds and lift the same from the pressing moulds, and mechanism for operating said lifting means, substantially as set forth.

No. 61,802 . Upholstering Apparatum.
(Appurvil putur tunissiers.)


The Novelty Tufting Machine Company, assignee of Alfred Freschl, all of Chicago, Illinois, U.S.A., 21 st November, 1 R9s; 6 years. (Filed 15th September, 1898.)
Claim.-1st. A former for making tufted cushions, comprising a base phate, and a plurality of upwardly projecting tufting posts attached rigidly to said plate, each of said posts being provided at its onter end with an upwardly projecting pointed pin adapted to pierce both coverings of the cushion. 2nd. A former for making tufted cushions conprising a base plate, a plurality of upwardly projecting tufting posts attached rigidly to said plate posts, each of posts being provided at itsouterend withan outwardly projecting said pomed pin adapted to pierce tooth coverings of the cushion, and a plurality of strips having straight edges placed edgewise on the phate longitudinally and transversely thereof and intersecting at said josts to form between said posts a plurality of outwardly opening pockets or moulds. 3rd. An uphohstering apparatus comprising a former consisting of a stationary base plate and a plurality of outwardly projecting tufting posts attached rigidly to said plate, each of which is prowiled at its onter end with an upwardly projecting pin adapted to pierce both coverings of the cashion, a follower movable toward and from said former and provided opposite said posts with a phurality of openings through which said pins are adapted to project, and means for moving said follower toward the former. 4th. An upholstering apparatus conprising a former consisting of a base plate and a plurality of upwardly projecting tufting posts attached rigidly to said plate, each of which is provided at its outer end with an upwardly projecting pin adapted to pierce both coverings of the cushion, a follower movable toward and from said former and provided opyosite said posts with a plurality of openings through which said pins are adapted to project, said follower being provided on its under side around each opening with a flange surrounding said opening and projecting below the follower. 5th. A former for making tufted cushions comprising a base plate and a plurality of upwardly projecting tufting posts attached rigidly to said plate, each of said prosts being provided at its outer end with an upwardly projecting pointed pin or nail, adapted to pierce both coverings of the cushion, said pin or nail being detachably connected with the imst and adapted to be detached therefrom and serve as a means for tufting the immer and outer coverings together. ith. An improved method of making tufted cushions which consists in laying
a piece of pliable material face downward over a form having a plurality of upwardly projecting sharp pins, depressing said material between the pin to form a plurality of upwardly opening cells therein. pressing said material down over the pins to hold the same in proper relation inon the former, filling the cells with a suitable pliable substance, applying a suitable material over the top of the entire article and pressing the same down over the pins in contact with the first-mentioned material at points inmediately surrounding said pins to hold the same in proper relation to said material first mentioned, and thereafter securing said upper and lower materials tugether at their points of contact between said cells.

No. 61,803. Bieyele Support. (Support de bicucles.)


William A. Morgan, Eastman, assignee of Samuel Welch and Henry A. Burkhardt, both of Fitzgerald, Georgia, U.S.A., 21st November, 1898; 6 years. (Filed 31st August, 1898.)
Claim,-A bicycle support, comprising a clamp having a pair of laterally projecting ears with an inner verical wall, a pin connecting said ears and a lever pivotally supported in the said ears and having a triangular head with oppositely situated angular and straight edges adapted to contact with the vertical wall hetween the ears to bold the lever in a supporting and an elevated position respectively, the head being provided with a triangular slot to receive said $p$ in, substantially as and for the purpose specified.

Ne. 61,804. Steam Whistle. (Siffet à vapcur.)


61804
Foriest A. Davey and Juhn G. Patterson, both of Detroit, Michigan, U.S.A., 21st November, 18:98; 6 years. (Filed 25th July, 1898.)

Claim.-1st. In a whistle valve, a main steam valve, comprising u freely sliding piston, heads thereon of different area, seats aronnd each head, seats in the casing against which the seats on the pistons respectively bear, the main steam passage to the whistle leading to and controiled by the smaller head, and an auxiliary valve-controlled passage leading to the larger head, having an exhaust therein. End. In a whistle-valve, a main steam valve comprising a freely sliding piston, heads thereon of different area, seats around each head, seats in the casing against which the seats on the piston respectively bear, the main steam passage to the whistle controlled
by the smaller head, an auxiliary passage from the steam supplypipe to the larger head, an exhaust port therein, and a valve for controlling the supply and exhaust port to the larger piston, said valve consisting of a freely sliding stem baving орюowitely arranged seats thereon at opposite ends, and corresponding seats around the ports leading from the main steam supply to the anxiliary passage and from the auxiliary passage, and means for actuating said valve in both directions. 3rd. The combination with a main whistle-valve of the kind described, of the controlling valve for the supply and exhaust to the large piston, consisting of the valve $I$, having inclined seats at opposite ends controlling respectively the supply and exhaust ports, the cap $p$ having the exhaust port therethrough and a seat on its inner end against which the valve $I$ is adapted to engage, an actuating stem for the valve passing freely through the cap, said cap being detachable to permit of the removal of the valve $I$. 4th. The combination with the whistle, the valve and pipe, of an electro-magnet secured to said pipe and comprising a cylindrical body having the end heads $r$ provided with the upwardly projecting pole pieces s and the rearwardly extending. lugs $t$, the connecting nom-magnetic cross-bar $u$ secured to the pipe and the hinged armature M, and a connection between said magnet and valve consisting of an upwardly projecting arm on the armature, a lever on the valve, and a link connecting said arm and lever. 5th. In a valve, the hollow piston $H$ having the valve face $c$ at one end, the enlargement , at the other end and the annular valve face $b^{1}$ between, in combination with a casing in which said piston is slidingly secured, having the seats $d$ and $b^{2}$ with which the faces $c$ and $b^{1}$ engage, with the outlet port $g$ between said seats and pressure chamber on opposite ends of the valve, and means for exhausting the pressure on the large end side of the piston, for the purpose described.

No. 61,80s. Sleight Runner. (Patin de traineau.)


John Edward Hobbs and Barton Morrill Wentworth, Berwick, Maine, U.S.A., 21st November, 1898; 6 years. (Filed 18th July, 1898.)
Jlaim.-1st. An attachable sleigh-runner provided with means for receiving the spindle of an axle, said means supported on the arm of a bracket-truss formed of two converging standards secured to said rumner, said standards turned outwardly at their junction to form said arm and clamped or bolted together, substantially as shown and described. 2nd. An attachable sleigh-ı unner provided with means for receiving the spindle of an axle, and means sup, ported on the arm of a bracket truss formed of lateral standards secured to said rumner and converging to each side of a central standard, said standards turned outwardly at their junction and forming said arm and held together by a clip and bolts, substantially as shown and described. 3rd. An attachable sleigh-runner consisting of a rumer having a bracket-truss mounted thereon, said truss formed of two side standards converging at a distance above said runner and resting in contact with a third standard rising vertically from said rumer, said truss turned outward nearly at a right angle, at the point of union of said standards and forming an arm for attaching the runner to the sleigb or carriage body, said standards held together by a clip at the beginning of said arm and a bolt passing through it near its free end, substantially as shown and described. 4th. An attachable sleigh-runner consisting of a runner having mounted thereon a bracket-truss formed of two lateral standards rising from said runner and converging to the outer side of a central standard and forming with said central standard an out-
wardly projecting arm beld wgether by a clip at the beginning of said arm, a hub providerl with a longitudinal recess to rec+ive said arm mounted upon and secured to said arm by bands encircling the ends thereof and bolts passing through the ends of said bands and said arm, substantially as shown and described. Jth. In an attachable sleigh-rumner, the combination with said runner of a shaft coupling and support, said support consisting of two parallel bars secured to each other on opposite sides of the cap-bar and tie-bar of said runner forward of the axle support mounted thereon and having their ends projecting inwardly to a distance from said cap and tie-bars and a coupling provided with a T-head supported betwern said bars and secured therein, substantially as shown and described. 6 th. In attachable sleigh-runners, the combination with a pair of said runners, of a loose jointed rod for holding said rumners parallel to tach other, said rod secured in ryes in the clips adjustably secured to the tie-bars of said runuers, substantially as shown and described. 7 th. In attachable sleigh-rumners, the combination with said runners, of a loose jointed connecting rod for holding said runners parallel to each other, said rods secured at each of its ends in eyes formed in hars secured to the cap-bars of said rumners in front of the axle-support, substantially as shown and described. 8th. In an attachable sleigh runner the combination with said runner, of a bracket truss mounted thereon having an outwardly projecting arm, a hub recessed longitudinally on its under side to rest upon said arm, bands passing around the ends of said hub and having bolts through their ends and through said arm to secure said hub thereon, substantially as shown and described. 9th. In attachable sleigh-runners the combination with the rumer, of a hob noounted on an arm formed on a truss, said truss consisting of lateral standards rising from said runners and converging to the sides of a central standard, said standards turned outward at nearly a right angle and forming said arm, said standards held together by a clip at their point of junction, a hub recessed longitudimally to rest on said arm, bands passing around the ends of said hubs, the ends of said bands secured to said arm by bolts, substantially as shown and described. 10th. An attachable sleigh-rumer having a hub mounted thereon, said hub supported on an arm formed integral with a truss consisting of coverging standards united to a central standard, said hub recessed longitudinally to rest on said arm, bands passing around the ends of said hub having the ends thereof secured on each side of said arm by bolts, the cap-bar and tie-bar of said runner passing under said arm and provided with upwardly turned ends resting in contact with the ends of said bands and secured therewith to said arm, substantially as shown and described. 11 th. The recessed hub $\mathbf{H}$, with the bracket 13 , substantially as set forth. 12th. The combination of two opposite sleigh-runners, parallel bars $m, n$, and loose-jointed connecting-rod ( i , substantially as set forth. 13th. The combination of two opposite sleigh-rumners, the loops $\epsilon$, and the loose-jointed connecting rod (x, substantially as set forth. 14th. In an attachable sleigh-runner, the combination of the short parallel bars $m, n$, flanged adjustable shaft-compling $s$, and kolt $b$, substantially as set forth.

No. 61,806. Nwinc Medicine. (Médecinc pour porcs.)
Rothauf Serum Gesellscraft, Berlin, assignee of Gustavo Lorenz, Mathildemplatz, 17 larmstadt, (iermany, 21st November, 1898; 6 years. (Filed Bth June, 1898.)
Claim.-1st. A method of preparing a permanent preparation containing in determined proportions the white corpuscles of the blood of swine immuned against swine fever, characterized by the purification of the serum with concentrated solution of chloride of calcium, and after standing a short time the fractional precipitation thereof with sulphate of ammonia in such a manner that in the first precipitate only the substance which interfere with the subsecurnt solution of the residues containing the white corpuscles can the included, whilst the white corpuscles are precipitated first by the further addition of sulphate of ammonia, substantially as described. 2nd. The solution of the precipitate containing the $u$ hite corpuscles and dried upon plates or the like in a dissolving Huid composed essentially of water, glycerine salicylate of soda, carbonate of soda, and carbolic acid compound in definite proportions, sulstintially as described.

## No. 61,807. Bieyele Support. (Support de hicycles.)

Oscar P. Breithut and Max J. Keinhold, both of Williamsport, Pennsylvania, U.S.A., 21st November, 1898; 6 years. (Filed 13th July, 1898.)
Cluim.-1st. The combination with a leg or rod, and a clamp for connecting said leg or rod to a bicycle, of a pivoted clasp mounted on the leg independently of the clamp and adapted to embrace a front wheel of a bicycle, and a tension spring for holding said clasp in position and permitting the clasp to adjust itself to the inclination of the leg or rod without disconnecting the same from the wheel, substantially as and for the purpose described. 2nd. The combination with an attaching clamp, of a leg or rod, a wheel-engaging clasp connected by a horizontal pivot to the leg or rod and adapted to turn on the rod to an angular position when the latter is moved sidewise, ont of the plane of the bicycle frame, a tension spring seated against the leg or rod and commected with the clasp, and the universal joint between the rod or leg and the attaching clamp to permit the leg to have endwise and lateral adjustment of the bicycle
frame, substantially as described. 3rd. The combination with a leg or rod, of a clamp donbled upon itself to form a loop and provided

with a slot through said lown, a pivot fitted in the loop of the slot, a hanger pivoted to the leg and attached to the pivot confined in the loop, and a clasp carried by the leg, for the purposes described, substantially as set forth.

No. 61,808. Bottle Labelling Machine.
(Machine à étiquett $r$ les boutcilles)


Samuel Fife, No. 46 Nott Street, and Walter Chamberlacin Peacock, Equitable Buildings, Calling street, both in Melbourne, Australia, 21st November, 1898: 6 years. (Filed 9th July, 1898.) Claim.--1st. In a l belling machine, a label carrying and applying plate A, pivotally monnted upon a supporting arm 1), and having a crank arm projecting from its pivot on one of its pivots in combination with the pate-turning guides E E ${ }^{1}$, arranged to operate as shown and for the purpose specified. 2nd. In a labelling machine, a label carrying and applying plate $A$, made in two halves, springs to normally hold the two halves in one plane, and so arranged as to open or move apart on coming in contact with the lrottle or other article having a convex face tw be labelled, substantially as and for the purpose specified. 3rd. In a labelling machine, in combination a label carrying and applying plate made in halves and fitted with projecting tongures to hold said halves in one plane whilst the plate is travelling in onf direction, together with stops to effect the same purpose when said plate is travelling in the opposite direction, substantially as and for the purpose herein described and explained. 4th. In a labelling machine, in combination a label carrying and applying plate, a liquid receptacle $(x$, with a depending piece of flannel or other absorbent material and a roller $\mathbf{H}$, supplied with paste or other adhesive composition, arranged substantially as and for the purpose described. 5th. In a labelling machine, in combination the label carrying and applying plate plungers adapted to be projected from the face of the said plate on its withdrawal from the article to be labelled, substantially as and for the purpose explained. 6th. In a labelling nachine, the combination with a roller H , for applying adhesive composition to a label, of a wire $h$, projecting across and fitting into a groove in said roller, substantially as described. 7 th. In it labelling machine, a label carrying and applying plate made in two or more parts in combination with springs I, and pins $i$, or other projections on said plate designed to be engaged by
said springs, substantially as and for the purpose herein described. 8 th. In a labelling machine, the combination with the label support, of pins $c^{1}$, having their inner surfaces barbed downwards, substan tially as and for the purpose set forth. 9th. In a labelling machine, a label carrying and applying plate having a flexible central portion A, a spiral or other spring located behind the central portion and designed to exert a resistance whilst the rest of the plate folds down the outer parts of the label over the edge of the tin or other receptacle substantially as and for the purpose herein described. 10th. In a labelling machine, a label carrying and applying plate made of flexible material and means for holding it in pesition so that it can fold around the article to be labelled and afterwards spring wack to its flat condition, substantially as and for the purpose hereindescribed.

No. 61,809. Pancake Turner. (Tơarne-crêpe.)


John Heberling Rochester, New York City, 22nd November, 1898; 6 years. (Filed 31 st October, 1898.)
Clrim.-A cake-turner, consisting of a blade and a spring-handle having its two free ends pivoted or journalled to the hade and adapted to partly rotate the blade laterally, when said ends are forced across each other, for the purposes shown. 2nd. A caketurner, consisting of a blade provided with two journal-boxes, one rigidly fixed upron the bade and the other pivoted thereto. and a spring-handle liaving its free ends inserted in said journals and adapted to partly rotate the bade by forcing the two ends of the handle across each other, for the purposes shown. 3rd. A caketurner, consisting of a blade, and a spring handle having two free ends journalled to said blade, one of which is provided with a loop forming a stop to engage the blade and prevent uudue rotation of same, the blade being rotated laterally by forcing the two arms of the handle across each other, as and for the purposes shown. 4th. A cake-turner, consisting of a blade A and a handle 1), having the arms $\epsilon$ and $e$ journalled to the blade, the arm a provided with the bend $j$ and the arm $c$ having the bend $k$, whereby the compressing of the handle will force the arm $e$ across the arm 4 and partly rotate the blade, as and for the purposes shown.

## No. 61,810. Mirror Stand. (Support de miroirs.)

Rose Marie Hobson, Toronto, Ontario, Canada, a2nd November, 1898; 6 years. (Filed 27th October, 18:8.)
Claim.-1st. In a mirror and stand therefor, the combination with the pedestal provided with a tubular standard, of an internal tube and mirror suitably supported in the top thereof, and a spring fastened to the interior of the tube and a thumb-screw passing the tube and designed to be brought to abut the spring so as to clamp the inner tube, as and for the purpose specified. 2nd. In a mirror and stand therefor, the combination with the pedestal provided with a tubular standard, of an internal tubt, and mirror suit ably supported in the top, thereof, means for clamping the inner tube, and a wooden plug and cap for the bottom of the outer tube, as and for the purpose specified. 3rd. In a mirror and stand therefor, the combination with the pedestal provided with a tubular standard, of an internal tube, and mirror suitably supported in the top thereof, and a top for the pedestal and supporting tubular bracket secured to the outer tube, as and for the purpose specified. 4th. In a mirror and stand therefor, the combination with the pedestal provided with a tubular standard, of an internal tube, provided at the top with a suitable cap, means for clamping the
tube in any desired position in which it may be adjusted, a fork provided with a stem, and annular grooves in such stem, a set-screw

extending through the inner tube into the annular groove so as to permit the rotation of the fork and stem, and a mirror pivotally supported in the upper ends of the fork, as and for the purpose specified. Oth. In a mirror and stand therefor, the combination with the pedestal provided with a tubular standard, of an internal tube provided at the rop with a suitable cap, means for clamping the tube in any desired position in which it may be adjusted, a fork provided with a siem, and annular groove in such stem, a set-screw extending through the inner tube into the annular groove so as to permit the rotation of the fork and stem, a mirror pivotally supported in the upper ends of the fork, and a suitable stop in the inner tube to support the weight of the stem and mirror, as and for the purpose specified.

No. 61,811. Electric Sparkers for Explosive Enginem. (Appareil électrique ̀̀ étinceller pour machines explosives.)


Alexander Winton, Cleveland, Ohio, U.S.A., 22nd November, 1893; 6 years. (Filed 1st September, 1898.)
Claim.-1st. A sparker actuating device for explosive engines comprising a cam hitving an abrupt end wall, a tapered end, and a projecting flange ending at a point inside the abrupt end of the cam, substantially as described. 2nd. A sparker actuating device for explosive engines comprising a collar having a cam with one end beginning on a plane therewith and its opposite end having an
abrupt tapered wall, the cam having a parallel projecting Hange at its longest side with tapered ends, substantially as described. 3rd. An electric sparker for explosive engines comprising electric contacts, means for suddenly seprarating the contacts, a rotating cam having an abrupt end wall and a tapered end, and an endwist and laterally moving member engaging the said cam and operating one of the contacts, substantially as deseribed. 4th. An electric sparker for explosive engines comprising contacts, means for separating them, a rotating cam having an abrupt end wall and a tapred end, and a parallel flange at the outer side of the cam ending at a point inside the end of the cam, substantially as described. Sth. An electric sparker comprising contacts, means for sejarating them, a rotating cam having an abrupt end wall and a tapered end, and a parallel flange at the outer side of the cam and extending parallel therewith having a tapered end ending at a point inside of the end of the cam, combined with an endwise and laterally movable actuating member engaging the canı and operating one of the contacts, substantially as described. Gith. An electric sparker for explosive engines comprising contacts, means for separating them, a rotating cam and an end wall against which the face of the cam rotates, the cam having an abrupt end wall tapered outward, and a Hange parallel with the outer face of the cam projecting outward therefrom, the ends of the flange being tapered and the end adjacent the tapered end of the cam ending at a point inside of the end of the cam, substantially as described. 7 th. An electric sparker comprising contacts, a rotating cam having an abrupt and diagonally extending wall, a flange projecting from the can and extending parallel therewith, and having its end ending at a point inside the end wall of the cam, a rod having one end engaging the cam, a spring holding the rod normally downward, a spring holding the rod normally against the said flanges, the opposite end of the rod connected with the movable contact, substantially as described.

No. 61,812. Cant Hook Clip Blank. (Douille pour renards.)


William Benniett Prouty, Ridgeway, Pennsylvania, U.S.A., 22nd November, 1898; 6 years. (Filed 3rd November, 1898.)
Claim. - 1st. In a cant hook, the combination with the handle or stock, of a clip provided at its upper edges with oppositely arranged perforated ears provided below the plaze of the openings therein with inwardly projecting abutting lugs forming a lower stop, and at their upper inner corners above the plane of the openings with inwardly projecting bosses forming an upper stop, said clip, being further provided at a point centrally between the ears thereof, with an upstanding reinforce clip projecting above the plane of the ears, and the hook having its imner end pivoted between said ears, substantially as set forth. 2nd. In a cant hook, the combination with the handle or stock and the hook, of a clip consisting of a body plate having at its upper side edges perforated ears provided below the plane of the openings therein with inwardly projecting lug projections, and at their upper inner corners above the plane of said openings with inwardly projecting hosses, the lugs and bosses respectively forming bottom and top stops for the hook, said body plate of the clip being further provided at its top edge hetween the ears with an upwardly projecting reinforce lip and below the plane of the lug projections with a socket forming apron extension, substantially as set forth.

No. 61,813. Apparatis for Penetrating and Nofteningr Frozen dround. (Appereilpour crouser t tegeler la terre.)


Joseph Meliillivray, San Francisco, and Frederick Petersen, Napa, both in California, 22nd November, 1898; 6 years. (Filed 22nd $J$ une, 1898.)
Claim. - 1st In an apparatus of the character described, a centrally disposed heater and directing jet nozzle, a perforated casing surrounding said nozzle having a closed rear, a second casing exterior to the perforated one and so connected as to form an annular chamber between the two openings at the rear end whereby air is admitted to the space between the two chambers and heated, and afterwards delivered to the openings of the inner chamber to the discharge nozzle of the heater. End. In an apparatusof the character described, concentrically disposed exterior chambers, having an anmular space between them, and an opening in the rear for the admission of air, openings formed in the inner chamber to allow the air to pass to the interior, a centrally disposed burner whereby a flame is delivered from the burner to the forward nozale and the heated air entering through the perforated casing is drawn into the nozzle and mingled with the passing flame. 3rd. In an apparatus of the character described, concentric casings having an annular channel between them and a passage for admission of air to the said chamuel, openings made through the inner casing from the chavel to the interior, an oil burner mounted axially within the inner chamber, wherely the air in the annular chamber is first heated, then drawn through the openings and mingled with the flame in the jet nozale and a regulating means for applying air directly to the preliminary burner. 4th. In an apparatus of the character descrited, concentric cylindrical chambers having an annular channel formed between them, and an oil beater and hurner disposed axially within the inner chamber, a cap closing the rear of the inner chamber having a register or valve by which a regular air supply is delivered to the rear most part of the burner, a jet nozale in line with the said burner with an intermediate open space between the two, perforations in the inner sourrounding case whereby ain is first drawn into the channel between the casings and heated, then drawn through the perforations in the inner casings and mingled with the flame and products of the combustion as they pass through the jet nozzle. Eth. In an apparatus of the character described, an oil heater and burner, a perforated casing surrounding said burner and coneentric therewith, a closure for the rear of said casing with registers or controlled openings centrally to the rear of the burner, an exterior casing concentric with the burner an interior perforated casing having a passage by which the air is admitted to the annular channel between the two casings to be heated therein, and afterwards delivered through the perforations to the burner and a coat of non-conducting compound surrounding the exterior casing.

## No. 61,814. Generator for Electical gniters.

## (rémerutcur pour commutateurs électriques.)

Benjamin McInnerney, Omana, Nebraska, U.S.A., 22nd November, 1898; 6 years. (Filed 6th June, 1898.)
Claim.-1st. A generator for electrical igniters composed of two parts, one the coil wound magnet carried by the moving part of the engine, as the fy wheel, and the other, the armature relatively stationary, and means for adjusting the relation of one part to the other to vary the point at which a current is generated, substantially as described. 2nd. The combination with a gas engine and with the igniter the eof, with or without a circuit breaker, of a two part generator provided with a core and generator conls in circuit with the igniter, the core-coils connected to a movable part of the engine, and the armature having an adjustable support, substantially as set forth. 3rd. The combination with a gas engine and its electrical igniter, of a two part generator, one carried by a movable part of the engine, and the other by an adjustable support, the same relatively arranged so that one portion of the movable part will approach the adjustable part in advance of the other, substantially as set forth. 4th. The combination of a gas engine, its electrical
ignitur, a two part generator, one part carried by a moving part of the engins, and means for varying the relative distance of the two

parts at the time that one passes the other, substantially as set forth. 5th. The combination with a gas engine and with its electrical igniter, of a generator for the igniter consisting of a permanent magnet and a wire wound core and keepers, an adjustable support carrying the magnet and core, the keepers connected to a moving part of the engine in position to travel in a path adjacent to the other parts of the generator, substantially as described. 6th. The combination with the shaft and fly wheel of a gas engine, und with the igniter, of a generator for the igniter consisting of a yoke swinging upon a bearing, armsextending from the yoke, a permanent magnet and core carried by one of the arms, stop devices limiting the movement of the other arm, and keepers carried hy the fly wheel, substantially as described.

No. 61,815. Land Roller and Pulverizer.
(Roulcau d'ayriculture et pulveriseur.)


Lansford Chambers, Bartlett, Iowa, U.S.A., 22nd November, 1898 ; 6 years. (Filed 2nd November, 1898.)
Claim.-A combined land roller and pulverizer comprising a cylindrical body or borlies, the surfaces of which is fluted, thereby forming longitudinal crushing blades or bars arranged tangentially mounted in a suitable supporting-frame provided with a draft device whereby when the roller is drawn in one direction the soil is cut and pulverized, and in the reverse direction, the soil is smoothed, substantially as deseribed.

## No. 61,816 . Shingle Nawing Machine. <br> (Machine i scicr le bradereu.)

Jerome Benett Flynn, Little Rock, Washington, U. S. A., 22nd November, 1898 ; 6 years, (Filed 5th November, 1898.)
Claim.-1st. In a shingle sawing machine, the combination with a circular saw, a reciprocating block carrying carriage, and a common source of jower, of mechanis'n for disconnecting the carriage from the source of power consisting of an intermediate shaft supported in a movable bearing at one end. a wheel mounted on said end of said shaft and adapted to be moved into and out of engagement with she source of power by the movement of its shaft, a knuckle joint connected with said novable bearing, a rod connected to said knuckle
joint, and a lever engaging with said rod for moving the same to operate said knuckle joint and thus shift said movable bearing at


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will, substantially as set forth. 2nd. In a shingle sawing machine, the combination with a constantly rotated shaft, a circular saw on said shaft, a reciprocating block carrying carriage, and intermediate connections between said shaft and carriage whereby the latter is reciprocated, of means for independently stopping said carriage consisting of an intermediate shaft supported in a movable bearing at one end, a wheel mounted on said end of said shaft and adapted by the movement of said shaft to be moved into and out of engagement with a friction wheel constantly rotated from the main shaft, a knuckle joint connected with said movable bearing, a rod connected to said knuckle joint, and a lever for operating the knuckle joint, through the rod to engage or disengage the rotating parts, said lever leing extended into a friction brake adaj ted to contact with the rotating parts when the movable parts are out of contact, substantially as set forth. 3rd. In a shingle sawing machine, the combination with a constantly rotating shaft, a circular saw on said whaft, and a block carrying carriage reciprocated through intermediate mechanism from said whaft, of an intermediate friction connection consisting of a wheel connected with the carriage, a band-wheel rotated from the shaft, a friction-wheel mounted on the hub of said band-wheel and consisting of a hollow sleeve screwed into said hitb and formed with an annular shoulder at its outer end, and a paper friction surface on said sleevo between its shoulder and the band-wheel hul, with which the carriage driving-wheel is adapted to contact to receive rotary motion therefrom, suhstantially as set forth. 4th. In a shingle sawing machint, the combination with a circular saw, a block carrying carriage, and means for rotating the one and reciprocating the other, of feed rollers on the said carriage for engaging the block to be fed, a ratchet-wheel on each feed roller, push and pull pawls engaging said ratchet-wheels, means for operating said pawls simultaneously at each reciprocation of the block carrying carriage away from the saw, and means for separately adjusting the length of said pawls, substantially as set forth. 5th. In a shingle sawing machine, the combination with a circular saw, a block carrying carriage, and means for rotating the one and reciprocating the other, of feed rollers on said carriage for engaging the block to be fed, a ratchetwheel on each feed roller, push and pull pawls engaging the ratchetwheels, respectively, a vertical rod pivoted intermediate its length and carrying the pull pawl above said pivot and the push pawl below sad pivot, a horizontal lever pivoted intermediate its length and contacting with the lower end of said rod, and a cam surface on the rotating parts of the machine in the path of which lies the free end of said lever for vibrating said vertical rod to operate the pawls and impart a step-by-step motion to the feed rollers, substantially as set forth. 6th. A feed mechanism for shingle sawing machines, consisting of upper and lower feed rollers mounted in the reciprocating carilage, and having each a ratchet-wheel mounted on one end of its shaft, push and pull pawls engaging with said ratchet-wheeis, respectively, mechanism for operating said pawls from the rotating parts of the machine, the upper feed roller being mounted in horizontal arms pivoted at their other ends to supports on the carriage, the length of said arms being equal to the longth of the ratchet pawls, a lever connected with said feed roller for lifting the same by rocking it on said arms as a radius, and springs for everting a normal downward tension on said feed roller, substantially as set forth.

## No. 61,817. Merchandine Lifter.

(Appareil d hisser les marchandises.)


Tames Dowlen and Niels Michaelsen, Oceanic, New Jersey, U.S.A. 22nd November, 1898 ; 6 years. (Filed 2nd November, 1898. ) Claim.--1st. In a merchandise-lifter, the combination with a handle, of an arm secured thereon, a head on the arm comprising a yoke, a substantially U-shaped pad connected to the yoke, arms connected to the ends of the yoke and to the pad, springs interposed between the arms and yoke aind a connection between the yoke and the bandle-arm, substantially as described. 2nd. In a merchandiselifter, the combination with a handle, of a lifting-head seeured thereon comprising a substantially $U$-shaped pad, a supporting-yoke to which the pad is secured having an offset or rearwardly-project ing portion, means for connecting the rearwardly-projecting portion with the handle, arms secured to the yoke and projecting beyond the ends of the same, springs interposed between the anms and yoke and a flexible actuating device connected to the rear ends of the arms and extendiug to the handle, substantially as described. 3rd In a merchandise-lifter, the combination with a handle, of a lifting. head conprising a substantially $I$-shaped pad, standards extending from the pad and having at their ends a suitable support, spring. actuated arms secured to the pad, a yoke for supporting the pad, spring interposed between the yoke and arms, means connected with the inner ends of the arms for compressing the springs and opening the pad and a connection between the head and handle. fth. The combination with the bandle, of an arm extending out thereform, a yoke having a rearwardly extending central portion, a supplemental yoke on the said other yoke, a connection between the yokes and the arm, arms spcured to the end of the main yoke extending beyond the same in opposite directions, a pad secured to the main yoke and arms, springs for nornally compressing the ends of the pads and means for moving the outer ends of the arms outwardly against the tension of the springs, substantially as described.

No. 61,818. Buckle. (Bouclc.)

(ieorge F. Davis, Mahaffey, Pennsylvania, V.S.A., 22nd November, 1898; 6 years. (Filed 17th Octoter, 1898.)
Claim.-1st. In a buckle, the combination with a frame having a rebent portion, of a slide mounted on said frame and adapted to hold a strap between itself, and the end of the frame, and a clasp mounted on the rebent portion of the frame. 2nd. In a buckle, the combination with a frame, having a rebent portion, of a slide provided with slots extending across the frame, and a clasp held upon the rebent portion. 3rd. In a buckle, the combination with a frame having a rebent portion, of a slotted slide, teeth projecting within one of the slots, and a toothed clasp mounted upon the rebent
portion of the frame. 4th. In a buckle, the combination with a frame having a rebent portion, of a flat metal slide provided with a slot having a plurality of pointed teeth extending thereinto from the slide, and a sheet-metal clasp bent around the rebent portion of the frame, and provided with tepth upon the side thereof.

No. 61,819. FIanger. (Coupe-gluce pour rails de chemin de fer.)


## 61819

William H. Bohnenkamp and William J. Lindsey, both of La Grande, Oregon, U.S.A., 22nd November, 1898; 6 years. (Filed 2sth September, 189x.)
Claim.-1st. In a machine of the kind specified, the combination, with the kody and running-gear, of rotatable cutters situated inwardly of the wheels thereof, fan-casings in the rear of each of said cutters, fans in said casings, a large fan casing communicating with each of said first-mentioned fan-casings, a large fan in said fan-casing, and means for rotating said cutters and fans. 2nd. In a device of the kind specified, the combination, with a loody and rumning-gear, of rotatable cutters situated inwardly of the wheels thereof, fan-casings in the rear of said rotatable cutters, fans within said casings, a large fan casing communicating with each of sain first-mentioned casings, a large fan within said large fan-casing, rotatable cutters situated on the outside of said wheels, and means for rotating said fans and cutters. 3rd. In a device of the kind specified, the combination, with a body and running-gear, of rotatable cutters situated inwardly of the wheels thereof, fan-casings situated in the rear of each of said cutters, fans within said casings, a large fan-casing communicating with each of said first-mentioned fan-cawings, a large fan within said large fan-casing, rotatable cutters situited on the outside of said walls, deflecting-plates situated in the rear of said cutters that are on the outside of said wheels, and means for rotating said fans and cutters. 4th. In a device of the kind specified, the combination, with a body and running-gear, of rotatable cutters mounted in upright guides upon said body, devices for raising and lowering said cutters, fan-casings in the rear of each of said cutters, fans within said fan-casings, a large fan casing communicating with each of said first-mentioned fancasings, a large fan within said large fan-casing, and means for rotating said fans and cutters. 5th. In a device of the kind specified, the combination, with the body and ruming gear, said body having depending hindles provided with upright guide-bolts, of rotatable cutters mounted in bearing-hlocks situated within said guide-slots, fan-casings situated in the rear of each of said cutters, movable shoes at the lower end of said fan casings, which are flexibly connected to said fan-casings at one end while at their other end they are connected with the rotatable cutters to move bodily with the latter, fans in each of said fau-casings, a large fan-casing communicating with each of said first-mentioned fan-casings, a large fan in said large fan-casing, means for raising and lowering said guide-hlocks, and means for rotating said fans and cutters. 6th. In a device of the kind specified, the combination, with the body and rumning gear, of rotatable cutters and fans, means for rotating said cutters and fans, clutches situated between the soarce of power and said cutters and fans to control the gearing operating the same, said clutches being connected together to move in unison, and devices for operating said clutches, substantially as described. 7th. In a device of the kind specified, the combinati $m$, with the hody and rumning-gear, of rotatable cutters, fan-casings situated adjacent to said cutters, fans within said fancasings, means for operating said cutters and fans, a large fan-casing communicating with said first-mentioned fan-casing, a large fan within said large fan-casing, means for operating said large fan, and devices to cause said large fan to rotate in opposite directions. Sth. In a machine of the kind specified, the combination, with the body and runninggear, of rotatable cutters, fan-casings in the rear of each of said cutters, fans in each of said casings, a large fan-casing communi-
cating with each of said first-mentioned fan-casings, a large fan in said large fan-casing, rotatable brushes situated in front of the running gear, and means for operating said fans, cutters and brushes.

No. 61,820. Grain Carrier. (Transport itgrain.)


Alva F. Deweese, Quincy, Ohio, T.S.A., 22nd November, 1898 ; 6 years. (Filed 5th October, 1898.)
Claim.-1st. In an endless conveyer, the combination of the phatform, sprocket-wheels at the ends thereof, endless chains arranged to move rake-bars over the platform and return them under the platform, the $L$-bars having hinge-studs $e_{c} c^{1}$, on their ends journalled on the chains, substantially as described, said studs having upstanding-trip-fingers $c^{2}$ on their ends, with a stationary pin at the discharge end of the conveyer adapted to engage the tripfingers on the rake-bars and cause the bars to partly turn on their hinges as they pass over the discharge end of the platform and thus withdraw from the straw, and a guard-plate for turning the rakebars to natural position at the front or grainward end of the platform, all substantially as and for the purpose described. 2nd. In an endless conveyer, the combination of the platform, the endless carriers rmnning up over the platform and back thereunder, rakebars , J having upstanding teeth $J^{3}$ at their rear edge, and journal-pins $j$ on their front edge at each end, by which they are hinged on stid carriers, and also upstanding tripping-fingers $j^{\prime}$ on the ends of pins $j$, with fixed studs at the discharge end of the conveyer adapted to engage said trip-fingers and canse the rake-bars to partly turn downward and backward and withdraw the straw, etc., on the conveyer as they pass over the discharge end there f, and means for throwing said rake-bars into their natural position before they reach the working-point, all substantially as and for the purpose described. 3rd. In an endless conveyer, the combination of the endless side chains H and intermediate endless chain H' having links provided with journal-bearings, and the sectional rake-bars $J^{i}$ having pins $j^{3}$ on their immer ends journalled in chain $\mathrm{H}^{1}$, and pina $j$ on their outer ends journalled in a chain $H$, said pins $;$ having trip-fingers $j^{1}$ on their uuter ends with stationary studs at the discharge end of the conveyer adapted to engage said trip-fingers and canse the rake-hars to tilt rearwardly and thus withdraw from the straw, etc., all substautially as and for the purpose described. 4th. In a conveyer, the combination of the board $b$, the endless side sprocket-chains and endless intermediate sprocket-chain runming over said board, and the sprocket-wheeks, and shafts at each end of the board, the curved plate 1 at the discharge end of the conveyer, the sectional rake-bars .J having pivot-pins $j$, and $j^{3}$, ly which they are hinged to said side and intermediate sprocket-chains respectively and provided with tripping-fingers $j^{1}$ on their outer ends, with the fixed studs $j^{5}$ secured to the side boards and adapted to engage fingers $j^{1}$ and cause the rake-bars to partly turn and withdraw from the straw, etc., and the curved plate attached to the lower end of the board for turning the rake-bars back to natural position at the lower end of the conveyor, all substantially as and for the purpose described. 5th. In an endless conveyer, the combination of the rake bars having upstanding teeth, journal-pins on their front edges at each end, by which they are hinged on endless belts or chains, and also upstanding tripping fingers, and a slotted plate overlying the upper surface of the conveyer and covering the rake bars which travel thereunder while the teeth project upward through and travel in the slots in the plate, with fixed studs attached to the side boards at the discharge end of the conveyer in position to engage said trip-fingers and canse the rake-bars to tilt backward and with.
draw from the straw, etc., on the carrier, and a curved plate attached to the lower end of the conveyer adapted to cause said rake-bars to turn into normal position, all substantially as and for the purpose described. 6th. In an endless conveyer, the combina. tion of the side and intermediate endless carriers, the sectional rakebars J having hinge-studs $j, j^{3}$, in their ends pivoted to said side and intermediate carriers substantially as dessribed, and provided with trip-tingers $j^{1}$, in their outer ends and also having a series of equi-distant upstanding teeth, and a fixed plate overlying said rakebars having a series of parallel longitudinal slots through which the teeth of the upper series of bara project az they travel thereunder, with a guard-plate I and stationary studs at the discharge end of the conveyer adapted to engage said trip-fingers and cause the rakebars to partly turn rearwardly and thus withdraw the straw, etc., as they pass over the upper end of the conveyer, and a plate $i$ attached to the lower end of the conveyer for turning the rake-bars to normal position, all substantially as and for the purpose described. 7 th. In a convever, the combination of th board as $b$, the sprocketwheels and shafts at each end thereof, the side and intermediate chains ruming thereover, the plate I at the discharge end of the comverr, and the plate $i$ at the receiving end thereof, with the rake bars $j$ having hinge-studs $j, j$, on their front edges pivoted to said side and intermediate chains and provided with trippingfingers $j^{j}$, and the fixed studs $j^{j}$ attached to the side boards adapted to engage fingers $j^{\prime}$ and cause the rake-bars to tilt backward and withdraw from the straw, ete., and the plate $K$ covering the board $b$ and overlying the upper set of rake-bars, but provided with longitudinal slots through which the teeth of the upper set of rake-bars project as the bars travel thereunder, all substantially as and for the purpose set forth.

No. 61,821. Plough Colter and Cleaner.
(Coutre de mharrue, etc.)


Arthur W. Rowsom, North Augusta. Ontario. Canada, 22nd November, 1898; 6 years. (Filed October, 24th 1898.)
Claim.-1st. The combination with a plough beam, and a colter secured thereto by a clip, of a cleaner secured to the colter by a bolt or screw passing therethrough and through a slot in the cleaner, raid cleaner having at top an arm hung pivotally to the clip liar, whereby the colter can be tilted forwardly and returned without losing the adjustment, and lue adjustable vertically without disturbing the cleaner, as set forth. 2nd. In combination with the plough beam, colter and clip, the circular disc $\mathbf{E}$, sleeved eccentrically on the upper leg of said clip, for adjustment of the colter more or less inclinedly in the manner set forth.

No. 61,822. Saw Frame. (Cadre de seic.)
George R. Clements, Rock Creek, Minnesota, U.S.A., 22 nd November, 1898; 6 years. (Filed 2nd November, 1898.)
Claim.-- 1st. As an improved article of manufacture. a saw-frame consisting of a grip, curved spring-arms independent of said grip, and having their adjacent ends secured to the ends of the grip and their other ends slotted to engage over the edge of a saw, and means movably mounted on one of said arms for detachably connecting said stotted ends to the ends of a saw, as set forth. 2nd. As an improved article of manufacture, a saw-frame consisting of a grip, curved spring-armsindepondent of the grip and having their adjacent ends secured to the ends of the grip and their other ends slotted to engage over the edge of a saw, and a latch pivoted on the outer end of one of said arms to engage an opening in the saw, the other arm being frictionally held upon the saw, substantially as specified. 3rd. The combination with is saw having an upright handle at one end and openings near the upper edge at the opposite end, of a naw-frame
consisting of a grip, with ferrules at its ends, curved spring-arms independent of the grip and secured to opposite ends thereof, the

onter ends of the arms being slotted, the slotted end of one arm being frictionally held against the securing device of the said upright handle, and a pivotid latch on the outer end of the other arm to engage one of the openings in the saw, substantially as described.

No. 61,823. Multiple Filament Regulating Ineandescent Lamps. (Lampe incondescente a regulateur multiple.)


Clarence Truitt, Columbia, Missouri, U.S.A., 22nd November, 1898; 6 years. (Filed 27th September, 1s97.)
Claim.-1st. The combination of a lamp, multiple filaments of varying candle power inclosed within said lamp, a socket in which the lamp is fitted for rotation on its longitudinal axis, and a switch mechanism the elements of which are constructed as parts of the lamp and the socket and having terminal plates one of which is common to the filaments and others connected individually to separate filaments, said switch mechanism arranged by adjustment of the lamp, to oring the filaments in series or in parallel or to direct the current through the filaments separately, or to cut the filaments out of the circuit, as and for the purposes described. 2nd. The cmbination of a socket having spring contacts on the exposed face thereof, a lamp, the base of which is provided on its face opposed to the contacts with terminal plates upon which said spring contacts press or bear, and multiple filaments within the lampand connected in common to one of said plates and independently with other terminal plates, said lamp being connected with the socket to be limited to axial adjustment therein, for the purposes described, substantially as set forth. 3rd. The combination of a socket, a lamp fitted therein to be Jimited to rotation on its longitudinal axis, multiple filaments of varying candle power contained within the lamp, and spring-contacts and terminal plates carried by the socket and the lamp base respectively, and forming a switch mechanisin controllable by adjustment of the lamp in the socket to loring said filaments in series or in parallel or to direct the current through either filament separately, one of said terminal plates being connec-
ted in common to all of the filaments and the remaining terminal plates comnected individually to separate filaments, as and for the purposes described. 4th. The combination with a lamp socket, of spring contacts therein, a lamp, fitted in said socket for rotation axially therein, terminal plates tixed in the lamp-base in the path of said spring contacts and to be engaged thereby, and multiple filaments of varying candle power, one end of each filament being attached to one terminal plate common to all the flaments and the other ends of said filaments commected separately to independent plates, as and for the purposes described. 5th. A lamp socket split for a part of its length to provide elastic jaws and provided with the terminal of its split portion with a fixed base-block, of spring contacts fastened to the exposed face of the said base-block, a lamp having its base fitted in the jaws of the socket and interlocked therewith to be limited to adjustment axially within the socket, terminal plates in the lamp-base and engaging with the spring contacts, and filaments carried in the lamp and connected to said terminal plates, sulstantially as described. 6th. The combination with a socket having spring contacts, of a lamp hase, of arc-shaped terminal plates united to sard lamp base to be exposed for contact with said springs, and double filaments each having one end attached to a common terminal plate and the other ends of said filaments attached respectively to other independent terminal plates, for the purposes described.

No. 61,824. Swinging Bracket. (Console diantc.)


Theodore Smith, Georgetown, Illinois, U.S.A., 22nd November, 1898; 6 years. (Filed 2nd November, 1898.)
Claim.--1st. A swinging bracket containing three substantially parallel arms, tach one of which has a universal joint at each end and is arranged out of the plane of the other two, substantially as described. 2nd. The combination with a bracket containing three substantially parallel arms each one of which has a universal joint at both ends and is arranged without the plane of the other two, of an extension bearing a slide furnishing an adjustment inderendent of the adjustment accomplished by the jointed arms, substantially as described. 3rd. A swinging bracket containing three substantially parallel arms, each one of which has a universal joint at each end and is arranged out of the plane of the other two, and a telephone transmitter secured to the universal joints at one end of said arms, substantially as described. 4th. A swinging bracket comprising three or more substantially parallel arms, pivot blucks upon each end of the arms in paralle] arins transverse to the arms, said pivot blocks being also pivoted in lines at right angles to the firstnamed pivots and parallel to each other, substantially as des ribed. 5th. The combination with a bracket containing three substantially parallel arms each one of which has a universal joint at both ends and arranged withont the plane of the other two, of a plate secured to the universal joints at one end of the arms, a guide $F$, extending from said plate and a telephone receiver seated upon said guide and adapted to be adjusted along the same, substantially as described.

## No. 61,825. Clod-Crusher and Land Holler.

(Machine dagriculture a brover.)
Adam Zimmer and Brano Roenisch, Sebewaing, Michigan, U.S.A., 22nd November, 1898; 6 years. (Filed 2nd November, 1898.)
Claim.-1st. A c'od-crusher and roller, comprising a cylinder in two parts each on the same shaft but independent of the other, the cylinders formed of rings having their outer surface triangular in
cross-section, the rings being bolted together, the outer rings only of each cylinder bearing on the shaft, whereby the parts revolve

independently, the shaft journalled in a suitable frame, as and for the purpose set forth. 2nd. In a clod-crusher, the combination with a suitable frame and a shaft journalled in the frame, of two independent cylinders on the said shaft with ends abutting, the cylinders formed of a series of rings each ring having its outer surface triangular in cross-section, the end rings bearing on the shaft, the middle rings free from the shaft but bolted to the end rings whereby the rings form when bolted together a cylinder having an annular corrugated surface, as and for the purpost set forth.

No. 61,826. Refrigerating Apparatus.
(Appareil réfrugérant.)


Hans Henrik Schou, 27 Yilealle, Copenhagen, Denmark, 22nd November, 1898; 6 years. (Filed 3rd November, 1898.)
Claim.-1st. In refrigerating apparatus, wherein the production of cold is effected by the vaporization of a liquid, such for example as liquid ammonia or the like, the arrangement of one or more vessels or receptacles containing water or any other suitable absorbing substance, and which is or are arranged between an evaporation tube system and a compressor, for the purpose of rendering the production of cold independent of the condensation of vapour, i.e., of the operation of the compressor, in respect to time. 2nd. In refrigerating apparatus, wherein the production of cold is effected by the vaporization of a liquid, for example, liquid ammonia or the like, the arrangement of one or more absorption vessels or chambers which communicate with a system of evaporation tubes and absorb the vapour evolved in the said system of tubes, so that the enriched absorbing material can be conveyed to a central station or the like, where the cooling agent can be recovered by means of a compressor and the production of cold is rendered independent of a stationary refrigerating machine from the point of time aud place. 3rd. Apparatus of the kind described in claims 1 and 2 , chiefly applicable to railway cars or other small chambers, and comprising one or more vessels containing the cooling liquid and one or more absorption vessels, in combination with a system of tubes arranged in the refrigerating chamber underneath the roof or in any other suitable position, and which system is in connection at its ends with the cooling agent container and with the absorption chamber.

No. 61,827. Folding-Chair, Settee, Divan.
(Fautcuil, etc., pliant.)


Frank 1. O'Keefe, Philadelphia, Pennsylvania, U.S. A., 22nd November, 1898 ; 6 years. (Filed 21st Octoher, 1898,)
Claim.-1st. In combination with a seat-frame for chairs, settees, divans, etc., of front and rear rails hinged to the under face of the frame and adapted to be folded back against the lower face of the frame, substantially as described and for the purpose specified. 2nd. A chair-seat, having rails hinged thereto, the corner-posts or legs of the chair slotted as described, in combination with hooked metallic plates carried by the ends of the rails and adapted to engage keepers located within the slots in the posts, substantially as described and for the purpose specified. 3rd. In a chair of the character described, a seat-frame, a chair-back hinged thereto, front and rear rails hinged to the under side of the seat-frame at the front and rear edges thereof, the chair-back being adapted to fold upon the upper face of the seat-frame, and the rails adapted to fold against the lower face of the same, substantially as and for the purpose described.

No. 61,828. Tooth Pick Making Machine.
(Muchine is faire les cure dents.)


Howard Everett Barlow, Providence, Rhode Island, U.S.A., 22nd Novembrr, 1898; 6 years. (Filed 19th October, 1898.)
Ctaim. -1st. In a nachine for making toothpicks the combination of two rolls having notched knives on their peripheries, longitudinal grooves made in the rolls between said knives and arranged to run together with the knives in one roll entering the grooves in the other roll, substantially as described. 2nd. In a machine for making toothpicks the combination of two rolls having notched knives on their peripheries, longitudinal grooves made in the rolls between said knives, and arranged to run together with the knives in one roll entering the grooves in the other roll, with means for feeding
the blocks of material to said rolls, substantially as deseribed. 3rd. as described. Bud. In a price indicating scale, the combination In a machine for making to thpicks the combination of two rolls with the relatirely movalhe price beam and head block and the having notched knives on their peripheries, grooses made in the rolls between each two knives, and armaged to ron together with the knives in one roll entering the grooves in the other roll, with means for causing the rolls by the operation of the machine, to alternately approach, and to recede from each other, substantially as described. 4th. In a machine for making toothpicks the eomibination of two rolls having notehed knives on their peripheries, grooves made in the rolls between each two knives, and arranged to run together with the knives in one roll entering the grooves in the other roll, a recprocating feed-notion consisting of two plates sliding in ways, with means for cansing the two plater by the operation of the machine to move forward and back, substantially as described. 5th In a machine for making toothpicks the combination of two rolls having notched knives on their peripheries, grooves made in the rolls between each two knives, and arranged to run together with the knives in one roll entering the grooves in the other roll, boxes or bearings for said rolls beld to slide in ways toward, or from each other, rocker-shafts held in bearings over said boxes, cross arms fast on said rocker shafts, connections from said arms on one side of each shaft to the lower box+s, and connections from the arms on the other side of each shaft to the upper bexes, with means for operating said rockir-shafts, substantially as described. Gth. In a machine for making toothpicks the following instrumentalities, two rolls having knives set in their peripheries, and having grooves in them hetween the knives, slidmg bexes for said rolls to turn in, rocker-shafts placed over said boxes with arms connected to the boxes, sliding tables to cary the wooden blocks, racks on said tables with segment-gears myaging in said racks, a feed shaft with gears and cranks to move said segment-gears, a worn gear engaging with a worm on a driving shaft, and a commection between the worm-gear and said rocker-shafts, substantially as described.

No. 61,829. Spinning Top, (Toupic.)


Edward Wallace Risbrough, Philadelphia, Pennsylvania, U.N.A., 22nd November, 18:18; 6 years. (Filed 18th ()ctoler, 18:18.)
Claim. - 1st. A spinning top having a pointed hase, said top adapted to be spun by a cord wound around the ribbed or ridged body of the same and provided with numerals and having a conmtersunk head forming a channel or way, within which is provided a device carrying a rotatable blade pointer or tinger held to place by a bolt or pin extending through the same into the top bexly and said finger or pointer actuated by air currents in the act of spiming said top to shift the position of the same within said chamel or way, substantially as and for the purposes described. znd. A spiming top having a pointed base, said top adapted to be spun hy a cord wound around the ribbed or ridged tapering body of the same, numerals impressed into or onto the hevelled upper portion of the adjacent to a countersunk heal forning a circular chanmel or way, within which is provided a truncated con+shape device carrying a rotatable reversely bent wing or blade pointer or finger held toplace by a bolt or pin extending through the same and said drvice into the top body and said finger or pointer actuated by air currents in the act of spinning said top to shift the position of the same within said channel or way, substantially as and for the purposes described.

## No. 61,830. Priding and Weighing Sdales. (Butance.)

Orange Oscar Ozias, Dayton, Ohio, U.S.A., O3rd November, 1898; 6 years. (Filed 8th January, 1898. )
Claim, -1 st. In a price indicating scale, the combination with the relatively movable price beam and head block and the comections interposed between said head block and platform, of a stop rest independent of the platform connection having hearings separated from each other in the plane of relative movement of the head look and beam, said bearings co-operating with the head block to hold the same in vertical position during the relative movement of the beam and head block, substantially as described. 2nd. In a price indicating scale, the combination with the relatively movable price beam and head block, and commections between the head block and platform, of a stop rest independent of the platform connection having bearings separated in the plane of relative movement of the bear and head block and co-operating bearings on the head block on each sude of the platform connections, whereby the tilting of the head block in the plane of relative movement of the head block and heam is prevented, substantially

phatform comection between said head block and platfrom of a vertically movable stop-rest independent of the phatform connection and co-rperating recessed and projecting bearing surface on the upper end of said stop-rest and under side of the head block below the plane of the lotam, substantially as described. 4 th. In a price indicating scale, the combination with a relatively movable price beam and the head block and connections between said bead block and platform, and an anti-friction roller mounted in the head hook and bearing against the under edge of the beam whereby a rolling contact or point of support is afforded during the relative movements of the parts with means for supporting the head block independently of the platform connections, substantially as described. 5th. In a price indicating scale, the combination with the relatively movable price beam, and head block and connections between said head block and platform, and an anti-friction roller momnted in the head block and bearing against the under edge of the leam and a stop rest indejendent of the platform connection for supporting said head hook during the relative movements of the head block and bean, substantially as described 6th. In a price indicating scale, the combination with the relatively movable price heam, and head block and connections between said head block and platform, of a spring-pressed anti-friction roller mounted in the head block, and co-operating with the under edge of the beam, and the stop rests for supprorting said head block, sulstantially as described. 7th. In a price indicating scale, the combination with the relatively movable price heam, and head block and connections between said head block and platform, said beam being notehed on its upper edge for holding the head block in adjusted position, of a spring.pressed antifriction roller mounted in the head block and co-operating with the lower edge of the computing beam, and a stop, rest co-oprrating with the head bick to elevate the same, release the same from the notches in the top of the beam and support the beam on the antifriction rollers, substantially as described. Sth. In a price indicating scale, the combination with the longitudinally movable price beam, and the comnector extending between the platform and the beam and adjustably comected to the latter, of a support or stop rest for holding said connector while the beam is being shifted and a support for the forward end of the beam, consisting of an upwardly extending rod, movable longitudmally with the bearn with means for elevating said rod, substantially as deseribed. 9th. In a price indicating scale, the combination with the lase, the carriage movable longitudinally thereon, the price beam fulcrumed on the carriage, the head block on the beam and connector for the platform connected with the said head block, of the ams pivotally momited on the base, and the upwardly extending rods or stop rests $M \mathrm{M}$, rigidly mounted on said arms, and co-operating at their upper ends with the under side of the head hook beneath the beam, on each side of the platform connector, with means for raising and lowering said arms and stop rests, substantially as described. 10th. In a seales, the combination with a pivoted and balanced scale beam having a smooth surface or track and a finely serrated surface, of a poise movebly supported on the smooth surface of the beam, a lock carried by the poise, a spring for holding the lock either in or ont of engagement with the serrated surface of the beam and two oppositely movalle finger pieces eontrolling the lock, whereby when one finger piece is moved, the lock will be thrown into operative position and when the other finger piece is moved, the lock will be thrown out of operative position, substantially as described. 11th. In a scales, the combination with
the beam having a smooth upper edge and finely serrated lower edge, of a poise sliding on the beam, a lock pivoted in the poise, and a spring for holding the said lock in or out of engagement with the beam, substantially as described, 12th. In ascales, the combination with the beam having a smooth upper edge and a serrated lower edge, of a poise sliding on the beam, a lock pivoted in the peise, a spring for holding said lock in or out of engagement and a roller forming the engaging face of the lock, sulstantially as described.

No. 61,831. Computing scales. (Bathuct.)


61831

Orange Oscar Ozias, Dayton, Ohio, U.S.A., 23rd November, 1898; 6 years. (Filed 8th January, 1898.)
Claim.-1st. In a computing scales, the combination with the goods receiver and support, of a beam formed hollow longitudinally and an adjustable balancing weight located permanently within and entirely enclosed by the beam, substantially as described. 2nd. In a computing scales, the combination with the goods receiver and support, of a beam pivoted in the support, and to which the goods receiver is connected, formed with its shortor arm hollow longitudinally and adjustable balancing weight located permanently within and entirely enclosed by the beam, substantially as described. 3rd. In a price scale, a cylindrical non-rotary beam end, side pieces rigidly secured tu said end, pivots on said side pieces arranged in pairs opposite each other and at opposite ends of the side pieces, for supporting the beam and for the attachment of the load support, of a rotary cylindrical extension supported by and in line with the non-rotary end and hearing tables of computations, and a graduated har rigidly attached at one end to one of said pieces and projecting parallel with and in proximity to said rotary cylindrical extension, substantially ats described. 4th. In la price scale, a cylindrical nom-rotary heam end. side pieces rigidly secured to said end, pivots for supportmg the heam and for the attachment of the load support carried by said side pieces, of a rotary cylindrical extension supported by and in line with the nomrotary end, a casing surrounding said extension, rigidly attached at one end to one end of the non-rotary member, and a graduated bar rigidly attached at one end to one of the side pieces and at the opposite end to the onter end of the casing, sulstantially as described. 5th. In a computing scales, the combination with a rotary computing member having a non-rotary cylindrical prolongation at one end of substantially the same diameter as the rotary member and the rotary member and the pivotal bearings in which the beam swings and to which the load is connected with said nom-rotary prolongation, of a graduated bar mounted on said prolongation and extending substantially parallel with the computing member. 6t. A boam for computing stu!es, embolying in combination, a rotary computing member having a cylindrical nonrotary prolongation of substantially the same diameter at one end to which the supporting and load pivots are connected and a casing enclosing said rotary member and attached to and supported by the non-rotary prolongation, substantially as described. 7th. A beam ffor computing scales, embodying in combination, a rotary computing member having a cylindrical non-rotary prolongation at one end to which the pivots for the beam and load attachment are connected, a cylindrical casing attached to the non-rotary poolongation and enclosing the rotary member. and a gradnated bar supported by said prolongation at one end and attached to the casing at the opposite end, substantially as described. 8th. A beam for computing scales, embodying in combination, a rotary computing member having a non-rotary hollow prolongation at one end to
which the supporting pivots and load pivots are attached and a balancing weight located within said non rotary prolongation, substantially as described. 9th. In a computing scale, the combination with the base or support and a bearing yoke carried thereby, of a cylindrical motary computing member having a cylindrical nonrotary prolongation of substantially the same diameter at one end embraced by said yoke with pivotal connections between the yoke and computing member, a load support pivotally connected with sad non-rotary prolongation, a graduated bar mounted on said nonrotary prolongation and extending parallel with and in proximity to the computing member and a poise on said bar adapted to register with the computing member, substantially as described.

No. 61,832. Pea Harvester.
(Machine à récolter les pois.)


Wallace 1 unn, Burnhamthorpe, Ontario, Canada, 23rd November, 1898; 6 years. (Filed 8th November, 1898.)
Cluin.…1st. In a pea harvester, the combination with the cutterbar and knife-guard bolt, of a spring finger or fingers, comprising the curvulate portion, straight rear portion, designed to be attached to the cutter-bar, a straight front and sharpened portion, the lift-rod secured thereto, and means for holding the spring finger in proximity to the ground, as and for the purpose specified. 2nd. In a pea harvester, the combination with the cutter-bar and knife-guard bolt, of a spring finger or fingers, comprising a curvulate portion, a straight rear portion, designed to be attached to the cutter-bar by the bolt, a straight front and sharpened portion, the lift-rod secured thereto, and a pointed shoe secured to the under surface of said front portion, and means for holding the spring finger in proximity to the ground, as and for the purpose specified. 3rd. In a pea harvester, the combination with the cutter-bar, knifeguard, and bolt therefor, of a spring finger or fingers, comprising a curvulate portion, a straight rear portion designed to lie attached to the cutter bar, a straight front and sharprned portion, a lift-rod secured to the upper side, a hooked plate located under the curvulate portion of the finger, having a slot at the apex of said hook through which the point of the knifeguard passes, as and for the purpose specified.

No. 61,833. Table Leg Fastening.
(Attache pour pieds de tables.)


William Hamilton Merritt, Strathroy, Ontario, Canada, 23rd November, 1898; 6 years. (Filed 8th November, 1898.)
Claim. $\cdots$ 1st. The combination with the table top and leg, of a block secured to the under side of said top and a double-tended bolt screwing into the topend of the leg and into said block, as set forth. 2nd. The combination with the table top and leg, of a block secured
to the under side of said top and provided with a hole, a nut therein, and a bolt screwing into the top end of said leg and into the nut, as set forth. 3rd. The combination with the table top and leg, of a block secured to the under side of said top and provided with a pinhole, said leg having a dowel pin at the end, and fitting into said hole, the leg and block fastened together by converging screws, as set forth. 4th. The combination with the table top and legs, of the parallel cleats secured to the under side of the top and a comnecting bridge-piece secured thereto, and the leg secured to the bridge-piece by a bolt and nut, as set forth. Sth. A table leg fastening, comprising a block secured to the under side of the table top, and a leg having a screw comnection therewith, as set forth.
No. 61,834. Hee Hive. (Ruche.)


John F. Wessel, Kellogg, Iowa, U.S.A., 23rd November, 1898; 6 years. (Filed 5th November, 1898.)
Claim.-1st. In a bee hive, the parallel walls having rabbets at their inner top edges, moveable comb-frames supported by rableted walls and sections of a honey-board hinged to the said walls and a moveable honey-board section fitted between the hinged sections, arranged and combined as and for the purposes stated. 2nd. An improved bee hive comprising two parallel walls having rabbets at their top edges, sections of a honey-hoard hinged to the tops of said walls, a front wall having a bee passage, a moveable rear wall, a moveable partition, moveable frames, a removable section of a honey-board fitted between the said hinged seetions and a removeable top, arranger and combined as and for the purposes stated.
No. 61,835. Dise Cultivator. (Cultirutcur.)


Andrew Lee Brock, Lockhart, Texas, U.S.A., 23rd November, 1898 ; 6 years. (Filed 5th November, 1898.)
Clain.-1st. In a disc cultivator, involving the combination of cultivator or plow beams, an arch with which said beams are adjustably connected, a second arch adjustable for width, and cultivatordiscs adapted to be adjusted to any desired angle with the beams. 2nd. In a disc cultivator, the combination with an arch having laterally extending portions provided with a series of holes therein,
a second arch adjustable for width, beams connected to the ends of said second arch and to one of the openings in each of said laterallyextending portions of the first-unentioned archs, and cultivator-discs adjustably mounted upon said heams substantially as described. 3rd. In a disc cultivator, the combination with an arch having laterally-extending portions provided with a series of poles therein, a second arch adjustable for width, beans connected to the ends of said second arch and to one of the openings in each of said laterallyextending portions of the first-mentioned arch, a series of radiallycorrugated lugs formed upon said beam provided with ratchet-teeth thereon, a series of forks held upon the lugs provided with similar teeth adapted to co-act with said ratchet-teeth, and a series of cultivator-dises held in said forks, substantially as described.

No. 61,836. Weather Strip. (Appareil réfrigérant.)


George W. Golden, Detroit, Michigan, U.S. A., 23rd November, 1898; 6 years. (Filed 2nd November, 1898.)
Claim. - 1st. A weather st:ip comprising an angle bar formed of sheet metal each wing thereof being doubled, a weather strip formed of sheet metal bent centrally into an angle bar and having the end portion of each wing doubled upon itself to form a loop, one wing being adapted to engage in a groove in the window sash and the other to engage in the groove in the parting strip, the wing in the parting strip being so formed as to make a milling slat between the parts thereof. 2nd. A weather strip formed of two algl = bars, joining at the neeting rails of the sash and each angle bar having a wing which engages a slot in the meeting rail and a laterally extending wing, the lateral wings upon the two sections extending in opposite directions. 3rd. In combination with a longitudinilly grooved parting strip and an upper and lower sash having grooves in line with the outer face of the parting strip, of a weather strip, formed of sheet metal bent to form an angle bar, each wing of the angle bar being looped, two sections being slotted and overlapping at the meeting rail of the sash, arranged substantially as and for the purpose described.

No. 61,837. Refrigerating Apparatus.
(Appareil réfrigérant.)


Charles H. Parshall, Detroit, Michigan, U.S.A., 23rd November, 1898; 6 years. (Filed 2nd November, 1898.)
Claim.-1st. A refrigerating apparatus embracing in its construction a driving shaft, a compressing cylinder, a piston in the cylinder, a pitman connecting the shaft and piston, an expanding cylinder in communication with the compressing cylinder having a piston
therein, and a pitman connecting the piston with the shaft, a cond nser, and condenser pipes connecting the cylinders with the condenser, substantially as specified. 2nd. A refrigerating apparatus embracing in its construction a driving shaft, a compressing cylinder, a piston in the cylinder, a pitman connecting the shaft and piston, an expanding cylinder in communication with the compressing cylinder having a piston therein, a pitman connecting the piston with the shaft, a condenser, condenser pipes connecting the cylinders with the condenser, valves at the expranding cylinder having ports arranged in pairs on opposite sides, those on one side registering with the ports, in the expanding cylinders, and those on the opposite sides registering with the pipes, means for actuating the valves, and adjusting means for increasing or decreasing the extent of the movement of the valves, substantially as described.

No. 61,838. Steam Boiler and Furnace.
(Chaudière à vapeur et fournaisc.)


Samuel Fraser, Toronto, Ontario, Canada, 23rd November, 1898; 6 years. (Filed 25th May, 1898.)
Cluim.-1st. In a steam boiler, the combination with the main boiler proper and furnace chamber, of the horizontal side tubes forming the side walls of the fire-box and suitable connections therefrom consisting of the inlet pipe of the boiler leading from the bottom thereof to the side tubes at one end and the discharge pipe leading from the side tubes into the boiler immedia ely below the water line, as and for the purpose specified. 2nd. In a steam boiler, the combination with the main boiler proper and furnace chamber, of the horizontal side tubes forming the side walls of the fire-box, the stand pipes at each end of the tubes connected by suitable branches to the ends of the tubes, the stand pipe at the back of the boiler being located in the furnace chamber and the branches thereof connected to the side tubes at the lower portion of the ends of the tube and the stand pipe at the front end of the boiler entirely outside the wall and connected to this end of the side tubes at the upper portion of the ends, a suitable inlet pipe connected to the rear end of the boiler near the bottom thereof, and to the stand pipe and a suitable branch or extension of the outer front stand pipe extending into the boiler immediately below the water line therecf, as and for the purpose specified.

No. 61,839. Hydro-Carbon Burner.
(Foycr ì hydro-carbures.)

(ieorge C. Morgan, Chicago, Illinois, U.S.A., 23rd November, $1898 ; 6$ years. (Filed 18th August, 1898.)
Claim.-1st. In combination with a base plate A provided with a raised guard or closed wall B , a coil or retort F , having an extension F provided with an orifice d, a mixing funnel or tube I above the orifice and of increasing diameter from its lower towards its upper end, and a top plate or cover located above the funnel I. 2nd. In a burner, the combination of a base plate, a retort or vapourizer above said base plate, a mixing tuhe or funnel extending upward through the retort or vapourizer, and a closed guard with that of the lower end of the mixing tube or funnel. 3rd. In combination with a base plate and with a retort or vapourizer ahove said base plate, a mixing tube or funnel extending upward within said retort but separated therefrom, and a top plate above the retort, having a downwardly-turned rim or flange to direct the flame against the retort. 4th. The herein described burner, consisting of the follow-
ing elements in combination, a base plate $A$ provided with a raised wall or guard $\mathbf{1 3}$, a platform C raised above the base plate, a coil or retort F resting upon said patform, a delivery pipe $F$ extending downward from said retort and provided with a delivery orifice $d$, a mixing tube or funnel I located above the delivery orifice, extending upward within the coil F , and of increasing diameter toward its upper end, and a top plate or cover J, located above the coil and mixing tube and provided with a depending rim, all substantially as set forth.

No. 61,840. Time and Distance Recorder.
(Régistre de temps et distance.)


James Ridge, Selborne, Hassocks, Thomas Mutton, King's Roarl, Brighton, and Horace Edwin Hupton, Farm Road, Brighton, all in England, 23rd November. 1898; 6 years. (Filed 20th July, 1898.)
Chaim. - 1st. In connection with an apparatus for indicating and recording fares for cabs and other vehicles the cam $h$, adapted to actuate the piston of a pmeumatic pump by the revolution of the wheel of the vehicle. 2nd. In apparatus for indicating and recording fares for cabs and other vehicles the combination of a pneumatic pump, an inflatable air chamber $n$, the lever $o$, all for the purpose of causing the action of the wheel of the vehicle to effect the action of the clockwork mechmism used for the purpose of actuating the recording mechanism, substantially as described. 3rd. In apparatus for indicating and recording fares for cabs and other vehicles, the employment of a preumatic pump constructed when the piston $j$, the spring $k$, the valve 1 , all in combination and arranged so that the piston $j$, shall be actuated by the cam $h$. 4th. In apparatus for indicating and recording fares for cabs and other vehicles, the combination of the clockwork mechanism substantially as described, the lever $K$, the arm $J$, the lever $x$, the chain I, the tape rollers $\mathrm{HH}^{1}$, OO' ${ }^{1}$, the arms $\mathrm{E}^{1}$, carrying the rollers E , all for the purpose of indicating the time the vehicle is occupied, the distance travelled during such oceupancy the fare to be paid, and the total amount received during the day. 5th. In apparatus for indicating and recording fares for cabs and other vehicles, the combination of the lever K , the slide K , the drum M , all acted upon by moving the lever 1 , for the purpose of opening and closing the time and distance wicket, for exposing the fares, substancially as described. 6th. In apparatus for indicating and recording fares for cabs and other vehicles, the combination of the slide $K$, the levers $Y, V$ and $V^{1}$, and the lever $S$, acting upon the escape mechanisin for releasing the rollers carrying the tapes, all for the purpose of setting the tapes to indicate the fares for the first portion of distance or time travelled. 7 th. In apparatus for indicating and recording fares for cabs and other vehicles, the mechanism described by which the amount of fare to be paid is automatically increased according to the length of time the hirer of the vehicle is keeping the vehicle waiting for him, consisting of the combination of the clockwork mechanism, substantially as described, the lever $t$, with its arms $t^{1}, t^{2}$, and the inflatable chambers $n$ and $n^{1}$, substantially as described. 8th. In apparatus for indicating and recording fares for cabs and other vehicles, consisting of rollers carrying tapes acted upon by clockwork mechanism which is controlled by the action of a pneumatic pump the application of additional rollers controlled by the same mechanism for the purpose of exposing at intervals a variety of advertisements. 9th. In apparatus for indicatiog and recording fares for cabs and other vehicles the arrangement of conical reversed rolls or cones comnected trgether by a hand and adjusted by a slide and screw to increase or diminish the speed of revolution for the purpose of adjusting the indicator of the apparatus in accordance with the varying circumferences of the wheels of different vehicles.

No. 61,841. Dining Apparatus. (Apparcil de mine.)


George F. Kibling, Hanover, New Hampshire, U.S.A., 2nth Novem her, 1898; 6 years. (Filed 17th May, 1898.)
Clain.--1st. In an apparatus for excavating tunnels in naturally frozen soil, the combination with a bed or platform, an endless conveyor mounted on said platform, a wall or support attached to the platform to the rear of the front end of the endless conveyor, an excavating tool carried by the wall or support so as to project through the same, and a steam supply pipe connected to the tool. 2nd. In a mining apparatus for tunnelling in naturally frozen soil, the combination with a platform, an endless carrier mounted thereon, so that the forward portion thereof will be adjacent to the base of the tunnel, a chamber carried by the platform and positioned thereon to the rear of the forward portion of the endless carrier, and a tool connected with a source of heat through which the heating medium is ejected upon the soil, said tool extending through the front wall of the chamber and adapted to be operated from within the chamber, suhstantially as set forth. 3rd. In an apparatus for mining or tunnelling in naturally frozen soil, the combination with a platform or support, a chamber mountea thereon, and an excavating tool which is comected with a steam supply pipe, sad tool being supported by the front wall of the chamber, the end beyond the chamber leing of such a length that the tool can operate over an area larger than the area of the platform and parts carried the reby, substantially as shown. 4th. In a mining apparatus for excavating in frozen soil, the combination of a platform. a chamber mounted therenn, air and steam supply pipes extending within the chamber, the steam supply pipe wing connected to a forward projecting rod wheh serves the purpose of an excavating tool by discharging the steam upon the frozen soil, a conveyor belt for taking the soil so excavated towards the cear of the platform, and an engine for operating the carrier belt, substantially as shown and for the purpose set forth. oth. In an apparatus for mining or excavating frozen soil, consisting of a platform, an excavating tube through which steam is ejected upon said soil, an endless conveyor mounted on the platform, and wings or whields, the lower ends of which converge towards the endless carrier, substantially as shown. (ith. In an apparatus for mining in frozen soil, the combination of a movable platform having monnted thereon a suitably driven conveyor, a separator mounted on a platform adjacent to one end of the conveyor, said separator being actuated from the same source of power that operates the conveyor, a closed chamber carried by the platform, and a tube which extends through the chamber, said tube being of sufficient length to extend forward of the conveyor, a steam supply pipe connected with the tube and with the source of power which drives the conveyor, the steam being exhausted bentath the semarator, substantially as shown and for the purjose set forth. 7th. In an apmaratus for inining or tunnelling in frozen soil, the combination with an apparatus comprising a platform, means for mamally moving the same, said platform carrying a chamber, engine, conveyor, separator and stea!mejecting pipe organized or assembled as shown, an air supply pipe connected with the chamber, steam pipes, one connected to the excavating tube and the other with the engine, said engine having a pipe for conveying the exhaust steam therefrom to a point beneath the separator, for the purpose set forth.

No. 61,842. Neasure. (Mestre.)
Max Levi, 60 Frankfurter Allee, Berlin, Prussia, Zäth November, 1898; 6 years. (Filed 11th Angust, 1898.)
Clain.-A measuring tool or device for ascertaining the square or cubic contents of boards, flomers, logs of wood or ouher objects presenting this characteristic feature, that a slide $d$ containing the longitudinal measures, is so adjusted to the width of the boards or the like to be measured, and the stop-edgel , of the tool a and the slide $d$ each embrace one enge of the luard or the like, in which operation the slide $d$ adjusts itself opprosite one of the tigures
of the rows arranged upon the sides of the tape or rule shaped tool, of which figures the one adjacent to the longitudinal number of the

slide $d$ indicates the square contents of the measured loard, constructed and arranged, substantially as hereinbefore described.

No. 61,843. Butter Separator. (Séparateur pour le beurre.)


Alhert Hamilton Bennett, Hamilton, Ontario, Canada, 25th November, 1898; 6 years. (Filed 14th September, 1898.)
Claim. 1st. A butter separator, comprising the four correspondingly opposite and parallel sides A, B, C, D, and hottom F, the two shafts $F$ and $F^{1}$, with collars ' $W$, the pins $R$, the two grooved wheels (i and ( $\dot{i}^{1}$, the two shafts H and. I , the two cogged whetls $K$ and I , the grooved wheel N , oferated handle M , the tap $O$, the bearings $P$ and $P^{1}$, the pin $X$, the casing $S$, the four rests or brackets $T, T^{1}, T^{2}, . T^{3}$, the board $\mathbb{I}^{+}$, having the churning roller or cylinder turned from a solid shaft of wood, the same being straight, plain and mounted on the strel or iron shaft, provided with the slot Q, all formed, arranged and combined, substantially as and for the purpose hereinbefore sat forth. end. In a butter separator, comprising the four correspondingly opposite and parallel sides A, B, C, 1 , and bottom $E$, the two shafts $F$ and $F^{1}$. with collars $W$, and pins $R$, the two groned wheds $I^{\prime}$ and ( $i^{1}$, the two shafts $H$ and $J$, the two cogged wheels $K$ and $L$, the grooved wheel $N$, operated by the handle $\mathbf{N}$, the tap $O$, the bearings $P$ and $P^{1}$, the pin $X$, the casing $S$, the four rests or brackets $T, \mathrm{~N}^{3}, \mathrm{~T}^{3}, \mathrm{~T}^{3}$, the board T , having a churning roller or cylinder turned from a solid shaft of wood, having a fluted face or surface, the flutings running lengthwise or angularly to the roller or cylinder, the said roller or cylinder being concaved at both ends, or cut and dressed at both ends at right angless with the face of the roller or cylinder, all fromed, arranged and combined, sulstantially as and for the purpose herembefore set forth. 3rd. A butter scparator, comprising the four correspondingly cposite and parallel sides A, B, C, D, and bottom $E$, the two shafts $F$ and $F^{1}$ with the collars $W$, the pins $R$, the two grooved wheels ( i and ( $\mathrm{i}^{1}$, ther two shafts H and I , the two cogged wheels K and L, the grooved wheel N, operated by the handle N , the tap 0 , the bearings $P$ and $P^{\prime \prime}$, the pin $X$, the casings $S$, the four rests or brackets $\mathrm{T}, \mathrm{T}^{3}, \mathrm{~T}^{2}, \mathrm{~T}^{3}$, the board T , having a churning roller turned from a solid whaft of wood, having turned in its surface from end to end, corrugations of a suitable depth and number, all formed, arranged and combined, substantially as and for the purpose hereinbefore set forth. 4th. A butter separator, compri-ing the four correspondingly ope osite and paralle! sides $A, B, C, D$, and
buttom F , the two shafts $F$ and $F^{1}$ with the collars $W$, the pins $R$, the two groover? wheels $\mathrm{C}^{\prime}$ and $\mathrm{G}^{1}$, the two shafts $H$ and $J$, the two cogged wheels $K$ and $L$, the grooved wheel $N$, operated by handle M , the lorarings P and $\mathrm{P}^{\prime \prime}$, the pin X , the casing S , tap 0 , the four rests or brackets $\mathrm{T}, \mathrm{T}^{1}, \mathrm{~T}^{2}, \mathrm{~T}^{\text {s }}$, the board U , having a churning roller or cylinder turned from a solid shaft of wood, having turned in its surface from end to end a series of dises with shoulders, mounted on a steel or iron shaft, all arranged, formed and comhined, substantially as and for the purpose hereinbefore set forth.

No. $61,8+4$. Nail Making Machine.
(Muchine ì faire le clous.)


George Goddu, Winchester, Massachussetts, U.S.A., 25th November, $1898 ; 6$ years. (Filed e5th October.)
Claim.-1st. In a machine of the character described, the combination of the following instrumentalities, viz:-a rotatable cuttungdise provided on its periphery with a plurality of substantially triangular recesses having inclined and transverse cutting edges of unequal length and extended from the circumferential edge of one face of the disc toward the other face of the said disc to form cuttingdies, and a co-operating cutting edge upon which rests the material cut, substantially as described. 2nd. In a machine of the character described, the combination of the following instrumentalities, viz:a rotatable cutting-dise provided on its periphery with a plurality of substantially triangular recesses having inclined and transverse cutting edges of unequal length and extended from the circumferential edge of one face of the disc toward the other face of the said dise to form cutting dies, and a co-operating rotatable disc overlapping the first disc and having like cutting-dies with their cutting edges extended in an opposite direction from the cutting edges of the dies on the first-mentioned disc, substantially as described. 3rd. In a machine of the character described, the combination of the following instrumentalities, viz:-a rotatable cutting-dise provided on its periphery with a plurality of substantially triangular recesses having melined and transverse cutting edges extended from the circumferential edge of one face of the disc toward the other face of the said disc, and a co-operating cutting edge upon which rests the material cut, and a guide for the ribbon or band extended toward and in close proximity to that die of the disc which is cutting the ribbon or band, substantially as described. 4th. In a machine of the character desscribed, the combination of the following instrumentalities, viz:-a strip-cutting mechanism rotatable reels, a reciprocating traverse provided with two strip guides co-operating with said reels, mechanism tor rotate said reels and reciprocate said strip-guides, a tension mechanism controlling the rotation of said reels and the reciprocation of said traverse and its guides, and a straightening device intermediate of the strip-guides and cutting mechanism, smbstantially as described. Jth. In a machine of the character described, the combination of the following intrumentalities, viz:-astrip-cutting mechanism, a gear, reels secured to said gear to revolve therewith reciprocating strip-carrier co-operating with said reels, a maindriving-shaft, a counter-shaft, gearing actuated by the counter-shaft to rotate said reels and strip-guide, and frictional mechanism driven from the main shaft and controlling the rotation of the comerer-shaft and the said reels, and the reciprocation of the strip-guide, sulstantially as described. Gth. The combination with a rotatable cutting-disc provided on its periphery with a plurality of substantially triangular recesses having inclined and transverse cutting edgen, of a co-operating rotatable cutting-dise overlapping the cutting edge of the first mentioned dis and provided with substantially triangular reesses having inclined and transverse cutting edges extended in an opposite direction from the cutting edges of the first-mentioned disc, means to rotate said dises and an adjustahle guide co-operating with said discs, substantially as described. 7 th. In a machine of the character described, the combination of the following instrumentalities, viz: - a rotatable cutting-dise provided on its circumferential edge with dies, a co-operating cutting dise having on it: circumferential edge co-ofwrating but reverse dies, shafts on which said dises are motunted, gears on said shafts in mesh with each other and longitudinally adjustahle thereon, bearings for said shafts, one of which is adjustable radially with relation to the other, and a guide for the ribbon or band co-operating with the cutting discs, substantially as described. 8th. In a machine of the
character described, the combination of the following instrumentalities, viz:-a rotatable cutting-disc provided on its circumferential edge with dies, a co-operating cutting-dise having on its circumferential edge co-operating but reverse djes, shafts on which said dises are mounted, gears on said shafts in m$m^{\prime}$ sh with each other and longitudinally adjustable thereon, bearings for said shafts, one of which is adjustable radially with relation to the other, and an adjustable guide for the ribbon or band co-operating with the cutting-dises, substantially as described. 9th. In a machine of the character described, the combination of the following instrumentalities, viz:the rotating circular cutting-discs $A^{3}$, $A^{4}$ having their peripheries substantially in contact and provided with the dies $b$ reversely arranged on the peripheries of said dises at the circumferential edges of the opposite sides of said dises and provided with substantially long inclined cutting edges $b^{1}$ and substantially short transverse cutting edges $\phi^{2}$, which co-operate to cut the metal riblon, and the stationary guide $b^{5}$ provided with a guideway or substantially the same area in cross-section as the ribbon or band to be cut and having a bu,ttom upon which the ribbon or band rests and uprights side walls which embrace the sides or edges of the ribbon or band, and which bottom and side walls are extended close up to the active cutting-dies of the discs $A^{3}, A^{4}$ to impart to the guide $b^{s}$ the function of a support for the ribbon or band and thereby enable a narrow ribbon or band to be cut into duplicate string-nail strips, smbstantially as described. 10th: In a machine of the character described, the combination of the following instromentalities, viz: a strip-cutting mechanism, reels upon which the said strips are wound, a reciprocating lever provided with two stripguides co-operating with said reels, and a tension mechanism controlling the rotation of the said reels and the reciprocation of the said lever and attached guides, substantially as described. 11 th. In a machine of the character described, the combination with discs having circumferential cutting-dies of uniform length, and with cutting edges reversely arranged, of means to rotate said discs in opposite directions, and an adjustable guide having adjustable fingers, sulstantially as described.

No. 61,845. Wrapper for Cufis, Collarm, etc.
(Enveloppe pour collets, poigmets, etr.)


Don Irving Petts, Keene, New Hampshire, U.S.A., 25th November, 189s; 6 years. (Filed 24th October, 1898.)
Claim.-A wrapper for cuffs and the like, having a pocket at one end and side wings at the other, an intermediate part 3 , having the width of the pocket and connecting it to an end piece 2 , the inside of said pooket consisting of a stiffening-piece 10 , attached to and secured in the main portion of the said pocket and adapted to be rolled with the wrapper on the interior of the cuff, and means for fastening the package in the form of a roll, substantially as described.

No. 61,846. Fence Post. (Potenu dr clotures.)


Arphad Snell, Tice, Illinois, U.S.A., 26th November, 1808; 18 years. (Filed 3rd November, 1898.)
Cluim. 1st. A clay fence post provided with a series of transverse notches and opening below the lowermost notch, a binding
strip. crossing the notches in the post, the said hinding strlp being provided with a flange at its lower end which enters the said opening in the post, and a flange at its upper end which engages with the top of the post, and clamps securing the binding strip to the post, as and for the purpose specified. 2nd. The combination of a fence post, a binding strip ruming longitudinally along the outside of the fence post and adapted to clamp the wires between the post and the strip, and means encircling the binding strip and the post and serving to hold the stwip rigidly in plare. Brd. The conbination of a fence post provided with a series of notches respectively adapted to receive the fence wires, the post also having an opening at its lower portion, a binding strip located outside of the post and serving to bold the wires rigidly together in the notches, the lower end of the binding strip being lent inwardly into tioe opening in the lower portion of the post, and means encircling the binding strip and the post to hold the binding strip in place.

No. 61,847. Storage Battery. (Butteric scomulaire.)
Henry Blumenberg, Wakefield, New York, U.S.A., 2ith November, 1898. 6 years. (Filed 16th September, 1898.)
Claim.-1st. In a storage or secondary battery, having positive and negative elements of different metals, an electrolytic solation containing a metallic sulphate, substantially as specified. 2nd. In a secondary or storage battery, containing two metallic elements of different polarity, an electrolytic solution containing ter-sulphate of aluminum, substantially as set forth. 3rd. In a secondary or storage battery, containing two metallic elements of different polarity, an electrolytic solution containing ter-sulphate of aluminum and bi-sulphate of an alkalior alkaline earth, such as potassinm, sodium or ammonia, substantially as specified.

## No. 61,848. Electric Buttery. (Pile ciectrique.)

Henry Blumenberg, Wakefield, New York, U.S.A., 2lith November, 1898; 6 years. (Filed 16th September, 189k.)
Cluim.-1st. In a primary battery, the combination with the positive and negative elements, of an electrolytic liquid containing an aluminum ter-sulphate, substantially as and for the purposes set forth. 2nd. The primary battery, containing positive and negative elements, and a lead per-oxide, an electrolytic liquid containing aluminum ter-sulphate and a sulphate of a metal of the alkalies or alkaline earths, substantially as set forth. 3rd. The primary battery, containing positive and negative elements and a metallic peroxide, an electrolytic liquid containing aluminum ter-sulphate and a sulphate of a metal of the alkalies or alkaline earths, substintially as set forth.

## No. 61,849. Car Coupler. (Attelate de churs.)



Stephen Reynolds, Northfield, Minnesota, U.S.A., 26 th November, 1998; 6 years. (Filed 17 th Octoher, 1898.)
Claim.-1st. In a car coupling, the combination of the coupling. car, provided with a slotextending length wise of the har and inclined outward towards the rear, a cross-beam secured to the draw-head, a cross-bar pivoted to the cross-beam, handles on the ends of said cross-bar, at the sides of the car, and an arm projecting outward from said cross-bar over the draw-head, provided with an angular end pivotally secured in the slot of the coupling bar, substantially as described. 2nd. In a car coupling, the combination of the coupling bar, provided with a slot extending lengthwise of the bar and inc.ined outward towards the rear, a cross-beam secured to the draw-head, a cross-har pivoted to the cross-beam, handles on the ends of said cross-bar, at the sides of the car, an arm projecting outward from said cross-bar over the draw-head, provided with an angular end pivotally secured in the slot of the coupling bar, and a bracket secured to the cross-bean above the cross-bar, the cross-bar being also slidable in its bearings to permit of the engagement of the projecting arm, behind the bracket, when raised, substantially as described. 3rd. A car conpling comprising the draw-bars, having inner circular chambers and outer semi-circular chambers in their
upper faces, connected by channels or notches, in combination with a suspended coupling bar provided with substantially semi-circular knobs on each side of each end, adapted to engage in the chambers, and brackets connected to each draw-bar and adapted to ride over the top of the opposite draw-har, substantially as described.

No. 61,850. Window Lock. (Serrure de fenétres.)


William A. Coulson, Moss Point, Mississippi, U.S.A., 26th November, $1898 ; 6$ years. (Filed 17th October, 1898.)
Cluim.-1st. The combination of a window sash and frame with a plate eccentrically pivoted to the sash, and a spring operating to press the plate in the direction of the sash, whereby the eccentric will bear with the spring pressure only against the sash in rasing it, but oppositely against it when an attempt is make to lower it, substantially as described. Ind. The combination of a window sash and franie, with a plate eccentrically pivoted to the sash and projecting the refrom in concact with the frame, the spring pressing the lower end of the plate towards the sash, and a spring belt securing the eccentric in its locked position, substantially as set forth. 3 rd. The combination of the window sash and frame with a lock plate secured to the frame and provided with a suitable socket, a plate eccentrically pivoted to the sash and having a hook to ungage in said socket and a spring bolt adapted to engage in the socket in the eccentric to fasten it in its locked position, sulistantially as set forth. 4th. The combination of a window sash and frame, with a plate eccentrically pivoted to the sash, a spring for normally holding the eccentric in contact wich the sash, and a knob projecting from the eccentric through a slot in the casing whereby the eccentric may be moved against the action of the spring, substantially as set forth. ith. The combination of a window sash and frame, with a plate eccentrically pivoted to the sash, a spring normally holding the eccentric in contact with the sash, and rollers pivoted to the eccentric and projecting beyond its outer edge to come into contact with the sash, substantially as described.

No. 61,851. Cask Cleaning Machine.
(Machine à nettoyer les futrilles.)


Charles Liebmann, Kline, New York, U.S.A., 26th November, 1898; 6 years. (k'iled 28 th October, 1898.)
Claim.-1st. In a machine, cutter carriers or tool carriers mounted in a rotary cutter-head, in combination with means constructed and arranged to automatically move the said cutter-head forward and back. 2nd. In a machine, cutter-carriprs or tool carriers mounted in a rotary cutter-head, in combination with means constructed and arranged to move the same manually in and out, and with means constructed and arranged to automatically move the said cutter head forward and back, and also with means constructed to antomatically stop, the rearward movement of said cutter-head. 3rd. In a machine, a stationary head and a movable head, a rotary cutterhead, neans to automatically move the same forward and back, in
combination with a shaft, and also with means to manuaily actuate the said shaft in a forward or in a rearward direction. 4th. In a machine, a stationary head, and a movable head, a rotary cutterhead, means to automatically move the same forward and back, in combination with a shaft, and also with means to manually actuate the said shaft in a forward or in a rearward direction, and also with means constructed and arranged to antomatically stop the rearward movement of said cutter-head. ©th. In a machine, a stationary head, and a movalle head, a rotary cutter head, and means tomove the movable head forward and back, in combination with means to rotate the cutter-head and automatically move the same in a forward and in a rearward direction. 6th. In a machine, a stationary head, and a movable head, a rotary cutter head, means to move the movable head forward and back, in combination with means to rotate the cutter-head and automatically move the same in a forward and in a rearward direction, and also with means constructed and arranged to automatically stop the rearward movement of said cutter-head. 7th. In a machine, a stationary, and a movable head, a rotary hea 1, tools therefor, means to move mannally in and out, means to move the moveable head forward and back, in combination with means to rotate the cutter-head and automatically move the same in a forward and in a rearward direction. 8th. In a machine, a stationary and a movable head, a rotary head, tools therefor, means to move the same manually in and out, means to move the movable head forward and back, in combination with means to rotate the cutter-head and automatically move the same in a forward and in a rearward direction, and also with means constructed and arranged to automatically stof, the rearward movement of said cutter-head. 9th. In a machine, a fixed head, a movable head, cutter-carriers or tool-carriers mountid in a rotary cutterhead, in combination with means constructed and arranged to move the same manually in and out, and with means constructed and arranged to automatically move the sand cutter-head forward and back. 10th. In a machine, a stationary head, and a movable head, a rotary cutter-head, means to automatically move the same forward and bark, in combination with a shaft, and also with means to manually actuate the said shaft in a rearward or forward direction, also with mechanism for moving one of the bearings of said shaft to or from the same at will.

No. 61,852. Hot-Air Furnace. (Fournaise ì cir chuud.)


Alfred B. Blasse, Frostburg, Maryland, U.S.A., 26th November, 1898; 6 years. (Filed 2nd November, 1898.)
Claim.-1st. A furnace, having an inclosing compartmental casing interiorly divided by a transverse vertical partition !, the furnace proper extending in front and in rear of the plane of said partition and having its fire-box in communication directly and indirectly with a flue extending through the rear compartment of the casing, and said furnace also having a dome covering its fire-box, an airsupply conductor extending from a point outside of the casing contiguous to the bottom of the furnace and terminating in an outlet located within the casing contiguous to and in front of said partition, and an open-topped moisture-distributing reservoir arranged above the furnace in rear of and contiguous to the plane of the partition and betwern the same and said flue, and provided with suitable supply and reliof conductors, the reservoir loing located above the rear portion of the furnace proper, contiguous to the dome thereof, substantially as described. 2nd. A furnace, having an inclosing casing forming air-chambers, and distributing-pipes in communication therewith, the furnace proper being provided with side and bottom radiating-surfaces and means for supplying air, including a conductor entering the casing at its bottom, +xtending upward out of contact with said radiating-surfaces and discharging above the furnace proper, substantially as specified. 3rd. A furnace, having an inclosing casing provided with supply and distributing conveyors, the funace proper, comprising a combustion-chamber and inclosing drum conmunicating directly and indirectly with a smoke flue, said drum having a domed shell forming radiatingsurfaces, a base and a spaced sub-base forming connected conductors in communication with a smoke-flue, and draft-spaces between the walls of the combustion-chamber and the walls of the shell, sub-
stantially as specified. 4th. A furnace, having an inclosing casing provided with supply and distributing conveyors, the furnace proper, comprising an open-topped fire-box, a drum having a base support ing the fire-box and forming the floor of an ash-pit under the firebox, a drum-shell supported by the said base and surrounding the fire-box, with ite walls spaced therefrom, the interior of the shell being in communication ly a direct-draft opening with a smoke-flue, and said drom also having a sub-base spaced from the hase and divided by interior partitions to form a central conductor in communication with the smoke-Hue be-low said direct-draft opening, and side conductors in communication with the side spaces between the fire-box and the walls of the shell, and consected with the central conductor at points remote from the smoke-flue, substantially as specified. 5th. A furnace, having an inclosing casing provided with supply and distributing conveyors, the furnace proper, comprising an open-topped fire-box, a base supporting the firebox and forming the bottom of the ash-pit therefor, said base being of greater area than the fire-box, a sub-base spaced from the base and baving the intervening interval divided by partiticns to form a central conductor, and side conductors communicating with the central conductor at their front ends, a shell supported by the base with its sides spaced from the walls of the fire-box to form chambers communicating through openings in the base with said side conductors, a smoke-flue communicating with the rear end of the central conductor, a dampered direct-flue opening connecting the interior of the shell above the fire-box with the smoke-flue, a draft-damper in the smoke-flue above the plane of the direct-draft opening, and a gas-escape tube connecting the interior of the shell with the smokeHue above the draft-damper, sulstantially as specified.

No. 61,853. Plough Planter and Cultivator. (Charrue.)


Charles H. Whitney, Cookeville, Tennessee, U.S.A., 26th 1 November, 1898 ; 6 years. (Filed 2nd November, 1898.)
Claim. - 1 st. In a machine of the class described, the combination of a frame, a wheel supporting said frame, axles carried by the wheel and journalied in bearings the outer ones of which are laterally removable whereby the ends of the axle may be free, seed-rings slidably adjustable and removably mounted on the axles, seedhoppers above the rings, and drills at said rings adjustably secured to the frame, substantially as set forth. 2nd. In a machine of the class described, the combination of a frame, a wheel supporting said frame, axles carried by the wheel and journalled in bearings the outer ones of which are laterally removable whereby the ends of the axle may be free, seed-rings adjustably and removably mounted on the axles, seed-hoppersabove the rings having deflectors and brushes as described, and drills having concaved upper ends located at the rings, said drills being adjustably and removably secured to the frime, substantially as set forth. 3rd. In a machine of the class described, the combination of a frame, a wheel supporting said frane, axles carried by the wheel and journalled in bearings the outer ones of which are laterally removable whereby the ends of the axles may be free, seed-ring mounted on the axles to be adjusted and removed longitudinally thereof, each seed-ring having seed-cups and set-screws therein to adjust the depth thereof, seed-hoppersalove the rings, drills at said rings. coverers at the rear of the drills, and means for adjustably and removably attaching said drills and coverers to the frame to permit of vibration, substantially as described. 4th. In a machine of the class described, the combination with a frame carrying transverse rods, of a drill provided at its upper end with a hook slidably and removably connected with one of the rods, a plate slidably connected with the other rod and carrying a setscrew and staple, an eye on the drill engaging the staple, and a break-pin for the latter, substantially as described. 5th. In a machine of the class described, the combination with a frame and a single supporting-wheel therefor, of a caster-wheel in advance of the aforesaid wheel, a lever for elevating and drepressing said wheel as described, and means for locking the lever in its positions, substantially as set forth. 6th. In a machine of the class described, the
combination with a frame and a single supporting-wheel therefor, of a caster-wheel in advance of the aforesaid wheel, carried by an arm, a lever connected to said arm, a brake-shoe carried by the lever and adapted to be brought into engagement with the supporting-wheel when the caster wheel is depressed, and means for locking the lever consisting of a slotted guide having offsets provided with inclined sides, substantially as described.

No. 61,854. Procesm of Treating Foot-wear.
(Procédé pour le traitement des chaussures.)

.61854
Milton P. Fralick, Niagara Falls, South Ontario, Canada, 26th November, $1898 ; 6$ years. (Filed 8th November, 1898.)
Claim.-1st. The process herein described for absorbing and extracting the moisture from foot-wear consists of inserting a block, in the form of a last and of suitable temperature into the interior thereof, said last or block possessing the nature and properties described, which consists of terra cotta, or material of like absorbent nature. 2nd. The process of absorbing and extracting all moisture, dampness and impurities from foot-wear consists of inserting a last or block, whilst in its natural state or heated to a sufficient temperature to handle, and possessing the absorbent nature and properties described, into a boot or other foot-wear, as described.

No. 61,855. Book Support. (Support delirres.)


Louis Allen Mayo, Clifton Hill, Missouri, U.S.A., 26th November, 1898; 6 years. (Filed 17 th October, 1898.)
Claim.- 1 st. In an adjustable book support the combination of a base adapted to be rigidly secured to a table, counter or desk, a pedestal rotatably mounted thereon, a top or head carried by the pedestal, a tilting frame pivotally mounted thereon, and means for securing it in any tilted position, as set forth. 2nd. In combination, the base, the headed square bar rising therefrom, the bushing thereon, the perlestal mounted to turn on the bushing having base carried on the main base by ball bearings, the top or head of the pedestal, the head screwed on the top of the square har and supported upon the pedestal head by ball bearings, and the tilting frame pivoted to the pedestal head, sulstantially as described. 3rd. In conbination, the base, the headed square bar rising therefrom, the bushing thereon, the pedestal mounted to turn on the bushing having base carried on the main base by ball b-arings, the top or head of the pedestal, the head screwed on the top of the square bar and supported upon the pedestal head by ball bearings, the concentric threaded flange projecting upward from the pedestal head, and the cap threaded thereon, substantially as described. 4th. The combination of the rotatable pedestal, its head provided with radial arms $\mathrm{N}, \mathrm{N}, \mathrm{O}, \mathrm{O}$, the tilting frame pivoted in lugs on arms $\mathrm{N}, \mathrm{N}$, the adjusting pins slidably mounted in vertical openings through arms $\mathrm{O}, \mathrm{O}$, and bearing under the tilting frame at opposite sides of its pivots, and the thumb-screws for securing the pins, substantially as described. 5th. The combination with the tilting frame of tubes secured therein, rods slidably mounted in said tubes and having hooked ends projecting over the end of the fraine in position to clampa book thereon, and the thumb-screws for securing the hooked rods in any described adjustment, substantially as described.

No. 61,856. Boot Juck. (Tirc-botte.)
Hans Jakobsen, Hawthorne, Ontario, Canada, 26th November, 1898 ; 6 years. (Filed 27th October, 18:48.
Claim.-1st. As a new article of manufacture, a boot jack comprising the base board having a recess in the forward end thereof a
pressure plate connected to the base board and ueans for adjusting position of such plate and holding it over the toe of the boot as and

for the purpose specified. 2nd. As a new article of manufacture, a boot jack comprising the hase toard having a recess in the forward end thereof, a supporting bracket for the heel of the boot located beneath the said recess and a pressure plate connected to the base loward and means for adjusting position of such plate and holding it over the toe of the boot as and for the purpose specified. 3rd. As a new article of manufacture, a boot jack comprising the base board having a recess in the forward raised end thereof, a supporting bracket located beneath the said recess, standards secured to the base board, a lever pivoted between the upper ends of the standards and a pressure plate located near the ends of said lever, as and for the purpose specified.

No. 61,857. Metallic Railway Tie.
(Traverse métallique de chemin de fer.)


William Thomas Wilkinson, Lafayette, Colorado, U.S. A., 26th November, 1898 ; 6 years. (Filed 24th October, 1898.)
Chaim.--1st. A railway-tie formed of two opposing, hollow one piece sections overlapping at their edges to permit of vertical play springs arranged between the sections, and vertical tie-bolts adjustably and detachably connecting said sections, substantially as described.

No. 61,858. Fence Post. (Potcau de clôturcs.)


Cyril B. Lombard, Darien Center, New York, U.S.A., 26th November, 1898 ; 6 years. (Filed 17th October, 1898.)
Claim.-1st. The combination with the right angular post 1 formed with the horizontal parallel slots $\mathbf{6} 6$, and the right angular horizontal
brace 2 fixed to said post and having a slitted upper and a bevelled lower edge, the clamps 8 , formed with the hook 9 and slot 10 , and the retaining key 12 , substantially as shown and described. 2nd. A metallic fence post formed of a single piece of $L_{\text {a }}$-shaped angle iron and the rigid right angular anchor brace 2 horizontally fixed thereto and having its latteral arms 44 , slitted and the intervening solid portions turned in opposite directions, substantially as shown and described.

No. 61,859. Electrolysis. (Electrolysc.)

$\therefore 1859$
Charles Ernest Acker, East Orange, New Jersey, U.S.A., 26th November, 1898 ; 6 years. (Filed 6th June, 1898.)
Claim.-1st. The process of making an alloy of heavy metal such as lead, tin, zinc, etc., with a metal of an alkali or of an alkaline earth consisting in reducing the heavy metal in a molten state, and employing it as a cathode electrolytically decomposing a fused salt of the metal of an alkalia or of an alkaline earth, while superimposed upon the heavy metal, removing the resulting alloy from the region of the electrolyte, subsequently permitting its different portions to stratify, and flowing off the lighter portion from the surface, substantially as specified. 2nd. The process of making an alloy of a heavy metal such as lead, tin, zinc, etc., with a metal of an alkali or of an alkaline earth, consisting in reducing the heavy metal to a molten state, and employing it as a cathode, electrolytically decomposing a fused salt of the metal of an alkali or of an alkaline earth while superimposed upen a heavy metal, removing the resulting alloy from the region of the electrolyte, subsequently permitting its different portions to stratify and returning the heavier portion to the point where it takes $u_{p}$, the lighter metal, substantially as specified. 3rd. The process of making an alloy of a heavy metal such as lead, tin, zinc, etc., with a metal of an alkali or of an alkaline earth, consisting in reducing the heavy metal to a molten state and employing it as a cathode, electrolytically decomposing a fused salt of the metal of an alkali or of an alkaline earth, while superimposed upon the heavy metal, circulating the cathode metal in a stream past the anode or anodes into another chamber and automatically removing a portion of the metal when the metal rises above a certain height, substantially as specified. 4th. The process of making an alloy of a heavy metal such as lead, tin, zinc, etc., with a metal of an alkali or of an alkaline earth, consisting in reducing the heavy metal to a molten state and employing it as a cathode, electrolytically decomposing a fused salt of the metal of an alkali or of an alkaline earth while superimposed upon the heavy metal, circulatiug the cathode metal in a stream past the anode or anodes into another chamber, removing a portion of the metal from near the bottom of said chamber and returning it to the circulation, substantially as specified. 5th. In an apparatus for electrolytically decomposing fused salts, the combination of a covering for said apparatus provided with an opening or openings for receiving an anode and for feeding a salt, a body of salt resting on said covering partly closing said openings, and a molten metallic cathode. bith. In an apparatus for the electrolytic manufacture of an alloy from a heavy metal such as lead, tin, zinc, etc., with a metal of an alkali or of an alkaline earth, the combination with an anode of a cathode composed of the heavy metal, a chamber with which the metal of the cathode is in fluid communication sealed against access of the electrolyte, into which the alloy rises, means for automatically removing the alloy from the chamber when it exceeds the desired level, and a circulating device arranged to direct the surface flow of the molten metal transversely below the electrolyte, substantially as specified. 7 th. In an apparatus for the electrolytic manufacture of an alloy from a heavy metal such as lead, tin, zinc, etc., with a metal of an alkali or of an alkaline earth, the combination with an
anode of a rathode composed of the heavy metal, a chamber with which the cathode metal is in fluid communication and which is sealed against access of the electrolyte, a circulating device, a pan or partition immersed in the cathode metal slightly below the true cathode surface, and having an extension or continuation toward the circulating device, openings or channels being provided in or partly formed by said pan or partition and its extension, whereby the molten metal may flow underneath and over the same, substantially as specified.

No. 61,860. Aretylene Gas Generator.
(Cénérateur de gaz acétyléne.)


Harold Bruce Findlay, Rossland, British Columbia, Canada, 26th November, 1898; 6 years. (Filed 22nd July, 1898.)
Claim. - 1st. The combination of the bucket ( $x$, placed within the inner compartment of a walled generator with a grating $\mathbf{H}$, crank connection $\mathrm{K}, \mathrm{K}, \mathrm{J}$, and connecting rod L, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the valve $R$, with a spring $Y$, and chain $W$, attached to funnel $S$, the lever X, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the vessel U, with the perforations T, and the wires $\mathrm{T}^{2}$, substantially as and for the purpose hereinbefore set forth. 4th. The combination of the tank (Q) and the valve N, on a pipe entering the $\operatorname{tank} Q$, with the spring 4 , and a chain 3 , attached to the lever of the valve N , and the receiver B , substantially as and for the puryose hereinbefore set forth.

No. 61,861. Method ofseparating Precious Metals from their Ores. (Méthode de sepurer les métaux des mincrais.)
Gustaf M. Westman, New York City, New York, U.S.A., 26th November, 1898; 6 years. (Filed 4th August, 1898.)
Claim. -1 st. The herein described method of separating precious metals from their ores, consisting in first melting the ores to form a molten mass or slag, and then subjecting this mass to the section of jets of fluid to form mineral wool, to divide the precious metal into minute particles which collect on and adhere to the mineral wool, and then subjecting the mineral wool to a leaching process, to separate the precious metal and wool, substantially as shown and described. 2nd. The herein described process of separating precious metals from their ores, consisting in first reducing the ore with a flux in a furnace to form a molten mass, then subjecting the flowing molten mass to the action of jets of fluid, to form mineral wool and cause the precious metals to collect or adhere in a finely divided state or minute particles on said wool, and finally separating the wool and the precious metals, substantivlly as shown and described.

## No. 61,862. Acetylene fins Machine.

(Machine ì gaz acétylène.)
Henrich Daut, Nuenberg, Solgerstrasse 6, Bavaria, 2ith November, 1898; 6 years. (Filed 8th August, 1898.)
Claim.--1st. An apparatus for the development and collection of acetylene gas characterized by the employment of a carbide vessel
$b$, sitting in the gas reservoir $f$, with single cells $h$, lying over each other which according to need, receives water from below through

a tube $i$, which stands with its mouth lot'ow, the surface of the water when the reservoir rises, and thus regulates its fow of water without valve or any such contrivance.

No. 61,863. Trolley Pole. (Perche de trollée.)


John N. Prisk, Johnstown, Pennsylvania, IT.S.A., 26th November, 1898; 6 years. (Filed 18th August, 1898.)
Claim. - $\mathbf{- 1}$ st. The combination with a suitable support and trolley, of means for retaining the trolley in contact with the wire either from above or from below, substantially as specified. 2nd. The combination with a suitable support and trolley, of mechanisin for retaining the trolley in contact with the wire from above under pressure, and means for automatically dropping the trolley below the wire and for urging it against the under side of sand wire, substantially as specified. 3rd. The combination with a support and trolley, of means for automatically shifting said trolley above and below the wire to accommodate the variations of elevation of the latter, subatantially as specified. tth. The combination with a support and trolley, of means for shifting said trolley both above and below the wire, and for retaining it lin contact with said wire from above or below under pressure, substantially as specified. 5th. In a trolley pole, two pivoted arms, a trolley-wheel consisting of two independent discs adipted to normally abut against each other, and means for holding said dises in connection, whereby said wheels may be separated so as to be positioned above the conductor wire, substantially as shown. (ith. In a trolley pole, a swivel post, arms pivoted thereto, consisting of two separate sections, a spring for holding said sections normally in contact, and a spring bearing against the arms to lift the same whereby the said sections of the trolley-wheel may be separated to enable said wheel to take position above the conductor wire, substantially as described. 7 th. In a trolley pole, a socket having a swivelled post, an adjustable bracket upon said post, swinging arms secured to said post, and a spring bearing against a plate carried by said arms and against said bracket. 8 th. In a trolley pole, the combination of a swivel post, two arms pivoted thereto and extending parallel to each other, a trolleywheel consisting of two separable discs, one rotatably mounted on each arm, a spring engaging said arms to normally hold the dises in
contact, a bracket on the swivel post, and a spring connecting between the satid bracket and the arms to lift the latter, substantially as deseribed

No. 61,864. Ntorage Battery. (Pile électrique.)


Samuel Walter Hart, Oakdene, Woolford, and Edward James Clark, Crispin's Wharf,Stratford, Essex, England,26th November, 1898; 6 years. (Filed 23rd August, 1898.)
Claim. - 1st. In a secondary battery or accumulator, the latticed plate or grid, holding active material, with an alternating cellular structure d, figures 1 and 2 , and open grid $e$ formed by intersecting diagonal and lateral bars, in combination with lugs $l$ which are closed by pressing, and holes $r$, substantially as and for the purpose as hereinbefore set forth. 2nd. The combination of plates E, as referred to in the preceding claim, with separators $\mathbf{K}$, insulating studs $h$, and nuts $i$, substantially as and for the purpose as hereinbefore set forth. 3rd. The combination of plates E, as described, with a bridge $B$, boss $C$, and taper screwed lolt $g$ having a central conducting core $f$, sulstantially is and for the purp ises hereinbefore described. 4th. The combination of plates $E$, having lugs 1 , figures 9-11 and 13 sheet 2, with a perforated envelope $G$ held in place by rods $m$, substantially as and for the purposes hereinbefore described.

No. 61,865. Scaffold Manger. (Porte-échufand.)


Charles II. Bowie, Lisbon Falls, Maine, U.S.A., 26th November, 1898; 6 years. (Filed 17 th September, 1898.)
Claim.--In a scaffold hanger, the combination with a platform having depending side rails, of inclined supporting arms therefor comprising slotted sections slidable upon each other, each section carrying a threaded pin which extends through the slot of the adjacent section and receives a clamping nut, the lower sections having vertical books formed on their inner sides to engage the side rails of the platform, and a ring connecting the upper sections, substantially as described.

## TRADE-MARKS

## Registered during the month of November, 1898, at the Department of AgricultureCopyright and Trade-Mark Branch.

6658. ALFRED NATHAN, Montreal, Que. A Preparation for killing Vermin, 2nd November, 1898.
6659. THE GROCERS' GOODS MANUFAC'TURING COMPANY, LIMITED, Toronto, Ont. Soal, 2nd November, 1898.
6660. THE LAURENTIDE PULP COMPANY, LIMITED, Grand Mere, Que. Mechanical Wood Pulp, Chemical Wood Pulp and Wood Pulp Boards, 4th November, 1898.
6661. JEYES' SANITARY COMPOUNDS COMPANY, LIMITED, London, England. A Preparation for use in Medicine and Pharmacy for human use, 4th November, 1898.
6662. LYMAN JONES WOODWARD. Toronto, Ont. Proprietary Medicines, 7th November, 1898.
6663. LOUISA SMITH \& NATHANIEL SMITH, trading as N. \& M. Smith, Halifax, N.S. Fish, 12th November, 1898.
6664. GEOR(iE N. MORANG, Toronto, Ont. Books, 12th November, 1898.
6665. GEORGE FREDERICK GALT, Winnipeg, Man. Baking Powder, Baking Soda, Breakfast Fcod, Burax, Chocolate, Coffee, Cocos, Herbs, Flavoring Extracts, Mustard, Spices and Yeast, 14th November, 1898.
6666. VEREINIGTE PINSEL-FABRIKEN, Nuremberg, Bavaria, German Empire. Brushes, 14th November, 1898.
6667. McDONALD \& ROBB, Valleyfield, Que. Flour, 15th November, 1898.
6668. W. CRAWLEY RICARDO, Vernon, B.C. Hops, 16th November, 1898.
6669. EMPIRE TOBACCO COMPANY, Granby, Que. Manufactured Tobacco, 16th November, 1898.
6670. THE BRANTFORD STARCH COMPANY, LIMITED, Brantford, Ont. Starch, 17 th November, 1898.
6671. ANDREW FRANK BIGGER, Oakville, Ont. Proprietary Medicines, 17 th November, 1898.
6672. THE HOSTETTER COMPANY, Pittsburg, Pa., U.S.A. Proprietary Medicine, 18th November, 1898.
6673. THE ELLIOTT \& BROOKE COMPANY, LIMITED, Toronto, Ont. Boxes, Packagen, Parcels and Cases, 18th November, 1898.
6674. DARWIN LEWIS VAN VLACK, Toronto, Ont. A Preparation used as a Wood Preservative, 21st November, 1898.
6675. ARTHUR GILLESPIE SMITH, Winchester, Ont. Medicinal Preparation, 21st November, 1898.
6676. JOHN BROADHURST \& COMPANY, Montreal, Que. Washing Compound, 21st November, 1898.
6677. CATHERINE C. S. SAUNDERS, Eastwood, N.J., U.S.A. Facial Preparations, Remedies for the treatment of the Skin, Blood, Sprains and Fractures, and for Various Diseases of the Human Body, 21st November, 1898.
6678) GUSTAVE AGUET, TULES MONNERAT, EMILE LOUIS ROUSSY

6679 \& AUGUSTE MAYOR, trading as HENRI NESTLE. London, England,
$6680\}$ Christiana, Norway, and Vevey, Switzerland. Condensed Milk, 21st
6681 November, 1898.
6682. JOSEPH ALPHONSE ET JOSEPH ERNEST DUSSAULT, faisant affairts sous les noms et raisons suciales de B. HOUDE ET COMPAGNIE et THE S'IANIARD COMPANY, Quebec, Que. Tabacs de toutes sortes, 22 novembre, 1898.
6683. THE JEYES' SANITARY COMPOUNDS COMPANY, LIMITED, London, England. Ointment, 22nd November, 1898.
6684. KALLE \& COMPANY, Biebrich, Empire of Germany. Pharmaceutical Products, 23rd November, 1898.
6685. DUBONNET FRERES, Paris, France. Vin de Quinquina, 23 novembre, 1898.
6686. THE CENTAUR COMPANY, New York, N.Y., U.S.A. Medicinal Preparation for Infants and Children, 25th November, 1898.

66:7. THOMAS PETER SMITH, Elora, Ont. A Preparation for the relief of Rheumatism, Npuralgia, Headache, Toothache, Chilblains, Pain in the Face, Side, Back or Kidneys, Lumbago, Sprains, Insect Bites, Colic, Cramps, and all painful nervous diseases, 29th November, 1898.
6688. WILLIAM CROFT \& SONS, Toronto, Ont. All claszes of goods except soap, wool, and worsted and cotton yarns, 29th November, 1898.
6689. THE JOLIETTE TOBACCO COMPANY, Joliette, Que. Cut and Plug Tobaceo, 30th November, 1898.

## COPYRIGHTS

## Entered during the month of November, 1898, at the Department of AgricultureCopyright and Trade-Mark Branch.

10242. OFFENCES UNDER THE LIQUOR IICENSE ACT, R.S.O., 1897, Chap. 245. Also 2 List of Cases decided thereon. By Gieorge Frederick Jelfs. The Toronto Law Book and Publishing Co. (Ltd.), 'Toronto, Ont., 2nd November, 1898.
10243. PRACTICE FORMS IN PROCEEDINGS UNDER THE RULES OF PRACTICE AND PROCEDURE OF THE SUPREME COURT OF JUDICATURE FOR ONTARIO, THE SUR. ROGATE COURT RULES, THE STATUTES OF ONTARIO AND THE STATUTES OF THE DOMINION OF CANADA. By Edwin Bell, LL.B., and Herbert Langell Dunn, B. A., of Chatham and Toronto, respectively, 3rd November, 1898.
10244. THRIFT PROSPECTUS. The Sun Life Assurance Company of Canada, Montreal, Que., 3rd November, 1898.
10245. BLACK ROCK. A Tale of the Selkirks. By Ralph Conncr. The Westininster Cu. (Ltd.), Torento, Ont., 3rd Novenber, 1898.
10246. USEFUL HINTS FOR THE CYCLIST. The Massey Press, Toronto, Ont., 4th November, 1888.
10247. APPARITION DU DIVIN ENFANT JÉSUS A BAINT-ANTOINE DE PaDOUE. (Maquette). Henri Médéric Latlanc, Montréal, Qué., 4 novembre, 1898.
10248. THE STENOGRAPHER'S COMPANION. Vol. I., No. 8, November, 1898. Robert Goltman, Montreal, Que., 4th November, 1898.
10249. THE CANADIAN MILITIA, 1898. From a painting by A. H. Hider. (Supplement to The Christmas Globe.) The Globe Printing Co., Toronto, Ont., 5th November, $18 \%$.
10250. I. O. F. POCKET REGISTER. Compiled by Wellington Wallace, Toronto, Ont., 7th November, 1898.
10251. GUNAGATHON HEALTH BOOK. The Canadian Gunagathon Co., Toronto, Ont., 7th November, 1898.
10252. THE JOLLY DRUMMER. March aud Two-Step. By W. H. Hodgins. Amey \& Hodgins, Toronto, Ont., 7 th Noveruber, 1898.
10253. THE STORY OF A DARK PLOT; OR. TYRANNY ON THE FRON. TIER." By A.L. ©.C. W. W. Smith, Sutton, Que., 7th November, 1898.
10254. THE MARCH OF THE HIGHLAND BRIGADE. Song. Words by Ehenezer Bain. Musie by Cathcart Wallace. Ebenezer Bain, Montreal, Que., 9th November, 1898.
10255. SECURITY ENVELOPE-FILE CHECK SYSTEM. (Envelope and slip.) Elijah Kitchen Barnsdale, Stratford, Ont., 10th November, 1898.
10256. LE CODE CATHOLIQUE ; OU COMMENTAIRE DU CATÉCHISME DE QUEBEC. Nouvelle Edition. Par l'Abbé David Gosselin, T.B., Cap-Santé, Qué., 11 novembre 1898.
10257. THE BOOKS OF THE BIBLE. (Folder.) R. Kretzmann, Rhineland, Ont., 11th November, 1898.
10258. DIRECTIONS AND RULES FOR PLAYING THE GAME OF HOCKEY. A Ne Parlour Game. George McKenzie Patterson and James Philip Fennell, Berlin, Ont., 12th November, 1898.
10259. THE DELINEATOR. (A Journal of Faohion, Cultare and Fine Arts.) Deceniber, 1898. The Butterick Publishing Co. (Ltd.), New York, N.X., U.S.A., 14th November, 1898.
10260. THE GLASS OF FASHION UP TO DATE (December, 1898.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 14th November, 1898.
10261. METROPOLITAN FASHIONS. (December, 1898.) The Butterick Publisbing Co. (Ltd.), New York, N.Y., U.S.A., 14th Noveniber, 1898.
10262. THAYENDANEGEA. An Historico-Military Drama. By J. B. Mackenzie, Toronto, Ont., 14th November, 1898.
10263. EDUCATIONAI REVIEW SUPPLEMENTAKY KEADIN(IS, CANADIAN HISTORY. Number Three, September, 1898. George U. Hay, St. John, N.B., 14th November, 1898.
10264. PICKANINNY-IT'S TIME YOU WAS IN BED. Words and Music by Raymond A. Browne. Charles O. Brokaw, Kansas, Missouri, U.S.A., 14th November, 1898.
10265. HARUTUNE; OR, LIGHTS AND SHADOWS IN THE ORIENT. Hy H. S. Jenanyan. William Briggs, Toronto, Ont., 14th November, $18: \%$.
10266. PIONEER SKETCHES OF LON( POINT SETTLLEMENT; OR, NORFOLK'S FOUNDATION BUILDERS AND THEIR FAMILY GENEALOGIES. By Egbert Americus Owen, Vittoria, Ont., 15th Nuvember, 1898.
10267. THE PARLIAMENTARY GUIDE AND WORK OF GENERAL REFERENCE, 1898-99. Edited by Arnott James Magurn, Winnipeg, Man., 15 th November, 1898.
10268. PANORAMIC VIEW OF THE CITY OF VANCOUVER, BRITISH COLUMBIA, 1898. (Map.) John Campbell McLagan, Vancouver, B.C., 15th November, 1898.
10269. OUR UNION JACK. (Pamphlet.) Mrs. Clementine Fessenden, Hamilton, Ont., 16th November, 1898.
10270. YOU DON'T HANDLE NUEF MONEY FOR ME. Words and music by Irving Jones. Arranged by Max Hoffman. Chas. K. Harris, Milwaukee, Wisconsin, U.S.A., 16th November, 1898.
10271. LIVRET DE PLACEMEN'T. (La Compagnie Canadienne de Marchandises Séches.) Arsène Lamy, Montreal, Qué., 16 novembre 1898.
10272. BOOT AND SHOE INVESTMENT BOUK. The Canadian Investment Co., Montreal, Que., 16 th November, 1898.
10273. STUDENT'S UNION. Patrol. For Mandolin and Guitar. By G. F. Smedley. Whaley, Royce \& Co., Toronto, Ont., 17 th November, 1898.
10274. THE JUDICATURE ACT OF ONTARIO AND THE CONSOLIDATED RULES OF PRACTICE ANI) PKOCEDURE OF THE SUPREME COURT OF JUDICATURE FOR ONTARIO. Second Edition, 1898. By (reorge Smith Holmested and Thomas Langton, Toronto, Ont., 17 th November, 1898.
10275. MA GENUINE AFRICAN BLONDE. Words and Music by George R. Wilson. Arranged ky Max Hoffinan. Charles K, Harris, Milwaukee, Wisconsin, U.S.A., 18th November, 1898.

10:26. DREAMLAND. Cradle Song. Words by W. V. B. Thompson. Music by Frederick W. Holland. Whaley, Royce \& Co., Toronto, Ont., 18th November, 1898.
10277. VIERGES-CLARISSES-MARTYRES. (Paintiog.) Kathleen Gethin, Montreal, Que., 18th November, 1898.
10278. A LECTURE ON THE APOCALYPSE. By Rev. W. McGregor, South Range, N.S., 18th November, 1898.
10279. PLAN OF HIGH LEVEL DOCK AND PROFILE OF HIGH LEVEL DOCK. Frederick Juseph Gilman, Montreal, Que., 19th November, 1898.
10280. LIVRET DE PLACEMENT. (La Compagnie Canadienne de Bouchers.) Arsène Lamy, Montréal, Qué., 19 novembre 1898.
10281. LIVRET DE PLACEMENT. (La Compagnie Canadienne d'Epiceries.) Arsène Lamy, Montréal, Qué., 19 novembre 1898.
10282. IMPROVED CLASS BOOK FOR SUNDAY SCHOOLS. Rowsell \& Hutchison, Toronto, Ont., 19th Nuvember, 1898.
10283. AFTERWARDS. And Other Stories. By Ian MacLaren. Hodder \& Stoughton, London, England, 1!9th November, 1898.
10284. SHENAN(iO. Waltz, for Piano. By Lizaie Tennent Andrews, Brantford, Ont., 19th November, 1898.
10285. THE SUWANEE SHORE. (Song.) Words by Richard Henry Buck. Music hy Adam Geikel. The Draper Music Publishing Co., Toronto, Ont., 21st November, 1898.
10286. THE DIXIE KID. (Plantation Song and Chorus.) Words by Richard Henry Buck. Music by Adam Geibel. The Draper Music Yublishing Co., Toronto, Ont., 21st November, 1898.
10287. LIVRET DE PLACEMENT. (La Compagnie Canadienne des Boulangers.) Arséne Lamy, Montreal, Que., 22nd November, 1898.
10288. STREET CAR MEN'S TIME TABLE. P. S. Fleming, Thistletown, Ont., 22nd November, 1898.
10289. THE CANADIAN MAGAZINE. November, 1898. The Ontario Publishing Co. (Ltd.), Toronto Ont., 25th November, 1898.
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