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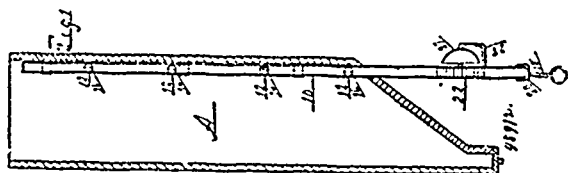
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INVENTIONS PATENTED.

NOTE.—Patents are granted for 15 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 45,912. Register for Bins.

(Registre pour coffres à grain.)



Albert Dykeman, Portage la Prairie, Manitoba, Canada, 1st May, 1894; 6 years.

Claim.—1st. In a register for bins and like receptacles, a tubular casing adapted to be located within the bin and extended beyond the bottom thereof, the said casing being provided at a predetermined point in its length, with an inlet opening a spring controlled cut-off having sliding movement over the opening, and a locking device connected with the cut-off, and located at the lower end of the casing, substantially as shown and described. 2nd. In a register of the character described, a tubular casing adapted to be located within the bin, and to extend out therefrom, said casing being provided with an opening at a predetermined point therein, a tubular cut off provided with an opening adapted to register with that in the casing, and having sliding movement within the casing, a spring connecting the cut off with the casing, and a device, substantially as shown and described for manipulating the cut-off, as and for the purpose specified. 3rd. In a register of the character set forth, the combination with a tubular body or casing closed at its upper end and provided with an opening in one side of a tubular cut-off, having sliding movement within the casing and provided with an opening adapted to register with that of the casing, a spring connecting the upper portion of the cut-off with the upper portion of the casing, a draw-rod, cable, or chain connected with the cut-off, and a locking device whereby the draw-rod, cable, or chain may be locked to the casing, as and for the purpose specified. 4th. In a register of the character described, a casing adapted to be located within the bin and provided with an opening at a predetermined point in its length, a wheel located within the casing below the said opening, an alarm, and a connection between the wheel and the alarm of a spring-controlled cut-off adapted to slide by the opening in the casing, and a device, substantially as shown and described for operating the cut-off, as and for the purpose set forth. 5th. In a register for bins and like receptacles, the combination with a tubular casing adapted to be located within the bin having a closed upper end and an inlet opening at a predetermined point in its length, the said casing being

likewise provided with an extension below the inlet opening of a spring controlled cut-off, having sliding movements over the inlet opening a rope, chain, or cable connected with the cut-off and terminating at its lower end in a handle, said handle having a locking engagement with the casing, a bladed wheel journaled in the extension of the casing, the blades whereof extend within the body of the casing, a crank-arm connected with the wheel and located at the outside of the extension, a bell located adjacent to the crank-arm with a hammer carried by said arm and adapted for engagement with the bell, as and for the purpose set forth.

No. 45,913. Gate. (Barrière.)

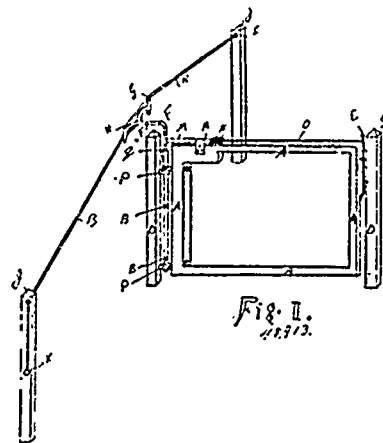


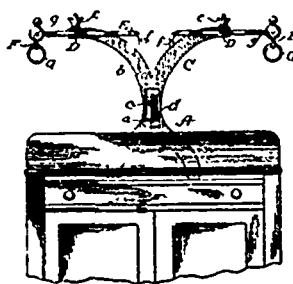
Fig. 1.
45,913.

Charles Henry Widdifield, Whitechurch, County of York, Ontario, Canada, 1st May, 1894; 6 years.

Claim. 1st. In a gate, the combination of trip F, with arms G and H, worked by parts R, R, and working in the centre pin or gas pipe B, at G, substantially as and for the purpose specified. 2nd. Trip F, in combination with branch M, M, working with parts N, O and E, substantially as and for the purposes specified.

No. 45,914. Holder for Splashes.

(Porte-protecteur de mur.)

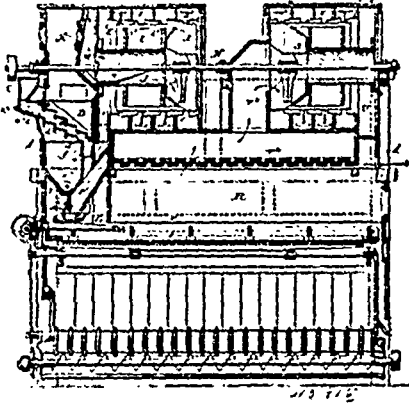


Sarah Wilkins, Red Jacket, Michigan, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination with the standard, of splash supporting bars secured to the upper portion of the same, and having sponge holding hooks at their inner ends, and towel racks pivoted to the outer ends of the splash supporting bars. 2nd. The combination of the extensible standard, having upwardly

diverging arms, clamps at the ends of said arms, splasher supporting bars held by said clamps and provided with sponge-holding hooks at their inner ends, and towel-racks pivoted to the outer ends of the said bars.

No. 45,915. Middlings Purifier and Dust Collector.
(*Epurateur des gravaux et appareil à recueillir la poussière combinés.*)

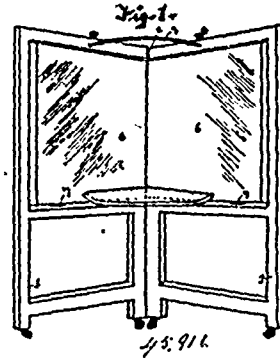


William Dickson Gray, Milwaukee, Wisconsin, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination in a middlings purifier of an aspirator, a dust catcher, and fan arranged to circulate the air through the aspirator, and dust catcher, a sieve arranged to receive partially purified material from the aspirator, a second dust catcher communicating with the sieve, and a fan arranged to circulate air through the sieve and its dust catcher. 2nd. In a middlings purifier, the combination of two purifying mechanisms, one arranged to deliver to the other, each purifying mechanism including a dust catcher and a circulating fan. 3rd. In a middlings purifier, the combination of an external casing, a feed mechanism, a series of aspirating shelves to which the said mechanism delivers the material to be purified, a shaking screen to which the material is delivered from the aspirator, a dust-catcher communicating with chambers above and below the aspirating shelves, a fan to circulate the air in an upward direction between the shelves and thence through the dust catcher and the space beneath the shelves, a suction chamber overlying the screen, side chambers opening above the sides of the screen and a chamber thereunder, a dust-catcher communicating with the suction chamber, and a fan arranged to induce a continuous circulation of air upward through the screen and the suction chamber to the dust-catcher and thence in a downward direction past the sides of the screen, that it may re-ascend therethrough. 4th. In a middlings purifier, the aspirator and the sieve to which it delivers in combination with the suction chamber and side chambers overlying the screen, the two dust catchers communicating respectively with the aspirator and the screen, and a shaft provided with two fans for maintaining currents of air through the respective dust catchers and their connections. 5th. In a middlings purifier, in combination with the aspirator shelves, the underlying chamber, the overlying chamber, the annular dust catcher communicating at the top with the last named chamber and fan, and a passage extending thence to a chamber beneath the aspirator. 6th. In a middling purifier, an aspirator comprising a series of shelves over which the material flows. 7th. In combination with a dust catcher comprising a horizontal cylindrical screen, a series of annular chambers or pockets and a fan turning on a horizontal axis, said catcher communicating through a top opening with the upper part of the aspirator chamber and through a lower passage with the aspirator chamber. 8th. In combination with the aspirator, the dust catcher consisting of a cylindrical screen, the annular chambers and the fan, a passage leading from the top of the aspirator chamber downward to the centre of the dust catcher, a central tube in the latter, and rotary blades to prevent the lodgment of material in said tube. 9th. In a middling purifier, the combination of the shaking sieve, the overlying suction chamber, the side chambers opening downward past the sides of the sieve, the horizontal shaft carrying a fan and a cylindrical screen, the annular dust receiving pockets or chambers encircling the screen, a passage leading from the suction chamber to the fan, and a passage leading from the fan and dust catcher to the side chamber above the sieve. 10th. In combination with the sieve, the overlying suction chamber and side chambers, the horizontal dust catcher communicating with the suction chamber, the chamber leading from the dust catcher to the side chambers, and a deflector arranged in the path of the down-going air to distribute the same lengthwise of the side chambers. 11th. In combination with the aspirator, the screen and the two dust catchers communicating with the aspirator and screen respectively, the dust-receiving chamber of the aspirator, its delivery conveyor and the side con-

veyor delivering the dust from the first named conveyor and from two dust catchers.

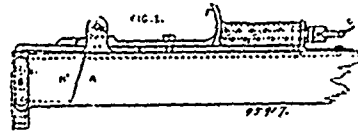
No. 45,916. Mirrors for Use in Photography.
(*Miroirs pour l'usage de la photographie.*)



Henry P. Ranger, Rochester, New York, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination with the mirror frame having the ways arranged at an angle, of the mirrors independently and longitudinally movable in said ways, substantially as and for the purpose set forth. 2nd. The combination with the frame composed of two parts hinged together and open at their proximate sides, of the mirrors independently movable in said frames substantially as described. 3rd. The combination with the frame composed of two parts hinged together and having the grooves or ways therein open at their proximate sides, of the mirrors independently movable in the grooved carriers in the frames and having the handles for moving them, substantially as described.

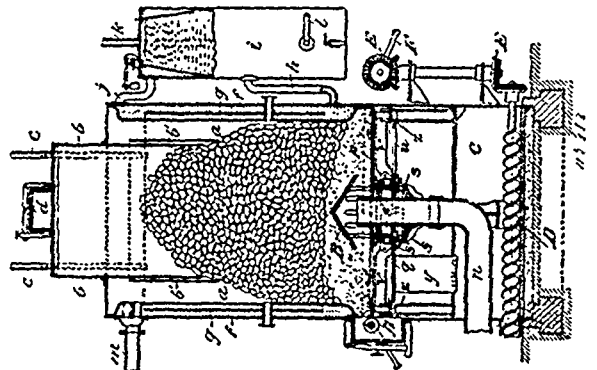
No. 45,917. Carriage Pole Tip.
(*Ferrure de bout de timon de voiture.*)



Edward Bailey, Folkestone, Kent, England, 1st May, 1894; 6 years.

Claim.—1st. The combination of a carriage pole tip having eyes or loops provided with a hinged section opening outwardly, a spring engaging said sections and a catch or bolt engaging said springs to keep said sections automatically closed, substantially as set forth. 2nd. A carriage pole tip having eyes or loops provided with an outwardly opening section and a spring closing said sections, as set forth. 3rd. The combination with a carriage pole tip, A, having eyes or loops B, provided with an outwardly opening section C, of the spring D, E, spring bolt F, and full strap G, as set forth.

No. 45,918. Generator for Gas.
(*Générateur à gaz.*)

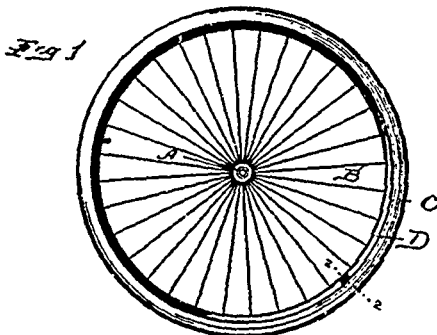


Oliver William Ketchum, Toronto, Ontario, Canada, 1st May, 1894; 6 years.

Claim.—1st. The combination substantially as hereinbefore described, of an upper and lower grate and scrapers so arranged and

working that the ashes fall through openings in the upper grate on to the lower grate from which they are then removed by means of scrapers, so as to fall into the ash chamber, as set forth. 2nd. The combination substantially as hereinbefore described of an upper and a lower rotatable grate with openings therein through which ashes may fall, and stationary scrapers between said grates which cause the ashes on the lower grate to fall into the ash chamber, as set forth. 3rd. The combination substantially as hereinbefore described of an upper and lower rotatable grate rigidly connected with each other and provided with one or more large openings in each through which ashes may fall, the openings in the lower grate being located, relatively, to those in the upper grate in alternate quadrants, and stationary scrapers between said grates to cause the ashes on the lower grate to fall into the ash chamber, as set forth. 4th. The combination substantially as hereinbefore described of an upper and a lower rotatable grate rigidly connected with each other and provided with one or more large openings through which ashes may fall, the openings in the lower grate being located relatively to those in the upper grate in alternate quadrants, a scraper fixed on the upper grate near the periphery thereof, and in front of the opening or openings in the upper grate, and stationary scrapers between said grates to cause the ashes on the lower grate to fall into the ash chamber, as set forth. 5th. The combination substantially as hereinbefore described of an upper and a lower grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are removed by means of scrapers so as to fall into the ash chamber, as set forth, and of a screw in the ash chamber for removing the ashes therefrom as explained. 6th. The combination substantially as hereinbefore described of an upper and a lower rotatable grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are removed by means of scrapers so as to fall into the ash chamber, of a screw in the ash chamber for removing the ashes, and a scraper attached to the lower rotatable grate to feed ashes to the screw, as set forth. 7th. The combination substantially as hereinbefore described of an automatic feeding fuel reservoir, of an upper and a lower grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are then removed by means of scrapers, as set forth. 8th. The combination substantially as hereinbefore described of an upper and lower grate and scrapers so arranged and working that the ashes fall through openings in the upper grate on to the lower grate from which they are then removed by means of scrapers, and of a suitably arranged and centrally located air pipe through which air may be forced to the bottom of the fuel and a cone placed above the centre of the upper grate, as set forth. 9th. In a gas generating furnace or gas producer of the kind hereinbefore referred to, a water jacket constructed substantially as hereinbefore described so that the water is caused to circulate and become heated therein, as set forth. 10th. In a gas generating furnace or gas producer of the kind hereinbefore referred to, a water jacket in combination with a feed water tank for purifying and heating the water and provided with inlet and outlet pipes, as set forth. 11th. In a gas generating furnace or gas producer, a water jacket surrounding the furnace in combination with concentric cylindrical diaphragm, as set forth. 12th. In a gas generating furnace or gas producer of the kind hereinbefore referred to, an automatic feeding fuel reservoir made in telescopic sections so that the lower section can be raised and lowered, as set forth. 13th. The combination substantially as hereinbefore described, of an upper rotatable grate with one or more large openings formed therein through which ashes may fall, of curved scrapers shaped as shown and so connected with the lower surface of the upper grate as to partake of its motion, and of a lower stationary grate from which the ashes are removed by means of said curved scrapers into the ash chamber, as set forth.

No. 45,910. Wooden Rim Bicycle Wheel. (Jante de bois pour roues de bicycle.)

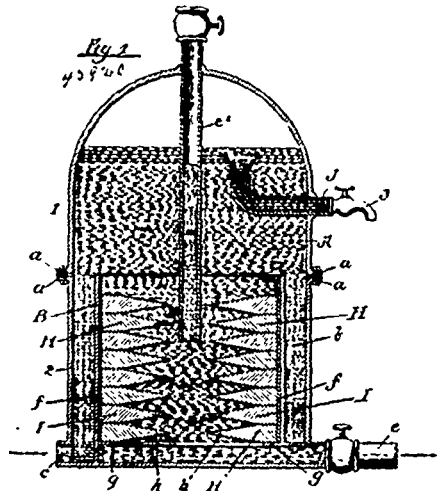


The Indiana Novelty Manufacturing Company, assignee of George W. Marble, all of Plymouth, Indiana, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. A bicycle wheel having a wooden rim provided at its meeting ends with interlocking tongues and grooves extending lon-

gitudinally or in the direction of the rim, the tongued and grooved meeting ends of the rim abutting together, whereby the full strength of the circular arch is preserved in the joint, and the tension or strain of the wheel upon the arch prevented from tending to weaken or loosen the joint, substantially as specified. 2nd. A bicycle wheel having a wooden rim provided at its meeting ends with a series of parallel sided, square ended interlocking tongues and grooves extending longitudinally or in the direction of the rim, the meeting ends of the rim abutting square together, whereby the strength and rigidity of the circular arch maintained at the joint thus formed is preserved and the tension or strain of the wheel upon the arch is prevented from tending to weaken or loosen the joint, substantially as specified.

No. 45,920. Feed Water Purifier. (Épurateur d'eau d'alimentation.)



John W. Hill, Chicago, Illinois, assignee of Charles E. Whitmore, Boston, Massachusetts, assignee of Samuel G. Cabell, Washington, Columbia, U.S.A., 1st May, 1894; 6 years.

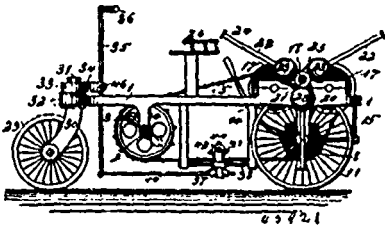
Claim.—1st. The combination of a voltaic pile arranged in a gland in the feed-water passage to a boiler, and having a passage through it and means arranged in said gland for collecting and separating oil and grease contained in said feed-water, substantially as described. 2nd. The combination of a voltaic pile having a longitudinal passage through it, means for passing feed water through the elements of said pile to a boiler and means for collecting oil and grease, the same comprising a water and collecting chamber above said pile, and a blow off pipe leading from about the water level of said chamber through the wall of the latter, substantially as described. 3rd. In a feed-water purifier and oil extractor, the combination of a main vessel, an inlet port near the bottom thereof, an outlet port leading from near the bottom, an annular partition extending from the bottom, a galvanic pile having a passage through it within the partition, a dome or chamber above the main vessel and a blow-off leading from the dome. 4th. In a feed-water purifier, the combination of a vessel for receiving the feed-water, a galvanic battery cup located within said vessel with a water space between the two, a series of galvanic plates in said vessel in contact with each other, and having a water passage through them, an inlet port opening into the space between the vessel and cup, and an outlet port from the battery cup through the outer vessel, the said inlet and outlet ports communicating with each other through the battery cup and plates, substantially as described. 5th. In a feed-water purifier, the combination of a shell or gland, and a galvanic pile arranged within said gland consisting of layers of positive and negative elements, each element comprising a ring portion and teeth or fingers projecting inwardly from said portion, the ring portions of said elements being in direct contact with each other, substantially as described. 6th. In a feed-water purifier, the combination of a shell or gland, and a galvanic pile located within said gland, consisting of layers of positive and negative elements, so constructed and arranged that each layer shall be at some point in electrical connection with the next succeeding layer or layers, and the water passing through the gland shall come in contact alternately with the positive and negative elements, substantially as described.

No. 45,921. Driving and Steering Actions for Cycles. (Mécanisme d'impulsion et appareil de manœuvre de cycles)

William H. Ford and John Mooney, both of Shelton, Connecticut, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination with a shaft, having driving wheels fixed thereto and provided with clutch members, and a

sleeve on said shaft, having corresponding clutch members and a sprocket-wheel, of shafts 7, carrying sprocket-wheels 6 and drums



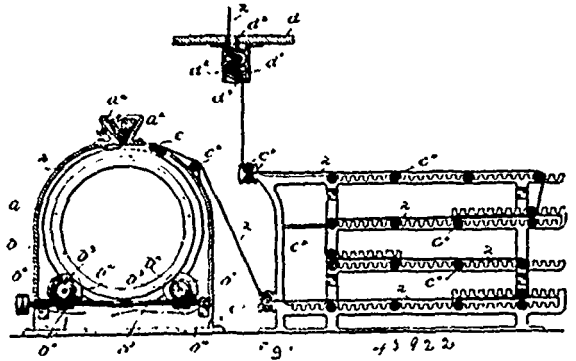
17, shaft 18, adapted to receive motion from said drums and carrying radial arms, weights on said arms adapted to be moved outward by centrifugal force, springs whereby said weights are normally held inward, and a sprocket-chain engaging the sprocket-wheels whereby movement is imparted to the power shaft and sleeve to store up momentum when the clutch members are disconnected, and to drive the machine when they are connected. 2nd. The combination with shaft 10, the driving wheels secured thereto and having clutch members and sleeve 9, provided with corresponding clutch members and a sprocket-wheel, of shafts 7, carrying wheels and drums 17, power shaft 18, provided at each end with radial arms, weights on said arms, adapted to move outward by centrifugal force, springs which normally hold said weights inward, and a sprocket-chain engaging the sprocket-wheels and imparting motion thereto. 3rd. The combination with shaft 10, the driving wheels fixed thereto and provided with clutch members, sleeve 9, having corresponding clutch members and a sprocket-wheel, shafts 7, also carrying sprocket-wheels and having drums 17, shaft 18, having movable weights and arms and a sprocket-chain engaging said sprocket-wheels, of slide 37, carrying shaft 41, sprocket-wheel 44, loose on said shaft and engaging the sprocket-chain, a ratchet fixed to the shaft, a pawl pivoted to the sprocket-wheel and engaging the ratchet, and suitable means for moving the slide backward and forward so that when moved in one direction the sprocket will engage the chain and carry it along, and when moving in the other direction the sprocket will turn and the pawl slip over the teeth of the ratchet. 4th. The combination with arm 34, and rod 35, pivoted thereto to swing in the vertical plane and carrying a handle bar, of sprocket-chain 5, horizontal slide 37, carrying sprocket-wheel 44, loose thereon, ratchet 43, secured to said shaft, a pawl secured to the sprocket-wheel and engaging the ratchet, and a rod connecting the slide to rod 35. 5th. In a cycle, the combination with the steering wheel, shank 31, by which it is carried, and arm 37, extending from said shank, of sprocket-wheels 4, 6 and 8, sprocket-chain 5, slide 37, carrying a sprocket-wheel 44, a pawl and ratchet connection between said sprocket-wheel and the slide, and a rod 35, pivoted in arm 34, and having at its upper end a handle-bar and at its lower end a rod connecting it to the slide so that the handle-bar and rod 35, may be used either to propel the machine or to steer it. 6th. The combination with shaft 10, carrying the driving-wheels, sleeve 9, and clutch mechanism adapted to connect and disconnect said sleeve and shaft, of sprocket-wheels 4, 5 and 8, a chain passing over said wheels, drums 17, power shaft 18, engaging said drums and carrying radial arms with sliding weights thereon, slide 37, carrying sprocket-wheel 44, also engaging the sprocket-chain and having a pawl and ratchet connection with the slides, suitable pedals by which the chain may be driven, rod 35, carrying the handle-bar, and rod 40, connecting said rod to the slide so that the chain may be driven by hand power if preferred.

No. 45,022. Method of and Apparatus for Making Photographic Films. (Méthode et appareil pour la fabrication de pellicules photographiques.)

Thomas Henry Blair, Northborough, Massachusetts, assignee of Stukely Edgar Waterman, Pawtucket, Rhode Island, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The improved process of making photographic films which consists in feeding the composition which forms the base or body of the film, on to the surface of a revolving cylinder which draws it into a thin strip, and subsequently coating this strip with a sensitive emulsion. 2nd. The improved process of making photographic films, which consists in feeding the composition which forms the base of the film, on to the surface of a revolving cylinder which draws it into a thin strip, and conducting said strip through a sensitive emulsion. 3rd. The improved process of making photographic film which consists in feeding the composition which forms the base of the film, on to the surface of a revolving cylinder which draws it into a thin strip, carrying the strip over suitably constructed and arranged guides while it becomes seasoned, conducting the strip into a dark room, and passing it through a sensitive emulsion. 4th. The improved process of making photographic films, which consists in feeding the composition which form the base of the film, on to the surface of a revolving cylinder which draws it into a thin strip, conducting said strip through a sensitive emulsion

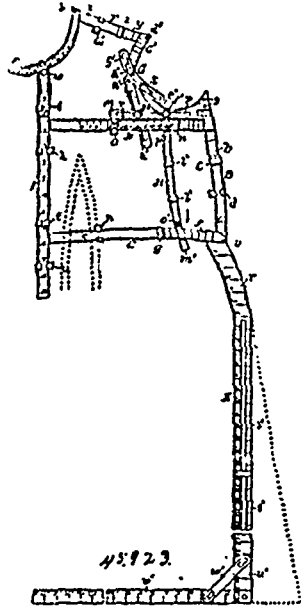
carrying the strip over suitably constructed and arranged supports after leaving the emulsion, and subjecting it to a cold air blast.



5th. The improved process of making photographic films, consisting in drawing out a stream of dope to form the base of the film, applying a sensitive emulsion thereto, and rolling it up in the convolutions of a carrying device. 6th. The improved process of making photographic films, which consists in feeding the composition which forms the base of the film, on to the surface of a revolving cylinder which draws it into a thin strip, conducting said strip through a sensitive emulsion, and rolling it up in the convolutions of a carrying device. 7th. An apparatus for making photographic films, comprising in its construction means for feeding the composition which forms the base of the film in a plastic stream, and a revolving cylinder which receives the said stream and draws it over its surface. 8th. An apparatus for making photographic films, comprising in its construction means for feeding the composition which form the base of the film in a plastic stream, and a revolving cylinder which receives the said stream and draws it out over its surface, the periphery of said cylinder being roughened, substantially as and for the purpose described. 9th. An apparatus for making photographic films, comprising in its construction a hopper adapted to contain the composition which forms the base of the film, and constructed to discharge the same in a stream, and a revolving cylinder which receives the said stream and draws it out over its peripheral surface. 10th. An apparatus for making photographic films, comprising in its construction means for feeding the composition which forms the base of the film in a stream, a revolving cylinder which receives the said stream and draws it out over its surface, where it becomes a strip, and suitably arranged supports over which the strip is carried from the cylinder in return bends. 11th. An apparatus for making photographic films comprising in its construction means for feeding the composition which forms the base of the film in a stream, a revolving cylinder which receives the said stream and draws it out over its surface, converting it into a strip, a dark room having a zigzag entrance through which the strip passes, and means in said dark room for applying a coating of sensitive emulsion to the strip. 12th. An apparatus for making photographic films comprising in its construction a receptacle for sensitive emulsion, and means for conducting a continuous strip of composition forming the base of the film through the emulsion in said receptacle. 13th. An apparatus for making photographic films comprising in its construction a receptacle for sensitive emulsion, means for conducting a continuous strip of composition forming the base of the film through the solution in said receptacle, and means for subjecting the coated film to a cold air blast. 14th. An apparatus for making photographic films comprising in its construction means for coating a continuous strip of film with a sensitive emulsion, and a reel carrying an apron in whose convolutions the coated strip may be rolled up. 15th. An apparatus for making photographic film comprising in its construction means for coating a continuous strip of film with a sensitive emulsion, a pair of reels, an apron attached at its ends to said reels and adapted to wind on one while unwinding from the other and to receive the coated strip between its convolutions. 16th. In an apparatus for making photographic films, a flexible carrier adapted to be wound in a roll with the film between its convolutions, and provided with side projections separating the convolutions, and providing a space for the film when rolled up in the apron. 17th. In an apparatus for making photographic films, a flexible carrier adapted to be wound in a roll with the film between its convolutions, and provided with transverse strips having side projections to separate the convolutions, as and for the purpose described. 18th. An apparatus for making photographic films comprising means for drawing out a stream of dope to form the base of the film, and for conveying said strip through a sensitive emulsion, and travellers for engaging the sensitized film and exerting an influence thereon, from the middle in an outward direction, as and for the purpose described. 19th. An apparatus for making photographic films comprising means for drawing out a stream of dope to form the base of the film, and for conveying said film through a sensitive emulsion, and endless bands engaging the sensitized film and exerting an influence thereon from the middle outward, for the purpose described. 20th. An apparatus for making photographic films com

prising in its construction a pair of reels, an apron attached to said reels and adapted to wind thereon and receive the film between its convolutions, and means for driving the reels at varying speed to compensate for the changing diameters caused by the winding and unwinding of the apron. 21st. The improved process of making an elongated flexible film or strip, the same consisting in feeding a plastic composition in a stream on to a continuously moving surface, and thereby drawing out said stream into a strip, and supporting it while it is being cured or hardened. 22nd. An apparatus for making elongated films or strips, the same comprising means for feeding a stream of plastic material, and a continuously moving support arranged to receive said stream, and draw the same out into a sheet which is cured or hardened on said surface.

No. 45,923. Pattern for Garments.
(*Patron pour vêtements.*)



Henrietta Horn and George A. Horn, both of Newark, New York, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. In adjustable patterns for drafting garments an arms-eye bar formed of curved overlapping parts $c^1 c^1 g^1$, and fasteners therefor, a bust-bar D, joined to the arms-eye bar by a fastener f^1 , and a waist bar C, having a slotted part I, in combination with a reversible extensible under-arm bar II, held by the fastener f^1 , and by a stud k^1 in the part I, substantially as shown and described.

2nd. In adjustable patterns for drafting garments an arms-eye bar formed of curved overlapping parts $c^1 c^1 g^1$, and fasteners therefor, a bust-bar D, formed of two overlapping parts $l m$, and holders therefor, the part m having a slot in which to receive a fastener f^1 , for holding the arms-eye bar, in combination with a shoulder-bar F, a neck-bar E, a front-bar P, a waist-bar C, and a main under-arm bar B, substantially as shown and described.

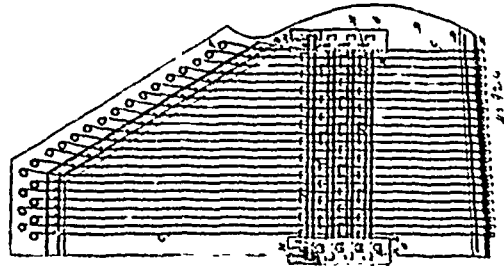
3rd. In adjustable patterns for drafting garments a rear arms-eye bar R, formed of curved slotted overlapping parts, and a fastener d^2 therefor, a waist-bar N, provided with an off-set slotted part U, and an extendible side form-bar V, held by the fastener d^2 and by a stud p^2 , in the part U, in combination with a back side-bar O, a shoulder bar S, a neck-bar y^1 , a centreback-bar L, and a width of back bar T, substantially as shown and described. 4th. In adjustable patterns for drafting garments a back pattern consisting of the bars L, N, O, R, S, y^1 , and T, in combination with a basque skirt-pattern consisting of an adjustable hip bar r^2 , and supporting bars t^2 and s^2 , substantially as shown and set forth. 5th. In adjustable patterns for drafting garments, a back pattern consisting of the bars L, N, O, R, S, y^1 and T, and a shiftable bar V, in combination with a basque skirt pattern consisting of an adjustable hip bar r^2 , supporting bars t^2 and s^2 , and an extension bar w^2 , substantially as and for the purpose specified. 6th. An adjustable sleeve pattern for drafting garments, having a frame consisting of the bars W, X, Y, Z, and an arm a^3 the bar W being formed of three overlapping parts with fasteners therefor, a shoulder X^1 an elbow bar Y, and a wrist bar C^1 , all held by the frame, in combination with outer seam bars A^1 , B^1 , and inner seam bars D^1 , E^1 , said outer seam bars being movable, and said inner seam bars being held rigidly with the frame, substantially as and for the purpose set forth. 7th. An adjustable sleeve pattern for drafting garments, having a frame consisting of the bars W, X, Y, Z, and an arm a^3 , and a shoulder bar X^1 , an elbow bar Y, and wrist bar C^1 , all held by the frame, and outer and inner seam bars A^1 , B^1 , and D^1 , E^1 , respectively, the bars $W A^1 B^1 D^1 E^1$ being extendible, in combination with an extendible shoulder puff bar P, over the bar X^1 , connected at one end with the arm a^3 and at the other end with the bar A^1 , substantially as shown and described. 8th. In combination with the adjustable pattern for drafting the front and the under-arm pieces of a dress an extendible skirt rule K, formed with an arm v^1 , held at right-angles to the main part, the parts K and v^1 being connected by a pivot joint and held in place by a tie w^1 , the part of the skirt rule next the front pattern being turned to form the hip curve, substantially as shown and set forth.

No. 45,924. Harp. (*Uzpe.*)

Alfred Dodge, assignee of Ignaz Hammerl, both of New York, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The combination with a harp, of a series of bars, one or more arranged transversely across underneath the strings thereof

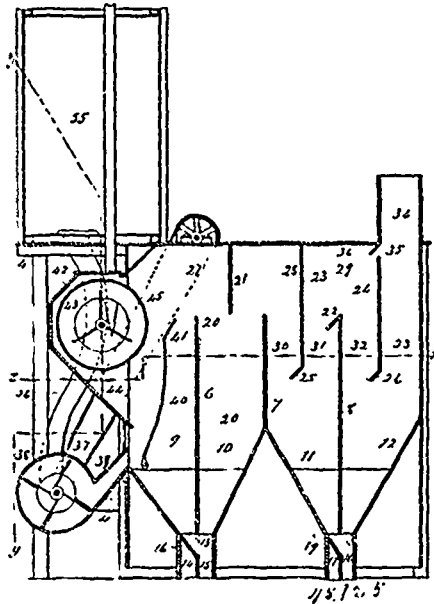
and provided with fingers or dampers for contacting with and silencing or cutting out certain strings when said bars are moved, substantially as described. 2nd. The combination with a harp, of a



series of rotary bars (one or more) arranged transversely across the strings thereof, and provided with fingers or dampers for contacting with and silencing or cutting out certain strings when said bars are rotated, substantially as described. 3rd. The combination with a harp, of a series of rotary bars (one or more) arranged transversely across the strings thereof, and provided with fingers or dampers, triggers or pushers made to act on the bars and restoring springs for said bars, substantially as described. 4th. The combination with a harp, of a series of bars (one or more) arranged transversely across underneath the strings thereof, and provided with fingers or dampers, and triggers or pushers for the bars made to extend from the latter up above the strings, substantially as described. 5th. The combination with a harp, of a series of bars (one or more) arranged transversely across underneath the strings thereof, and adapted to silence or cut out certain strings and to leave the remaining strings free or exposed, substantially as described.

No. 45,925. Purifier and Grader for Flour.

(*Appareil pour séparer et épurer la farine.*)

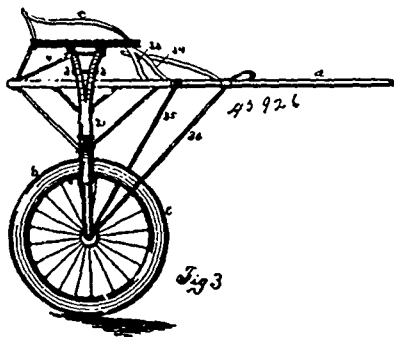


The Hoole Manufacturing Company, assignee of Samuel D. Hoole, all of Sioux City, Iowa, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. The process of purifying flour, which consists in discharging the flour in a cloud into a confined space, and passing the current of air upward through said cloud made up of evenly distributed and distinct particles, substantially as described. 2nd. The process of purifying flour, which consists in discharging the flour in a cloud into a confined space, and passing a current of air upward through said cloud made up of evenly distributed and distinct particles, collecting the heavier and valuable particles falling against the air currents, and by means of said air current carrying away the lighter and unvaluable particles, substantially as described. 3rd. In a flour purifier, the combination with a series of vertical chambers or compartments connected by openings or ducts, with means for blowing air into the lower part of the first compartment or chamber, and means for throwing flour in a cloud into said chamber above the air blast opening, whereby the evenly distributed and separate flour particles are exposed to the action of the air blast, substantially as described. 4th. The combination in a flour purifier of the series of compartments or chambers with the connecting

openings in the tops thereof, an air blast inlet entering the lower part of the first compartment or chamber, a curved but substantially vertical partition extending upward from a point opposite said inlet opening, means for blowing air through the said opening, and means for throwing a continuous cloud of flour into the space before said curved partition, substantially as described. 5th. The combination in a flour purifier, of a series of vertical compartments or chambers, separated by vertical partitions, having openings over their upper ends, a reel adapted to throw flour in a continuous cloud into the first chamber or compartment, and means for blowing air into said first compartment, beneath said cloud of flour emitted from said reel, the air current or blast being regulated to carry out the lighter particles therefrom, said lighter particles settling in the succeeding chambers, substantially as described. 6. The combination in a flour purifier, of a series of chambers, means for blowing air into the first chamber, an exit leading from the last chamber, an air sifter through which the air is supplied for the air blast, and a flour feeding device consisting in a revoluble reel, substantially as described. 7th. The combination in a flour purifier of the series of compartments, increasing in size from the first to the last and connected in order by communicating openings or ducts, the fan, the discharge pipe leading therefrom into the lower part of the first compartment or chamber, a curved partition arranged in the first compartment and against the lower part of which the air is blown and a revoluble reel arranged opposite the upper end of the said partition and adapted to discharge the flour in a cloud into said chamber, substantially as described. 8th. The combination in a flour purifier of the casing containing separate and distinct compartments or chambers, gradually increasing in size, openings in the tops of said chambers, depending partitions to break the direct passage between alternate chambers, the fan and discharge spout leading therefrom into the lower part of the first chamber, the reel operating in the upper part of the first chamber and below the opening in the top thereof, said reel adapted to throw flour in a cloud into said chamber, the curved partition 40, and a dust collector, connected with the discharge from the last compartment, substantially as described. 9th. The combination in a flour purifier, of the compartments 9, 10, 11 and 12, the depending partitions arranged above the same, the outlet from the machine, the fan arranged to discharge the air into the first compartment, the partition 40, in said first compartment, the revoluble reel arranged opposite said partition, means for spreading flour in the bottom of said reel, and the air-belt dust collector connected between the discharge and said fan, substantially as described. 10th. The combination in a flour purifier, of the compartments 9, 10, 11 and 12, the depending partitions arranged above the same, the outlet from the machine, the fan arranged to discharge the air into the first compartment, the partition 40, in said first compartment, the revoluble reel arranged opposite to said partition, means for spreading flour in the bottom of said reel, and the combination air-belt dust collector and air-sifter connected between the discharge of the machine and said fan, substantially as described. 11th. The combination with the flour purifying machine, provided with the air-blast fan and with the flour-feeding device, consisting in the reel or bolt, with the dust collector arranged upon the top of said machine, and provided with the horizontal partitions, and having the cloth sides and pipes leading from the forward end thereof to the fan casing, substantially as described. 12th. The combination with the flour purifier, and the fan and reel thereof, of the air-belt purifier into which the dust-laden air is discharged from the machine, said purifier having the cloth sides, a conveyer provided in the bottom of the said collector, and pipes leading from the forward and upper end of the said collector to the casing of the fan, substantially as described. 13th. The combination with the purifier and the fan thereof, of a box having cloth sides to strain the air and cloth pipes leading therefrom to the inlet openings in the fan casing, substantially as described.

No. 45,926. Sulky. (Désobligeante.)

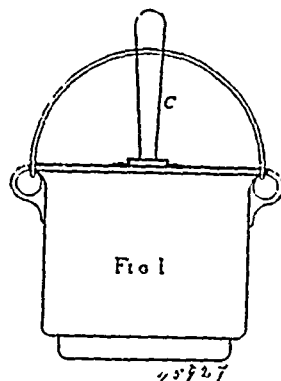


Frederick S. Stoddart and John Nottingham, both of Syracuse, New York, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. In a bicycle sulky, an arching truss, wheel forks secured thereto, and means to vary the length of the truss-rod, in

combination. 2nd. In a bicycle sulky, an arching truss, wheel forks secured thereto, connections between the truss-rod and truss-arch intermediate to its length, and means to vary the length of the truss-rod, in combination. 3. In a bicycle sulky, an arching truss, comprising a body split between its solid ends, creating a double arch, wheel-forks secured to its ends, connections between the truss-rod and the arches intermediate to its length, and means to vary the length of the truss-rod, in combination. 4th. In a bicycle sulky, an arching truss comprising a double arch and a truss-rod connected to the wheel forks, and intermediately to said arches, wheel-forks secured to the ends of said arches, and means to vary the length of the truss-rod. 5th. In a bicycle sulky, an arching truss split between its solid ends, creating a double arch, wheel-forks secured to said ends, connections between the truss-rod and arches, means to vary the length of the truss-rod, a seat mounted upon said truss-arch, and thills connected to said arch. 6th. In a bicycle sulky, a truss-arch, wheel-forks secured thereto, and a truss-rod connected to said arch and to said wheel-forks and means to vary its length, in combination. 7th. In a bicycle sulky, a truss-wheel, forks secured thereto, thills connected to said truss, a seat upon said truss, and front cross-bars connected to said thills and arching rearward and upward and connected to the seat. 8th. In a bicycle sulky, a seat, and thills, in combination with cross-bars connecting the thills and arching rearward and upward and secured to the front of the seat.

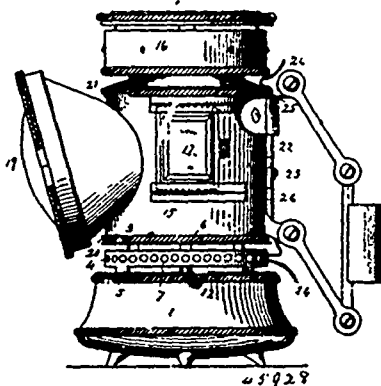
No. 45,927. Metal Pot Cover. (Couvercle métallique de pot.)



William C. Mapledoran and John McKellar, both of Fort William, Ontario, Canada, 1st May, 1894; 6 years.

Claim.—A metal pot cover having a perforated outlet or strainer at the outer circumference of the cover, a rim to fit and hold the cover on a pot, and a loop attachment riveted or secured to the centre of the cover into which an L-shaped lever may be placed to hold the said cover on the pot while in the act of draining the contents of the pot, substantially as set forth.

No. 45,928. Signal Lantern for Bicycles, &c. (Lanterne à signaux pour bicycles, etc.)

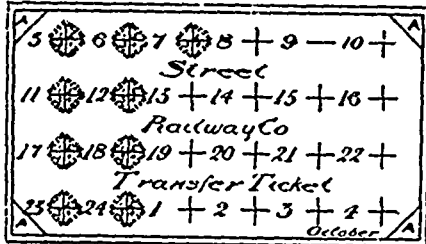


Frank Rhind, Meriden, and the Bridgeport Brass Company, Bridgeport, both in Connecticut, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. In a signal lantern, the combination with the base-plate, the deflector and the reservoir having an opening through it, of a wick tube extending obliquely from one side of the reservoir and terminating within the deflector. 2nd. The combination, with the reservoir, of a wick tube oblique to the plane of the reservoir, and a wick raiser within the reservoir and having a shaft extending

upward in a plane at right angles to the wick tube and oblique to the plane of the reservoir. 3rd. The combination, with the reservoir having an opening through it and a deflector detached therefrom, of an exposed wick tube which is secured to the reservoir, extends upward obliquely from one side thereof and terminates within the deflector. 4th. The combination, with the reservoir having connections 4 extending upward therefrom, of a base-plate secured to the connections, a deflector and an exposed wick tube extending obliquely from one side of the reservoir and terminating within the deflector. 5th. The combination, with the reservoir, connections 4 and the base-plate having a pin 20, of the body having a hole to receive said pin and a pin 21, the top having a hole to receive the pin on the body and a spring 22 having latches 24 one of which engages the top to secure it to the body the other latch engaging the connections to secure the top and body to the reservoir. 6th. In a lantern of the class described, the combination with a body and a reservoir having an air space between them, of metallic connections lying wholly between said parts and placed below the body, said connections being attached to said body and reservoir at distances apart greater than the distance between said body and reservoir.

No. 45,929. Transfer Ticket. (Billet de correspondance.)



Charles Punchard and James Ritchie, both of Toronto, Ontario, Canada, 1st May, 1894; 6 years.

Claim.—1st. A car transfer ticket having on its face the day of the month, and the hours marked thereon and so spaced that a device may be placed in proximity to or around each number, which device is radially divided into numbered sections indicating the time limit into which the hour is divided and having over each of such sections the cardinal points N, E, S, W, and means for making a punch mark on one of these cardinal points to indicate a number or symbol by which the conductor making the mark may be known, and street route indicated, substantially as and for the purpose specified. 2nd. In a car transfer ticket, a device placed in proximity to or around an hour number and radially divided into numbered sections indicating the time limit into which the hour is divided and having over each of such sections the cardinal points N, E, S, W, substantially as and for the purpose specified. 3rd. In a car transfer ticket, a device placed in proximity to or around an hour number and divided into numbered sections which are radially arranged, substantially as and for the purpose specified. 4th. A car transfer ticket adapted for the twelve hour system and printed on both sides for A.M. and P.M. hours, with the date of issue thereon and having a device placed in proximity to or around each hour number, which is radially divided into numbered sections, and having over each of said sections the cardinal points N, E, S, W, which device is so placed on one side of the ticket that it is not back to back with a similar device on the opposite side of the ticket, but as it were break joints, substantially as and for the purpose specified. 5th. A car transfer ticket adapted for the twelve hour system and printed on both sides for A.M. and P.M. hours, with the date of issue thereon, and having a device placed in proximity to or around each hour number, which device is radially divided into numbered sections, and which device is so placed on one side of the ticket as not to be opposite to a similar device on the opposite side of the ticket, substantially as and for the purpose specified. 6th. A car transfer ticket adapted to the twelve hour system and printed on both sides for the A.M. and P.M. hours, with the date of issue thereon, and having a device placed in proximity to or around each hour number divided into numbered sections, and having over each of such sections the cardinal points N, E, S, W, which device is so placed on one side of the ticket that it is not directly opposite to the similar device on the opposite side of the ticket, and means for making a punch mark on one of these cardinal points to indicate the number or symbol by which the conductor making the mark may be known, substantially as and for the purpose specified. 7th. In a car transfer ticket, a device placed in proximity to or around an hour number and divided into numbered sections indicating the time limit into which the hour is divided, and having over each of such sections the cardinal points N, E, S, W, substantially as described and for the purpose specified.

No. 45,930. Cement. (Ciment.)

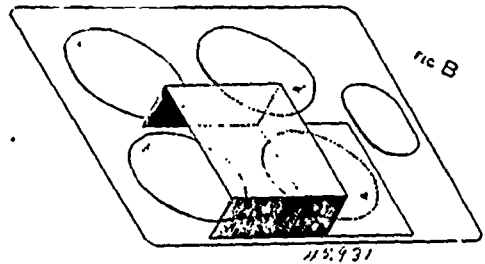
Sigmund Dentler and Herman Loewenthal, both of New York, State of New York, U.S.A., 1st May, 1894; 6 years.

Claim.—1st. A cement composed of slaked lime, carbonate of potash, sulphate of copper and sulphate of iron, substantially as set

forth. 2nd. In the manufacture of cement, the process of slaked quick lime, which consists in adding to it a fluid containing carbonate of potash and sulphate of copper, substantially as set forth. 3rd. The process of manufacturing cement, which consists of burning stone to quicklime, slaking the same with a solution containing carbonate of potash and sulphate of copper, making bricks from said slaked material, drying the same, subjecting said dried bricks to a white heat, exposing the same to dry cool air, until they become brittle, reducing the same to powder, and mixing said powder with sulphate of iron, substantially in the proportions as set forth.

No. 45,931. Culinary Utensil.

(*Butterie de cuisine.*)

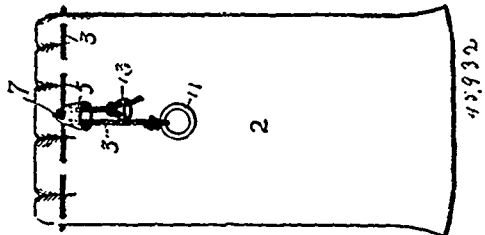


Robert Douglas Rorison and George Walter Winckler, both of Winnipeg, Manitoba, Canada, 1st May, 1894; 6 years.

Claim.—As an article of manufacture, a culinary deodorizer composed of sheet metal so bent and formed as to produce vertical sides, flat top, vertical back terminating either with a rear extension or with a pipe attached to the vertical back, substantially as and for the purpose hereinbefore set forth.

No. 45,932. Automatic Tires for Bags, &c.

(*Fermeture automatique pour sacs, etc.*)



Henry H. Nelson, Beardsley, Minnesota, and Peter Nelson, Nora Springs, Iowa, U.S.A., 2nd May, 1894; 6 years.

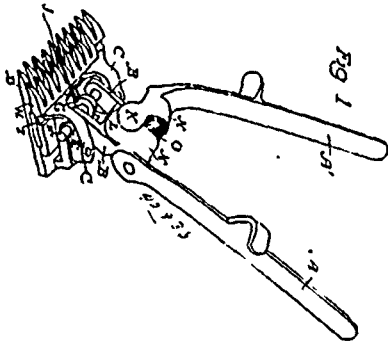
Claim.—1st. The combination, with the conical socket 5, provided with the openings at its lower end, of the cord passing through said openings, one part of said cord being provided with the conical locking block 13, adapted to be drawn into said socket, substantially as described. 2nd. The combination, with the bag, of the conical socket secured therein, the cord passing through said socket and around said bag, and adapted to draw the mouth of said bag together, and the conical locking block secured upon one end of said cord and adapted to be drawn into said socket and thereby to lock said cord, substantially as described. 3rd. The combination with the conical socket provided at its lower end with the openings 9, of the cord adapted to pass through said openings, the ring upon one end of said cord, and the conical locking block secured upon the other end of said cord, for the purpose specified. 4th. The combination with the conical socket 5, provided with openings in its lower end, of the cord passing through said openings, one end of said cord being provided with the ring 11, the conical locking block 13, provided with three openings 15, and the cord secured to said locking block in the manner described, as and for the purpose set forth.

No. 45,933. Hair Clipper. (Tondeuse humaine.)

Ole Olsen and Charles Green both of San Francisco, California, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. In a hair clipping machine, handles fulcrumed together and adapted to move to and from each other about the fulcrum pin, a cutter-head having stationary and reciprocating cutter-plates, a hinge joint by which the stationary plate is connected with one of the handles, and about which it is turnable with relation to said handles, a shaft adapted to reciprocate axially through the hinge joint and having a central disc, a channel in the reciprocating cutter-plate with which the periphery of said disc engages, and a connecting device for reciprocating the shaft and disc with relation

to the handles, substantially as herein described. 2nd. A hair clipping machine consisting of two handles pivoted together, adapted to approach and separate from each other, a cutter-head



consisting of a stationary toothed comb plate hinged to and turnable about the extensions of one of the handles, a shaft slidable axially through said hinge joint having a disc fixed to it, the periphery of which engages a slot or channel in the reciprocating cutter-plate which travels about the stationary one, an arm fixed to fulcrum shaft and movable with the movable handle, said arm having its outer end adapted to loosely engage the periphery of the disc whereby the movement of the handles will reciprocate the disc shaft and movable cutter-plate in any position occupied by the cutter-head with relation to said handles, substantially as herein described. 3rd. A hair clipping machine consisting of the stationary and movable toothed comb and cutter-plates, brackets by which the stationary plate is hinged to extensions of one of the handles of the device, a shaft slidable axially through said hinge joint having a central disc, the periphery of which engages a channel in the movable plate, a movable handle fulcrumed to the one which carries the cutter-head, having an arm which engages the periphery of the disc whereby the reciprocation of the disc shaft and movable cutter-plate in one direction are effected by the pressing of the handles toward each other, and a spring fitted transversely in containing chambers between the handles whereby the reciprocation of the parts in the opposite direction is insured, substantially as herein described. 4th. A hair cutting machine having the cutting portion adapted to turn about a joint connecting it with the handle portion, so as to change its angle with relation thereto, and a mechanism connecting the movable cutter-plate with the movable handles by which it is reciprocated, whereby the movement of the handles is transmitted to the cutter-plate, in any position which it may occupy relative to the handles.

No. 45,934. Automatic Air Brake Coupler.

(Joint automatique de frein atmosphérique.)

William A. Harris, Benjamin S. H. Harris, both of Pelzer, and William Fowler and Louis C. Cannon, both of Spartanburg, all of South Carolina, U.S.A., 2nd May, 1894; 6 years.

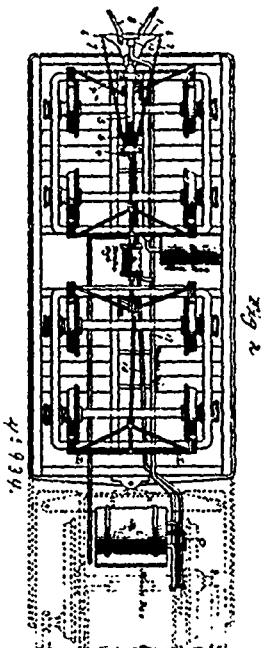
Claim.—1st. In an air brake, the combination with a coupling-head having openings or chambers, a brake-pipe, and a supplemental pressure-pipe arranged in communication with said openings or chambers respectively, and automatic valves for opening and closing said pipes, of a tube connecting the openings or chambers and in open communication with the supplemental pressure-pipe, a valve arranged in connection with said tube, and adapted to be affected by the pressure in the supplemental pressure-pipe, and means under the control of said valve for locking and releasing the valve of the brake-pipe, substantially as specified. 2nd. In a brake system, the combination with a brake-pipe, a coupling-head having a recess formed in its rear side, and said recess having a portion of its wall threaded and its bottom provided with an orifice, or a rubber bushing

seated in the bottom of the recess and provided with an intermediate external surrounding gasket, said bushing extending through the orifice and beyond the face of the coupling-head, a washer encircling the rear end of the bushing, a cylinder threaded in the recess and bearing on the washer and connected with the brake-pipe, said cylinder being provided with an internal shoulder in rear of its front end, a valve disc mounted for movement between the shoulder and washer and having perforations near its periphery, and a stem extending from the front face of the valve disc through the orifice and beyond the face of the coupling-head, substantially as specified. 3rd. In a brake-system, the combination with a coupling-head having a chamber the bottom of which is provided with an orifice, a cylinder located in the chamber, a brake-pipe connected with the cylinder, a valve mounted in the orifice and provided with a stem extending beyond the face of the head and at its rear end with a shouldered lug, of a tube rising from the cylinder, a pivoted latch arranged in said chamber and provided with a valve disc adapted to close the lower end of the tube, a pipe leading to the upper end of the tube, and communications between the source of fluid supply for the brake-pipe and that of the pipe leading to the tube, substantially as specified. 4th. In a brake system, the combination with a coupling-head having a recess, the bottom of which is provided with an orifice, a bushing for the orifice, a cylinder connected with the recess, a valve mounted in the cylinder over the orifice, a stem extending from the valve through and beyond the orifice and surrounded by the bushing, and a brake-pipe leading from the cylinder, of devices located in rear of the valve within the cylinder for locking the valve away from its seat, substantially as specified. 5th. In a brake system, the combination with a coupling-head having a recess in its rear face, the bottom of which is provided with an orifice, a cylinder connected to the recess, a valve seat surrounded by the orifice, a valve mounted in the cylinder and provided with openings near its periphery, a stem extending from the valve through and beyond the orifice, and brake-pipe leading to the cylinder of a pressure-pipe, means for supplying the same with fluid, and devices operated by the pressure-pipe for locking the valve out of contact with its seat, substantially as specified. 6th. In a brake system, the combination with a coupling-head having a recess in its rear face, the bottom of which is provided with an orifice, a cylinder connected to the recess, a valve seat in the orifice, a valve mounted in the cylinder and provided with perforations near its periphery opposite the seat, a stem extending from the valve through and beyond the orifice, and a brake-pipe leading to the cylinder, of a pressure-pipe, means for supplying the same with fluid, devices operated by the pipe for locking the valve out of contact with the seat, and means for equalizing the pressure of fluid in said pressure-pipe with that in the brake-pipe, whereby said devices are released and the valve unlocked, substantially as specified. 7th. In a brake system, the combination with a coupling-head having a valved opening, a brake-pipe leading thereto, a main reservoir for the brake-pipe, of a supplemental pressure-pipe leading from the reservoir, a three-way cock located intermediately therein, and a valve locking and unlocking device thrown into locking position by the pressure in the brake-pipe and out of locking position by the pressure in the pressure-pipe, substantially as specified. 8th. In a brake system, the combination with a coupling-head having upper and lower recesses each provided with an orifice, valve seats mounted in the recesses, cylinders threaded in the orifice, and valves mounted in the cylinders and provided with stems projecting through and beyond the orifice, the lower valve having a shouldered conical lug at its inner side, of a tube leading from the upper to the lower cylinder, a pivoted latch carrying a valve mounted in the lower cylinder and having a shoulder at its front end adapted to engage in the shouldered lug of the valve when the latter is away from its seat, of a main reservoir, a brake-pipe leading therefrom to the lower cylinder, and a pressure-equalizing pipe leading from a suitable source of supply to the upper cylinder, substantially as specified. 9th. In a brake system, the combination with a coupling-head having a valve opening, and a valve therein, a brake-pipe leading thereto, and a main reservoir for the brake-pipe, of a supplemental pressure-pipe leading from the reservoir, a three-way cock located therein, and devices actuated by the pressure in the brake-pipe and adapted to lock the valve out of its seat, substantially as specified. 10th. In a brake system, the coupling-head 12 having duplicate chambers 14 and 13, each provided with a valve 35 at the front end, the brake-pipe connected to the chamber 13, the pressure-pipe 18 connected to the chamber 14, the tube 19 connecting the two chambers, the valve 25 for closing the tube, and locking devices actuated by the movement of the valve 25 in the lower chamber 13 to lock the valve 35, substantially as specified.

No. 45,935. Art of Preparing Solutions Carrying Salts of Zinc. *(Art de préparer des solutions contenant des sels de zinc.)*

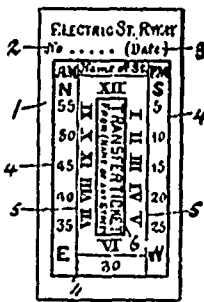
Parker Cogswell Choate, New York, State of New York, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. The hereinbefore described process of purifying an impure solution of zinc salts, which consists in subjecting the solution to the action of an electric current so as to precipitate and deposit the depositable impurities and meanwhile neutralizing the acid set free in the bath with an oxidized zinc fume freed from its



more volatile soluble constituents, substantially as set forth. 2nd. The hereinbefore described process of purifying an impure solution of zinc salts which consists in subjecting the solution to the action of an electric current to precipitate and deposit the depositable impurities and at the same time preventing the resolution of such impurities by neutralizing the acid set free from any depositable impurities soluble in the solvent element of the bath, substantially as set forth. 3rd. The hereinbefore described process of forming from a zinc ore a solution carrying salts of zinc which consists in forming a sulphate solution of the soluble elements of the ore and recovering the same therefrom by evaporation and crystallization, heating the crystallized product to drive off the salts of metals more volatile than zinc and convert those less volatile than zinc into compounds insoluble in water and finally treating the mass with water to dissolve the zinc element. 4th. The hereinbefore described process of forming a solution carrying salts of zinc which consists in recovering the soluble elements of the ore from a solution thereof in the form of sulphates, heating the product thus obtained to volatilize those elements more volatile than zinc and convert those less volatile than zinc into compounds insoluble in water, leaving the zinc in the form of an anhydrous sulphate, and finally dissolving the zinc sulphate in water to form the solution.

No. 45,930. Transfer Ticket. (Billet de correspondance.)



Samuel Irwin, Markdale, Ontario, Canada, May 2nd, 1894; 6 years.

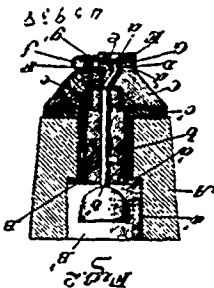
Claim.—A railway transfer ticket having numerals by which the hours may be indicated arranged in the middle part of the ticket, a series of numbers to enable the minutes to be indicated arranged on the sides of the ticket, four initials of the cardinals directions arranged on the corners of the ticket, the initials A. M. and P. M. to indicate the former and latter halves of the day thereby arranged at the upper corners and the name of the route from which the transfer is granted printed thereon, substantially as set forth.

No. 45,937. Mucilage, Etc. (Mucilage etc.)

Charles Michael Higgins, Brooklyn, New York, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. An adhesive compound composed of water, dextrine and borax in the proportions specified, and combined by heat or boiling, substantially as herein set forth. 2nd. An adhesive compound composed of water, borax, dextrine, and a thickening or coagulating agent, substantially as herein set forth. 3rd. A viscous adhesive compound formed of dextrine and borax dissolved in water, with an alkali added thereto, substantially as set forth.

No. 45,938. Bung. (Bondon.)

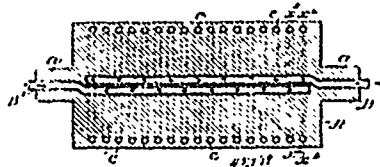


Nathan Fuchs, Thomas Craney and Thomas C. Strokes, all of Louisville, Kentucky, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. The herein described bung, consisting of a body having a central shouldered opening, and metallic tube inserted in said opening having a disc on its upper end fitting upon the shoulder of said opening and threaded on its lower end, and an ear rising from said disc, within the bore, a compressible washer slipped on the lower end of the tube, against the end of the body and a metallic conical washer having a screw-threaded recess to engage the threaded end

of the tube and screwed thereon so as to compress the compressible washer, and also having a passage communicating with the bore of the tube, and a valve seat around the exterior end of the passage, a valve guard below said seat rigidly secured to the face of the washer, and a detachable valve interposed between said seat and guard, substantially as described. 2nd. The combination of the body having a central shouldered bore, a disc seated on the shoulder of the bore, and a tube depending from said disc through the body, a washer screwed on the lower end of said tube, having a passage communicating with the bore of the tube, a valve seat on the washer at the outer end of said passage, a valve guard suspended below said seat by an U-shaped support having a central opening, directly under the valve, and upstanding flanges at its sides to prevent lateral displacement of the valve, and a valve fitted between said guard and seat and having a shank lying between the legs of the U-shaped support, and detachably secured thereto, substantially as described.

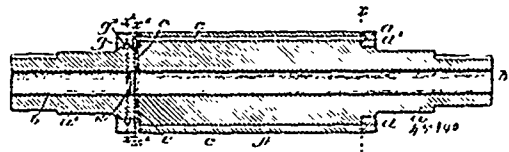
No. 45,939. Rolls for India Rubber Mixing and Calendering Machines, etc. (Rouleau de calandre)



Edward Franklin Bragg, Cambridge, Massachusetts, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. A metal roll having both an axial inlet and outlet, and a series of independent annular circulating passages connecting the same, substantially as described. 2nd. A metal roll having both axial inlet and outlet passages extending substantially the entire length of the roll, in combination with a series of independent annular passages located near the periphery of the roll, and radial passages connecting the same with said inlet and outlet passages whereby fluid introduced through the inlet is caused to flow through said annular passages to the outlet, substantially as described. 3rd. A metal roll having axial inlet and outlet passages extending substantially the entire length of the roll, in combination with a series of independent annular passages and radial passages connecting opposite points of each with said inlet and outlet passages respectively, the successive radial passages leading from the inlet passage extending in opposite directions, whereby fluid of the same temperature is introduced into successive annular passages at opposite sides of the roll whereby a mean temperature is obtained, substantially as described.

No. 45,940. Rolls for India Rubber Mixing and Calendering Machines, etc. (Rouleau de laminoire.)

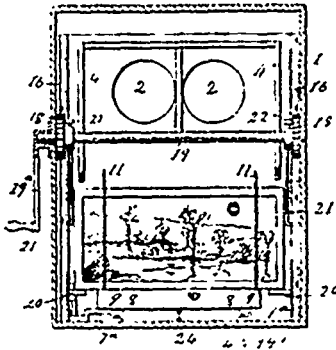


Robert Cowen and Edward Franklin Bragg, Cambridge, Massachusetts, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. A metal roll having a series of peripheral ports, a central passage, and lateral ports, a dam in said central passage, a series of ports at one end of the roll communicating with the peripheral ports, and a collar at the other end of the roll and communicating with not only the peripheral ports but with the lateral ports at opposite sides of said dam, substantially as described. 2nd. An imperforate metal roll having a central passage *b*, a series of longitudinal ports close to its imperforate periphery, and intermediate lateral ports between said central passage and said peripheral ports, and a dam in the said central passage whereby water introduced through the central passage at one end of the roll is caused to travel through the lateral ports, and the peripheral ports and leave through the said central passage at the opposite end of the roll to thereby cool the metal of the roll not only at its centre but also near its periphery, substantially as described. 3rd. An imperforate metal roll having a central passage, a series of longitudinal ports close to its periphery and connected in sets at one end, a series of intermediate lateral ports at the opposite ends of said peripheral ports and the said central passage, and a dam adjacent to and beyond the lateral ports whereby water introduced at the centre of the roll is made to travel through the said central passage to the lateral ports, and thence out through and into the said peripheral ports toward the other end of the roll to thus cool the metal of the roll at not only its

centre but at its periphery, substantially as described. 4th. An imperforate metal roll having both an axial inlet and outlet, and longitudinal peripheral ports connecting the same and to conduct fluid from the inlet to the outlet, the flow of fluid through alternate ports being in opposite directions whereby a main temperature is obtained, substantially as described. 5th. An imperforate metal roll having two series of peripheral ports through which fluid is circulated, the direction of flow through the ports of one set being opposite the direction of the flow through the ports of the other set, whereby a mean temperature is obtained, substantially as described. 6th. A solid metal roll having an imperforate periphery, an axial inlet, an axial outlet, a series of ports or channels arranged therein under the periphery, and ports or channels connecting the longitudinal peripheral ports with the inlet and outlet, substantially as described.

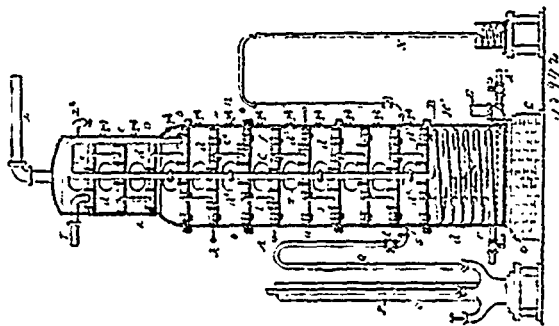
No. 45,941. Stereoscope. (Stéroscope.)



Franklin W. Kremer, Cleveland, Ohio, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. In a stereoscope, a carrier frame provided with suitable means of propulsion with an automatic release and retraction, substantially as described. 2nd. In a stereoscope, a carrier frame riding on suitable tracks, and having a rack-bar attached, the actuating and stationary pawls engaging said rack-bar, substantially as described. 3rd. In a stereoscope, the combination with the outer casing provided with lenses of the supplemental enclosure, having an open end and carrying guides, said guides being adapted to engage the views when elevated, the carrier operating in grooves of the parallel track, and carrying vertical pins between which the views are arranged, and suitable means to raise and lower and change the views, substantially as described. 4th. In a stereoscope, the combination of an outer casing having lenses leading to a supplemental enclosure, said casing having a window and shutter opposite the lenses, the parallel tracks provided with grooves adapted to engage the ridges of the carrier, the carrier being provided with vertical pins adapted to receive and carry the views, the toothed rack carrying L shaped extremities, the rack bars secured vertically in the casing opposite each other, and pinions engaging the same keyed to a common shaft carrying a handle, all parts being arranged and operated, substantially as described.

No. 45,942. Still. (Alambic.)



Hermann Hinz, Frankfort, Kentucky, U.S.A., 2nd May, 1894; 6 years.

Claim.—1st. In a still, the combination of a number of superposed main compartments or chambers, and a series of separate smaller compartments located above said main compartments and provided with perforated bottoms, discharge pipes pendent from the bottom of both sets of compartments in alternate arrangement, an overflow box or trough for each pipe, a heating coil in the lowermost chamber, and a vertical pipe leading from said coil to the top of the still, thence downwardly and terminating within the upper chamber of the main series, substantially as described. 2nd. In a still, the

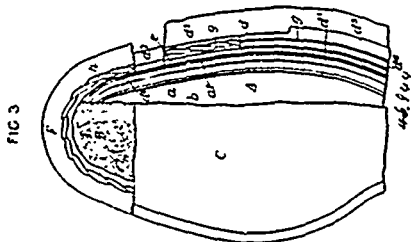
combination of a series of superposed compartments communicating with each other by the discharge pipes disposed in alternate arrangement, the overflow boxes or troughs located beneath the ends of each pipe, rakes or stirrers located within said troughs or boxes, and provided with handles passing through the side of the still, substantially as described. 3rd. In a still, the combination of a series of superposed compartments, the discharge pipes leading from the bottom of one compartment to a suitable point within the compartment below it, an overflow box for each pipe, partitions extending partly across each chamber, and steam tips entering the bottom of the chambers, the said tips being open at the top and provided with the hoods formed with flaring bottoms, a heating coil, and vertically extending pipe terminating in one of the upper chambers, substantially as described. 4th. In a still, the combination of a series of superposed compartments or chambers each provided in its bottom with a depending discharge pipe, and having an overflow trough into which said pipe discharges, and a rake or stirrer entering such troughs from the sides of the still, and provided with the cut out portion to permit the passage thereof beneath the discharge pipe, substantially as shown and described.

No. 45,943. Composition for and Manufacture of Condensed Food. (Composition et fabrication de nourriture condensée.)

Herman Bunker Barrie, Walter P. Chapman, Hamilton, and William R. Wallace, Barrie, all in Ontario, Canada, 2nd May, 1894; 6 years.

Claim.—1st. The herein described composition of matter comprised of fibrous fodder chopped fine, a crushed cereal, lime newly slacked, coarse brown sugar, bitters, salt, ground ginger and oil cake in the proportions specified. 2nd. As a new article of manufacture a composition consisting of a fibrous fodder chopped fine, a crushed cereal, lime newly slacked, coarse brown sugar, bitters, salt, ground ginger and oil cake treated and pressed into blocks as described, and for the purpose specified.

No. 45,944. Shoe. (Soulier.)



Nathan S. Read, Henry A. Read, both of Philadelphia, and the Drey Cork Sole Company, Camden, New Jersey, assignees of Wilfred John Drey, also of Philadelphia, Pennsylvania, U.S.A., 2nd May, 1894; 6 years.

Claim.—In a cork sole shoe, the combination of the inner sole, the upper, the welt, the outer sole, the cork-sole casing, a layer of cork between said soles, said inner sole having its edge split, being channelled and having one side of the split edge upturned, and said casing having one of its edges split and provided with a longitudinal groove, a line of stitching in the latter and passing through the casing, upper, inner sole and into said channel and one side of the split edge of the casing being removed, forming a seat for the welt and affording room for another line of stitching which passes through said welt, casing, upper and upturned portion of the inner sole, said stitching serving to unite the aforementioned parts in the completed shoe, substantially as shown and described.

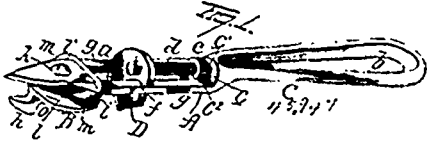
No. 45,945. Car Seat. (Siège de chars.)

Harris A. Wheeler, assignee of Emile Aze and Essington N. Gillfillan, all of Chicago, Illinois, U.S.A., 4th May, 1894; 6 years.

Claim.—1st. In a reversible car seat, the combination, with the shiftable back, of a pair of pivoted arms connected to said back and adapted to rest upon each other, substantially as set forth. 2nd. In a reversible car seat, the combination, with a frame and back, of a pair of substantially parallel arms pivoted at their ends respectively to the frame and to the back, and a stop for limiting the movement of said arms, substantially as set forth. 3rd. In a reversible car seat, the combination, with a shiftable back, of a pair of substantially parallel pivoted arms connected to said back and each having at its pivot a stop against which the other impinges, substantially as set forth. 4th. In a reversible car seat, the combination, with the back, of a pair of substantially parallel arms pivoted to said back, and such pivot being a line at right angles to the frame of the back. 5th. In a reversible car seat, the combination, with the back and the frame, of a pair of arms pivoted to the frame in a horizontal line or plane at their lower end and having their upper end connected with the back, substantially as set forth. 6th. In a reversible car seat, the combination, with the

ing plates and the cam operating the plungers, of the open ended moulds, stop blocks U supported in suitable bearings and provided with lips u, and means for actuating the stop blocks, and the turn table 2 arranged eccentric to the main shaft and designed to receive the bricks, and means for rotating the turn table, as and for the purpose specified. 15th. The combination with the radial plungers K, arranged in pairs horizontally and moving within suitable bearing plates and the cam operating the plungers, of the open ended moulds, stop blocks U supported in suitable bearings and provided with lips u, means for actuating the stop blocks and the turn table 2 arranged eccentric to the main shaft, and designed to receive the bricks from the bottomless boxes, means for rotating the turn table, and the stop bar 3 extending across the turn table, as and for the purpose specified.

No. 45,947. Can Opener.
(Machine à ouvrir les boîtes métalliques.)



George Henry King, James Wyman and Thomas H. Beasley, all of Lynn, Massachusetts, U.S.A., 4th May, 1894; 6 years.

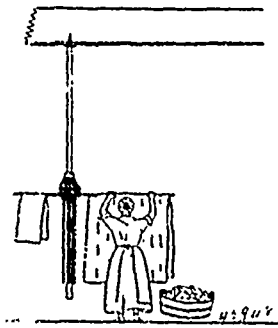
Claim.—1st. In a can opener, the combination with a bar having a head at one end thereof, of a reversible knife secured to said head, substantially as set forth. 2nd. In a can opener, the combination with a bar, of a removable cutter and a rigid reversible cutter attached thereto, substantially as set forth. 3rd. In a can opener, the combination with a bar, of a circular head at one end of said bar, an off-set on said head, and a knife secured to said off-set, and projecting beyond the head or disc, substantially as set forth. 4th. In a can opener, the combination with a bar, of a head or disc at one end thereof, an off-set on said head or disc terminating at one end above the edge of the head or disc, and a reversible knife secured to said off-set and projecting beyond the head of disc, substantially as set forth. 5th. In a can opener, the combination with a bar, of a head or disc at one end thereof, an off-set on said head or disc, said off-set terminating above the end of the head or disc in a curved end and having flat faces diverging from said curved end, and a knife secured to said off-set and projecting beyond the head or disc, substantially as set forth. 6th. In a can opener, the combination with a bar, of a head or disc at one end thereof, an off-set on said head or disc terminating above the end thereof, said off-set having a recess therein, a knife having its shank in said recess and projecting beyond said head or disc, and a fastening device for securing said knife in place in said recess, substantially as set forth. 7th. In a can opener, the combination with a bar and a head at one end thereof, of a movable cutter connected to said bar and a tooth projecting forwardly and obliquely from said head, substantially as set forth. 8th. In a can opener, the combination with a bar having an elongated slot therein, and a tooth projecting from one end of said bar, of a knife adapted to be moved in said slot, said knife having notches to receive the rods produced by the slot in said bar, substantially as set forth. 9th. In a can opener, the combination with a bar having an elongated slot and a tooth at one end of said bar, of a knife adapted to move in said elongated slot in the bar, said knife being notched to receive the rods produced by said slot in the bar, a screw connected to said knife, and a nut adapted to move said screw to adjust the knife, substantially as set forth. 10th. In a can opener, the combination with a bar, of a cutter connected thereto, and a tooth made triangular in cross section projecting forwardly from said head, substantially as set forth.

No. 45,948. Clothes Drying Apparatus.
(Séchoir à linge.)

James Reilly, Calgary, North west Territories, Canada, 4th May, 1894; 6 years.

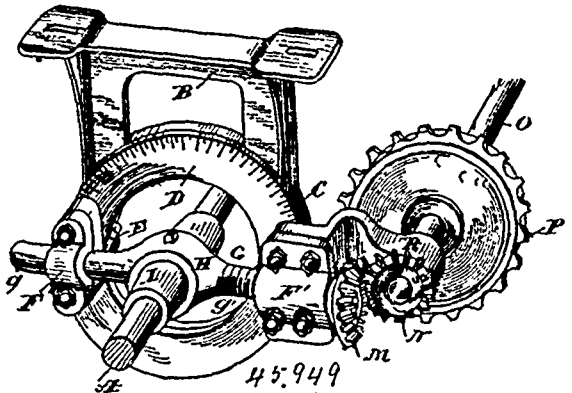
Claim.—1st. A clothes-drying apparatus, the same consisting of a spindle adapted for attachment to a support and to be held in substantially a perpendicular position, and a clothes-carrying section having sliding movement on the spindle, a catch carried by the spindle, adapted for locking engagement with either end of the clothes-carrying body, and arms adapted to receive clothes, pivoted upon the clothes carrying section, said arms being capable of hanging around said section, or of being supported in a horizontal position, substantially as shown and described. 2nd. A clothes-drying apparatus, the same consisting of a spindle adapted for attachment to a support, a body section comprising a tubular centre mounted to slide upon the spindle, having an offset at its upper end, arms adapted to carry clothes, pivotally attached to the tube keepers carried by the tube and adapted to support said arms in a horizontal position, and a catch carried by the spindle, adapted for engagement with the upper or the lower portion of the said tube to maintain the clothes-carrying section at different positions upon the spindle, as and for the purpose specified. 3rd. A clothes drying apparatus, the same consisting of a spindle fitted for attachment to a support, a

clothes-carrying section, comprising a tubular body having an offset upper end inwardly flanged, said tube being adapted to receive and slide upon the spindle, keepers supported from and



arranged around the tube, clothes-carrying arms pivotally attached to the tube, capable of hanging perpendicularly around the same and each arm being adapted to be supported by a keeper in a horizontal position, and a catch pivoted in a recess in the spindle, adapted for engagement with either the lower or the upper portion of the tubular body, as and for the purpose specified. 4th. In a clothes-drying apparatus, a spindle adapted for attachment to an over-head support, and a clothes-carrying section comprising a tubular body expanded at its upper end and inwardly flanged, said tube being adapted for sliding movement on the spindle, clothes-carrying arms pivoted to the tube, keepers supported by the tube and adapted to receive said arm, and a catch capable of concealment within the spindle and of gravitating outwardly therefrom, adapted for engagement with the lower portion of the tube and the upper flange thereof, as and for the purpose specified.

No. 45,949. Shaft Hanger.
(Support d'arbre de couche.)



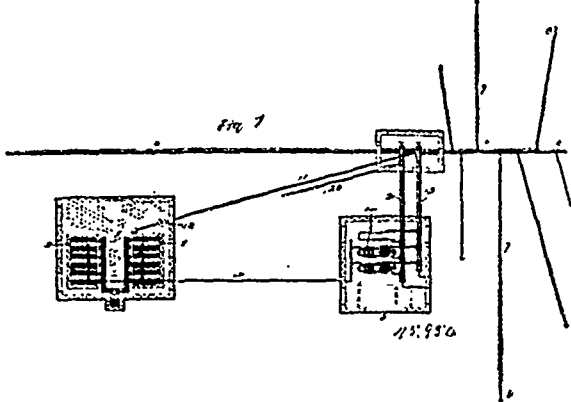
Daniel J. C. Arnold, New London, Ohio, U.S.A., 4th May, 1894; 6 years.

Claim.—1st. In a counter-shaft hanger, the combination with a fixed standard, of a rotatable shaft support movably secured thereto and adapted to be fixed at any vertical angle, a yoke longitudinally adjustable in said support, and a sleeve shaft bearing swivelled within said yoke, substantially as described. 2nd. In a counter-shaft hanger, the combination with a fixed standard of a rotatable shaft support movably secured to the standard and provided with a graduated index for angular elevation, substantially as described. 3rd. In a counter-shaft hanger, the combination with a fixed standard of a rotatable shaft support movably secured thereto and provided with a graduated index for angular elevation, a yoke longitudinally adjustable in said support, a sleeve shaft bearing swivelled in said yoke, and the means for moving the yoke longitudinally in said support, substantially as described. 4th. In a shaft hanger, the combination with the fixed standard of a rotatable support for the shaft, provided with a graduated index for vertical elevation, and means for clamping the said support rigidly in position, substantially as described. 5th. In a shaft hanger, the combination with a rotatable support, of a yoke longitudinally adjustable in bearings upon said support, and a sleeve bearing for the counter-shaft swivelled in said yoke, substantially as described. 6th. In a counter-shaft hanger, the combination with a suitable support for the counter-shaft, of a longitudinally adjustable yoke, mounted in bearing upon said support, a shaft bearing swivelled in said yoke

and means for moving said yoke longitudinally in its bearing, consisting in the threaded extremity of said yoke, a gear provided with integral sleeve nut, in which said threaded extremity is inserted, and driving shaft and gear, substantially as described.

No. 45,950. Gas Forcing Plant.

(Appareil pour forcer le yuz naturel des puits.)



Ebenezer Hill, South Norwalk, Connecticut, U.S.A., 5th May, 1894; 6 years.

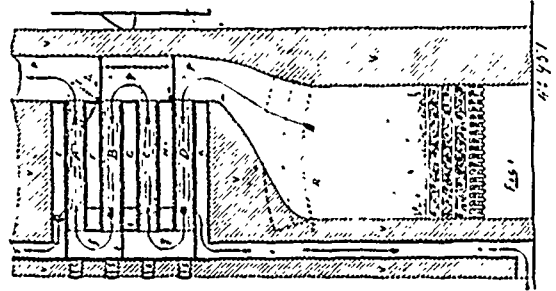
Claim.—1st. A plant for forcing gas, which consists of a main leading from the gas supply or well to the distributing point, a gas compressor having branch supply and discharge pipes connected, respectively, with the main between the supply and distributing points, said branch supply pipe having a declension between its outer end, which is above the level of the main with which it is connected, and its inner end, which is connected with the compressor, and is below the level of the outer end, substantially as specified. 2nd. A plant for forcing gas, which consists of a main leading from the gas supply or well to the distributing point, a gas compressor having supply and discharge branch pipes connected with the main between the supply and distributing point, the outer end of the supply pipe being above and connected with the main by a pipe larger in diameter than the main, substantially as specified. 3rd. A plant for forcing gas, which consists of a main leading from the gas supply to the distributing point, a gas compressor having supply and discharge pipes, the outer end of the supply pipe being above the surface of the ground and connecting with the main between the supply and distributing point by a descending pipe, a drip pipe leading from the bottom of the descending connection, and a motor for running the compressor, substantially as specified. 4th. A plant for forcing gas, which consists of a main leading from the gas supply to the distributing point, a gas compressor having supply and discharge pipes connected with the main between the supply and distributing point, a boiler for generating power to run the compressor, and a drip pipe leading from the connection between the main and the compressor-supply pipe to the furnace of the boiler, substantially as specified. 5th. A plant for forcing gas, which consists of a main leading from the gas supply to the distributing point, a gas compressor having supply and discharge pipes connected with the main between the supply and distributing point, the compressor supply pipe having its outer end above the level of the main with which it is connected, and its inner end, which is below the level of the outer, provided with a catch-well having a drip-pipe, and a motor for running the compressor, substantially as specified. 6th. A plant for forcing gas, which consists of a main leading from the gas supply to the distributing point, a gas compressor having supply and discharge pipes, the outer ends of which are above the surface of the ground and connected with the main below the surface between the supply and distributing point, and the inner ends of which are below the level of the outer ends, and terminate in catch wells with drip pipes leading from the catch-wells, and a motor for running the compressor, substantially as specified. 7th. A plant for forcing gas, which consists of a main leading from the gas supply to the distributing point, a gas compressor having supply and discharge pipes connected with the main between the supply and distributing point by descending pipe connections, a catch-well near the outer and higher end of the discharge pipe, a drip pipe leading from this well, and a motor for running the compressor, substantially as specified. 8th. A plant forcing gas, which consists of a main leading from the gas supply to the distributing point, a gas compressor having inclined supply and discharge pipes connected with the main between the supply and distributing point, catch-wells at the lower ends of the inclined pipes, and removable caps on each end of the same pipes, substantially as specified.

No. 45,951. Sanitary Grate. (Grille.)

George Phillips, Victoria, British Columbia, Canada, 5th May, 1894; 6 years.

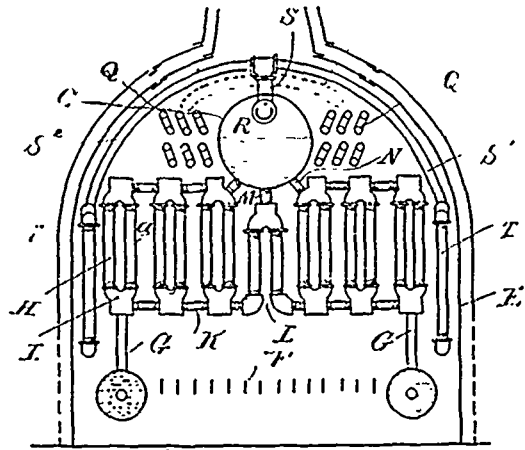
Claim.—1st. The combination of the grate together with the above mentioned apparatus consisting of box of two compartments

f, g and F, F, G, H, K, and tubes A, B, C, D, and dampers W, W and k, substantially as and for the purpose specified. 2nd. The



combination of the two grates and rocking damper between, together with the apparatus consisting of box of two compartments, tubes and dampers and air channels, substantially as and for the purposes specified.

No. 45,952. Steam Generator. (Générateur de vapeur.)



Alexander W. Finlayson and the Finlayson Boiler Company, assignees of Edwin Popkins and Henry M. Ferry, all of Detroit, Michigan, U.S.A., 5th May, 1894; 6 years.

Claim.—1st. In a steam generator, the combination with a casing, of water legs at opposite ends thereof, a centrally arranged steam dome connecting the tops and side tubes connecting the bottoms of the legs, a grate, a series of vertically disposed circulating loops above the grate connected with the side tubes and having connections at top and bottom with the drum, substantially as described. 2nd. In a steam generator, the combination of two end water legs, connections between the two consisting of a steam dome centrally at the top, and by tubes at each side at the bottom, connections from the side tubes to the steam dome consisting of a series of loops connected together at top and bottom and to the dome and tubes, substantially as described. 3rd. In a steam generator, the combination, with end water legs, a steam drum and side tubes connecting the legs, a series of heating loops, a pipe connection between the loops and tubes, pipe connections between the tops and bottoms of adjacent loops and pipe connections between the top and bottom of the end loops of the series and the steam drum, substantially as described. 4th. In a steam generator, the combination with the water legs at each end, a steam dome connecting the legs centrally at the top and the water tubes connecting the legs at each side at the bottom, the circulating pipes connecting the side tubes with a steam dome and super heating coils arranged outside of said circulating pipes and within the casing, and connections at opposite ends of said coils with the steam dome and the steam supply pipe respectively, substantially as described. 5th. In a steam generator, the combination with the end water legs, the steam dome connecting said legs centrally at the top, and water tubes connecting said legs at the bottom, the circulating pipes connecting said tubes with the steam dome, and the feed water coils Q arranged on each side of the steam dome, and above the connecting pipes, and connected at one end to the rear ends of the connecting tubes and at the other end to the water supply pipe, substantially as described.

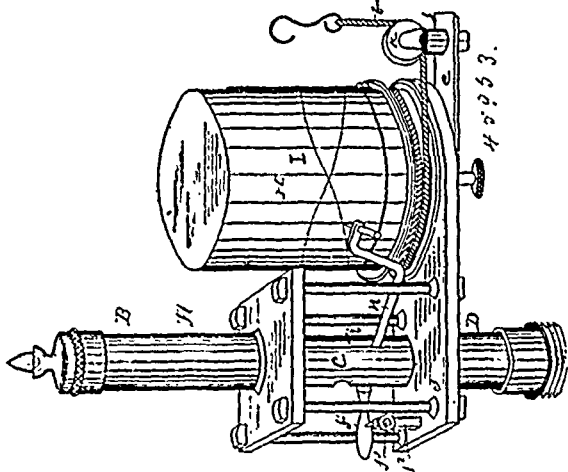
No. 45,953. Steam Pressure Indicator.

(Indicateur de pression de vapeur.)

William M. Dodd, Dayton, Ohio, U.S.A., 5th May, 1894; 6 years.

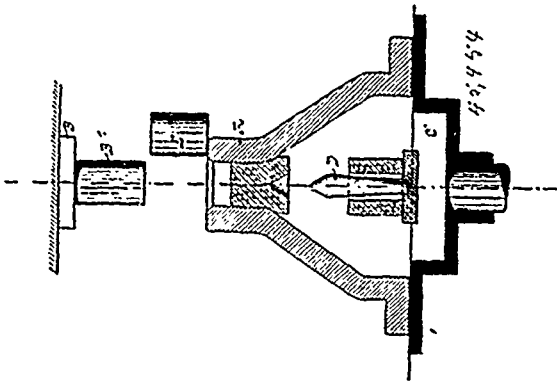
Claim.—1st. In a steam engine indicator, the combination of the cylinder provided with the air chamber B, the piston rod, the head

of which is adapted to move in said chamber, the pencil arm attached to said piston, the rotating drum, and means for preventing the



entry of air to, or the escapement of air from the chamber B, whereby an air cushion is formed in said chamber to exert counter pressure against the piston, as herein described. 2nd. The combination with the piston, of a cylinder having an air chamber in the upper portion thereof, and means for forming an air cushion therein to exert counter pressure against the pressure of the steam, whereby the pressure of said steam will be recorded in graduated and uniform lines, as herein described. 3rd. The combination with the piston, of a cylinder having an air chamber in the upper end thereof, and means for forming an air cushion therein, whereby counter pressure is exerted against the head of the piston to record the steam pressure in the engine cylinder, or the partial vacuum in said cylinder due to the condensation of the steam therein, as is herein described.

No. 45,954. Method of Manufacturing Ring Shaped Bodies from Solid Metal Blocks. (Méthode de fabrication d'anneaux creux des blocs en métal.)



Oscar Friedrick and Wilhelm Schulte, both of Duisburger Eisen- und-Stahlwerke Duisburg, Rhine Province, Prussia, Germany, 5th May, 1894; 12 years.

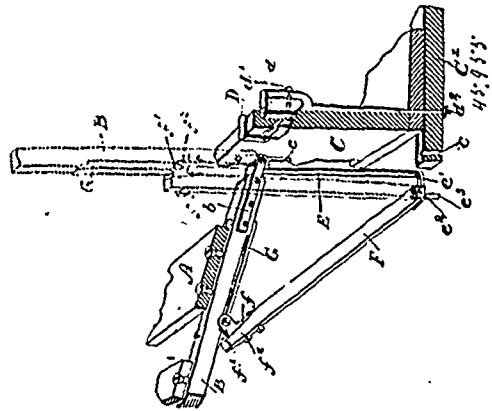
Claim.—A new or improved method of manufacturing ring-shaped hollow bodies consisting of pressing a metal block of any desired profile in a heated state, by means of a piston B and a ram or stamp B', through a guide frame A against a punchcon D placed in and connected with a second piston or press table c, and forcing it completely over the said punchcon by placing thereon a second metal block, and so on, the upper part of the guide frame A being of like shape to and fitting tightly the metal block, whilst the under part of the guide frame is sufficiently enlarged to allow a free expansion of the metal block as it is being expanded by the penetrating punchcon, substantially as herein shown and described.

No. 45,955. Wagon, Hay and Stock Rack. (Ratelier pour foin, wagon et bétail.)

The Bain Wagon Company, assignees of James Anderson, both of Woodstock, Ontario, Canada, 5th May, 1894; 6 years.

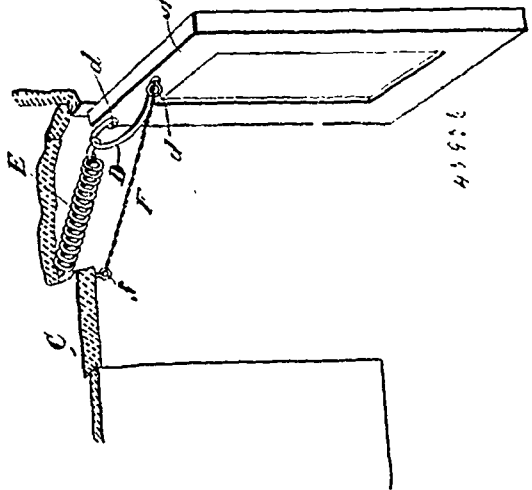
Claim.—In a wagon, hay and stock rack the combination with the side racks and connecting cross pieces, of the vertical bar E, provided with a hooked upper end e, pivoted within the bars b, secured to the cross piece B, and the outwardly extending lower end c', provided with jaws c², and the downwardly extending pin c³, the brace F,

pivoted in the jaws c², and connected on its upper end by the bolt f², to slot G, at the outside of the cross pieces B, the hook E, and



pin c³, being designed to fit into the socket d, secured to the side board and the hole c, in the outwardly extending portion of the cross bar c', as and for the purpose specified.

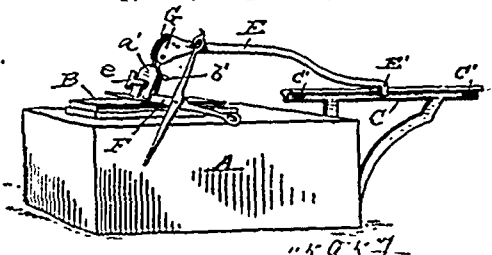
No. 45,956. Door Spring. (Ressort de porte.)



The James Hay Company, assignee of James Spencer Parmenter, both of Woodstock, Ontario, Canada, 5th May, 1894; 6 years.

Claim.—1st. The combination with the door, of a loop secured to such door and having its inner end extending past the hinge and behind the frame when the door is closed, and the spiral spring E, connected to the loop, capable of lateral movement along it, and secured at the opposite end to a fixed point, as and for the purpose specified. 2nd. The combination with the door of a loop secured to such door and having its inner end extending past the hinge and behind the frame when the door is closed, and the spiral spring E, connected to the loop, capable of lateral movement along it and secured at the opposite end to a fixed point, and the check chain F, secured at one end to the eye d, on the door and at the other end to the eye f, on the frame C.

No. 45,957. Device for Sharpening Shears. (Appareil pour affûter les forces.)



Charles N. Sly, and George E. Wadleigh, both of Medina, New York, U.S.A., 5th May, 1894; 6 years.

Claim. 1st. A device for sharpening shears consisting of a track, an arm slidably mounted on said track, an adjustable clamping jaw

pivoted on said arm, an adjustable clamping jaw carried by the pivoted jaw, a guide pin carried by this clamping jaw, said pin passing through an opening in the pivoted jaw, and a screw rotatably mounted in the adjustable jaw and tapped through the pivoted jaw, substantially as described. 2nd. A device for sharpening shears consisting of a horizontal track, an arm E formed at one of its ends with the bifurcated end E', adapted to embrace the track and slide thereon and at its other end with a plate G, a pivoted clamping jaw mounted on said plate, means for adjusting said pivoted jaw to various angles and for locking it in its adjusted positions, and an adjustable clamping jaw carried by the pivoted jaw, and means for adjusting this latter clamping jaw, substantially as described. 3rd. A device for sharpening shears consisting of a track, an arm E formed with the depending bifurcated arm E' and the plates G, a jaw pivoted between said plates, a perforated extension b formed on said jaw, a removable pin passing through the perforation in plates G and through a perforation in extension b, an adjustable clamping jaw carried by the pivoted jaw and means for adjusting said jaw, substantially as described and for the purpose set forth. 4th. A device for sharpening shears consisting of a horizontal removable track provided with stop pins at its ends an arm E, formed with the end E', and the enlarged parallel plates G, said arm being mounted to slide on the track and to be removable therefrom, a jaw a pivoted between the plates G, and formed with the extension b which is formed with a series of perforations which register with a series of perforations in the plates G, a removable pin adapted to be passed through these perforations, an adjustable clamping jaw carried by the pivoted jaw, a guide pin carried by the adjustable jaw, said pin passing through a perforation in the pivoted jaw, a tube formed on the pivoted jaw and extending rearwardly and adapted to receive the guide pin, a screw rotatably mounted in the adjustable jaw and tapped through the pivoted jaw, substantially as described and for the purpose set forth.

No. 45,958. Radiator Section. (Section de radiateurs.)

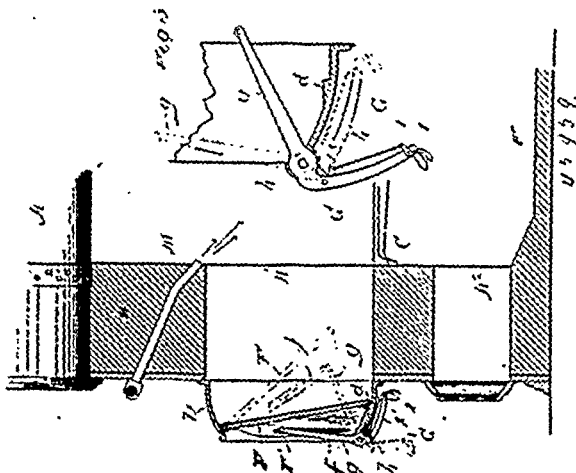


Lawrence R. Blackmore, Newark, New Jersey, U. S. A., 7th May, 1894; 6 years

Claim.—1st. A radiator section having vertical columns joined at their ends by loops b, and crossed obliquely intermediate to their ends. 2nd. A radiator section having vertical columns a, a', joined at their ends by loops b, and crossed obliquely twice intermediate to their ends. 3rd. A radiator section having vertical columns a, a', joined at their ends by loops b, and crossed intermediate to their ends, forming four panels, provided each with a different ornamental pattern in relief.

No. 45,959. Smoke Preventer.

(Appareil pour empêcher la fumée.)

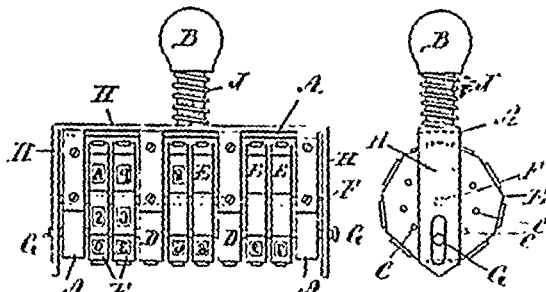


William R. Mills, Chicago, Illinois, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. The combination, with a furnace, of an inwardly adjustable deflecting plate hung in the opening to the fire-box, and a steam-jet pipe located above said opening, substantially as described. 2nd. The combination, with a furnace, of an inwardly deflecting plate hung in the opening to the fire-box and having means to regulate the angle of the deflection and to lock the plate at said angle, substantially as described. 3rd. The combination, with a furnace, of the door-frame D, hinged to the furnace wall and

having the inwardly deflecting plate F, provided with an adjusting and securing lever, substantially as described.

No. 45,960. Hand Stamp. (Timbre à main.)

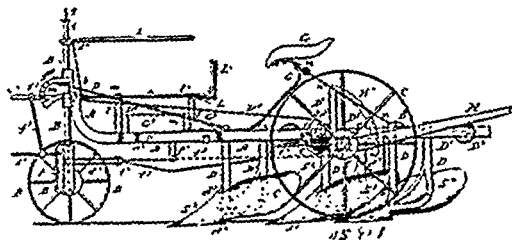


115,960.

John G. Wyatt, Hull, Quebec, Canada, 7th May, 1894; 6 years.

Claim.—1st. In a hand stamp, the frame A, having fixed posts or abutments D, and tire wheels E, between said abutments, as set forth. 2nd. The combination, with the frame A, provided with a handle B, and having fixed posts or abutments D, subdividing said frame longitudinally into divisional spaces, of type wheels E, journaled in said spaces, said wheels having holes C, to receive a locking pin G, substantially as set forth. 3rd. The combination, with the frame A, subdivided by posts or abutments D, and provided with a handle B, of the saddle H, and the wire spring J, coiled around said handle, as set forth, for the purpose described.

No. 45,961. Cultivator. (Cultivateur.)

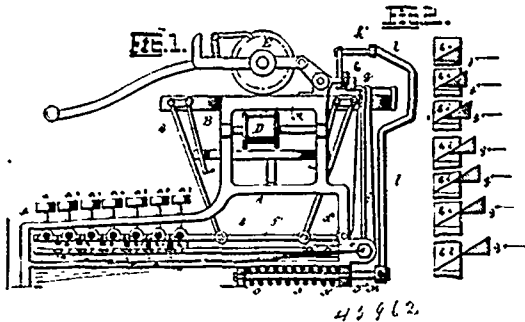


Mariusus Weber, New York, State of New York, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. The combination, with the main frame of an upright front standard to which the front end of the main frame is swivelled, a crank axle supported in the hind wheels, weighted beams pivoted to the supporting main frame, and shares supported in said beams, substantially as set forth. 2nd. The combination, with the supporting main frame, of an upright front standard, a swivel connection between the front end of the main frame and the front standard, a crank axle supported on the hind wheels to which crank axle the rear part of the main frame is applied, shares supported by the main frame, a main lever attached to the crank axle and a locking mechanism for the main lever and crank axle, substantially as set forth. 3rd. The combination, of a main frame, an upright front standard, a swivel connection between the main frame and the front standard, a crank axle supported on the hind-wheels, to which crank axle the rear part of the main frame is attached, a pair of front shares, a pair of rear shares and an intermediate central or swing share, said shares being supported on weighted beams pivoted to the main frame, the beams of the rear shares being adapted to be moved laterally on the crank axle and means for locking the shiftable beams diagonally into line with the swing share and either one of the front shares for cutting right or left hand furrows, substantially as set forth. 4th. The combination of a supporting main frame, swivelled to the upright front standard and attached to a main frame supported on the hind wheels, fixed pivot rods on said crank axles, shiftable beams applied to said pivots, shares supported on said beams, locking arms on the crank axle adapted for locking the shiftable beams to either side of the fixed pivot rods, and a main lever attached to the bent portion of the crank axle and adapted to raise or lower the locking arms so as to permit the shifting of the beams and the locking of the same in shifted position on their pivots. 5th. The combination, of a supporting main frame swivelled to an upright front standard and attached to a crank axle supported on the hind wheels, fixed pivot rods on said main frame, shiftable beams applied to said pivots, shares supported on said beams, fixed locking arms on the crank axle adapted for engaging the shiftable beams, upwardly extending front arms attached to the crank axle, chains connecting the front arms with the swivelled front end of the main frame and upper end of the front standard, and a main lever attached to the bent portion of the crank axle and adapted to raise or lower the crank axle for releasing and locking the shiftable beams, substantially as set forth.

6th. The combination with a supporting main frame, an upright front standard, a cross piece of said standard to which the main frame is swivelled, a crank axle supporting the rear end of the main frame, a gang of shares supported in beams of the main frame, a shifting lever having a fork shaped front end for engaging the cross piece and means for locking the shifting lever in position, substantially as set forth. 7th. The combination of a supporting main frame, an upright front standard having a yoke-shaped lower end, a steering-wheel in said lower end, shackle-rods on said yoke-shaped end, shackles applied to said shackle-rods, a shackle lever, a pivot link between lever and shackles, a double segment in the standard, and means for adjusting the lever on said segment so as to regulate the position of the shackles, substantially as set forth. 8th. The combination, of a supporting main-frame, an upright front-standard having a perforated yoke-shaped lower end, a steering-wheel in said yoke-shaped end, a crank-axle supported on the hind wheels, weighted beams pivoted to the supporting-frames, and provided with downwardly extending lugs on their centre-bars, shares supported in said levers, a draft-link applied to the yoke-shaped lower end of the front-standard, equalizing-bars at the rear end of the draft-link and draft chains connecting the equalizing bars with the lugs on the beams, substantially as set forth. 9th. The combination, of a main-frame, supported on an upright standard, of the steering wheel and a crank-axle supported on the hind wheels, weighted beams pivoted to said main frame, shares supported on said beams, and locking levers fulcrumed to bars of the main frame and provided with swivelled weights at their rear ends, and enlarged front ends, said levers locking the beams in raised position, substantially as set forth. 10th. The combination, of a main frame supported on the upright standard of a front steering-wheel and a crank-axle on the hind wheels, weighted beams pivoted to said main frame, shares supported on said beams, transverse bars suspended from the front-standard and seat supporting arm respectively, and lifting chains connecting the front and rear-shares with said lifting chains, facilitating the raising and locking of the beams and shares, substantially as set forth. 11th. The combination, of a supporting main-frame, an upright standard supported on the steering wheel, a crank-axle on the hind wheels, a central weighted beam pivoted to the main frame, a swing share hinged to the lower ends of the stock, on the beams and means for locking the swing share to either side of the stocks, substantially as set forth. 12th. In a cultivator, the combination with a main frame, of weighted beams pivoted to said main frame, stocks attached to said beams and shares provided with shouldered at the upper and lower edges, attached to said stocks, substantially as set forth.

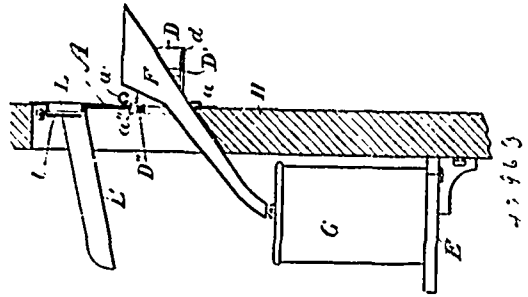
No. 45,962. Typewriter. (Clavigraphie.)



Carl Friedrich Reichelt, Berlin, Prussia, Germany, 7th May, 1894; 6 years.

Claim.—1st. A typewriter comprising different series of keys arranged in corresponding ranks of character of equal length and feed actuating angle lever pressed upon at correspondingly unequal distances from its fulcrum, substantially as described. 2nd. The combination in a typewriter of a printing mechanism, and a feed mechanism comprising a series of keys arranged in ranks, a series of stubs of unequal sizes adapted to each rank and a rocking feed actuating lever having two arms connected by ledges and located beneath said stubs, substantially as described. 3rd. The feed mechanism for typewriters and like machines comprising a series of key levers of unequal length, a rocking feed actuating lever connected therewith having a wedge shaped upon the free end thereof and a feed rack-bar having angular notches or gaps in its side to engage with said tooth, substantially as described. 4th. The combination in a feed mechanism for typewriters of the key-board and frame, the rocking feed actuating lever having a wedge shaped tooth, the notched feed rack engaging with the ratchet-feed of the paper cylinder, and a spring actuated lever attached to the feed rack, substantially as described. 5th. The combination in a feed mechanism for typewriters of the keys a^1, a^2 , corresponding levers b^1, b^2 , of unequal length, stubs k of unequal size all arranged according to rank, a rocking feed lever pivoted at c , and having ledges beneath said stubs and a wedge tooth g , with the notched feed-rack of the platen carriage, substantially as described.

No. 45,963. Milk Receiver. (Recepteur à lait.)

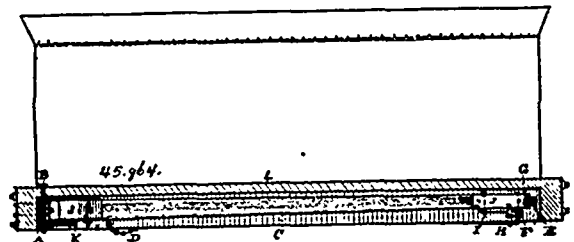


Alfred Theriault, Ottawa, Ontario, Canada, 7th May, 1894; 6 years.

Claim.—1st. A face plate having an aperture adapted to be secured over an aperture in a door or other object, a slide running in slide ways closing said aperture, a flap hinged in said aperture and actuated by a spring to swing outwardly and provided with a shelf and spring adapted to hold small objects, a bracket or shelf on the interior of the door or object below said aperture, and a suitable conductor to convey liquids through said aperture to a vessel on said bracket or shelf, substantially as set forth. 2nd. A face plate having an aperture adapted to be secured over an aperture in a door or other object, a slide running in slide ways closing said aperture, and a flap hinged in said aperture and actuated by a spring to swing outwardly and provided with a shelf and spring adapted to hold small objects, substantially as set forth. 3rd. The combination of a face plate A, having an aperture 3, a slide B running in slide ways a, a^1 over said aperture, a spring C¹ drawing said slide to one side, a spring catch C with button c , holding said slide against the pressure of the spring, a flap D hinged in the end of the aperture opposite said catch, a pin D¹¹ held by the eyes a^{11} on said plate upon which said flap is pivoted, a spring d^{11} upon said pin swinging said flap outwardly, a shelf d , and a spring D¹ on said shelf adapted to hold small objects, and a cam d^1 upon which the slide B operates in closing, substantially as set forth. 4th. The combination of a face plate A having an aperture closed by a spring actuated slide running in slide ways, a name on said plate, a slot L for letters, and a chute L¹ at the inner lower lip of said slot, substantially as set forth.

No. 45,964. Mode of Shunting Cars.

(Mode de changement de voie pour chars.)



Ewen McLennan, O'Leary Station, Prince Edward Island, Canada, 7th May, 1894; 6 years.

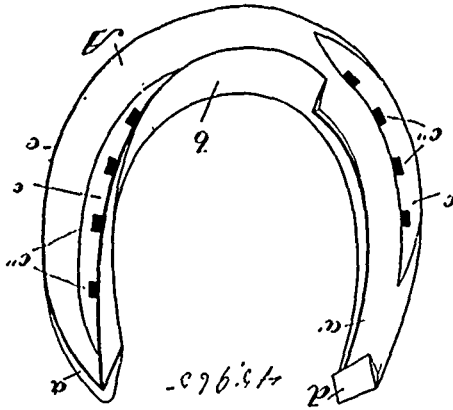
Claim.—1st. The combination of the bar C, with the tender of the engine, substantially as and for the purpose hereinbefore set forth. 2nd. The mode in which the bar C is attached and secured to the tender of the engine, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the adjustable block E, with the bar C, substantially as and for the purpose hereinbefore set forth. 4th. The combination of the hook G, and bar C to operate in a pocket on the side of the car to be operated on, substantially as and for the purpose hereinbefore set forth.

No. 45,965. Horse-shoe. (Fer à cheval.)

James Chapman, Rockland, Ontario, Canada, 7th May, 1894; 6 years.

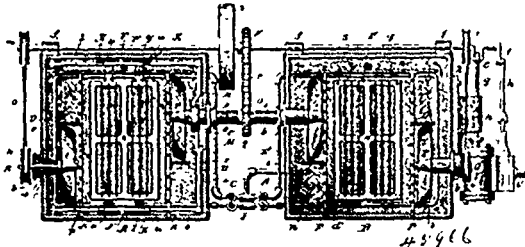
Claim.—1st. A horse-shoe consisting of a flat plate having that part of its outer edge forming the inner edge when in place, or that nearest the other foot bevelled to a feather edge, and the heel end thereof rounded at the outside to a blunt point, and having extended from said heel to a point past the piece of a toe calk coextensive with the featheredge along the inner edge of the plate, a downwardly projecting knife blade sectioned continuous calk with a nail crease close to it, and an oblique heel calk at the other end of the heel, substantially as set forth. 2nd. In a horse-shoe, the combination with a flat plate A, of a featheredge c extending along that side nearest the other foot when in place from the heel of a point past the place of a toe calk, a continuous calk b coextensive with said featheredge along the inner edge of said plate, and a nail crease close to said calk, substantially as set forth. 3rd. A horse-shoe hav-

ing its outside edge nearest the other foot when in place bevelled to a featheredge, and a nail crease as far from said edge and as near



to the inner edge of the plate as a rim flange or calk on said inner edge will permit, substantially as set forth.

No. 45,966. Dish-washing Machine. (Machine à laver la vaisselle.)

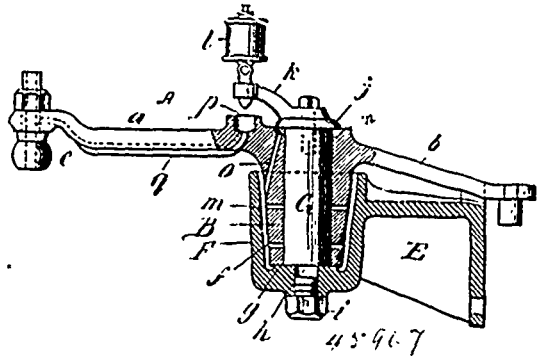


Alfred Insinger, Philadelphia, Pennsylvania, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. In a dish-washing machine, the combination of a washing tank, supports movably secured to the side walls of the tank, a platform resting on said supports, and means for imparting a vertical movement to said supports, substantially as described. 2nd. In a dish-washing machine, the combination of a washing tank, supports movably secured to the side walls of the tank, a platform resting on said supports, levers pivotally connected to said supports and to the walls of the tanks, and means for rocking said levers, substantially as described. 3rd. In a dish-washing machine, the combination of a washing tank, supports movably secured to the side walls of said tank, a platform resting on said supports, levers pivotally secured to said supports and to the side walls of the tank, and levers centrally pivoted to one end wall of the tank and bearing at one end against the free ends of said first named levers, and means for rocking said last named levers on their pivots, substantially as described. 4th. In a dish washing machine, the combination of a washing tank, slotted supports movably secured to the side walls of said tank, a platform carried by said supports, levers pivotally connected to said supports and to the walls of the tank, levers centrally pivoted to one end wall of the tank and having one end connected to said first named levers, and an eccentric for depressing the last named levers at one end, substantially as described. 5th. In a dish-washing machine, the combination of a washing tank, movably angled supports having a slot formed therein, a pin for supporting and guiding said supports, a platform carried by said supports, levers having guiding projections formed thereon, pivotally attached to said supports and to the walls of the tank, levers centrally pivoted to one end wall of the tank and having one end bearing against the free ends of said first named levers, and an eccentric for depressing the other ends of the last named lever simultaneously, substantially as described. 6th. In a dish-washing machine, the combination, of a washing tank, vertically movable supports secured to the side walls of said tank, a platform carried by said supports, means for operating said supports, and means for forcing currents of water diagonally across said tank, substantially as described. 7th. In a dish-washing machine, the combination, of a washing tank, supports secured to the side walls of said tank, levers connected to said supports, means for rocking said levers to impart a vertical movement to said supports and means for creating currents of water diagonally across said tank, substantially as described. 8th. In a dish-washing machine, the combination, of a tank, having chambers at each end, propellers arranged in said chambers with their centres diagonally opposite each other, and means for imparting motion to said propellers in opposite directions, substantially as described. 9th. In a dish-washing machine, the combination, of a washing tank, propellers having their centres diagonally opposite

each other in said tank, a platform arranged between said propellers, means for imparting simultaneous movement in opposite directions to said propellers and means for imparting a vertical movement to said platform, substantially as described.

No. 45,967. Rock Arm for Horizontal Steam Engines. (Bras oscillant pour machine horizontale à vapeur.)



Edwin J. Armstrong, Oswego, New York, U.S.A., 7th May, 1894; 6 years.

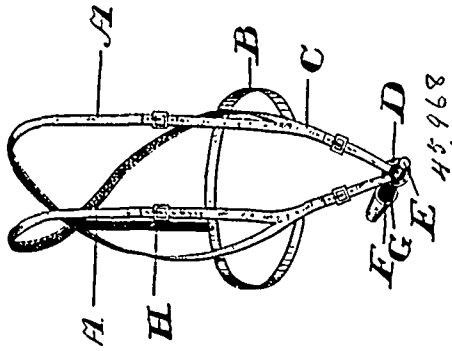
Claim.—1st. The combination, in a horizontal steam engine, of a bracket E having a cup F and a rock arm A having a vertical axis adapted to be supported in said cup, substantially as described. 2nd. The combination, in a horizontal steam engine, of a rock arm A having a vertical axis, a stationary oil cup l arranged adjacent said axis, and means for oiling the outer bearing of said rock arm from said oil cup, substantially as described. 3rd. The combination, in a horizontal steam engine, of a rock arm A having a vertical axis, a cup F for pivotally supporting said arm, and means for automatically oiling the bearing of said rock arm and for returning the oil to said cup to be used again, substantially as described. 4th. In a horizontal steam engine, the combination of a rock arm A having a vertical bearing hub B, a cup F for supporting said rock arm, a pin G rigidly fixed in said cup, a cap j secured to said pin and having an arm k projecting therefrom, an oil cup l mounted on said arm, an oval oil cup p formed on the rock arm, and a tube q for conducting the oil from said last named oil cup to the outer end of the rock arm, substantially as described. 5th. The combination, in a horizontal engine, of a rock arm A having a vertical axis, an oil cup p formed in one arm of said rock arm, a tube q leading from said cup to the outer bearing of said arm, and a hollow eccentric rod C connected to said outer bearing, whereby both ends of said eccentric rod may be oiled from said cup, substantially as described. 6th. The combination, in a horizontal engine, of a rock arm A having a vertical bearing hub B formed with radial oil ducts m, a cup F adapted to receive said hub, a pin G for supporting said hub vertically in said cup, and an oil duct o for returning the oil to said cup after it has been used to lubricate the pin, substantially as described. 7th. The combination, in a horizontal steam engine, of a rock arm A having a vertical bearing hub B formed with lateral oil ducts n, an annular groove n in the top of said hub, and an inclined oil duct o leading from said groove, a cup F within which said hub has its bearing, a removable pin G for supporting said hub upright, and means for preventing said hub from rising out of the cup, substantially as described. 8th. In a horizontal steam engine, the combination, with a suitable support, of a rock arm A having a vertical bearing hub B, an arm a projecting horizontally from one side of said hub, and an inclined arm b projecting from the opposite side thereof, substantially as described.

No. 45,968. Harness for Cyclists. (Harnais pour cyclistes.)

William Bonnar, Chicago, Illinois, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. A harness for cyclists adapted to fit the body of the rider and provided with means whereby it may be connected with the saddle support or other convenient part of the bicycle, substantially as and for the purpose specified. 2nd. A harness for cyclists adapted to fit the body of the rider, and having a ring connected to it whereby the harness may be connected with the saddle support or other convenient part of the bicycle, substantially as and for the purpose specified. 3rd. A harness for cyclists adapted to fit the body of the rider, and having a ring connected to it in combination with a saddle support, a lug of the saddle support and a spring adapted to disengage the aforesaid ring on the saddle support, substantially as and for the purpose specified. 4th. A harness for cyclists, consisting of shoulder braces and a back-band, provided with means whereby it may be connected with the saddle support or other part of the bicycle, substantially as and for the purpose specified. 5th. A harness for cyclists, consisting of shoulder braces A, A, back band B, straps C, and ring D, substantially as and for the purpose specified. 6th. A harness for cyclists, consisting of shoulder braces A, A, back-band B, straps C, and ring D, in com-

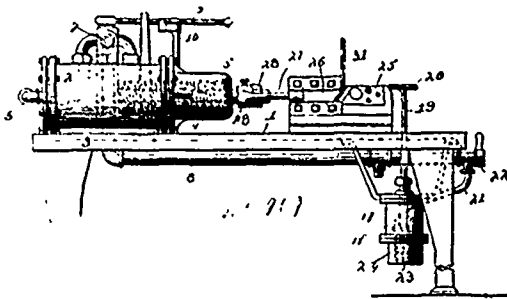
bination with the saddle support E, the lug F, and spring G, substantially as and for the purpose specified. 7th. A harness for



cyclists, consisting of shoulder braces A, A, back-band D, strap H, straps C, and ring E, substantially as and for the purpose specified.

No. 45,969. Hose Coupler.

(Joint de boyaux.)



James D. Cornell and John P. Nolan, both of Algiers, Louisiana, U.S.A., 7th May, 1894; 6 years.

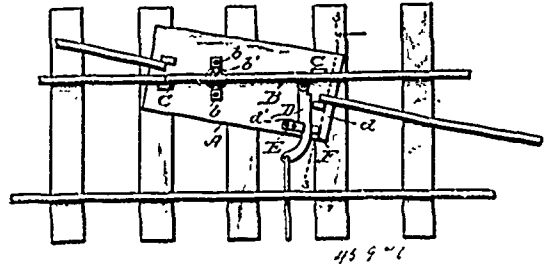
Claim.—1st. The method of applying a coupling to a hose-section, consisting in clamping the hose-section with an inclosed core in axial alignment with a mechanically-operated plunger carrying the coupling, whereby, as the plunger advances, the stem of the coupling is forced into that portion of the bore of the hose which is not filled by the core, substantially as specified. 2nd. The combination with a fluid operated plunger, and means for depressing the plunger, of a divided tubular holder arranged in axial alignment with said plunger, a loose core adapted to be fitted into the bore of a section of hose, a clutch for securing the coupling to the plunger-rod, and means for locking the sections of the holder, substantially as specified. 3rd. The combination with a fluid-operated plunger, and means for depressing the same, of an axially aligned holder having a fixed lower section and hinged upper section, and a locking device for said holder comprising a fluid-operated plunger provided with a stem or rod which is loosely connected to the hinged section of the holder, and means for retracting the plunger, substantially as specified. 4th. A machine of the class described consisting of the following instrumentalities, to wit: a fluid operated plunger, and means for depressing the same, of a holding device arranged in axial alignment with the plunger, and a cutting device having its movable cutter provided with a socket to receive the plunger-rod, a tubular holder arranged perpendicular to the plane of the cutters, and a gage to obstruct the outer end of said holder, substantially as specified. 5th. A machine of the class described consisting of the following instrumentalities, to wit: a fluid operated plunger and means for depressing the same, a cutting device adapted to have its movable cutter connected with said plunger, a holding device adapted to be arranged in axial alignment with the plunger, and a clamp-applying device adapted to have its sliding jaw connected with said plunger, instrumentalities being successively operated as described.

No. 45,970. Railway Frog. (Rail de croisement.)

Frederick Hardy, Birmingham, Alabama, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. In a device of the character described, the combination, with a base plate, of a movable rail pivoted thereon, the operating rod connected to the rail and the locking devices connected with the base plate for locking said rail and rod, substantially as shown and described. 2nd. In a device of the character described, the combination with the base plate of the movable rail, the corner brace or stop blocks, the bearing blocks having pointed edges, the operating rod connected with the rail, said rod having oppositely disposed shoulders, and the locking blocks secured to the base plate upon opposite sides of the rod, substantially as shown and described. 3rd. In a device of the character described, the combination with a

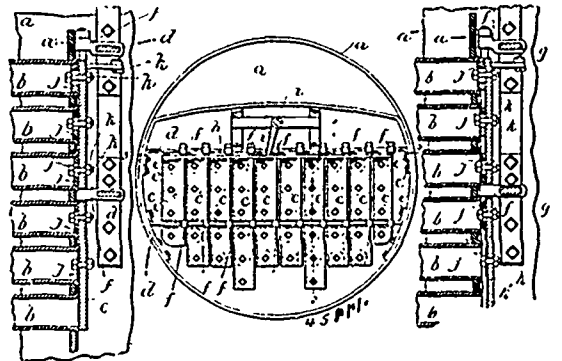
base plate of a movable rail, the operating rod having oppositely disposed shoulders, and the locking blocks secured to the base plate



upon opposite sides of the rod, substantially as shown and described. 4th. In a device of the character described, the combination with a base plate slotted as described of a movable rail, the slotted operating rod having a lug or projection with bevelled ends, the spring bar and bolt carried by said bar, said bolt projecting through the base plate, and the friction roller arranged upon the end of the spring bar to reduce the friction of the lug or projection, substantially as described.

No. 45,971. Tube Closers for Steam Boilers.

(Fermeture de tubes de chaudières à vapeur.)

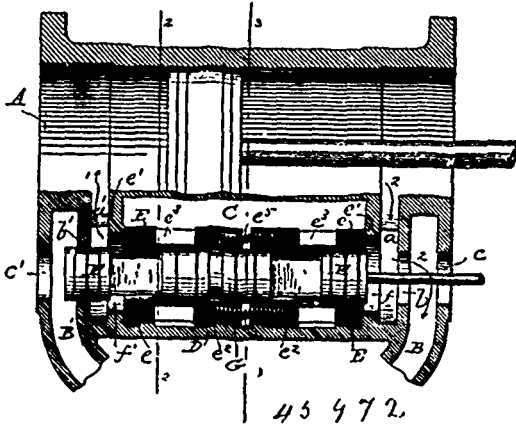


George Cleveland Hicks, Boston, Massachusetts, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. The combination with a boiler, of a series of independently pivoted shutters, adapted to open or close the exit ports of the boiler tubes, and arranged so that when closed they directly cover the ends of a row of tubes, the pivots being located between the rows of tubes, so that when the shutters are opened the tubes are entirely unobstructed, as set forth. 2nd. The combination with a boiler, of a series of independently pivoted shutters adapted to open or close the exit ports of the tubes, each shutter being arranged so that when closed it will bear directly on the ends of a row of tubes, and having its pivot located between two rows of tubes, connections between said shutters whereby they may be moved in unison to open or close the exit ports of the boiler tubes, and an operating device at the exterior of the boiler whereby the shutters may be simultaneously moved, as set forth. 3rd. The combination with a tubular boiler, of a frame attached to the boiler close to the tube sheet, and a series of shutters independently pivoted to said frame and arranged to be seated directly on the exit ports of the tubes, the pivots of said shutters being between the rows of tubes, as set forth. 4th. The combination with a boiler, of a series of shutters having pivots arranged between the row of tubes and provided with tube plugs or valves formed to enter the ends of the tubes, said plugs varying in thickness, as described, so that the tubes are opened or uncovered successively by the opening movement of the shutters, the lower tubes being opened before the upper tubes, substantially as and for the purpose specified. 5th. The combination with a boiler, of a series of vertically arranged shutters connected with fixed supports by pivots arranged between the rows of tubes, each shutter having a vertical row or series of tube plugs or valves formed to enter the ends of a row of tubes, said plugs being of successively increasing thickness from the lower to the upper end of the series, whereby when the shutter is moved from its closed position the tubes will be opened successively from the bottom upwardly, as set forth. 6th. The combination of a boiler, a series of vertically arranged shutters connected with fixed supports on the boiler by pivots arranged between the rows of tubes, rows of tube plugs or valves on said shutters and positively securing them at any positions to which they may be adjusted, as set forth. 7th. The combination of a boiler, fixed cross-bars extending horizontally across the boiler parallel with the tube sheet and at the outer side thereof, arms or bearings adjustably secured to said cross-bars and projecting therefrom towards the tube sheet, and vertically arranged shutters pivotally engaged with said arms and adapted to

be seated on the exit ports of the boiler tubes, as set forth. 8th. The combination with a boiler, of a series of graduated tube closers or valves independently mounted on substantially vertical axis and connected for simultaneous operation, each tube closer being formed to unequally close or contract the outlet ports of a vertical row of tubes, the contraction gradually decreasing from the highest tube downward, as set forth. 9th. The combination with a boiler, of a series of graduated tube closers or valves pivotally connected in supports at points between the vertical row of tubes, said tube closers being movable toward and from the outlet ports of the tubes, and so arranged that when fully opened they do not obstruct the tubes, and connections between said tube closers whereby they may be moved in unison, the highest tube closers being formed to reduce the outlet capacity of the corresponding tubes to the minimum, while the tube closers below are formed to successively increase the outlet capacity of the tubes from the top to the bottom of the series, as set forth.

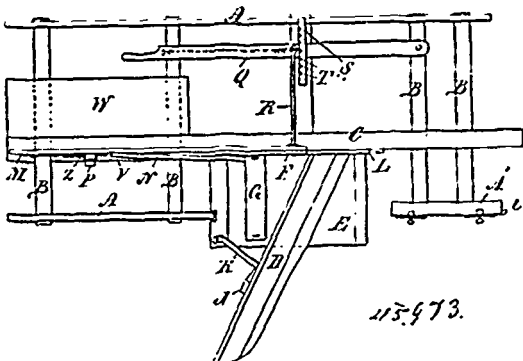
No. 45,972. Fluid Pressure Engine.
(Machine à colonne de fluide.)



William Hampden Jenks, Brockville, Pennsylvania, U.S.A., 7th May, 1894; 6 years.

Claim.—1st. A fluid pressure engine provided with a cylinder, a valve chest, one or more relief valves, and one or more reciprocating valves which pass through the relief valve or valves, and govern the admission of steam or other fluid. 2nd. A fluid pressure engine provided with a cylinder, a valve chest, and a reciprocating valve or valves governing the admission of steam and provided also with a sleeve or relief valve through which the reciprocating valve passes, and means for normally holding the relief valve on its seat. 3rd. The combination, of the cylinder, the fluid chest, ports leading from the fluid chest to both ends of the cylinder, passages connecting the exhaust passages with the ports at the ends of the cylinder, a valve chest, relief valves within the valve chest provided with springs for holding them on their seats, and a reciprocating valve extending through the relief valves.

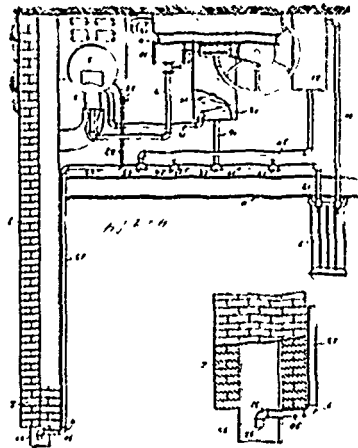
No. 45,973. Snow Plough. (Charrue à neige.)



Octave Tessier, Stukely, Quebec, Canada, 8th May, 1894; 6 years

Claim.—A snow plough consisting of the side runners A, A, and skate runner A¹, cross-beam B, connecting said runners, a longitudinal beam C, connecting said beam B, and provided with a skate runner V, a plough pivotally or flexibly attached to said beam C, intermediately of the runners A, A, A¹, and consisting of the horizontal flat sole E, having a front cutting edge, a mould-board H, mounted on said sole and supported by a standard F, and suitable braces, and a handle M, and lever Q, for adjusting the tilt or movement of the sole, as set forth.

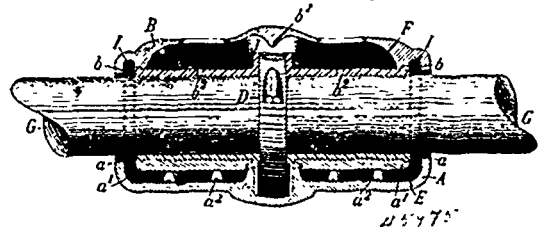
No. 45,974. Device for Bleaching Smoke.
(Appareil pour blanchir la fumée.)



James T. Sands, St. Louis, Missouri, U.S.A., 8th May, 1894; 6 years.

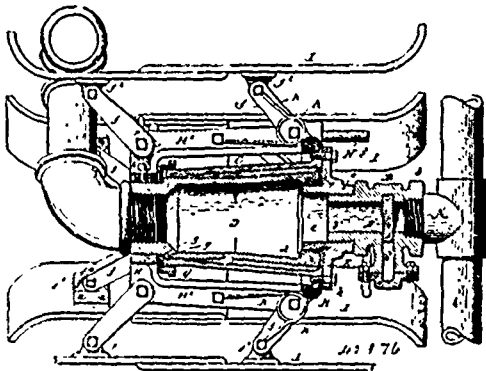
Claim.—1st. In a device for bleaching smoke, a pipe arranged to discharge steam approximately in the centre of a chimney and adjacent the upper end thereof, substantially as set forth. 2nd. A device for bleaching smoke, constructed with a pipe leading from a suitable steam-supply to approximately the upper end of the chimney, and so constructed that the steam discharged from said pipe will commingle with the smoke as it is discharged from the chimney, substantially as set forth. 3rd. In a device for bleaching smoke, a pipe, one end connected to a suitable steam-supply and projecting upward parallel with the sides of the chimney to the upper end thereof, a pipe leading from the upper end of said first mentioned pipe outward over the upper end of the chimney to approximately the centre thereof, and an elbow connected to the projecting end thereof for guiding the steam up or down, substantially as set forth. 4th. In a device for bleaching smoke, a pipe leading from a suitable steam-supply to a chimney a distance below the upper end thereof, a pipe connected to the upper end of said first mentioned pipe for conveying the steam into the chimney, and a pipe connected to said last mentioned pipe for guiding the steam upward, substantially as set forth.

No. 45,975. Self-oiling Journal Box.
(Coussinet de tourillon à graissage continu.)



Harry Willard Hill, Cleveland, Ohio, U.S.A., 8th May, 1894; 6 years.

Claim.—1st. In a self-oiling journal box, the combination of the base, having an oil reservoir, and a removable cap having in its upper part an oil chamber, which lies on both sides of the oil lifting device, and openings from said chamber to the shaft-bearing, with an oil-lifting device adapted to lift the oil from the lower reservoir and to discharge it into the upper chamber, substantially as and for the purpose specified. 2nd. In a self-oiling journal box, the combination of a base having an oil reservoir in its lower part, and a cap having a chamber in its upper part, and openings from said chamber to the shaft on both sides of the oil-lifting ring, both base and cap being provided with an annular groove adapted to receive the oil-lifting ring, with an oil-lifting ring secured to the shaft, with its lower edge extending into the oil reservoir in the base, and a deflecting boss secured to the roof of the chamber in the cap directly over said ring, substantially as and for the purpose specified. 3rd. In a self-oiling journal box, the combination of the base, having an oil reservoir, a removable cap having a cavity in its upper part and openings from said cavity to the shaft-bearing, said base and cap having longitudinal canals between their meeting edges, and annular end grooves which communicate with the lower oil receptacle and with said longitudinal canals, with an oil-lifting ring which lies in an annular groove in said base and cap and is secured to the shaft, and is adapted to lift oil from the lower oil reservoir and discharge it into the upper oil cavity, substantially as and for the purpose specified.

No. 45,976. Hose Reel. (Dévidoir de boyaux.)

Edgar Marvin Birdsall, Buffalo, New York, U.S.A., 8th May, 1894; 6 years.

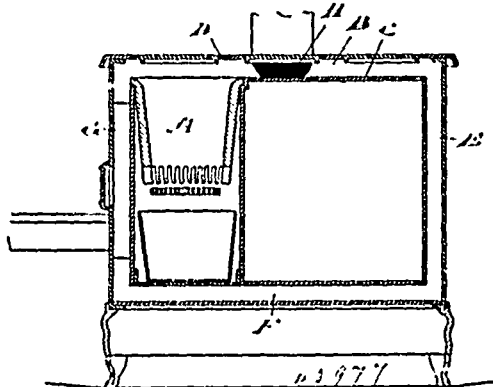
Claim.—1st. In a hose reel, the combination with a stationary tapering shell or case provided at its large end with an inlet for the water, of a hollow tapering journal arranged to turn in said tapering case and communicating at its large end with the inlet thereof and having at its small end a connection for the hose, and a reel frame turning with said hollow journal, substantially as set forth. 2nd. In a hose reel, the combination with a stationary tapering shell or case provided with an inlet at its large end, of a hollow tapering journal fitted within said case and communicating at its large end with the inlet thereof and provided at its small end with a connection for the hose, and an adjustable stop which limits the outward movement of the hollow journal in the case, substantially as set forth. 3rd. In a hose-reel, the combination with a stationary tapering shell or case provided with an inlet at its large end, of a hollow tapering journal fitted within said case and communicating at its large end with the inlet thereof and provided at its small end with a connection for the hose, and an adjustable stop collar applied to the outer screw threaded end of the case and bearing against a stop or shoulder on the hollow journal, substantially as set forth. 4th. The combination with the stand-pipe and a valve case, having a screw-threaded nipple, of a stationary shell or case provided at its inner end with a head having a hollow arbour on its inner side and on its outer side an internally screw threaded collar engaging with the nipple of the valve case, and hollow reel supporting journal arranged to turn in said stationary shell or case and turning with its inner end upon said hollow arbour, substantially as set forth. 5th. In a hose reel, the combination with the hollow journal and the stationary case or bearing in which the journal turns, of a reel frame composed of a ring turning upon said stationary case or bearing, a ring secured to the hollow journal and arms or bars connecting said rings, substantially as set forth. 6th. In a hose reel, the combination with the main reel frame, of longitudinal reel bars for supporting the hose, and connections between the reel bars and the main reel frame, whereby both ends of the reel bars are caused to recede simultaneously when the bar is pressed inward by the expanding hose, substantially as set forth. 7th. In a hose reel, the combination with the main reel frame, of longitudinal reel bars for supporting the hose and pivoted links connecting the reel bars with the reel frame whereby both ends of the bars are simultaneously moved toward or from the axis of the reel, substantially as set forth. 8th. In a hose reel, the combination with the main reel frame, of longitudinal reel bars for supporting the hose, pivoted links connecting the reel bars with the reel frame, whereby both ends of the bars are simultaneously moved toward or from the axis of the reel, and spring whereby the reel bars are held in their extended position, substantially as set forth. 9th. In a hose reel, a reel bar composed of lengthwise adjustable sections, substantially as set forth. 10th. In a hose reel, reel bars each composed of longitudinally slotted sections, substantially as set forth. 11th. The combination with the stationary supply pipe, the cut off valve arranged therein and its actuating arm, of the rotary hose reel, and a trip rod guided on the reel frame and capable of a combined lengthwise and rotary movement, substantially as set forth. 12th. The combination with the stationary supply pipe, the cut off valve arranged therein and its actuating arm, of the rotary hose reel, a trip rod guided on the reel frame and capable of a combined lengthwise and rotary movement, and a spring whereby the trip rod is held in its operative position, substantially as set forth. 13th. The combination with the stationary supply pipe, the cut off valve arranged therein and its actuating arm, of the rotary hose reel, a longitudinally movable trip rod capable of turning in bearings arranged on the reel frame and having a pin or projection for holding it in its retracted position, and a spring whereby the rod is moved to its inoperative position when released, substantially as set forth.

No. 45,977. Stove. (Poêle.)

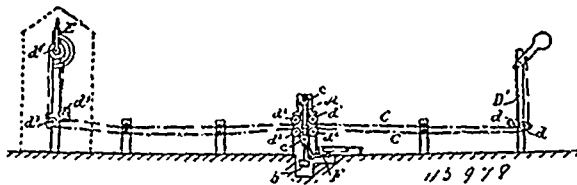
Samuel Irwin, Markdale, Ontario, Canada, 8th May, 1894; 6 years.

Claim.—1st. In a stove, the combination of the fire box A, the usual outlets to the chimney, and a supplemental flue G, substan-

tially as described. 2nd. In a stove, the combination of the fire-box A, a flue B, located between the oven top C and stove top D, a



flue E located at the back of the stove and in connection with the flue B, a flue F located between the oven bottom and the bottom of the stove in connection with the flue E, and a supplemental flue G opening at its upper end into the fire-box A and in connection at its lower end with the flue G and the outlet H to the chimney, substantially as described. 3rd. In a stove, the combination of the fire-box, a supplemental flue G entering the fire box and of irregular form, and an outlet H connected to the upper end of the supplemental flue G, substantially as described.

No. 45,978. Railway Signal. (Signal de chemin de fer.)

Robert Pfeil, Berlin, Germany, 8th May, 1894; 6 years.

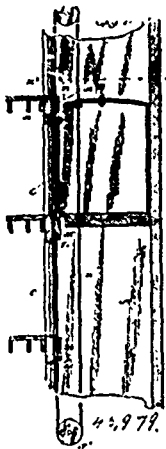
Claim.—1st. In a railway signal, the combination, with double-pull wires attached to the signaling device, of a weighted frame connected with said wires and arranged to relax one and simultaneously draw upon the other, and a locking device to retain said frame, and a rail contact for actuating the locking device, substantially as described. 2nd. In a railway signal, the combination with double-pull wires, a weighted frame connected with said wires to relax one and simultaneously draw upon the other, a locking device, and a rail contact for actuating said locking device, of means for holding the locking device away from the rail contact while the signal is at danger position, substantially as described. 3rd. In a railway signal, the combination, with double-pull wires, a weighted frame connected therewith, a locking device and a rail contact for actuating said locking device, of a retaining bar connected to one of the wires for holding the frame in elevated position, substantially as described. 4th. The vertically movable and weighted frame A provided with rollers at its end, in combination with the double-pull wires C, C, the rollers d^1 , d^1 and d^2 , d^2 , the locking lever F, f and the rail contact, substantially as described. 5th. The vertically movable frame A provided with a latch j, in combination with the double-pull wires, the locking lever, the rail contact and the bar H connected in the wire and formed with a notch or recess j^1 , substantially as described. 6th. The combination, with the weighted frame, and the double-wire pull, of a locking device, an electro-magnet for operating said locking device and electric circuit connected to said magnet and a rail contact, whereby passing trains will cause the energization of the magnet, substantially as described. 7th. In a railway signal, a locking lever and an electro-magnet for operating said lever, in combination with a weighted movable frame and a double-wire pull, arranged to be operated by said frame, substantially as described.

No. 45,979. Safety Device for Elevators.

(Appareil de sûreté pour élévateurs.)

Wellington P. Kidder, Boston, Massachusetts, U.S.A., 8th May, 1894; 6 years.

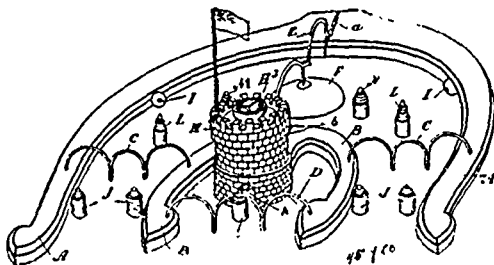
Claim.—1st. In an elevator and in combination with a slidable door and a controller therefor, a stop movable into the path of the door and simultaneously with the controller as said controller is moving to start the car, substantially as described. 2nd. In an elevator and in combination with the controller therefor, a stop connected to and moving with the controller, and a slidable door movable into the path of said stop, substantially as described. 3rd. The combination in an elevator having slidable well doors, and with the car operating devices and the controller therefor and said doors, of



a series of stops arranged to move vertically into the path of the slidable doors when the car is to be started and to stand over a door when said door is open, substantially as described. 4th. The combination in an elevator and with the car thereof, of doors in both the car and well openings, a rope connected with the operating devices, and stops moved by said rope for fastening the doors in both the car and well closed when the car starts, substantially as described. 5th. The combination in an elevator and with the car thereof, of doors opening into the well, a rope connected with the operating devices, and a series of stops moved by the rope and adapted to pass behind the edge of the doors when the car is started, substantially as described. 6th. The combination in an elevator and with the car thereof, of the door of the car and fixed stops secured to the well arranged to prevent the opening of the car door except when in line with the well doors, substantially as described. 7th. The combination in an elevator and with the car, the door thereof and the operating

rope, of a series of blocks L secured to said rope, arranged to pass behind the edge of the car door when the rope is moved to operate the car, substantially as described and shown. 8th. The combination in an elevator and with the operating rope and car thereof, of a series of blocks L connected to said operating rope, and a door for said car projecting from the body of the car and passing between two of the blocks when opened, whereby the rope is fastened in position while the door is open, substantially as described. 9th. The combination in an elevator and with a sliding door thereof, of a controller and a stop to move vertically with said controller, substantially as described.

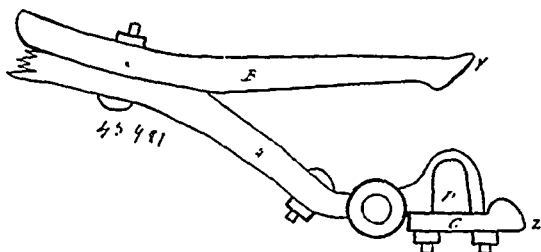
No. 45,980. Game Apparatus. (Appareil pour jeu.)



Charles F. Burtis, Toronto, Ontario, Canada, 8th May, 1894; 6 years.

Claim.—1st. The combination in the game apparatus with outside walls A, and inner walls B, arranged as specified, of the looped hoops or arches C and D, located at the open entrances of the walls, the gong F supported centrally between the rear of the inner wall and outer wall, the cushion I, and the turret H, situated within the inner walls and provided with an opening H², as and for the purpose specified. 2nd. In the game apparatus such as specified the turret H, provided with the spring plunger H¹, having a cup H² at the top and suitably supported and a projection h² at the bottom, of a pivoted arm H³, having the projection H² at the top designed to normally extend over the projection H², at the bottom of the spindle H¹, as and for the purpose specified.

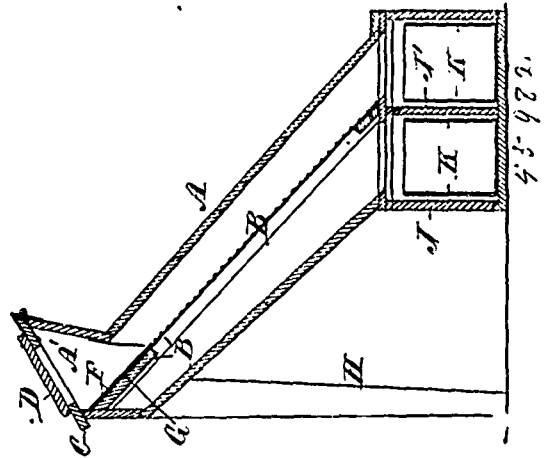
No. 45,981. Spring Bar Shaft Holder. (Ressort de tuteur de limonière.)



John Boyd, Neepawa, Manitoba, Canada, 9th May, 1894; 6 years.

Claim.—The spring bar B attached directly to the shaft and capable of holding the shaft in an upright position by a simple catch on the bar C at Z, substantially as and for the purpose hereinbefore set forth.

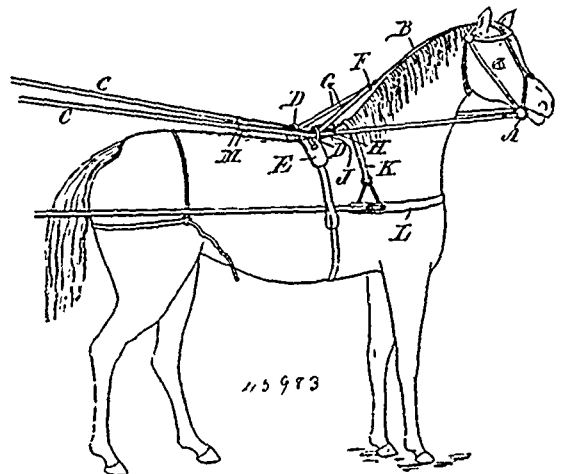
No. 45,982. Ash Sifter. (Tamis à cendre.)



Elijah W. Benjamin, Napance, Ontario, Canada, 9th May, 1894; 6 years.

Claim. An ash sifter, comprising an enclosed sloping chute A, having an upper end terminating vertically, and provided with a sloping cover C, the lower end terminating in a square box J, provided with a partition J¹, and door J², said chute having an internal sieve B, extending through said partition J¹, to the upper end of the chute, said sieve having an imperforated portion or floor F, and the chute with or without the apron E, and lid D, covering a hole in the cover C, as set forth.

No. 45,983. Harness. (Harnais.)



Thomas Munroe, New Glasgow, Nova Scotia, Canada, 9th May, 1894; 6 years.

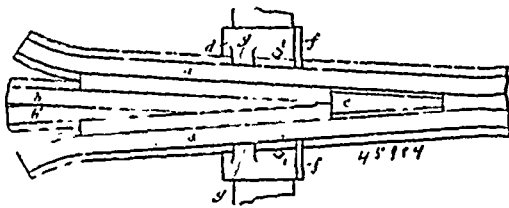
Claim.—1st. The overhead draw check B, connected to the driving reins C, by a strap G, substantially as set forth, for the purpose described. 2nd. The combination, with the check B, and driving reins C, of the swivel F, strap G threaded therethrough, and the buckle shaped friction grab M, connecting said strap to the driving reins, as set forth. 3rd. The friction grab M, having a tongue F, in combination with the check strap G, and the rein C, threaded between the ends, and the tongue closing upon said rein, as set forth. 4th. The combination, with the harness saddle E, and suspender strap K, on the strap J, having a check hook M, provided with an elevated cross-bar O, and threaded on said strap J, for adjustment of the check hook, as and for the purpose set forth.

No. 45,984. Railway Frog. (Rail de croisement.)

Walter Rowlands, Montreal, Quebec, Canada, 9th May, 1894; 6 years.

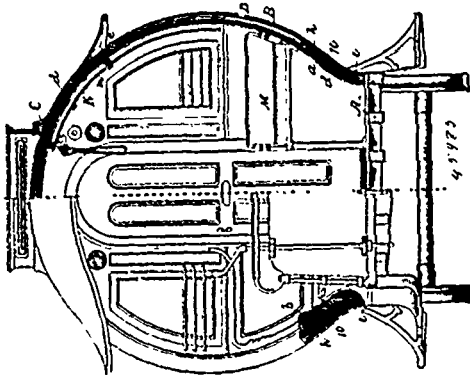
Claim.—1st. As a device for supporting and holding in place a railway frog, a combined integral tie plate, frog plate and frog clamp with means for retaining it in place. 2nd. As a device for supporting and holding in place a railway frog, a tie plate having a pair of integral flange clips struck up therefrom, and a pair of integral frog clamps standing at right angles to the plate, with means for retaining it in place. 3rd. As a device for supporting and holding in place a railway frog, a tie plate having a pair of integral flange clips struck up therefrom, a pair of integral frog clamps standing at right angles

to the plate, an extension of the plate between said clamps, and means for retaining the plate in place. 4th. In a railway frog, the combination with the wing-rails a a, point-rails b b', and inter-



mediate filling c or the like, of plate d, adapted to rest upon a tie and having an extension e at one side, a pair of integral flange clips g g, a pair of integral cutting clamps f f, and perforations to allow retaining spikes to be driven into the tie beneath.

No. 45,985. Street Railway Car. (Char de rue.)

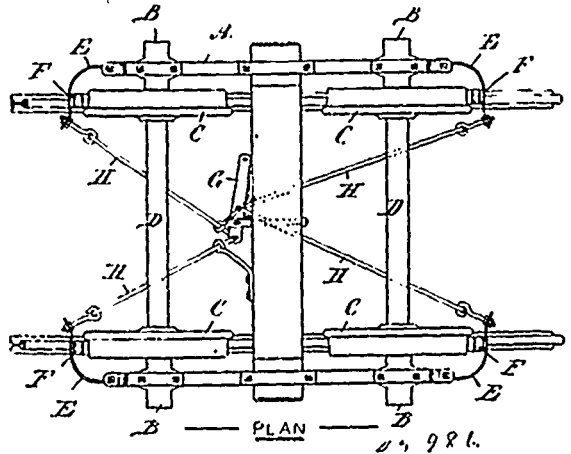


George Moore, Boston, Massachusetts, U.S.A., 9th May, 1894; 6 years.

Claim.—1st. In a railway car, the combination with the upright frames of circular form from near the floor on one side of the car to a corresponding point on the opposite side of the car, of movable side sections on the opposite sides of the car arranged to slide upon said upright frames and to partly pass each other and overlap when in their raised position under the roof of the car, substantially as described. 2nd. In a railway car, the combination with the upright frames or circular form from near the floor on one side of the car to a corresponding point on the other side thereof, of the rigid and inflexible side sections fitted at their edges to the said upright frames, having the same curvature as the said upright frames, and arranged to slide up and down between the latter, substantially as set forth. 3rd. In a street railway car, the combination with the circular upright frames provided with two concentric grooves of the movable side sections having the same curvature as the upright frames, said movable side sections being arranged to slide up and down between said upright frames in the concentric grooves therein in such manner that two opposite side sections forming a pair, will, when raised, overlap or slide past each other in the roof or upper portion of the car, substantially as set forth. 4th. In a street railway car, the combination with the circular upright frames provided on each side with two concentric grooves, of the movable side section containing the window sashes and having the same curvature as the upright frames, said movable side sections being arranged to slide up and down between said upright frames in the concentric grooves therein in such manner that two opposite side sections, forming a pair will, when raised, overlap or slide past each other in the roof or upper portion of the car, substantially as set forth. 5th. In a street railway car, the combination of the upright frames B, forming the sides and top of the car body, said frames being curved in the arc of a circle, and being provided with concentric grooves c, d, the movable side sections D, having a curvature corresponding to or concentric with said upright frames and arranged to slide between the same in said concentric grooves, and the two opposite side sections which form a pair, being adapted when raised to overlap or slide past each other in the roof or upper portion of the car, the window sashes G, sliding within and carried by said side sections, and the flexible portions 10, connected with and forming the bottoms of the movable side sections D, all constructed to operate substantially as described. 6th. In a street railway car, the combination of the upright frames B, forming the sides and top of the car body, said frames being curved in the arc of a circle and being provided with concentric grooves c, d, the movable side sections D, having a curvature corresponding to or concentric with said upright frames, and arranged to slide between the same in the said concentric grooves and the two opposite side sections which form a pair, being adapted when raised to overlap or slide past each other in the roof or upper portion of the car, the window sashed G sliding within and carried by said side sections,

the flexible portions 10, connected with and forming the bottoms of the movable side sections D, and the springs n, and drums L, the latter connected with the movable side sections, by cords or wires, substantially as and for the purpose set forth.

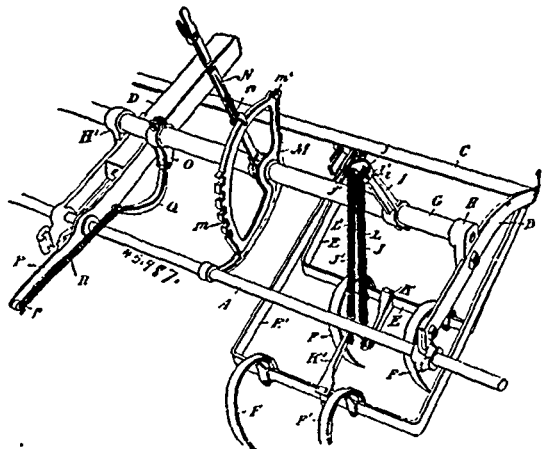
No. 45,986. Car Brake. (Frein de chars.)



Thomas John Baily and John Rowley, both of Ottawa, Ontario, Canada, 9th May, 1894; 6 years.

Claim.—1st. The combination with a car-truck frame A, of inwardly curved bars E, hinged or pivotally connected at one end to said frame near the outer ends, and the other end of said bars connected by pull-rods H, to a brake lever G, or other brake operating mechanism, said bars carrying a brake shoe F, to brake against the periphery of the wheels of the truck, as set forth. 2nd. In a car brake, the curved bars E, secured at one end to the truck or frame A, and crossing the face of the wheels, said bars carrying a brake shoe F, to brake against the face of the wheel and the other end of said bars E, connected to a brake operating mechanism, substantially as set forth. 3rd. The combination with a car-truck, of curved bars E, hinged at one end to said truck near the ends, and crossing the face of the wheels of the truck, and the other end of said bars E, connected by rods H, to a brake lever G, or other brake-operating mechanism, and brake shoes F, secured to said bars E, to brake against the periphery of the wheels when the brake power is applied, substantially as set forth.

No. 45,987. Cultivator. (Cultivateur.)

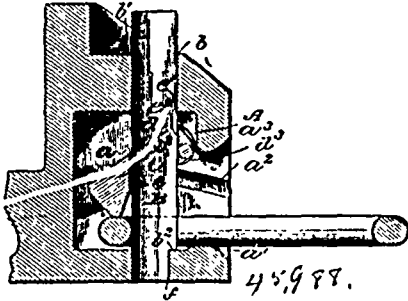


The Peter Hamilton Manufacturing Company, assignee of Andrew Johnston, all of Peterboro', Ontario, Canada, 9th May, 1894; 6 years.

Claim.—1st. The combination, with a series of independent sections or drag bars having teeth or hoes secured to their rear ends and pivotally supported on the front bar of the machine, and means for connecting the independent section or drag bars to arms pivotally supported on the frame, of an arm rigidly connected to the same pivotal support as the arms, connected to the independent sections or drag bars but extending in a different direction from the pivotal support, and a tension spring connection to such arm whereby the raising lever is relieved of the dead weight upon being operated to lift the independent sections or drag bars, as and for the purpose specified. 2nd. The combination, with the independent sections E, E', having secured to them the teeth F, F', and supported by the

rods J, J¹, upon the arms I, secured to the pivotal tube G, supported in the frame of the arm O, secured to the pivotal tube G, bent arm Q, and spiral spring R, and means for raising the sections simultaneously, as and for the purpose specified. 3rd. The combination, with the independent sections B, B¹, having secured to them the teeth F, F¹, and supported by the rods J, J¹, upon the arms I, secured to the pivotal tube G, supported in the frame of the arm O, secured to the pivotal tube G, bent arm Q, and spiral spring R, and the lever N, secured to the tube G¹, and designed to be brought into engagement with the notches of the quadrant M, suitably supported on the frame, as and for the purpose specified.

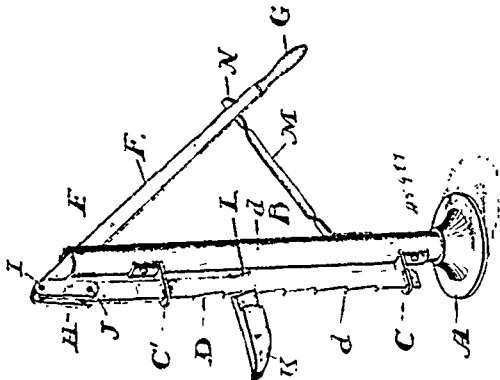
No. 45,988. Car Coupler. (Attelage de chars.)



James C. Rose and John F. MacMillan, both of Aspen, Colorado, U.S.A., 9th May, 1894; 6 years.

Claim.—1st. The herein described car coupling, comprising the chambered draw-head having an opening in its top, the gravity holder or support pivoted in said draw-head and having a central opening therein in a lowered widened end, and the coupling-pin normally held elevated by said holder, substantially as set forth. 2nd. The herein described improved car coupling, comprising the chambered draw-head having a U-shaped opening in its top, the gravity holder or support pivoted in said draw-head and having a central diagonal opening, and the coupling-pin of U-shape in cross section having a shoulder at its lower end normally in engagement with said gravity holder, substantially as set forth. 3rd. The herein described improved car coupling, comprising the chambered draw-head having an opening in its top and a ridge or shoulder extending across its bottom, the pin movable in said opening, and the pivoted gravity holder or support having a lower curved widened end designed to hold a link in a horizontal position ready for coupling, said holder or support permitting the automatic lowering of the coupling-pin upon entrance of the link into the draw-head, substantially as set forth. 4th. The chambered draw-head having slots or grooves in the side-walls, and the pin holder or support having reduced ends or trunnions fitting in said slots or grooves, whereby said support is capable of being removed from the draw-head, substantially as set forth. 5th. The combination with the chambered draw-head having its side walls provided with approximately J-shape slots or grooves extending from the outer end of the draw-head inwardly and terminating in rounded ends, and the holder or support for the coupling-pin having trunnions at its upper end designed to be inserted through said slots or grooves and rest in said rounded ends, substantially as set forth.

No. 45,989. Lifting Jack. (Cric)



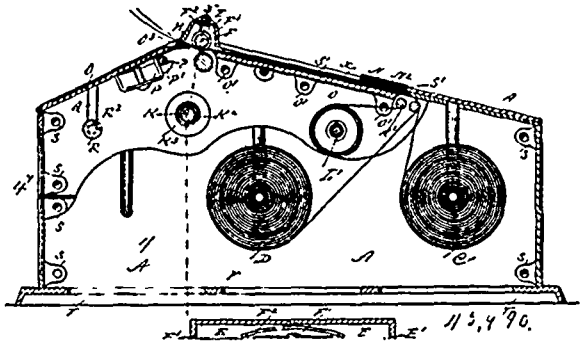
Charles La Vallée, Toronto, Ontario, Canada, 9th May, 1894; 6 years.

Claim.—1st. In a lifting jack, an adjustable lifting block in combination with a lifting bar pivotally attached to the end of a lever in such a manner as to be capable of vertical movement in a guide, a lever pivoted to the upper end of a standard and means for holding the short arm of the lever in a raised position, substantially as and for the purpose specified. 2nd. In a lifting jack, an adjustable lift-

ing block in combination with a notched lifting bar adapted to move in a guide or guides, a link pivotally connecting the upper end of the lifting bar with the short arm of a lever, a lever pivoted on the end of a standard fixed in a base plate, a holder attached to the standard, and adapted to keep the short arm of the lever in a raised position, substantially as and for the purpose specified. 3rd. In a lifting jack, a spring holder attached to the standard, and so formed as to permit of lateral spring, and provided with a notched head in combination with a lever pivoted on a standard, a notched lifting bar, a link pivotally connecting the notched lifting bar with the lever, a guide for the lifting bar and an adjustable lifting block, substantially as and for the purpose specified. 4th. In a lifting jack, a lifting bar pivotally connected with the end of a lever journalled on a standard and adapted to move vertically, in combination with an adjustable lifting block provided with a slot to engage with the lifting bar, the slot being of such length as to permit of a slight tilting motion to the lifting block so as to grip the lifting bar at the diagonal or opposite corners of the slot when a weight is applied to the lifting block, substantially as and for the purpose specified. 5th. In a lifting jack, an adjustable lifting block provided with a curved seat for the axle and with a slot of sufficient length to admit of a tilting motion, in combination with a lifting bar, adapted to move vertically in a guide or guides attached to the standard, a link pivotally connecting the lifting bar with a lever journalled on a standard, and a spring holder attached to the standard and provided with a notched head, and a base plate for the standard, substantially as and for the purpose specified.

No. 45,990. Autographic Register.

(Registre autographique.)

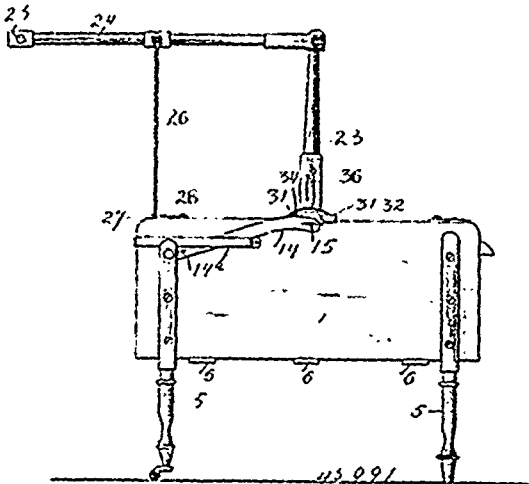


David T. Baxter, Hamilton, Ontario, Canada, 9th May, 1894; 6 years.

Claim.—1st. In an autographic register, the combination of a summary strip, and means for producing greater movement in the check and sales than in the summary strip, whereby the figures on the summary strip may be close together, substantially as described. 2nd. In an autographic register, the combination with the check and sales strips and their feed rollers, of a handle for rotating the feed roller, and differential gear between the handle and rollers, whereby a slight rotation of the handle may produce greater rotation of the rollers, as and for the purpose described. 3rd. In an autographic register, the combination with the check and sales strips and their feed rollers, of a summary strip and roller, a handle for rotating said summary roller and differential gear between said handle and the check and sales strip feed rollers, whereby greater movement is effected in the check and sales strips than in the summary strip by the same movement of the handle, substantially as described. 4th. In an autographic register, the sides t¹, t², each having the hinged upper part r², the check and sales strip rolls carried in the lower part of said sides, and the feeding mechanism and manifold strips carried in the upper hinged part of said sides, and means for locking the parts together, substantially as described. 5th. In an autographic register, the combination with the check and sales slip and interposed manifold paper, of means, substantially as set forth, for preventing marks on the check and sales slips from being transferred to the summary strip except within a predetermined area, substantially as described. 6th. In an autographic register, the combination with the check and sales and summary strips and intermediate manifold paper and with the plate against which impressions are made, the top plate having the opening through which the strips are exposed, and the summary guide plate having a slot adjustably secured to said top plate, substantially as described. 7th. In an autographic register, the combination with the check and sales strip rollers, of the sides t¹, t², presenting vertical bearing recesses r¹, substantially as described. 8th. In an autographic register, the combination with the check and sales strip rollers, of sides t¹, t², presenting in their lower parts vertical bearing recesses, and having the hinged upper part r² serving to close said bearing recesses to prevent the withdrawal of the rollers having their bearings therein, substantially as described. 9th. In an autographic register, the combination with the sides t¹, t², having the upper sections r², hinged, as at p¹, said upper sections carrying the feed mechanism for the strips, of a hinged cover

plate B, having the projecting ears n^1 , and the hinged cover plate O, provided with a lock and having the projecting overlapping ears O^2 , substantially as and for the purpose described. 10th. In an autographic register, the combination with the check and sales strip rolls and the sides l^1, l^2 , carrying the same, of the feed roller I, carried by said sides, and the co-acting feed roller F, carried by the hinged cover-plate B, and means for rotating said rollers, whereby the check and sales strips may be interposed between the rollers by separating the latter to give free access to the strips, and engaged by said rollers by the act of closing the case, substantially as described. 11th. In an autographic register, the combination with the check and sales strip feed roller J, carried by the side walls of the case, and means for rotating said roller, of a spring controlled co-acting feed roller F, carried by the hinged cover of the case, substantially as and for the purpose described. 12th. In an autographic register, the combination with the feed roller I, having the bevel gear, of the gear-wheel H, meshing with said bevel gear, and having teeth in number greater than the teeth on the bevel gear, a summary roll on the shaft of said gear-wheel, and means for rotating said gear-wheel, whereby a small amount of the summary strip is fed forward with a large amount of check and sales strip, substantially as described. 13th. In an autographic register, the combination with the summary roll shaft L, and summary receiving roller K, and means for rotating the latter, the plate O, guide rollers adjacent to said plate, and a slip of manifold paper cut away so as to cover only a limited section of the summary strip, and check and sales strips with interposed manifold paper superimposed upon said manifold slip, substantially as and for the purpose set forth. 14th. In an autographic register, the combination with the check and sales strips and interposed manifold paper and with plate o, of a summary strip roll carrying shaft, a summary strip extending from said shaft to said roller over the plate o, a slip of manifold paper between said summary strip and the adjacent check strip, said slip of manifold paper presenting a writing face against said summary strip reduced in area, a hinged plate B, presenting the opening B^2 , and the adjustable plate N, having the slot N^2 , the slot in said plate being caused to coincide with the writing surface of the manifold slip imposed upon the summary strip, substantially as described. 15th. In an autographic register, the combination with the check and sales strips and the summary strip and their rollers, of the feed roller I, and its companion feed roller, the bevel gear on said feed roller I, the gear-wheel meshing with said bevel gear and carrying the shaft of the summary roller, and the removable roller R, having a handle R^1 , and adapted to receive the check strip, substantially as described. 16th. In combination with an autographic register, the hinged lid O, carrying the lock P, P^1 , and transverse rod P^2 , substantially as and for the purpose described. 17th. In an autographic register, the combination of the summary roll receiving roller K, having a bearing at one end in the wall of the case, and having at its opposite end a clutch member, the shaft H^1 , carrying the gear-wheel H, and having at one end a clutch member for coupling with the shaft K, the sleeve K^1 , and spring K^2 , all as and for the purpose described.

No. 45,991. Washing Machine. (Machine à laver.)

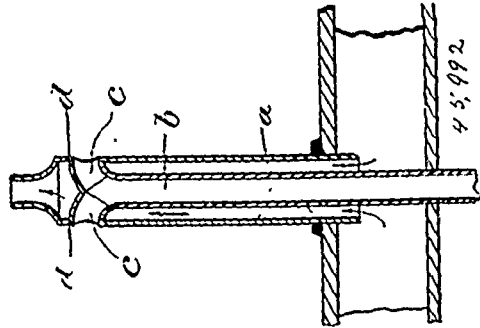


John Dilley, jr., Muir, Michigan, U.S.A., 9th May, 1894; 6 years.

Claim. - 1st. In a washing machine, the combination with a suds box having transverse bars at each end near the upper part thereof, of the removable rubbing board consisting of a series of transverse bars provided with apertures through which pass flexible metallic rods secured to the end bars of said series, and the coiled springs interposed between said end bars and the next adjoining bars, substantially as described. 2nd. In a washing machine, the combination with the suds-box, the rubber consisting of the sides having slots therein, the transverse bars and the slotted bars secured to said

sides, of the slotted arms pivoted to the suds-box, the rod carried by said arms, passing through said slots, the bearings for said bar, the bifurcated lever, the cross-bars secured to said lever having their ends secured to the slotted bars secured to the sides of the rubber, the springs secured to said rod and lever, the horizontal lever pivoted to said lever having the downwardly depending rods pivoted intermediate its ends, and the lower ends of said depending rods journalled in bearings in the end of the suds-box, substantially as described.

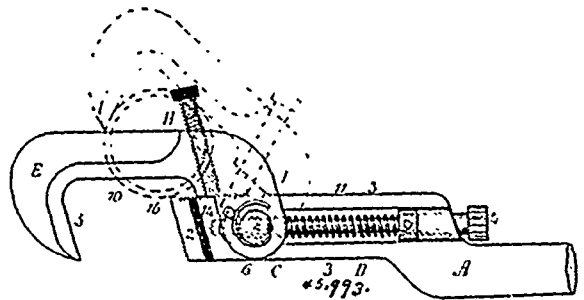
No. 45,992. Ventilator. (Ventilateur.)



James E. H. Paddon, Montreal, Quebec, Canada, 9th May, 1894; 6 years.

Claim. - 1st. The combination with a soil-pipe ventilator, of an enclosing pipe or conductor having one or more openings with which said soil-pipe communicates, for the purpose set forth. 2nd. The combination with a soil-pipe ventilator, of an enclosing pipe or conductor having one or more openings in its sides with which said soil-pipe ventilator communicates, for the purpose set forth. 3rd. The combination with a soil-pipe ventilator having branching ends, of an enclosing pipe or conductor having openings in its side with which the branching ends of said soil-pipe ventilator communicate for the purpose set forth. 4th. The combination with a soil-pipe ventilator, of an enclosing pipe or conductor with its lower end communicating with the interior of the building at a point below the roof thereof, and having one or more openings in its sides with which said soil pipe ventilator communicates, for the purpose set forth. 5th. The combination with soil-pipe ventilator b , having branches c, c , of the enclosing pipe or conductor a , having openings d , with which said branches c, c communicate, for the purpose set forth.

No. 45,993. Pipe Wrench. (Clé à tuyaux.)

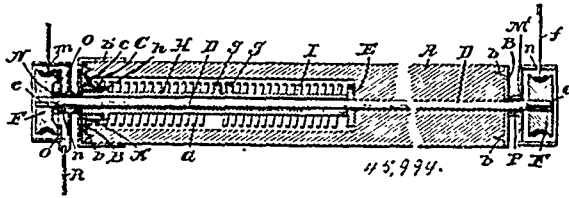


Charles Hall, New York, State of New York, U.S.A., 9th May, 1894; 6 years.

Claim. - 1st. The combination with a handle lever having a jaw at its end and slotted longitudinally, of an adjusting screw within the slot, a swinging hook-shaped jaw having a pivot pin passing through such jaw near one end and through the slot of the handle lever, the adjusting screw passing through the pivot pin, and such pivot pin forming a nut to the screw for adjusting the parts, substantially as set forth. 2nd. The combination with a handle lever having an acute angled end forming at the edge a chisel-shaped jaw one side of the jaw being parallel to the side of the handle bar lever and off-set from the same when the parts are in contact, a pivot pin for the swinging jaw passing through the same near one end and through the slot in the handle bar lever, and a screw passing through such pivot pin for adjusting the parts, substantially as set forth. 3rd. The combination in a wrench, of a handle bar lever having an acute angled jaw at the end thereof, a swinging hook-shaped jaw, a pivot pin passing through one end of the swinging jaw, a screw for adjusting the same, and a screw passing through the swinging jaw and forming a stop to determine the relative position of the swinging jaw to the handle lever, substantially as set forth. 4th. The combination in a wrench, of a handle bar lever having a jaw at the end thereof, a hook-shaped jaw, a pivot pin upon which the hook-shaped jaw swings, a screw for adjusting the pivot pin longitudinally

ally of the handle bar lever, and a spring for swinging the hook-shaped jaw towards the handle bar lever, substantially as set forth. 5th. The combination in a wrench, of a handle bar lever having an acute angled jaw at the end thereof, a swinging hook-shaped jaw, the inner surface of the hook being parallel with the acute angled jaw on the handle bar when the swinging jaw stops against the handle bar, and a screw for adjusting the hook-shaped jaw, substantially as set forth. 6th. The combination in a wrench, of a handle bar lever having an acute angled jaw at the end thereof, a swinging hook-shaped jaw, the inner surface of the hook being parallel with the acute angled jaw on the handle bar when the swinging jaw stops against the handle bar, and a screw for adjusting the hook-shaped jaw, and a spring for swinging the hook-shaped jaw towards the handle bar jaw, substantially as set forth. 7th. The combination in a wrench with the swinging jaw and the handle bar lever slotted longitudinally of the adjusting screw acting on the swinging jaw, and a removable bearing for the screw at the end of the slot, substantially as specified.

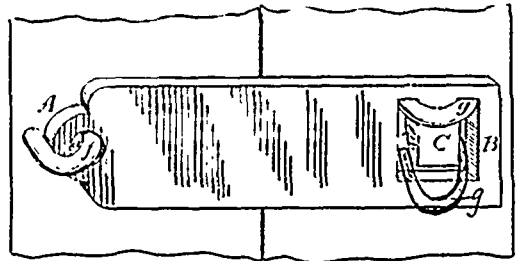
No. 45,904. Curtain Fixture. (Suspension de rideau.)



Irvin Williams and Dennis Koenig, both of Nelson, Missouri, U.S.A., 9th May, 1894; 6 years.

Claim.—1st. In a curtain fixture, the combination of a hollow shade roller provided with an ordinary roller spring and arresting pawls, a longitudinal winding shaft extending through the roller, winding wheels or pulleys attached to the extremities of the shaft beyond the roller ends, the hanging cords or tapes, a separate and independent roller lifting spring arranged within the roller and connected with the shaft extending therethrough, and a suitable check attached to one of the winding wheels for checking the rotation of the shaft, substantially as set forth. 2nd. In a curtain fixture, an ordinary spring actuated shade roller, a shade arranged longitudinally in the roller and having winding wheels or pulleys at its extremities, a shaft sleeve located at one end of the roller and loosely embracing the shaft and provided with separate pawl notches in its outer end, the roller lifting spring arranged within one end of the roller and connected to said sleeve and to the shaft, the hanging cords or tapes, and the pawls affixed at one end of the shade roller and to one of the wheels or pulleys, said pawls being adapted to engage the notches in said shaft sleeve to check the roller and also the shade thereof, substantially as set forth. 3rd. In a curtain fixture, a hollow shade roller carrying a curtain shade, bearing discs attached to opposite ends of the roller and one of which is provided with an inwardly extending bearing neck, a longitudinal shaft having winding wheels at its extremities, a non-rotative shaft sleeve located within one end of the roller and having a shoulder working against the inner end of said neck, a cylindrical wheel cap enclosing one of the winding wheels, and pawl notches at both sides of said cap, a duplicate non-rotative cylindrical wheel cap loosely mounted on the other end of the shaft, the curtain spring connected to one end of the roller and to said shaft sleeve, a stronger lifting spring attached to said shaft sleeve and to the shaft, pawls pivoted to one of the end bearing discs of the roller and to one of said winding wheels, and adapted to engage the pawl notches in said shaft sleeve, and suitable guides for the fixture, substantially as set forth. 4th. In a curtain fixture, an ordinary spring actuated shade roller, a shaft arranged longitudinally in the roller and having winding wheels at its extremities, non-rotative wheel caps enclosing said winding wheels and provided at one side with a guide tube, suitably arranged check devices, the hanging cords or tapes, the pull cord attached at one end to one of said cylindrical wheel caps, and the opposite stationary slide rods loosely receiving said guide tubes, substantially as set forth. 5th. In a curtain fixture, the combination with the hollow shade roller, of a shaft arranged longitudinally in the roller, winding wheels or pulleys attached to the extremities of the shaft, a spring arranged within the roller and connected to the shaft, a non-rotative shaft sleeve located in one end of the roller and having a cylindrical wheel cap enclosing one of the winding wheels, and pawl notches at both sides of said cap, a duplicate non-rotative wheel cap loosely mounted on the other end of the shaft, the hanging tapes, pawls pivoted to one end of the roller and to one of said winding wheels, and adapted to engage the pawl notches at both sides of the sleeve wheel cap, and suitable guides for the fixture, substantially as set forth.

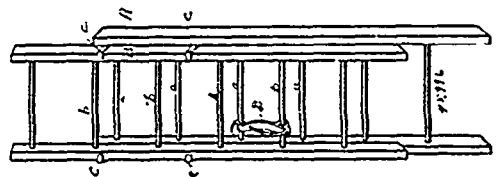
No. 45,995. Hasp. (Moraillon.)



Thomas Mounce, assigne of Peter McEachern, both of Toronto, Ontario, Canada, 9th May, 1894; 6 years.

Claim.—The mode of securing the hasp in the staple by means of the tongue C, formed as above described entering the staple g.

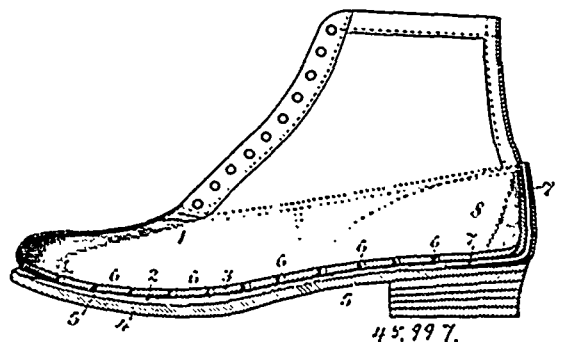
No. 45,996. Extension Ladder. (Echelle à rallonge.)



Albert M. Feurgason, Millford, New York, U.S.A., 9th May, 1894; 6 years.

Claim.—1st. The combination, with an extension ladder composed of upper and lower sections, of a device adapted for automatically engaging and locking the sections together and an automatically operating auxiliary or safety latch, as specified. 2nd. The combination, with an extension ladder composed of upper and lower sections, of a locking device carried by the upper section and normally engaging the rungs of the lower section, and an auxiliary or safety latch pivotally secured on the locking device, said latch being provided with a trip lever or pawl which is adapted for throwing the locking device in or out of alignment with the rungs of the lower section, as specified. 3rd. The combination, with an extension ladder composed of upper and lower sections, of a locking device adapted for automatically locking the sections together, and an auxiliary or safety latch provided with terminal engaging prongs, as specified. 4th. The combination, with an extension ladder composed of upper and lower sections, of a locking device carried by the upper and lower sections, of a locking device carried by the upper section, suitable steps for limiting the movement of the locking device, and an auxiliary or safety latch pivotally secured on the locking device and provided with a trip lever and a terminal engaging hook having double and oppositely curved prongs, as specified.

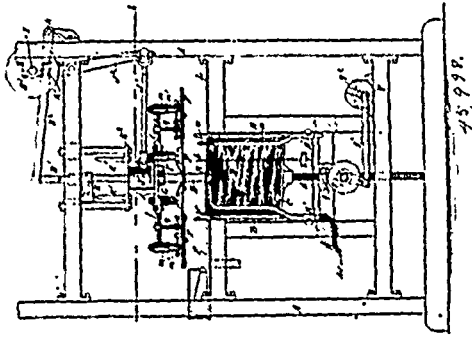
No. 45,997. Boot and Shoe. (Chaussure.)



Stephen Windsor, Tottenham, Ontario, Canada, 10th May, 1894; 6 years.

Claim. In boots and shoes, as an improved means of ventilation, the channel formed between the inner and outer soles, the holes at intervals through said inner sole and above said channel and a tube connecting with and continuing the passage for air through said channel and up the heel quarter, said tube extending upward and terminating in rear of said heel-quarter, substantially as set forth.

No. 45,998. Paper Feeder. (Alimentateur de papier.)



Henry Eyster Smyser, Germantown, Pennsylvania, U.S.A., 10th May, 1894; 6 years.

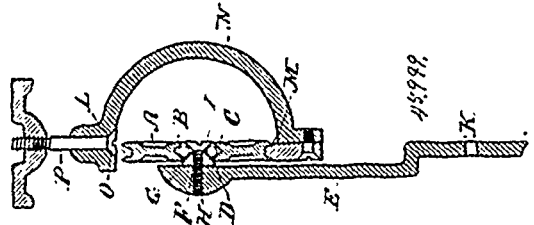
Claim.—1st. In a paper feeder, the combination, with a table for holding a pile of paper, of a lifter movable downward against the pile and upward to deliver the lifted sheet, consisting of a plate standing normally in a plane inclined relatively to the top of the pile, so that in descending it strikes the pile of paper first at one edge, and mounted to oscillate to bring it into parallel contact with the paper, whereby in ascending it lifts one edge of the sheet in advance. 2nd. In a feeder, the combination, with a table for holding a pile of paper, of a lifter and its carrier movable downward against the pile and upward to deliver the lifted sheet, the lifter consisting of a plate jointed relatively to its carrier and standing normally in a plane inclined relatively to the top of the pile, whereby on descending it strikes the paper obliquely exerting a rubbing action against it, and in ascending it lifts one edge of the sheet in advance. 3rd. In a paper feeder, the combination, with a table for holding a pile of paper, of a lifter and its carrier movable downward against the pile and upward to deliver the lifted sheet, the lifter consisting of a plate jointed relatively to its carrier and having a spring acting to press downward its following edge, and a stop for limiting its depression arranged to cause the plate to stand normally in a plane inclined relatively to the top of the pile, whereby on descending it strikes the paper obliquely, its following edge first encountering it and the plate rocking against the yielding tension of said spring until its advancing edge encounters the paper, thereby exerting a backwardly rubbing action against the top sheet of the pile tending to disengage it from the sheets beneath. 4th. In a paper feeder, the combination, with a table for holding a pile of paper, of a lifter and its carrier movable downward against the pile and upward to deliver the lifted sheet, the lifter consisting of a plate jointed relatively to its carrier and standing normally in a plane inclined relatively to the top of the pile, so that in descending its following edges shall first encounter the paper, and formed at this edge with a tail projection adapted to indent the pile and thereby facilitate the separation of the top sheet from those beneath. 5th. In a paper feeder, the combination of a travelling lifter and its carrier, means for applying paste to said lifter, and the lifter constructed to oscillate relatively to its carrier and normally inclined relatively to the top of the pile, whereby on descending it strikes the paper obliquely and exerts a rubbing action against it, whereby the adhesion of the top sheet of paper to its pasted surface is facilitated. 6th. In a feed paper, the combination, with a table for holding a pile of paper, mounted on an incline so that the top sheet of the pile shall be presented at an inclination, of a lifter and its carrier movable downward against the pile, the lifter consisting of a plate jointed to its carrier standing normally in a plane out of parallel with the top of the pile, with its advancing edge adapted to encounter the lowermost side of the inclined top of the pile, whereby in advancing its following edge first encounters the pile and the plate executes a tilting movement to bring it into parallel contact with the top sheet. 7th. In a paper feeder, the combination, with a carrier G, of a lifter F consisting of a tilting plate pivoted to cross bar p¹, a spring reacting against the cross-bar and pressing downward against one side of the plate, and a vertically yielding connection between the cross-bar and the carrier.

No. 45,999. Travelling Hanger for Doors, &c. (Ferrure de porte glissante.)

James T. McCabe, Toronto, Ontario, Canada, 10th May, 1891; 6 years.

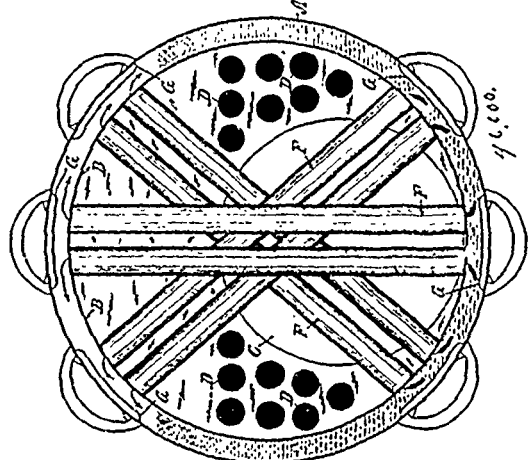
Claim.—1st. A door hanger comprised of a hanger strap having a ball bearing, a traveller having a ball bearing and balls running upon said bearings, arranged to permit of the traveller revolving independently of the hanger strap, and means for uniting together the several parts, substantially as specified. 2nd. In a door hanger, the combination of a hanger strap provided with a ball bearing, a traveller having a ball bearing, balls running upon said bearings, means for adjusting the bearings to fit the balls, and means for uniting together the several parts, substantially as specified. 3rd. In a door hanger, the combination of a hanger strap, an annular

bearing within the upper end of the hanger strap, bearing cases located one on each side of the upper end of the hanger strap, each of said bearing cases provided with bearings, balls running upon



said bearings, and means for revolvably uniting the bearing cases to the hanger strap, substantially as specified. 4th. In a door hanger, the combination of a hanger strap, annular bearings formed in the upper end of the hanger strap and one on each side thereof, two bearing cases located one on either side of the hanger strap, each of said bearing cases having a bearing surface corresponding to and juxtaposition with its corresponding bearing surface in the hanger strap, a pin passing through and revolvably uniting the bearing cases to the hanger strap and balls working upon said bearings, substantially as specified. 5th. In a door hanger, the combination of a hanger strap, an annular bearing formed in the upper end of the hanger strap, a pin passing through the bearing in the hanger strap, bearings adjustably fitted on the pin, a traveller mounted upon said pin on each side of the hanger strap, and balls working on the said bearing surfaces, substantially as specified.

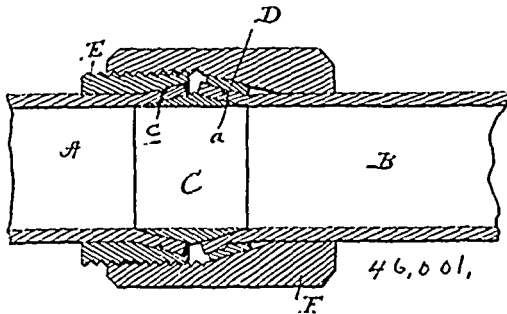
No. 46,000. Steam Boiler. (Chaudière à vapeur.)



Henry B. White, London, Ontario, Canada, 10th May, 1894; 6 years.

Claim.—1st. In a steam boiler, a top plate or crown sheet B, situated above the water line, in combination with the tubes F, F, substantially as and for the purpose set forth. 2nd. In a steam boiler, a top plate or crown sheet B, situated above the water line, in combination with the tubes F, F, for discharging water above the water line, and on to and over said top plate or crown sheet, substantially as and for the purpose set forth. 3rd. In a steam boiler, a top plate or crown sheet B, in combination with the tubes F, F, the upper ends of said tubes and said top plate or crown sheet being above the water line, substantially as and for the purpose set forth. 4th. The application to a smoke box or combustion chamber, of a steam boiler, of the tubes F, F, in combination with a top plate or crown sheet situated above the water line, substantially as and for the purpose set forth. 5th. The application to a smoke box or combustion chamber, of a steam boiler, of the tubes F, F, in combination with and beyond part or all of the flues D, D, and a top plate or crown sheet at or below the water line, substantially as and for the purpose set forth. 6th. The application to a smoke box or combustion chamber, of a steam boiler, of the tubes F, F, in combination with and beyond part or all of the tubes D, D, and a top plate or crown sheet above the water line, substantially as and for the purpose set forth. 7th. A steam boiler provided with the tubes F, F, in the smoke box or combustion chamber, in combination with a top plate or crown sheet situated above the water line, and the flues C, and D, D, substantially as and for the purpose set forth. 8th. A steam boiler provided with the tubes F, F, in a smoke box or combustion chamber, in combination with the hand holes G, substantially as and for the purpose set forth. 9th. A steam boiler provided with the tubes F, F, in the smoke box or combustion chamber, in combination with a top plate or crown sheet situated above the water line, the flues C, and D, D, and the hand holes G, substantially as and for the purpose set forth.

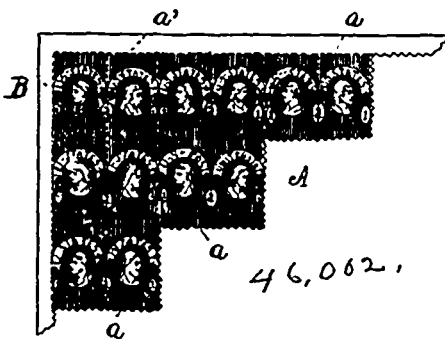
No. 46,001. Pipe and Hose Coupling.
(*Joint de tuyau et boyau.*)



William G. Trethewey, and Robert H. Brett, both of Mission City, British Columbia, Canada, 10th May, 1894; 6 years.

Claim. 1st. The combination with two sections of a hose or pipe, of the double conical internal ring, the ring or annulus D, having the ribs or projections on its inner side, the nut or annulus E, flared at one end, and having ribs or projections on its inner side and threads on its outer side, and the union or coupling thimble reduced and plain at one end, and increased in diameter and internally-threaded at the opposite end, and also having the inclined intermediate portion, the whole adapted to operate, substantially as specified. 2nd. In a pipe-coupling, the combination with the iron pipe section having the external thread at one end, and the hose or lead pipe section having its adjacent end flared, of the conical ring placed in the flared end of said section, the flaring ring D, provided with the ribs or projections on its inner side, and adapted to be placed over the flared end of the pipe or hose, the ring E, threaded internally and externally respectively, and the coupling thimble arranged over the ends of both sections and having the internal threads to operate, substantially as specified.

No. 46,002. Postage Stamp. (*Timbre-poste.*)



George M. Bright, Abingdon, Virginia, U.S.A., 10th May, 1894; 6 years.

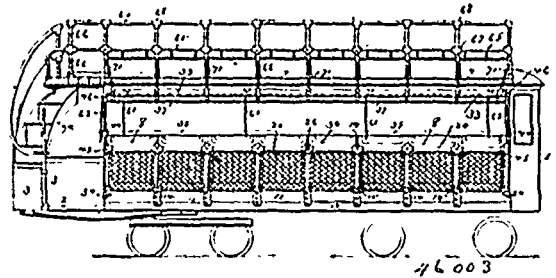
Claim.—1st. A divisible postage stamp of prescribed valuation, shape and design, divisible and separable into two independent sub-stamps of independent design, each equal in value to one-half of the whole or unit stamp, as set forth. 2nd. A divisible unit stamp for revenue purposes of approved material, shape, design and valuation centrally divisible by spaced perforations into two independent sub-stamps, each sub-stamp being equal in valuation of the unit stamp, having a valuation mark, symbol or figure so arranged that a fragment of said mark, symbol or figure will remain on each division or sub-stamp when the unit stamp is divided, as set forth. 3rd. A divisible postage stamp comprising a sheet of paper of prescribed size provided with an approved design, and rendered centrally divisible into two equal portions by a series of spaced perforations, and a valuation mark or figure upon said sheet intermediate the two portions, so that when the unit stamp is divided a fragment of said valuation mark or figure will be on each portion, substantially as specified.

No. 46,003. Car for Street Railways.
(*Char de rue.*)

John A. Brill and George Martin Brill, both of Philadelphia, Pennsylvania, U.S.A., 10th May, 1894; 6 years.

Claim. 1st. The combination with a car body, having an opening extending between the platforms thereof, and a side section adapted to be detachably secured to the car to completely close said opening, substantially as described. 2nd. The combination, with a car body having an open side, of a side section, co-extensive with said open side, adapted to be detachably secured to the car to completely close said side, substantially as described. 3rd. The combination in a car having an opening extending between the plat-

form thereof, stanchions extending between the top and bottom of said opening, and a detachable side section adapted to entirely close said opening, substantially as described. 4th. The combina-

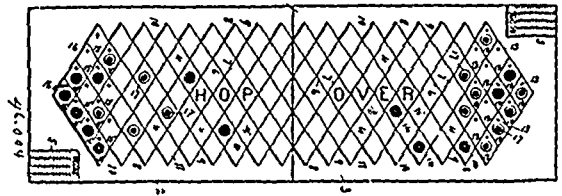


tion, with a car body having an open side, of stanchions extending between the top and bottom of said opening and a side section co-extensive with said open side, adapted to be detachably secured to the car and to the stanchions on the inner side of the stanchions to close said opening, substantially as described. 5th. The combination in a car, having an opening in the side thereof extending between the platforms, and a detachably secured side section completely closing said opening, said side section containing windows and panel work, substantially as described. 6th. The combination with a car body having an open side, of a side section containing the windows and panel work for said side, co-extensive with said open side, adapted to be detachably secured to the car to completely close said side, substantially as described. 7th. The combination with a car having an opening in its side extending between the platforms at both ends thereof, and above the line of the seats within the car, and a detachable side section adapted to be secured to the side of the car to close said opening, which side section is made to simulate a permanent side of a car, substantially as described. 8th. In a car having an open side, a rail secured adjacent to the lower edge, and cross-bars adjacent to the upper edge, and a side section adapted to engage the rail, and to be detachably secured to the cross-bars, substantially as described. 9th. In a car having an open side, stanchions extending between the top and bottom of said opening, cross-bars secured to the stanchions adjacent to the top, and a rail located adjacent to the lower edge of said opening, and a side section adapted to engage the rail and be detachably secured to the cross-bars, substantially as described. 10th. In a car having an open side, a rail secured adjacent to the lower edge, and cross-bars adjacent to the upper edge, and a side section having a rabbeted edge for engaging the rail, and detachably secured to the cross-bars, substantially as described. 11th. In a car having an open side, stanchions extending between the top and bottom of said opening, cross-bars secured to the stanchions adjacent to the top, and a rail located adjacent to the lower edge of said opening, and a side section having a rabbeted edge for engaging the rail and detachably secured to the cross-bars, substantially as described. 12th. The combination with an open-sided car of an independent side section and means for detachably securing said section to the car side to close said opening, substantially as described. 13th. The combination, with a car body having an opening in its side, of a side section, co-extensive with said opening, and means for detachably securing the side section to the side from within the car, substantially as described. 14th. The combination, with an open-sided car, of an independent side section, and means for detachably securing said section to the car side to close said opening, said means being located adjacent to the top and bottom of said side section, substantially as described. 15th. The combination, with an open sided car, of an independent side section, and means for detachably securing said section to the car side to close said opening, said means being located intermediate of the top and bottom of said section, substantially as described. 16th. The combination of the winged brackets 17, cross-bars 22 secured to wings of the brackets, a rail 21 secured to the longitudinal plank 11, and the independent side section 8 having the rabbet 24 for engagement with the rail, and means for securing the side section to the cross-bars, substantially as described. 17th. The combinations of the stanchions 10, cross-bars 22 detachably supported by the stanchions, a rail 21 secured to the longitudinal plank 11, and the independent side section 8 having the rabbet 24 for engagement with the rail, and means for securing the side section to the cross-bars, substantially as described. 18th. The combination, with the stanchion 10, rail 21, and cross-bars 22, of the independent side section adapted to engage the rail, a bolt or staple for securing the side section to the stanchion, and screws or bolts for securing it to the cross-bars, substantially as described. 19th. The combination, with an open sided car, of the side section 8 having integral windows 30, and means for detachably securing said section to the car side to close the opening therein, substantially as described. 20th. The combination, with an open sided car, of the side section 8 having integral windows, 30 and panels 31, and means for detachably securing said section to the car side to close the opening therein, substantially as described. 21st. The letter or face board 32 of a car having the brackets 34 secured thereto, and an inclined drip board 33 secured to said brackets, substantially as described. 22nd. The combination of a roof railing, obliquely dis-

posed braces secured thereto and supported at their lower ends outside of said railing, substantially as described. 23rd. The combination of the roof railing, a drip-board extending out beyond the side of the car, and braces secured to the drip board and to the railing, substantially as described. 24th. The combination of the roof railing, a drip-board extending out beyond the side of the car, and braces for the railing obliquely disposed between the railing and drip-board, substantially as described. 25th. The combination, with the uprights 66, and longitudinals 65, of the inclined drip-board 33 secured to the car below the railing by the brackets 34, and a brace 71 extending between the uprights and drip-board, substantially as described. 26th. A car having an open side between its ends, and a curtain continuous with the opening adapted to be raised or lowered uniformly throughout to open or close said opening, substantially as described. 27th. A car having an open side between its ends, and a curtain continuous with the opening, and a drip-board secured to the car above the curtain and covering it, substantially as described. 28th. The combination, in a car, of a rail on the upper platform thereof, a drip-board at the side of the car, brackets supporting said drip-board and braces extending between the rail and the drip-board, substantially as described. 29th. A car having an open side between its ends, side stanchions, a curtain without the stanchions for temporarily closing said opening, and a side section detachably secured within the stanchions for permanently closing said opening, both curtain and section being co-extensive with said open side of the car, substantially as described. 30th. The combination of the curtain 35 attached to the car at one end and to the curtain pole 39 at the other, the hubs 40 on the pole, the upright side posts 45, collars 44 adapted to move on the posts, and spindles 43 extending from the collars and upon which the pole and hubs revolve, substantially as described. 31st. The combination of the upper and lower curtain side post brackets 45, 54, the bracket 46 having an extended socket, with the side posts 45, adapted to engage both sockets, and shorter than the maximum distance between the supporting and engaging points therefor, substantially as described. 32nd. The combination of the upper and lower recessed brackets, and the side posts 45 shorter than the distance between the recesses and thereby detachable from the brackets, substantially as described. 33rd. The combination with the curtain pole 39, side posts 45, collars 44 engaging the side posts and curtain pole, a series of ropes 61 secured to the car by the studs 60 and passing round the curtain pole, and the main rope 62 to which each of the ropes 61 is secured, and pulleys 59 supporting the rope 62, substantially as described. 34th. The combination with the car having a series of hooks or grommets 36, a curtain 35 the upper edge of which is apertured to pass over the hooks, and a tie rope or bar 37 rove through which the hooks outside of the curtain, substantially as described. 35th. The curtain side post bracket having a socket for the curtain post and an eye for the curtain rope, substantially as described. 36th. The combination of a car body, a curtain attached to the side thereof at a plurality of points, and unitary means for securing or loosening at one operation all the points of attachment, substantially as described. 37th. The combination with a car body having its side open the whole length thereof and provided with longitudinal seats, of a side section co-extensive with said open side, adapted to be detachably secured to the car to completely close said side, and an aisle between the side and seats, substantially as described. 38th. The combination, in a car, of a curtain adapted to be rolled to the top of the car, and detachable side guide posts for said curtain, substantially as described. 39th. The combination, in a car, with a curtain, of a roller therefor, and side posts detachably supported by brackets, substantially as described. 40th. The combination, in a car, of a curtain, a curtain pole upon which said curtain is rolled, and side guide posts, with which the ends of the pole engage, substantially as described. 41st. The combination, with a car body having an open side, of a curtain secured thereto co-extensive with said opening, and means for raising the lower part of said curtain, while the upper part remains stationary, substantially as described. 42nd. The combination, in a car, of the longitudinal plank 11, stanchion 10, secured thereto, hand-rails 20, and foot fender detachably secured between said plank, stanchions, and hand-rails, substantially as described. 43rd. The combination of the upper and lower sills, the stanchions secured thereto, the hand-rails, and the elbows for uniting the stanchions and hand-rails, substantially as described. 44th. The combination, in a car, of the upper and lower sills, stanchions secured thereto, hand-rails, elbows for uniting the stanchions and hand-rails, and foot fenders secured between the stanchions and hand-rails, substantially as described. 45th. The combination, in a car, of the upper and lower sills, stanchions secured thereto, hand-rails, and an independent side section adapted to be detachably secured within stanchions and hand-rails, substantially as described. 46th. The bracket 19 having an upper flange adapted to be secured on the under surface of the sill 9, the socket 16 for securing the stanchion, and the depending wing 18 for supporting the cross-bars, substantially as described. 47th. The combination with the side section 8, of the four-way elbow 19, having a central screw-threaded aperture for securing said elbow to said section, substantially as described. 48th. The combination of the lower sill 12, the truss plank 11, and the stanchion 10 having bed plates 13, bolted to said sill and truss plank, substantially as described. 49th. The combination of uprights, sleeves sliding thereon provided with spindles or gudgeons projecting at right angles to the uprights, and a shaft

or cylinder provided with hubs rotating on said spindles, substantially as described.

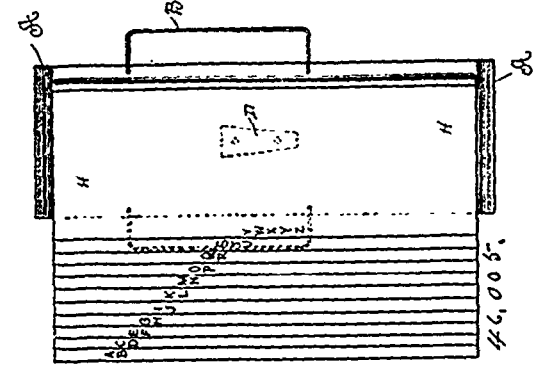
No. 46,004. Game Apparatus. (Appareil pour jeu.)



George Wilson, Mobile, Alabama, U.S.A., 10th May, 1891; 6 years.

Claim.—1st. The improved game-board, composed of two rectangular sections each having a length in excess of its width, a game-sheet 11 having diamond-shaped spaces 4 and having a length in excess of the length of either one of said sections and placed upon the upper surface thereof, a portion of said sheet being located upon one section and the remaining portion of said sheet being located upon the other section, and said sections placed end to end and connected to be folded transversely of their length face to face, substantially as specified. 2nd. The improved game-board, composed of a base or body having a length in excess of its width, a game-sheet 11 mounted upon the upper face of said base and extending longitudinally thereof so as to provide a clear space at each end and a clear marginal space at either side of said sheet, said base and said sheet being divided transversely of their lengths into two sections, means for connecting the adjacent ends of said sections so that they may be folded to occupy a position face to face, and score-cards 5 located in said clear spaces at the ends of said board at diagonally opposite corners thereof, and raised or elevated a distance above the adjacent surface of said board, whereby when said sections are folded face to face, the elevated score-card in one corner upon one section acts as a stop to limit the movement of the opposite section, and the score-card on the opposite section acts as a stop to limit the movement of the other section, substantially as herein specified. 3rd. The improved game-board 1, composed of a rectangular body having a length in excess of its width, a game-sheet 11 located upon the upper face of said board and having indicated diamond shaped spaces 4 formed by crossing diagonal lines 6 and 7, said sheet having serrated or finely attenuated points 8, and alternate black spaces 9 upon each of its marginal side edges, and said board having distinct blank side marginal spaces 10 which extend unbroken from opposite ends of said board and merge into blank space of greater width at each end, each end of said sheet being cut to represent in plain view the two converging sides of a larger diamond-shaped figure and having a distinct projecting central point or apex, in combination with two sheets or a series of movable pieces to engage said diamond shaped spaces, substantially as herein specified. 4th. In a game apparatus, the combination of a game-board provided with a series of playing-spaces, of the playing-figures 14 having a body and a round shank or handle 24, and an additional series of figures 17 having a body and a rectangular shank or handle 25, whereby the figures of opposing players may be identified by the sense of touch, substantially as herein specified.

No. 46,005. Index. (Index.)

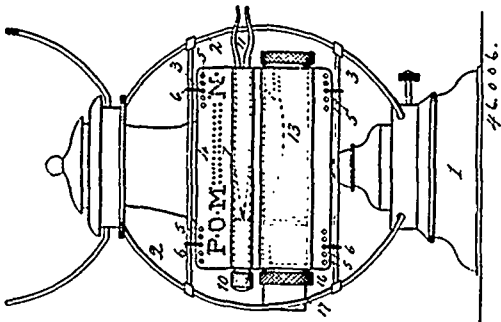


Frank Lewis Parker, Worcester, Massachusetts, U.S.A., 10th May, 1894; 6 years.

Claim.—1st. In a telephone or other index, the combination with a series of indexed sheets, of smaller supplemental sheets arranged between the indexed sheets, the whole constituting an index, substantially as described. 2nd. In a telephone or other index, the combination with a series of indexed sheets, of smaller supplemental sheets arranged between the indexed sheets, and made out

of thinner or lighter material than the indexed sheets, the whole constituting a single index, substantially as described. 3rd. In a device of the character described, the combination of a series of indexed sheets attached at different points to a base or support, so that when folded back either to the right or to the left, their free edges will recede from each other to expose their index character and supplemental sheets secured to the inner edges of the indexed sheets, substantially as described. 4th. In a telephone or other index, the combination of a series of indexed sheets, of smaller supplemental sheets secured to the inner edges of the indexed sheets, and arranged so that they will not interfere with the indexes, substantially as described. 5th. In a telephone or other index, the combination of a suitable base or support, a series of indexed leaves secured at different points to the base or support so as to expose their index character when turned to the right or to the left, and smaller, supplemental leaves formed of thinner material than the indexed leaves and secured to the inner edges of the indexed leaves so as to turn with the indexed leaves, and not interfere with the indexes, substantially as described. 6th. In a device of the character described, the combination of sheets, adapted to lap past each other so as to leave a space adapted to receive a suitable index, of smaller supplemental sheets carried by and secured to the inner edges of the indexed sheets, substantially as described. 7th. In a telephone or other index, the combination of a suitable bracket, of a base or support removably secured thereto in an inclined position, and a series of indexed sheets secured at different points to the base or support, so that when folded either to the right or left, their free edges will recede from each other, and expose their index character, substantially as described. 8th. In a telephone or other index, the combination of a base or support, indexed leaves bound or secured to said base or support, a tapering dove-tailed cleat secured to the base or support and a bracket having an inclined face with a tapering dove-tailed groove formed in the same, whereby the index is removably supported in an inclined position, substantially as described.

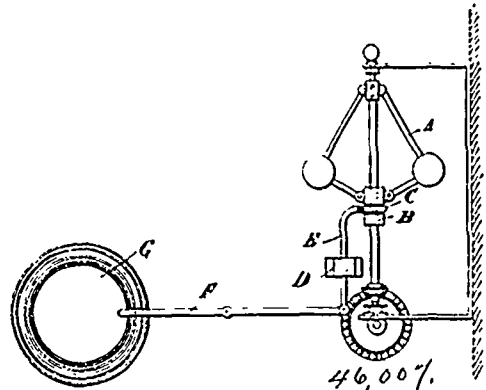
No. 46,006. Attachment for Lanterns.
(*Attache pour lanternes.*)



Primus O. Martin, Paducah, Kentucky, U.S.A., 10th May, 1891; 6 years.

Claim.—1st. An attachment for lanterns or railroad lights, consisting of a plate having a series of holes and hooks, whereby said plate is attached to lanterns or lamps, said plate adapted to form a reflector for the lantern or lamp, and to carry a number of compartments in which are located articles useful to the carriers of lanterns, substantially as shown and described. 2nd. An attachment for lanterns or railroad lamps, consisting of a rectangular plate having a series of apertures and hooks adapted to secure said plate to the lantern, said plate carrying a tube in which is located and held a wick pick and tweezers, and a hollow plug which forms a compartment in said tube, substantially as herein specified and for the purposes stated. 3rd. An attachment for lanterns or railroad lamps, comprising a rectangular plate having a series of holes and hooks to attach said attachment to lanterns, the plate of said attachment having on its outer face and secured in any suitable manner, two or more tubes adapted to engage and hold a wick pick, a hollow plug, a match box, an adhesive plaster carrier and a pencil sharpener, all combined in the manner set forth and for the purposes stated. 4th. An adhesive plaster carrier for attachment to lanterns, consisting of a hollow cylindrical plug, having a longitudinal slot therein, the edges of said slot being knife-edge, substantially as shown and described. 5th. A match box attachment for lanterns, consisting of a cylindrical casing having a portion thereof cut away and a slot therein, whereby but a single match can be removed at a time, said match box adapted to be held in an outer casing secured to the lantern attachment by means of a bayonet joint, substantially as shown and described. 6th. An attachment for lanterns or railroad lamps, consisting of a rectangular plate and reflector 4, a series of apertures 5, hooks 6, a partitioned tube 7 adapted to receive and hold a wick pick and a hollow plug, a partitioned tube 13 adapted to receive and hold a match box 20, a hollow cylindrical plug 15, carrying a pencil sharpener 17, said plug 15 having a knife-edged slot 18 running longitudinally therein, all combined in the manner set forth and for the purposes stated.

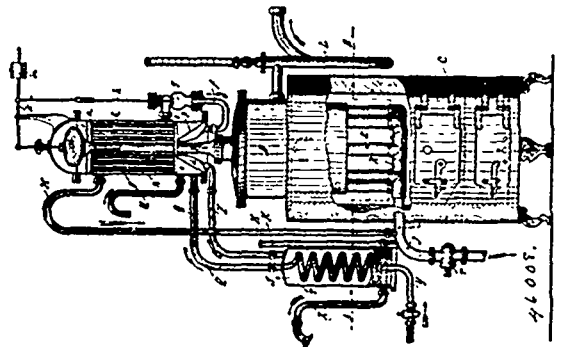
No. 46,007. Device for Recording the Speed of Engine Governors. (*Compteur de vitesse pour gouverneurs de machine.*)



Emil Lackmann, Berlin, Germany, 10th May, 1891; 6 years.

Claim. A speed recording device to operate in conjunction with governors of the character described of motive power engines, and consisting of the arrangement and combination of a pivoted lever provided with a pencil, a sleeve on the governor axis operated by the governor balls, a connecting lever between said pencil lever and said sleeve, so that the movement of said sleeve is imparted by said connecting lever to said pencil lever, and a disc rotated by clock-work in contact with the pencil carried in said pencil lever, so that a line is thereby drawn on said disc, constructed and arranged substantially as hereinbefore described.

No. 46,008. Apparatus for Distilling and Sterilizing Water. (*Appareil pour distiller et stériliser l'eau.*)



Joseph Nagel, Chemnitz, Saxony, Germany, 10th May, 1894; 6 years.

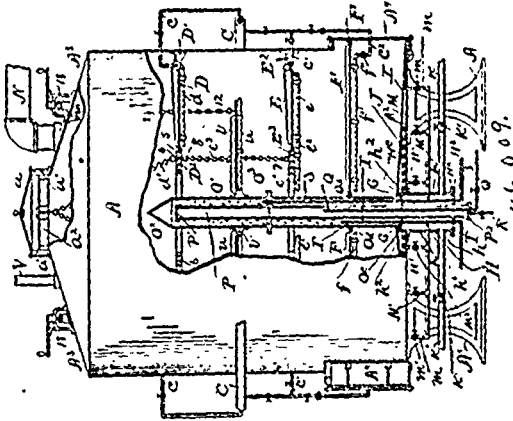
Claim.—1st. Apparatus for distilling and sterilizing water, comprising in its construction an annular boiler or tubular ring R, so arranged that the preheated cooling water ascends through it into the boiler tube E, and the still D, substantially as described. 2nd. In apparatus of the type specified by clause 1, a collecting chamber c, and cooling water chambers d arranged in such a manner, that the distillate is continuously cooled by water before leaving the apparatus, substantially as described. 3rd. In apparatus of the type specified by clause 1, a feed water regulator containing a feed valve g, adapted to be opened by means of a float m, and lever mechanism, in proportion to the rate at which steam is generated in the still D, in order to maintain the water level in the same always constant, substantially as described. 4th. In apparatus of the type specified by clause 1, an air tube U, so arranged that uncondensed steam may escape from the collecting chamber into the atmosphere without danger, substantially as described.

No. 46,009. Percolator. (*Filtre.*)

John William Evans, Cleveland, Ohio, U.S.A., 10th May, 1894; 6 years.

Claim.—1st. In a percolator for extracting oil, a draining and steaming apparatus located within the percolator, the same comprising a hollow perforated drum or cylinder, suitably supported at the bottom of the percolator and having one or more steam pipes discharging into the same, substantially as set forth. 2nd. In a percolator for extracting oil, a draining and steaming apparatus suitably supported at the bottom of the percolator, and comprising a hollow perforated drum, or cylinder, divided by a diaphragm into two compartments, each compartment of said drum or cylinder having one or more steam-pipes discharging into the same, substantially as and

for the purpose set forth. 3rd. In a percolator for extracting oil, a cylinder located centrally or approximately centrally below the container of the percolator, and extending more or less into said

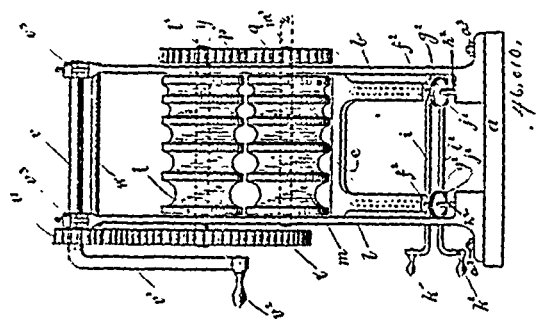


container, and being closed at the bottom and open at the top, said cylinder having connected therewith a system of steam and drain-pipes in open relation with the container of the percolator, and having connected therewith, below such system of steam and drain pipes, one or more larger steam and drain pipes and having a series of perforations or openings discharging into the container just above the bottom of the latter, substantially as shown and described. 4th. In a percolator for extracting oil, an upright draining and steaming apparatus suitably supported at the bottom of the percolator, and comprising a hollow perforated drum or cylinder, with the perforations discharging laterally into the body or container of the percolator, a heater comprising an imperforate drum or cylinder located within said draining and steaming apparatus, said heater and draining and steaming apparatus having, respectively, one or more steam pipes in open relation therewith and the heater being provided with a drain pipe, substantially as set forth. 5th. In a percolator for extracting oil, a draining and steaming apparatus located centrally or approximately centrally within the tank or container of the percolator, and being suitably supported at the bottom of the percolator and comprising a perforated drum, or cylinder, and one or more steam pipes discharging into said drum, or cylinder, a heater located within and extending approximately the entire length of said draining and steaming apparatus, said heater comprising an imperforate drum or cylinder closed at the ends and a steam pipe for supplying steam to the same, the heater being provided with a drain pipe, substantially as set forth. 6th. In a percolator for extracting oil, a draining and steaming apparatus located centrally or approximately centrally within the tank or container of the percolator, and being suitably supported at the bottom of the percolator and comprising two compartments that are located the one above the other and separated by a diaphragm, the surrounding walls of the compartments being perforated with the perforations discharging laterally into the tank or container of the percolator, one or more steam-pipes in open relation with the respective compartments of the draining and steaming apparatus, a heater located within and extending approximately the entire length of said draining and steaming apparatus, said heater comprising an imperforate drum or cylinder closed at the ends and a steam-pipe and a drain-pipe in open relation therewith, substantially as set forth. 7th. In a percolator for extracting oil, a hollow cylinder secured to the central portion of the bottom of the tank or container of the percolator and extending more or less into and being in open relation with the container, and being closed at the bottom, a heating-coil located at the bottom of the tank or container, and a system of steam and drain pipes adapted to establish open communication between the interior of the cylinder aforesaid and the interior of the tank or container, one or more larger steam and drain pipes in open relation with said cylinder below the aforesaid system of pipes, a draining and steaming apparatus located above and in open communication with said cylinder, and comprising a perforated drum or cylinder, and one or more steam-pipes discharging into said drum or cylinder, a heater located within and extending approximately the entire length of the perforated drum or cylinder of said draining and steaming apparatus, said heater comprising an imperforate drum or cylinder closed at the ends, a steam-pipe discharging into the same, and a drain-pipe, substantially as set forth. 8th. In a percolator for extracting oil, so-called "breakers," hinged to or connected with the sides of the percolator and a depressible centre-piece for supporting the inner end of the breakers, the breakers having perforated pipes attached underneath, the centre-piece comprising an annular ring with vertical perforation and made in two sections, the ends of each section overlapping the adjacent end of the other section, substantially as set forth. 9th. In a percolator for extracting oil, a steaming apparatus located centrally or approximately centrally in the tank or container of the percolator, and

comprising a perforated drum, or cylinder, with the perforations discharging laterally into the container, so-called "breakers" having perforated pipes attached underneath, and being hinged or connected with the outside of said drum or cylinder in such a manner that in the horizontal or working position of the "breakers" the attached perforated pipes are in open relation with the interior of said drum or cylinder, substantially as set forth. 10th. In a percolator for extracting oil, so-called "breakers" hinged inside the tank or container, in combination with a chain or suitable device connected with the breakers and detachably connected with suitable mechanism that is adapted to be operated from outside the container to release said chain or device and permit the breakers to turn on their hinge, out of a working position, substantially as set forth. 11th. In a percolator for extracting oil, a steaming apparatus located centrally or approximately centrally in the body or container of the percolator, and comprising a perforated drum or cylinder with the perforations discharging laterally into the container, so called breakers having perforated pipes attached underneath, and being hinged to or connected with the outside of said drum or cylinder in such a manner that in the horizontal or working position of the breakers the attached perforated pipes are in open relation with the interior of said drum or cylinder, a chain or suitable device connected with said breakers and detachably connected with suitable mechanism adapted to be operated from outside the container of the percolator to release the chain and permit the breaker to turn down outside the drum or cylinder aforesaid, substantially as set forth. 12th. In a percolator for extracting oil, so called breakers, in combination with suitable mechanism for holding said breakers in a horizontal or working position, said mechanism comprising a chain or suitable device attached to the breaker, and detachably connected or adapted to be detachably connected with a dog pivoted to a rigid support inside the top of the percolator, a frame or bracket secured to the outside of the top of the container, a rod extending through the top member of said frame into the container and terminating at its lower or inner end in a toe or projecting member adapted to support the dog and connected breaker in a horizontal or working position, the rod at its outer end terminating in a crank or handle, substantially as set forth. 13th. In a percolator comprising so called breakers, the combination with suitable mechanism for holding said breakers in a horizontal or working position, said mechanism comprising a chain or suitable device attached to the breakers, and detachably connected or adapted to be detachably connected with a dog pivoted to a rigid support inside the top of the percolator, a frame or bracket secured to the outside of the top of the container, a rod extending through the top member of said frame into the container and terminating at its lower or inner end in a toe or projecting member adapted to support the dog and connected breaker in a horizontal or working position, the rod at its outer end terminating in a crank or handle, of suitable means for locking said mechanism in the working position of the breakers, substantially as set forth.

No. 46,010. Pipe Bending Machine.

(Machine pour plier les tuyaux.)

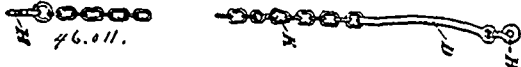


James Charles Orr, Winnipeg, Manitoba, Canada, 10th May, 1894; 6 years.

Claim.—1st. In a pipe bending machine, the combination of the rollers l, m, n and o , corrugated as shown with the axles l^1, m^1, n^1 and o^1 , bearing boxes l^2, m^2, n^2 and o^2 , gear-wheels p, q, r and s , axle pin s^1 , with ordinary flange and nut bolt, standards b, b , secured to bed plate, with ordinary bolts a^2, a^2, a^2 , the cleft c, c , slats c^1, c^1 , and c^2, c^2 , blocks d, d, d, d , jacks e, e^1 and e^2 , jack-screw f, f, f^1, f^1 and f^2, f^2 , having secured thereto the oblique cog-wheels g, g, g^1 and g^2, g^2 , and revolving on the pivot points h, h, h^1, h^1 and h^2, h^2 , the adjusting rods i, i^1 and i^2 , passing through the standards b, b , as shown and having the endless screw attachments j, j, j^1, j^1 and j^2, j^2 , respectively, as also the handle k, k^1 and k^2 , main power-wheel l secured to axle l , the driving pinion u , secured to axle r , with crank r^1 and handle r^2 , brace-rods w, w, w, w , hinged-clutch v^2 , bearing-box r^1, r, r , the guides with their flanges x^1, x^1 , and set-screws x^2, x^2 , substantially as and for the purpose set forth. 2nd. In a pipe bending machine, the combination of the rollers l, m, n and o , corrugated as shown with the extension of the axles l^1, m^1, n^1 and

o', beyond the gear-wheels p, q, r, to receive rollers for spiral or other special bending, substantially as and for the purpose set forth.

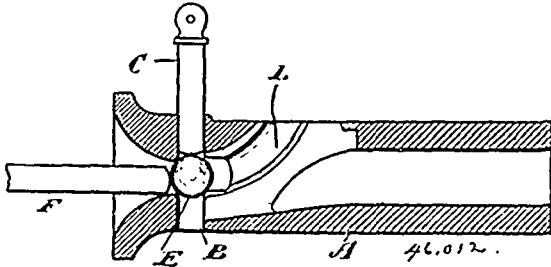
No. 46,011. Chain Harness. (Chaîne de harnais.)



Rudolf Baumann, Nendek, Bohemia, Austria, 10th May, 1891; 6 years.

Claim. - A draught trace for freight carts and the like consisting essentially of a metal rod bar-shaped to fit the fore-quarters of the draught animal, and of a link chain adjustable in its length constructed and arranged substantially as hereinbefore described.

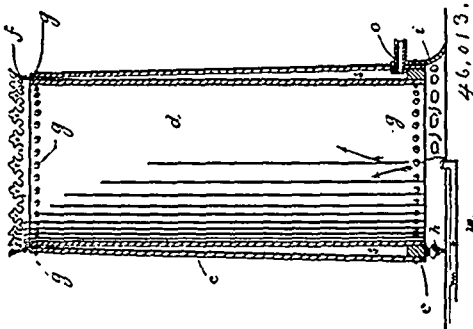
No. 46,012. Car-Coupler. (Attelage de chars.)



John Brown and Henry L. Prowse, both of Toronto, Ontario Canada, 10th May, 1894; 6 years.

Claim. - 1st. A coupler consisting of a draw-head having the usual holes for the coupling-pin, a recess within the draw-head, inclined rearwardly from the front of the said hole, a follower working within the said recess and arranged to support the pin to permit of the entrance of the link into the draw-head, substantially as described. 2nd. In a car-coupler, the combination of a draw-head A, having a hole B, for the coupling pin, a recesses D, located medially within the draw-head, and curved rearwardly from the front of the hole B, towards the top of the said draw head, a follower E, working within the said recess and arranged normally to support the coupling-pin C to admit of the entrance of the link, the link F, and the coupling-pin C, substantially as described.

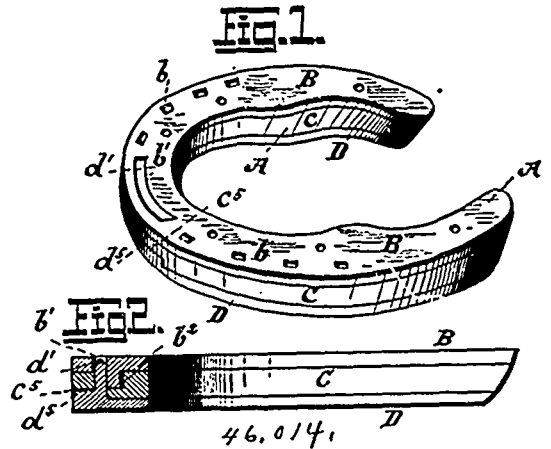
No. 46,013. Radiator. (Radiateur.)



James Charles Orr, Winnipeg, Manitoba, Canada, 11th May, 1891; 6 years.

Claim. - 1st. A radiator available for low pressure steam or hot water heating on either the double or single pipe systems, having the conical casing e, the cylindrical casing d, the ring c, with or without the ornamental creasing f, rivetted together as shown at g, g, supported on feet as at h, h, or flared base i, with the apertures j, j, air valve l, pipe connection o, valve k, substantially as and for the purpose set forth. 2nd. A radiator having the conical casing e, the cylindrical casing d, the ring c, with or without creasing f, rivetted as shown at g, g, supported on feet as at h, h, or base i, with apertures j, j, but made in sections with wedge-shaped stopping pieces n, n, for use round columns, substantially as and for the purpose set forth. 3rd. A cylindrical radiator having the sides or casings parallel to each other, with rings above and below rivetted together, substantially as and for the purpose set forth. 4th. A cylindrical radiator consisting of sheet metal casings, the one conical and the other cylindrical, or both casings parallel to each other and swaged to meet above and below and rivetted, substantially as and for the purpose set forth. 5th. A cylindrical radiator, consisting of sheet metal casings with rings above and below or swaged to meet and rivetted, and having the sides fluted or corrugated, substantially as and for the purpose above set forth.

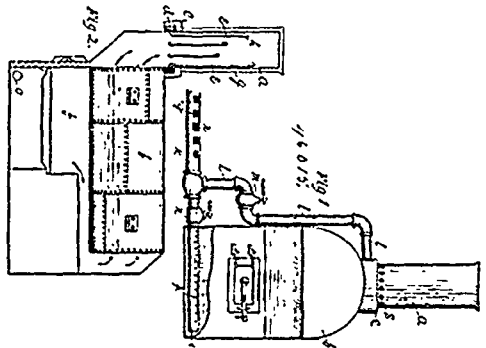
No. 46,014. Horse-Shoe. (Fer à cheval.)



Theodore N. Jones, Greeley, Colorado, U.S.A., 11th May, 1891; 6 years.

Claim. 1st. A horse-shoe made of three sections B, C and D, the two outer sections being of metal or other hard substance, and the inner or middle one of elastic material, the first section B being secured to the hoof by nails, and the other two sections C and D being held to sections B by screws passing through, and heads countersunk in section D, through lugs or bosses c', on through holes b' in C, and terminating in corresponding holes threaded in B, as shown and described. 2nd. The tread section D, having the pins c at toe and heels, in combination with the section C having holes b, and section B having lugs or bosses a', with holes at centre through which said pins pass through and into said holes in section B, to prevent any forward, backward or sidewise displacement of the tread D, as described. 3rd. The section B having the lugs a', with holes at their centres, in combination with the section C having b' large enough to receive said lugs, and the section D having the pins c passing through the holes b' and into the holes at centre of lugs a', as shown and described. 4th. The tread section D having the lugs c', the hoof section B having holes a', whose interior walls are treaded and which register with the lug, the rubber section having holes b', and the connecting screws c' whose heads are countersunk in the section D, as shown and described. 5th. The tread section D having the reinforcement toe c', in combination with the section C, having a corresponding cavity b', as above described. 6th. The section B having threaded holes a', in combination with sections C and D, having corresponding holes for screws c' to pass through countersunk in D for heads and terminating in B, thereby connecting the complete shoe, as set forth and described.

No. 46,015. Method of Promoting Combustion in Furnaces. (Méthode d'augmenter le combustible dans les fournaies.)

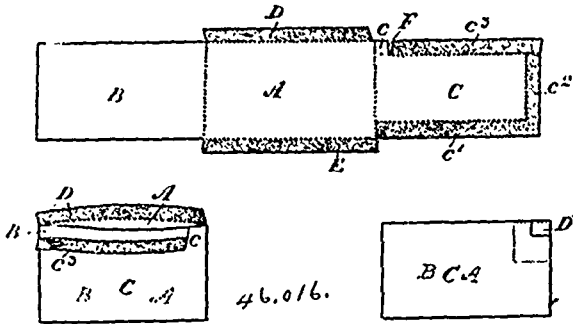


John Black Davids, North Dartmouth, Massachusetts, U. S. A., 11th May, 1891; 6 years.

Claim. - 1st. In combination, with a smoke-stack to a steam boiler, the annular chamber c, secured at the base of said smoke-stack, the tube e, extending upward to varying heights and connecting the interior of said chamber, with the interior of said smoke-stack, and means for forcing air into said chamber c, substantially as shown and described. 2nd. In combination, with the fire-box and smoke-stack to a steam boiler, the pipe k leading from an air reservoir, containing air under pressure, and having openings q opening into the fire room, adapted to be closed at certain times, and having the branch o, provided with the valve n, and perforation p, extending into the fire-box beneath the grate, and having the branch l, pro-

vided with the valve *m*, extending into the chamber *c*, whereby the blast of air through said pipe may be directed wholly below the fire, or wholly into the smoke-stack, or wholly into the fire room, or divided between said points, or shut off entirely from all or any one of said points, as and for the purpose specified.

No. 46,016. Money Envelope. (Enveloppe à monnaie.)



Arthur W. Blachford, Toronto, Ontario, Canada, 11th May, 1894; 6 years.

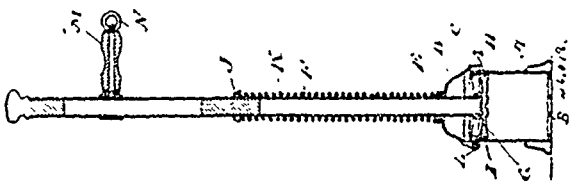
Claim.—1st. A money envelope comprised of a central rectangular portion A, the rectangular folding portions B and C, the rectangular folding flaps D and E, and the slit F, made in the top of the portion C, near the central portion A, the blank being arranged to be folded and gummed together as shown and for the purpose specified. 2nd. A money envelope comprised of a central rectangular portion A, the rectangular folding portions B and C, the rectangular folding flaps D and E, and the slit F, made in the top of the portion C, near the central portion A, the blank being arranged to be folded and the flaps D and E, and the edges *e*¹, *e*², *e*³ of the portion C, being gummed as shown, and for the purpose specified. 3rd. A money envelope comprised of a central rectangular portion A, the rectangular folding portions B and C, the rectangular folding flaps D and E, and the slit F, made in the top of the portion C, near the central portion A, the portions B, E and C, being arranged to be folded and gummed in succession to form a complete envelope and the flap D, being folded and gummed down upon the portion B, and the edge *e*³, being gummed and turned down upon the flap D, as and for the purpose specified.

No. 46,017. Ointment for the Cure of Rheumatism. (Onguent pour le rhumatisme.)

Henry L. Jackson, Pembroke, Ontario, Canada, 11th May, 1894; 6 years.

Claim.—An ointment consisting of ammonia, turpentine, beef marrow, and oil of angle-worm, substantially in the proportions and for the purposes set forth.

No. 46,018. Washing Machine. (Machine à laver.)

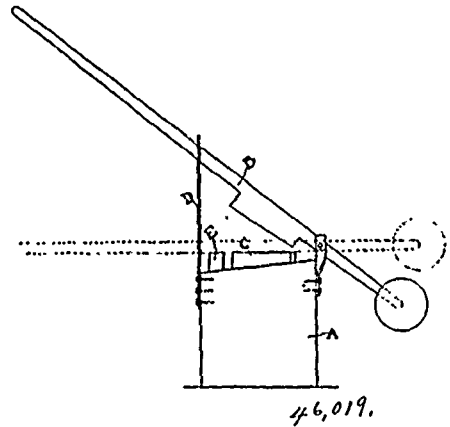


J. J. Nelson, Toronto, Ontario, Canada, 11th May, 1894; 6 years.

Claim.—1st. A clothes cleanser, consisting of a cylinder, a plunger working within the cylinder, and a plunger rod connected to the plunger and extending above the top of the cylinder, substantially as specified. 2nd. A clothes cleanser consisting of a cylinder, a cover removably fitted to the top of the cylinder, a grating connected to the lower end of the cylinder, a plunger working within the cylinder, a plunger rod extending above the top of the cylinder, a spring encircling the plunger rod and bearing on the cover of the cylinder and against a removable collar secured to the plunger rod, substantially as specified. 3rd. A clothes cleanser consisting of a cylinder, a cover for the cylinder, a grating connected to the lower end of the cylinder, a plunger working within the cylinder, a metallic packing ring working in the side face of the plunger, and a plunger rod connected to the plunger, substantially as specified. 4th. A clothes cleanser consisting of a cylinder, a cover removably connected to the top of the cylinder, a grating connected to the lower end of the cylinder, a plunger working within the cylinder, a metallic packing ring fitted to the side face of the plunger, a plunger rod connected to the plunger and extending above the cover of the cylinder, a removably adjustable collar connected to the plunger rod, a spring encircling the plunger rod between the said collar and the top of the said cover, and a removable handle

connected to the plunger rod above the spring, substantially as specified.

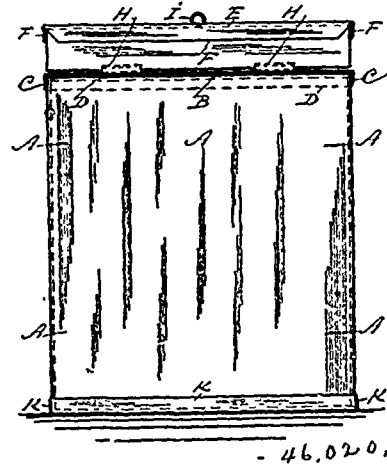
No. 46,019. Machine for Splitting Hogs' Heads. (Machine pour couper les têtes des porcs.)



John Henry Ginge, London, Ontario, Canada, 11th May, 1894; 18 years.

Claim.—The arrangement and combination of the blocks A, C and E, the knife B, and guard D, and the shapes of block A, and knife B, in their relation to each other.

No. 46,020. Tin Packing Case for Tea. (Boîte de fer-blanc pour le thé.)



Henry Beckett, Hamilton, Ontario, Canada, 11th May, 1894; 6 years.

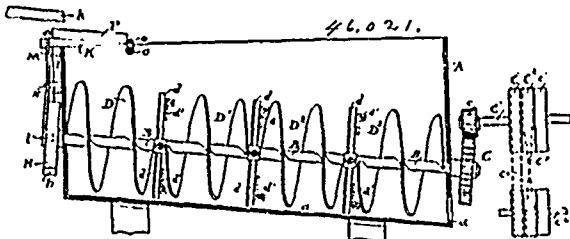
Claim.—1st. The case A, jointed vertically at J, in close proximity to the corner, the upper part having flanges A¹, bent inwards and at right angles to said case, in combination with the base having a continuous flange K, bent at right angles to the base, substantially as described and set forth. 2nd. The combination of the case, having right angled flanges A¹, around the upper part of the interior, the stationary partial cover B, provided with flanges C, at right angles to said cover with the bent rib D, and fastened in position to and on said case, substantially as described and set forth. 3rd. The combination of the flanged lid, hinged at H, to the partial rigid cover B, having bent flanges C, at right angles thereto with bent strengthening rib D, at the inner edge thereof and fastened in position on the case, substantially as described and set forth. 4th. In an air tight tin case the body A, vertically jointed at J, and having bent interior flanges A¹, on its upper part, the bent flanged partial cover B, fastened thereto in combination with the lid E, hinged to said cover at H, and having bent flanges F, on its three sides thereof and the adjustable ring I, substantially as described and for the purposes hereinbefore set forth.

No. 46,021. Mortar Mixing Machine. (Machine à mélanger le mortier.)

John Llewellyn Bowles, Philadelphia, Pennsylvania, U.S.A., 11th May, 1894; 6 years.

Claim.—1st. The combination with the vessel A, having an outlet *a*, and provided with the shaft B, having a series of projecting

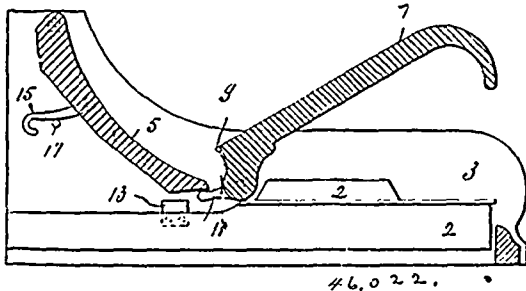
blades and the spur-wheel G¹, of the conveyor screw E, within the vessel A, adjacent to the outlet a, shaft B¹, and spur-wheel G, carried by the shaft B¹, and meshing with the spur-wheel G¹,



whereby the conveyor or screen E is operated to convey the mixed material out of the vessel A, through the outlet a. 2nd. The combination with the vessel A, shaft B and projecting arms or blades carried by the shaft, of the cam H, having one or more projection h, the rod I and the screen K, as and for the purposes set forth. 3rd. The combination with the vessel A, shaft B and projecting arms or blades carried by the shaft, of the cams H and H¹, having one or more cam projections h, the projections of the cam H and H¹, being relatively reversed, the rod I, and screen K, as and for the purposes set forth. 4th. The combination with the vessel A, shaft B, and projecting arms or blades carried by the shaft, of the cam H, having the cam groove I, the lever M and said screen P, as and for the purpose set forth. 5th. In a machine for mixing mortar, &c., the combination of a suitable vessel to contain the materials to be mixed, a rotary shaft journaled in the vessel provided with projecting portions to act upon the materials, a vertically rocking screen located over the vessel and power transmitting connections between the shaft of the mixing devices for rocking the screen vertically. 6th. In a machine for mixing mortar, &c., the combination of a suitable vessel to contain the materials to be mixed, a rotary shaft journaled therein carrying projecting portions to act upon the materials in the vessel, a laterally vibrating screen and power transmitting connections between the rotary shaft and the vibratory screen to vibrate the same laterally. 7th. In a machine for mixing mortar, &c., the combination of a suitable vessel to contain the materials to be mixed, a rotary shaft journaled therein carrying projecting portions to act upon the materials in the vessel, a laterally vibratory screen located over the vessel, and power transmitting connections between the rotary shaft and the vibratory screen and vertically rocking screen respectively to vibrate the one laterally and rock the other vertically. 8th. The combination with the mixing vessel A, of the transverse bar O, the vertically rocking screen K hinged upon said transverse bar, and the laterally vibratory screen pivotally connected with said bar.

No. 46,022. Fall Boards for Pianos.

(Planche de clavier de pianos.)

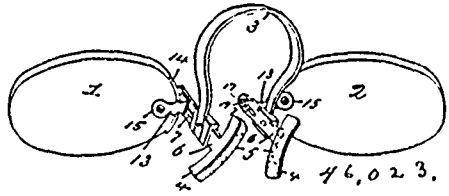


Fridohn Shimmel and Searick F. Nelson, both of Fairbault, Minnesota, U.S.A.. 11th May, 1894; 6 years.

Claim.—1st. The combination, with a piano casing, of a fall board composed of independently pivoted parts 5 and 7, pivoted at their rear edges, the rear part 5 adapted to drop by its own weight when unsupported by the forward part, the forward edge of the rear part and the rear edge of the forward part of the fall-board adapted to close together to form an unbroken surface between the tops thereof, a blind hinge arranged in the joint, rigid arms 11 extending from the rear of the forward section and beneath the lower and forward edge of the rear section and forming the only and positive support for said lower edge when closed, and stops 13 for limiting the fall of the rear part when released by the raising of the forward part, substantially as described. 2nd. In a fall board, the combination, with the piano-frame, of the rear section 5 pivoted near its upper edge to said frame and adapted when unsupported to drop upon the stops 13 provided on said frame, the forward section pivoted on said frame and provided with lugs 11 arranged to engage the underside of the section 5 when resting on said stops and as the forward part is closed or lowered to raise the lower edge of the rear section and positively support the

edge thereof in contact with the rear edge of the forward section, substantially as described.

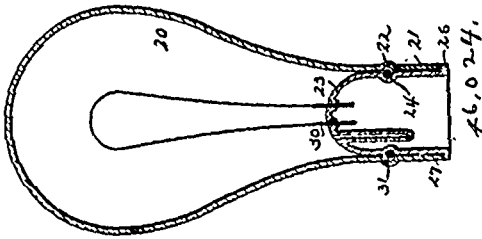
No. 46,023. Eye Glass. (Pince-nez.)



Joseph L. Levy, New York, State of New York, U. S. A., 11th May, 1891; 6 years.

Claim.—1st. In an eye-glass, the combination, with lenses, of a device for grasping the nose, as a nose clip, the lenses being adjustable in the line of vision or at an angle thereto, both or either of said adjustments being secured without changing the relation which the parts of the frame bears to each other, substantially as described. 2nd. The combination of an eye-glass frame, lenses supported thereon, having a movement about their longitudinal axes, means for securing the lenses at any point of said movement, and additional locking means therefor, substantially as described. 3rd. In an eye-glass, the combination of a supporting frame, and lenses movable in said frame on the line of vision without impairing the stability of said frame, substantially as described. 4th. The combination with the bow spring, nose guard arms, and nose guards, of lenses supported by the nose-guard arms and movable therein, substantially as described. 5th. The combination with the bow spring, slotted nose guard arms secured to the bow spring and supported thereby, lenses mounted in said slots and movable therein, nose guards on the said arms, the bow spring being secured to the said arms between the lenses and nose guards, substantially as described. 6th. The combination with the nose guard arms, of lenses, a bow spring, and an integral device having means for giving both the bow spring and arms the desired position in relation one to the other, and by which they are secured together, said means being independent of the lens clamps, posts or holders, substantially as described. 7th. The combination, with the nose guard-arms, of lenses, a bow-spring, and a block having grooved faces for securing the spring and arms together and giving them their desired inclination or position, the block being independent of any other portion of the frame, substantially as described. 8th. The combination, with the nose guard-arms and bow-spring, of the two way face plates uniting the said arms and spring, substantially as described. 9th. The combination, with the nose guard-arms and the bow spring, of the two-way face plates uniting said arms and spring, the said spring extending obliquely from the arms, substantially as described. 10th. As an improvement in eye-glasses, the combination of nose-guards, arms extending therefrom, lenses secured on the arms, and a bow-spring secured on the arms between the nose-guards and the points of attachment of the lenses, substantially as described. 11th. As an improvement in eye-glasses, the combination of nose-guards, arms extending therefrom, and a bow-spring secured to said arms, so as to make an oblique angle therewith at its point of attachment, substantially as described. 12th. A face plate having a longitudinal slot for securing the nose-guard arm, and a transverse slot for securing the bow-spring, substantially as described. 13th. A face plate having a longitudinal slot for securing the nose-guard arm on one side thereof, and a transverse slot for securing the bow-spring on the other side, substantially as described. 14th. A face plate having a longitudinal slot for securing the nose-guard arm on one side thereof, and a transverse slot for securing the bow-spring on the other side, said slots intersecting to form an aperture through the face plate, substantially as described. 15th. As an improvement in eye-glasses, the combination of nose guard-arms, and lenses adjustably mounted therein, each lens being adjustable independently of the other. 16th. The combination, with the slotted nose guard-arm 7 of the lens post 13 having the fingers 15, and an internally screw-threaded aperture 16, the screw 17, and the split washer 18, and washer 19, substantially as described. 17th. The combination, with the nose guards and their arms, of lenses, a bow-spring, means for securing the lenses to the arms, and independent means for securing the bow-spring to the arms, substantially as described. 18th. As an improvement in eye-glasses, the combination of nose guards having arms depressed at a slightly oblique angle from the nose guards, and a bow spring supported on said arms also at a slightly oblique angle, substantially as described. 19th. As an improvement in eye-glasses, the combination of nose guards, arms extending therefrom, and a bow spring secured obliquely to said arms, the lenses being secured on the continuations of said arms, substantially as described. 20th. The combination, with the bow-spring 3, of the nose guards having the arms 6, slots 7 in the arms, the spring being secured to the arms between the slots and guards, and the lenses adjustably secured in said slots, substantially as described. 21st. In an eye-glass, the combination of a forwardly slanting spring, and a pair of rearwardly slanting nose guards acted on by said spring, with lenses supported thereby, said lenses being adjustable without altering the relation of said spring and nose-guards, substantially as described.

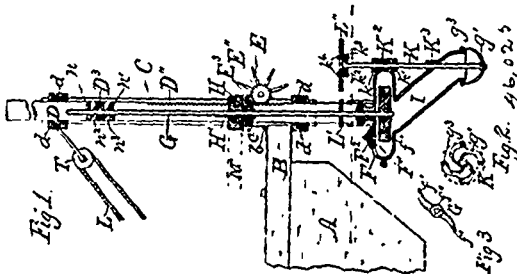
No. 46,024. Incandescent Lamp.
(*Lampe incandescente.*)



George H. Benjamin, New York, State of New York, U.S.A., 11th May, 1894; 6 years.

Claim.—1st. An incandescent lamp, comprising a filament, leading in wires, an inclosing chamber composed of two sections, and a wire formed of a metal interposed between said sections. 2nd. An incandescent lamp, comprising a filament, leading in wires, an inclosing chamber composed of two sections, and a wire formed of an alloy of metals located between the two. 3rd. In an incandescent lamp, the combination of a globe provided with a circumferential groove in the neck thereof, a removable base-piece provided with a circumferential groove which registers with the groove in the neck of the lamp, and said base-piece also provided with a vertical groove, and a conducting body located in said grooves. 4th. In an incandescent lamp, the combination of a globe, provided with a groove 22, and a base-piece, provided with grooves 24 and 25, substantially as described. 5th. In an incandescent lamp, the combination of an inclosing globe, a removable base-piece, a wire surrounding the base-piece, and having its terminals carried out of the lamp, and material surrounding the wire which under the action of heat will unite with the glass of which the globe and base-piece are made, substantially as described. 6th. In an incandescent lamp, the combination of an inclosing globe, a removable base-piece, a wire surrounding the base-piece and having its terminals carried out of the lamp, and said wire composed of a material which, under the action of heat, will unite with the glass, of which the globe and base-piece are made. 7th. The method of forming an air-tight seal between two sections of an inclosing glass chamber for an incandescent lamp, which consists in introducing between the two sections, a conducting body of a character which, under the action of heat, will unite with the glass, and subjecting said body and the glass in the vicinity thereof to the action of heat locally applied to the conducting body. 8th. The method of forming an air-tight seal between two sections of an inclosing glass chamber for an incandescent lamp, which consists in introducing between the two sections a conducting body of a character which, under the action of heat, will unite with the glass, and subjecting said body and the glass in the vicinity thereof to the action of heat locally applied to the conducting body, and finally compressing the glass around said body. 9th. The method of forming an air-tight seal between two sections of an inclosing glass chamber for an incandescent lamp, which consists in transmitting an electric current through a conducting body located between the two sections of the inclosing globe, whereby said conducting body and the glass in apposition therewith are raised to a high temperature, and a hermetic seal effected. 10th. The method of forming an air-tight seal between two sections, of an inclosing glass chamber for an incandescent lamp, which consists in transmitting an electric current through a conducting body located between the two sections of the inclosing globe, and subsequently pressing the highly heated glass surfaces together and intimate contact with the conducting body.

No. 46,025. Centrifugal Dredging Machine.
(*Machine à dragueur centrifuge.*)

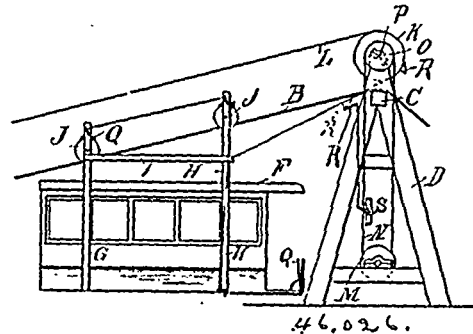


Rodney G. Nash, Morrisburg, Ontario, Canada, and James L. Allison, Waddington, New York, U.S.A., 11th May, 1894; 6 years.

Claim.—1st. In a centrifugal dredging machine, the combination of a suitable support for the frame, two upright frames, one sliding

upon the other, with means for raising or lowering the sliding frame, so that when in operation the centrifugal pump shall be wholly immersed within and covered by water, a centrifugal pump fastened to the lower end of the sliding frame with suction and delivery pipes attached thereto, and a secondary shaft journaled to said pump and passing through the mouth of said suction pipe and provided with an agitator near the mouth of the suction pipe. 2nd. In a centrifugal dredging machine, the combination of a suitable support for the frames, two upright frames, one sliding upon the other, with means for raising and lowering the sliding frame, so that when in operation the centrifugal pump shall be wholly immersed within and covered by water, a centrifugal pump fastened to the lower end of the sliding frame with suction and delivery pipes attached thereto, a shaft journaled to said sliding frame with bearings allowing adjustment longitudinally while in operation, and a secondary shaft journaled to said pump and passing through the mouth of said suction pipe provided with an agitator near the mouth of the suction pipe. 3rd. In a centrifugal dredging machine, the combination of a suitable support for the frames, two upright frames, one sliding upon the other, with means for raising and lowering the sliding frame, so that when in operation the centrifugal pump shall be wholly immersed within and covered by water, a centrifugal pump fastened to the lower end of the sliding frame with suction and delivery pipes attached thereto, a shaft journaled to said sliding frame and held movably longitudinally in its journals by a spring or springs, and a secondary shaft journaled to said pump, and passing through the mouth of said suction pipe and provided with an agitator near the mouth of the suction pipe. 4th. In a centrifugal dredging machine, the combination of a suitable support for the frames, two upright frames, one sliding upon the other, with means for raising and lowering the sliding frame, so that when in operation the centrifugal pump shall be wholly immersed within and covered by water, a centrifugal pump fastened to the lower end of the sliding frame with suction and delivery pipes attached thereto, a shaft journaled to said sliding frame, and a secondary shaft journaled to said pump, and passing through the mouth of said suction pipe, and provided with an agitator near the mouth of the suction pipe, and means for tilting said frames. 5th. In a centrifugal dredging machine, the combination of a suitable support for the frames, two upright frames, one sliding upon the other, with means for raising and lowering the sliding frames, so that when in operation the centrifugal pump shall be wholly immersed within and covered by water, a centrifugal pump fastened to the lower end of the sliding frame with suction and delivery pipes attached thereto, a pump valve shaft journaled to the sliding frame, and an agitator at the mouth of said suction pipe, with means for actuating said agitator at a speed different from that of the pump shaft.

No. 46,026. Suspended Railway. (*Chemin de fer aérien.*)

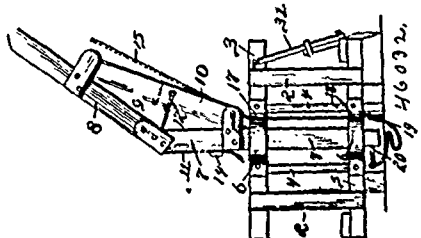


Barney Joseph Gagnier, Detroit, Michigan, U.S.A., 12th May 1894; 6 years.

Claim.—1st. In a suspended railway, the combination of the derricks, two parallel cables suspended between the derricks, and a car having its wheels engaging the cables, an endless propelling cable connected to opposite ends of the car and a motor for actuating said cable, substantially as described. 2nd. In a suspended railway, the combination of the derricks, two separate cables suspended between the tops of the derricks, a car having suspended arms passing beneath it at each end and extending above to different heights, of wheels journaled in the top of said frames in a plane at an angle to the car body, corresponding substantially to the inclination of the cables, of drums journaled in the tops of the derricks, and an endless cable passing over the drums and connected at opposite ends of the car and a motor for actuating the propelling cable, substantially as described. 3rd. In a suspended railway, the combination of the derricks, two parallel cables suspended between the derricks upon an incline, and a car having its wheels at an angle to the body corresponding to the inclination of the rails, an endless propelling cable connected to opposite ends of the car, and a motor for actuating said cable, substantially as described. 4th. In a suspended railway, the combination with the suspended rails, a car having wheels journaled in the frame above the roof thereof and suspended from said rails, an endless cable passing over rollers at opposite ends of the way, and connected to opposite ends of the car, a motor at one end of the

bar D, the cord I attached to the cradle F, and to the stay C, and the rocking mechanism consisting of the drum J having a gear-wheel L connected to its side face, a spring K to operate the drum and gear-wheel, the escapement-wheel N having a pinion M, the pallet O operated by the escapement-wheel N, the pendulum Q operated by the pallet O, the pin R connected to the standard A', and working in the upper forked end of the pendulum Q, the guide S connected to the pin R, the pin T connected to the pendulum Q and the guides U and V, substantially as specified.

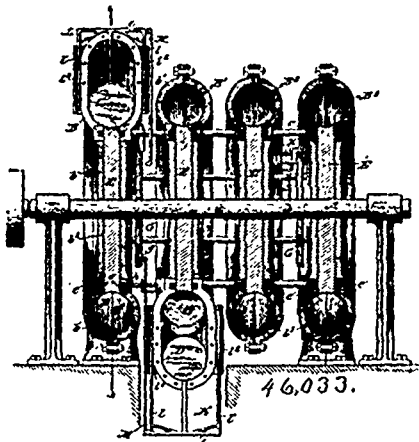
No. 46,032. Hay-Loader. (Monte-foin.)



George D. Houston, Rushville, Illinois, U.S.A., 14th May, 1894; 6 years.

Claim.—A hay-loader comprising a hay-rack, vertical post 7 mounted in bearing-blocks, jib 8, toggle-bars 9, 10, having their adjoining ends squared, an adjusting rope 11 to enable said bars to be brought into alignment and thereby form a brace to support the jib in its operative position, a hoisting-rope provided with a draft-hook, guide-pulleys for said rope, an arm 20 secured to the lower end of the mast and projecting therefrom in a diametrically opposite direction to the jib, and a slack rope 19 secured at one end to the arm 20, and at the other to the draft-hook and adapted to be drawn taut when the load has been raised above the plane of the rack, substantially as specified.

No. 46,033. Rotary Engine. (Machine rotative.)



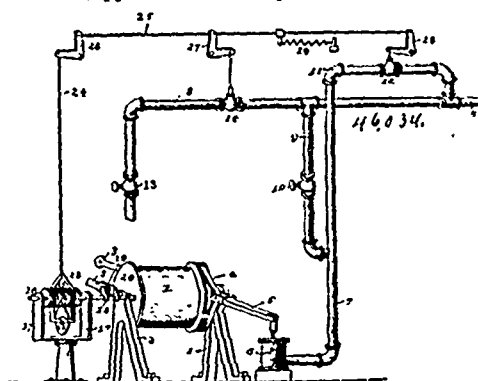
James C. Walker, Waco, Texas, U.S.A., 14th May, 1894; 6 years.

Claim.—1st. In a rotary engine, the combination with a fixed annular chamber having a sliding abutment, a drive shaft having a concentric piston operating in the annular chamber, a spring actuated lever, means for holding and drawing the abutment to its normal or closed position, an exhaust arranged in front of the abutment, an inlet at the rear thereof having a sliding gate, a cam operated by the shaft, adapted to first engage the abutment lever operating means and then the inlet gate to open and close the same, all substantially in the manner shown and for the purposes described. 2nd. A rotary engine comprising a plurality of fixed annular steam chambers, a drive shaft having a series of concentric pistons arranged in pairs projected in diametrically opposite directions, and each pair at right angles to the other, said pistons fitting to travel one in each steam chamber, sliding abutments in each chamber arranged relatively to the shaft in a manner similar to the pistons, a cam mechanism for each pair of pistons operated by the shaft, connected with the sliding abutments to operate them successively, exhausts in the chambers in advance of the abutments, inlets at the rear thereof and shifting valves for such inlets, arranged to be operated by the said cam discs, all substantially in the manner and for the purposes shown and described. 3rd. In a rotary engine, the combination with a plurality of fixed annular steam chambers, having each a sliding abutment, having lift devices, the drive-shaft and discs fixedly held on such shaft, formed with concentric piston members fitted to travel in such chambers, of the rock-shafts journaled between each pair of steam chambers, having an extending member,

a pivotal connecting arm between such member and the sliding abutment lifting devices, operating cams mounted on the drive adapted to engage the rock shaft arm at predetermined intervals, and means for feeding steam to and exhausting same from the steam chambers, all arranged as shown and for the purposes described. 4th. The combination with the drive-shaft, a plurality of annular steam chambers mounted thereon, having sliding abutments arranged at diametrically opposite points, lifting devices comprising frames held to slide in guides on the said chambers, said chambers having each an exhaust in front of and an inlet to the rear of the abutment, and a slide valve operating over the inlet, of discs fixedly mounted on such shaft having pistons fitting the annular chamber, cam discs on such shaft having each a cam groove and a projection stud, the rock-shafts spring actuated in one direction, journaled on the steam chambers, angle-rods J, J' projected therefrom and connected with each other, the arm M connecting the rods J' and the abutment lifting devices, said arms adapted to be engaged by the stud on the said cam disc, and slide valves operating over the steam inlets, having each a projecting arm formed with a stud adapted to be engaged by the groove in the cam disc, all arranged substantially in the manner shown and described.

No. 46,034. Controller for Elevators.

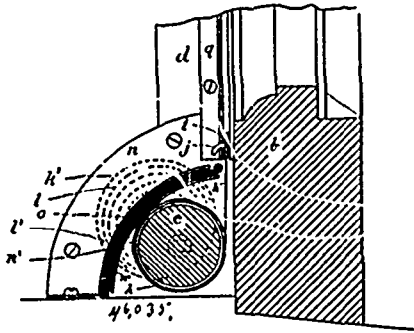
(Appareil de contrôle pour élévateurs.)



Clarence B. Johnson, Wilkesbarre, Pennsylvania, U.S.A., 14th May, 1894; 6 years.

Claim.—1st. The combination with an elevator or hoisting apparatus, of a spirally grooved or threaded cylinder mounted upon a shaft which is arranged to revolve as the elevator moves, the thread or groove extending inward to the shaft at each end of the cylinder, a traveller running in the thread of the cylinder, and devices connected with the traveller for stopping the elevator when the traveller reaches the end of the threaded cylinder, substantially as described. 2nd. The combination with an elevator or hoisting apparatus, of a threaded cylinder mounted upon a shaft and arranged to revolve as the elevator moves, the thread or groove extending inward to the shaft at each end of said cylinder, a traveller consisting of a rotating disc arranged to run in the thread of the cylinder, and devices connected with the traveller for stopping the elevator when the traveller reaches the other end of the threaded cylinder, substantially as described. 3rd. The combination with an elevator or hoisting apparatus, of a threaded cylinder arranged to revolve as the elevator moves, a traveller arranged to run in the thread of the cylinder, a steam-brake for the elevator, valves for controlling the supply of steam to the brake and to the hoisting engine, and connections between the traveller and said valves, whereby when the traveller reaches the end of the threaded cylinder the steam is shut off from the engine and admitted to operate the brakes, substantially as described. 4th. The combination with an elevator or hoisting apparatus, of a winding drum, a threaded cylinder having a shaft connected to rotate with the winding drum, a brake for the drum, a traveller arranged to run in the thread of the cylinder, and devices connected with the traveller for automatically stopping the rotation of the drum when the traveller reaches either end of the threaded cylinder, substantially as described. 5th. In an elevator controller, the combination of the threaded cylinder 15, having its thread running spirally inward at each end, with a rotating disc arranged to run in the thread of the cylinder, and connections between the disc and the elevator stopping devices, substantially as described. 6th. In an elevator controller, the shaft, the threaded cylinder mounted on the shaft and having removable threaded sections, the thread on the end section running spirally inward to the shaft, in combination with a traveller arranged to run in the thread of the cylinder, and connections between the traveller and the elevator stopping devices, substantially as described. 7th. The combination with a hoisting apparatus having an inner drum, of a threaded cylinder connected with the winding drum for simultaneous rotation, a traveller arranged to run in the thread of said cylinder, connections between the traveller and the hoisting apparatus, and means carried by the cylinder for reciprocating the traveller in the direction of a radius of the cylinder for automatically stopping the hoisting apparatus, substantially as specified.

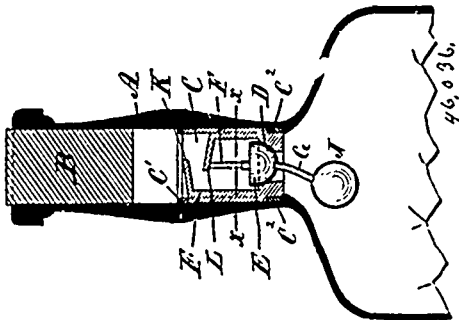
No. 46,035. Window Screen. (Store de fen^{tre}.)



Edward Cray Irwin and William George Irwin, both of Winnipeg, Manitoba, Canada, 14th May, 1894; 6 years.

Claim.—A revolving window screen adaptable to any window having the roller *c* with the plates *f* and *g*, the socket plate *f*² the pin *m*, ordinary clock spring *l*, the spring box plate *k*, with circular recess *k*¹, the cover plate *n* with the ridges or projections *n*¹, *n*², the flanged cover *o*, the screen *h*, hook *j*, bar *i*, and guide-bars *q* *q*, substantially as and for the purpose set forth.

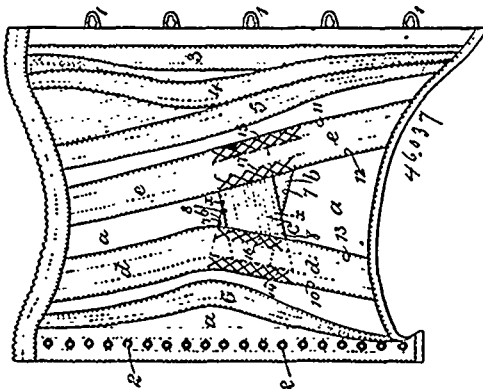
No. 46,036. Bottle. (Bouteille.)



Albert Drouillard, Windsor, Ontario, Canada, 14th May, 1894; 6 years.

Claim.—1st. A bottle having a neck adapted to receive a cork or removable stopper, a tubular valve shell inserted in said neck, said shell provided with a valve seat and ball valve and protecting semi-circular discs *K*, *L*, or shields, to prevent access to said valve, substantially as set forth. 2nd. A bottle having a neck with a removable stopper, a tubular valve shell inserted in said neck and visually closed by semi-circular discs *K*, *L*, or shield, a ball valve in said shell, the ball having an arm projecting through the valve aperture and provided with a gravitating weight, substantially as set forth. 3rd. In combination with a bottle having a neck adapted to receive a cork or stopper, a tubular shell inserted in said neck, said shell having a valve therein to stop inflow, and discs or shields *K*, *L*, to prevent access to said valve and permit outflow of the contents of the bottle, substantially as set forth.

No. 46,037. Corset. (Corset.)

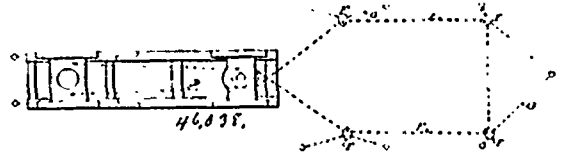


Daniel Kops, New York, State of New York, U.S.A., 14th May, 1894; 6 years

Claim. 1st. The combination in a corset with the fabric body, of short overlapping superposed bone sections upon the respective sides

of the corset, connected upon the fabric body at acute angles to the horizontal waist line and located centrally over the upper portion of the hip, substantially as set forth. 2nd. The combination in a corset with the fabric body, of short overlapping superposed bone sections placed diagonally in opposite directions and connected by edge lines of sewing to the fabric body and to each other upon the sides of the corset at the lower portion of the waist and upper portion of the hips, substantially as and for the purposes set forth. 3rd. The combination in a corset with the fabric body *a* and the downwardly diverging stays *d*, *e*, of short overlapping superposed bone sections *b*, *c*, placed diagonally in opposite directions and connected to the body *a* upon the sides of the corset from the waist line and over the upper portion of the hips with the ends under the bones of the diverging stays *d*, *e*, substantially as and for the purposes set forth.

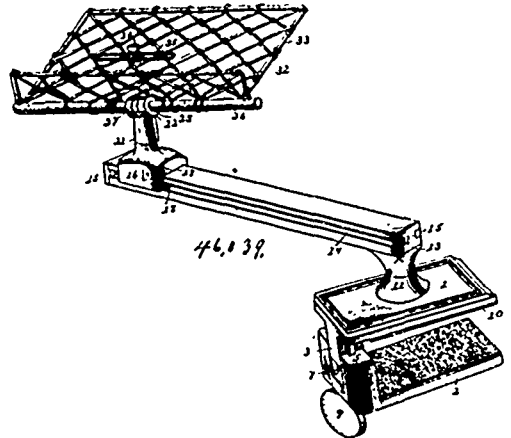
No. 46,038. Machine for Ploughing and Hauling by Cable. (Appareil pour labourer et tirer au moyen de cable.)



James McKissock, Winnipeg, Manitoba, Canada, 14th May, 1894; 6 years.

Claim.—The combination of the two cap stands *B* and *C*, and the working of the endless chain in connection with ploughing and hauling the snatch blocks, the grab-hooks and other uses, substantially as and for the purpose hereinbefore set forth.

No. 46,039. Book-Rest. (Support pour livres.)



James K. Brammer, Crosstown, Ohio, U.S.A., 14th May, 1894; 6 years.

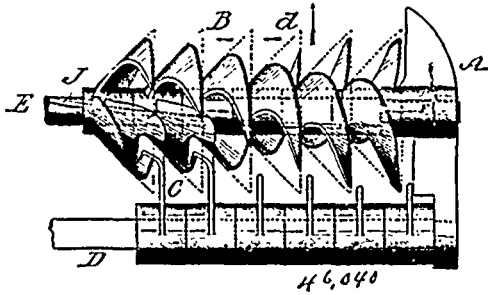
Claim.—1st. In a book-rest, the combination with the book support, and a swivelled arm, of a clamp for supporting the arm, said clamp consisting of a pair of clamping sections, one of which is provided at its rear end with a bored tenon having ribs, and the other of which with a back wall recessed to receive the tenon and having grooves to receive the ribs, and an opening aligning with the bore, and a binding screw passing through the opening and into the bore, substantially as specified. 2nd. In a book rest, the combination with a clamp and a horizontal arm swivelled upon the clamp and provided with opposite longitudinal grooves, of a block recessed upon its under side and mounted upon the arm and having its side walls provided with ribs for engaging the grooves of the arm, and a book support swivelled on the block, substantially as specified.

No. 46,040. Harvesting Machine. (Moissonneuse.)

Gerard Beckman, New York, State of New York, U.S.A., 14th May, 1894; 6 years.

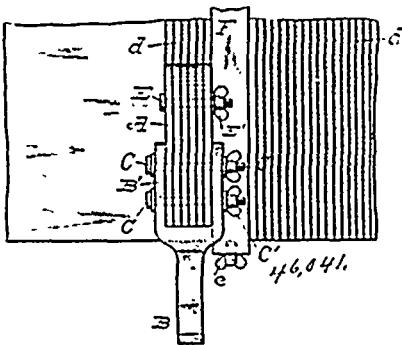
Claim.—1st. A cutting apparatus for harvesting machines, embodying a series of rotary cutters, arranged upon a horizontal shaft, each cutter adapted both to feed the standing grain or grass laterally into the path of the cutting edge of a next adjacent cutter, and also to cut the grain fed into the path of its own cutting edge by another adjacent cutter. 2nd. In a harvesting machine, a cutting apparatus consisting in a series of conic shells, divided in their surfaces to form cutters, located along a substantially horizontal axis, the apex of each conic shell lying within the base of an adjoining conic shell, so as to feed the stalks laterally, from one shell to another, into the rotary path of each cutting edge when advancing

through the grain, substantially as herein set forth, with reference to Fig. 1 to 13, inclusive, of the annexed drawings. 3rd. In a harvesting machine, a rotary tuckle, moving on a substantially hori-



zontal axis, provided with hooked knives to seize the grain, and means for feeding the grain laterally into said hooks when they advance in the manner herein described. 4th. In a harvesting machine, a continuously rotating cutter, composed of a series of knives on a common axis having their cutting edges connected in the form of conic spirals forming gathering hooks for the grain. 5th. In a harvesting machine, a rotary cutter provided with a helical cutting edge lying in the surface of a cone or other round tapering figure, the part of the cutting edge which leads in the direction of rotation being projected at the greatest radius of said figure and retiring toward the centre, substantially as herein before shown and described with reference to figures 2 and 10 of the annexed drawings. 6th. In a harvesting machine, a continuously rotating cutter, composed of a series of knives adjacent located upon a common shaft, the surface of said knives forming portions of conic shells extending around the said shaft, or nearly so, comprising feeders, which act continuously to feed the grain laterally, substantially as hereinbefore set forth with reference to figures 1 to 13 of the annexed drawings. 7th. In a harvesting machine, a continuously rotating cutter, composed of a series of knives on a common horizontal axis, having cutting edges lying in the surfaces of cones, or other tapering figures, the outer extremities of said knives overlapping the bases of adjacent knives, and projecting in the direction of rotation, and in combination therewith stationary knives, having cutting edges corresponding to the figures described by the rotation of the said rotary knives, adapted to operate as hereinbefore set forth with reference to figures 1 to 13 of the annexed drawings.

No. 46,041. Hand Implement for Tooling Stone Surfaces. (*Outil pour travailler la pierre.*)



William Frederick Nicholson, Worcester, Massachusetts, U.S.A., 14th May, 1894; 6 years.

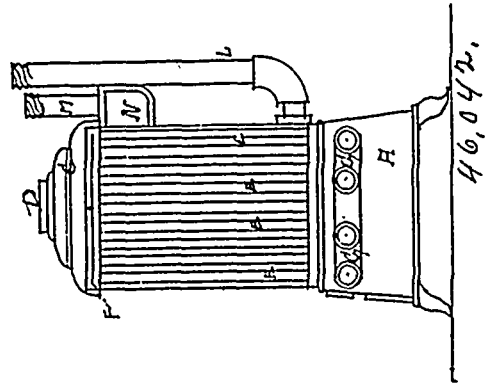
Claim. A hand implement for tooling stone surfaces, comprising the series of blades A, placed side by side, and having substantially curved teeth or cutting edges on the bottom coming in line transversely, as described, and also having vertical slots extending transversely through all the blades, in combination with a suitable handle B, adapted to receive one end of the blades when bunched together, and suitable bolts and nuts for fastening the parts after adjustment, substantially as shown and specified.

No. 46,042. Preparation of Surfaces for Lithographic and Other Printing. (*Préparation de surfaces pour imprimer la lithographie et autres*)

Gustav Henry Block, London, England, 14th May, 1894; 6 years.

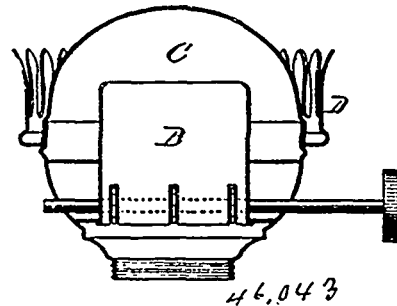
Claim.—1st. The hereinbefore described process for preparing lithographic and other printing surfaces, such process consisting in first cleaning the surface of the stone or metal plate, then transferring to the surface the gram, stipple, linework or the like rolling up the transfer with an acid proof composition and etching the design by means of acid, removing the composition and finally sensitizing the surface of the stone or plate, substantially as hereinbefore described. 2nd. The hereinbefore described process for sensitizing a

lithographic stone surface by use of a solution of acetic acid and alum, substantially as described. 3rd. The hereinbefore described



process for sensitizing the surface of metal plates by the use of a bath of water, nitric acid and alum, substantially as described.

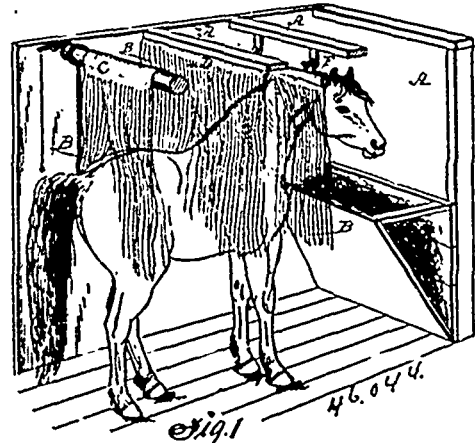
No. 46,043. Lamp Burner. (*Bec de lampe.*)



Luther A. Millbank, New York, State of New York, U.S.A., 15th May, 1894; 6 years.

Claim.—1st. A burner provided with a wick chamber or tube B, having an inwardly projecting edge at each end of the mouth of the said wick tube or chamber, for bearing against and retarding the advance of the edges of the wick, and thereby preventing smoking from the sides of the flame, substantially as and for the purposes set forth. 2nd. A wick chamber or tube B provided with inwardly projecting edges in position to bear against and retard the advance of the edges of the wick, substantially as and for the purposes set forth. 3rd. A flat wick tube or chamber B having its edges or lateral portions turned in, as at b, substantially as and for the purposes described.

No. 46,044. Fly Net for Horses. (*Chasse-mouche pour chevaux.*)

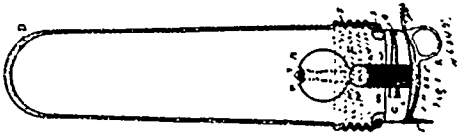


James Finley, Clarion, Iowa, William Finley and Benjamin Finley, both of Brady, Michigan, all in the U.S.A., 15th May, 1894; 6 years.

Claim. 1st. A fly net composed of a plurality of flexible sections suspended in parallel position to each other across a horse stall and

at suitable distances apart along the lengths of the stall from an elevated stationary support, and means for rolling up said sections arranged and combined to operate in the manner set forth for the purpose stated. 2nd. In combination with a fly-net composed of a plurality of sections depending from an elevated support, means for rolling up said sections comprising an elongated wire loop adapted to encircle the sections and a transverse loop at its one end adapted to be hung upon a hook when the section is rolled up, substantially as and for the purposes stated.

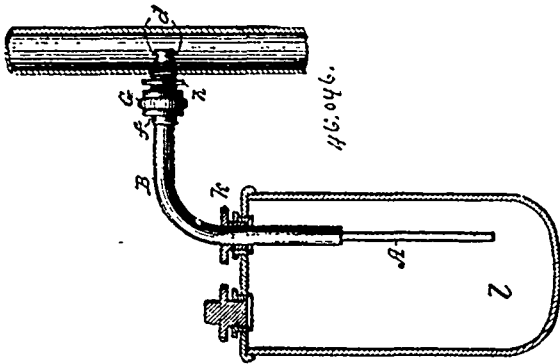
No. 46,045. Fire Extinguisher. (Extincteur d'incendie.)



Arthur H. Durand, St. Louis de Mile End, Quebec, Canada, 15th May, 1894; 6 years.

Claim.—1st. In a fire extinguisher a vial M, having a depression m, and a long neck m', provided with an annular depression m², serving to support a glass or lead ball m³, the balance of the neck being filled first with beeswax or other suitable fatty substance m⁴, and then with tar or other suitable substance m⁵, substantially as described and for the purposes set forth. 2nd. In a fire extinguisher the combination of a glass cylinder C, containing a solution of carbonate of ammonia, cap G having a flexible top H on to which is the solder projection O, rubber gasket I, conical tube L, cork Q, piece J, trigger K, and yoke N, with the vial M containing hydrochloric acid, and netting P, substantially as described and for the purposes set forth.

No. 46,046. Ejector. (Ejecteur.)



William Barnum Hollingshead, Bronxville, and Henry Spencer Blackmore, Mount Vernon, both in New York, all in the U.S.A., 15th May, 1894; 6 years.

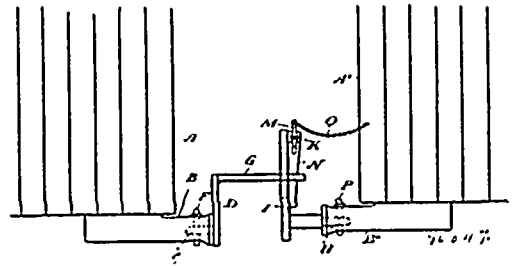
Claim.—1st. An automatic fluid ejector or feeder, consisting of two tubes of different diameters, the smallest tube located within the other, the annular space between the tubes closed at one end, and the exterior tube provided at or near said end with one or more transverse slots, substantially as and for the purpose set forth. 2nd. An automatic fluid ejector or feeder, consisting of two tubes of different diameters, one within the other, the said tubes connected at one end so as to close the annular space between same at said end, the outer pipe provided near its closed end with one or more openings, or slots, and at a short distance from same with an annular collar, as described, in combination with an internally threaded coupling-ring and an externally threaded sleeve, whereby the device is adapted to be secured to any desired object, substantially as and for the purpose specified.

No. 46,047. Car Coupler. (Attelage de chars.)

Samuel R. Stead, Haliburton, and William H. Munro, Toronto, all in Ontario, Canada, 15th May, 1894; 6 years.

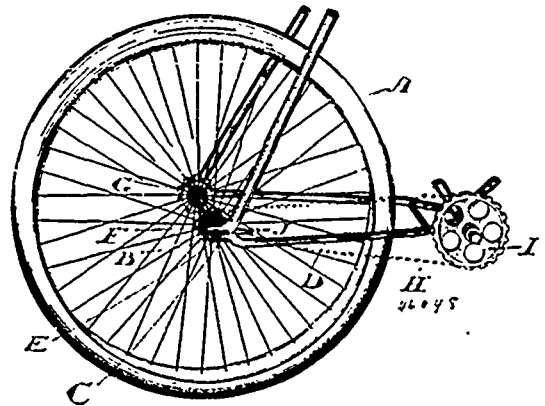
Claim.—1st. A car coupler consists of a link G, connected to the top of the frame D, and having an arm C, arranged to enter the mouth of the draw-head, and a frame I, having an opening J, to receive the link G, and an arm H, arranged to enter the mouth of its respective draw head, and a swinging pin N pivotally connected to the frame I, and arranged to hold the link G, substantially as specified. 2nd. The combination of the draw-head B, the frame D, the arm C, connected to the frame D, arranged to enter the mouth of the draw head, and having a hole E, the coupling pin F, passing through the usual hole in the draw head and through the hole E, in

the arm C, the link G, connected to the top of the frame D, the frame I, having an opening J, to receive the link G, the frame H, arranged to enter the mouth of the draw head, and having a hole O,



the draw-head B, the coupling-pin P, passing through the hole O, in the arm H, the lugs K, the spindle L, journalled in the lugs K, the pin N, mounted on the spindle L, substantially as specified. 3rd. The combination of the draw-head B, the frame D, the arm C connected to the frame D, arranged to enter the mouth of the draw-head, and having a hole E, the coupling pin F passing through the usual hole in the draw head and through the hole E in the arm C, the link G, connected to the top of the frame D, the frame I having an opening J, to receive the link G, the frame H, arranged to enter the mouth of the draw-head, and having a hole O, the draw-head B, the coupling pin P, passing through the hole O in the arm H, the lugs K, the spindle L, journalled in the lugs K, the pin N, mounted on the spindle L, the handle M, a chain Q, connected to the upper end of the handle M and to the ear A', substantially as specified.

No. 46,048. Bicycle. (Bicycle.)



Edward Carlton Marter and Henry P. Kohn, assignees of Joseph Rorke, all of Gravenhurst, Ontario, Canada, 15th May, 1894; 6 years.

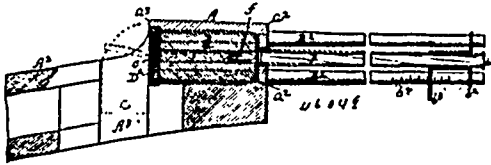
Claim.—1st. In a bicycle or similar vehicle, a changeable gearing comprising two sprocket-wheels of different diameters connected to the hub of the driving wheel at opposite sides thereof, substantially as and for the purpose specified. 2nd. In a bicycle or similar vehicle, a changeable gearing comprising two sprocket-wheels of different diameters connected to the hub of the driving wheel on opposite sides thereof, either of said sprocket-wheels being in combination with a sprocket chain and the pedal sprocket wheel, substantially as and for the purpose specified. 3rd. In a bicycle or similar vehicle, the pedal shaft carrying a single sprocket wheel for operative connection with one or another of two sprocket-wheels of different diameters connected to the hub of the driving wheel on opposite sides thereof, substantially as and for the purpose specified.

No. 46,049. Multicharge Gun. (Arme à feu.)

Gottfrid Julius Hilder, St. Cloud, Minnesota, U.S.A., 15th May, 1894; 6 years.

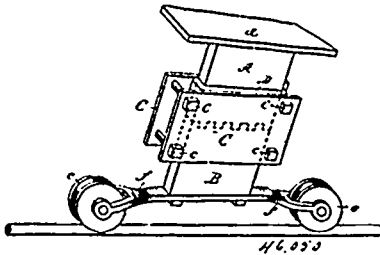
Claim.—1st. In a breech-loading firearm, the combination of the breech, a central barrel secured thereto and a series of barrels independently secured to the breech, a flanged sleeve adjustably mounted upon the central barrel and having notches in the periphery to receive the free ends of the encircling barrels, substantially as described. 2nd. In a breech-loading firearm, the combination of the breech, a central barrel secured thereto and a series of barrels independently secured to the breech, a movable rest adjustably mounted upon the central barrel and bearing against the encircling barrels, substantially as described. 3rd. In a breech-

loading firearm, the combination of the breech frame supporting a series of barrels, with a cylindrical removable breech piece having



a series of tubular firing chambers therein and intermeshing teeth on the periphery of the removable breech-piece and in the inner surface of the wall of the breech frame respectively, substantially as described.

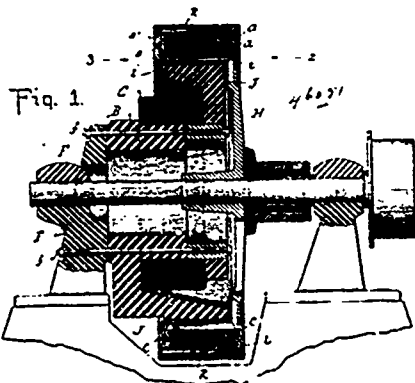
No. 46,050. Current Conveyers for Electric Railways. (*Conducteur de courant pour chemin de fer électrique.*)



The Lawrence Electric Company, assignee of William Lawrence, all of New York, State of New York, U.S.A., 15th May, 1894; 6 years.

Claim. 1st. A contact plate for conveying the current of electricity from an electric wire, said plate consisting of two separate parts tongued and grooved together, and encased within suitable insulating material, an outer casing for holding the latter, a bow-shaped spring secured to the lower edge of said plate, and grooved contact wheels at its outer ends, substantially as shown and for the purposes described. 2nd. A contact plate formed in parts, fitted one against the other, insulating material around said parts, a casing binding said parts together, and contacts connected with one of said parts, substantially as set forth. 3rd. A contact plate formed in parts fitted together, insulating material between said plate and said casing, wire engaging contacts and movable connections carrying said contacts and connected with said contact plate, substantially as set forth.

No. 46,051. Dynamo Electric Machine and Motor. (*Machine dynamo-électrique et moteur.*)

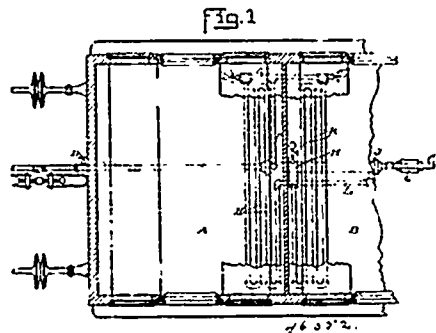


The Waddell Entz Company, New York, State of New York, assignee of Montgomery Waddell and Justus B. Entz, Bridgeport, Connecticut, all in the U.S.A., 15th May, 1894; 6 years.

Claim. - 1st. In a dynamo electric machine or motor, the combination of an armature having a core composed of fastening rings with laminae interposed between said fastenings rings, and means, substantially as described, for uniting said rings outside of the magnetic circuit, together with a field magnet consisting of a single coil of wire surrounding an iron core, two sets of pole pieces, one set connected with each end of the iron core and alternately disposed, the pole pieces of each end extending across the head and side of the coil, and the faces of said pole pieces being substantially parallel to the axis of the coil, substantially as described. 2nd. In a dynamo

electric machine or motor, the combination of an armature having a core composed of fastening rings with laminae interposed between said fastening rings, and means, substantially as described, for uniting said rings outside of the magnetic circuit, together with a field magnet consisting of a single coil of wire wound upon an iron core, two sets of pole pieces, one set connected with end of the core, the pole pieces of each set extending across the head and side of the coil overlapping each other and extending in alternate radial planes, substantially as described. 3rd. In a dynamo electric machine or motor, the combination of an armature having a core composed of fastening rings with laminae interposed between said fastening rings, and means, substantially as described, for uniting said rings outside of the magnetic circuit, together with a field magnet consisting of a single coil of wire wound upon an iron core, a plurality of pole pieces or horns connected with each end of the same extending around the coil, the poles or horns of each set extending past a plane cutting the axis of the coil at right angles, substantially as described. 4th. In an armature the combination of fastening rings, laminae interposed between said fastening rings, and means, substantially as described, for uniting said rings outside of the magnetic circuit, substantially as and for the purpose set forth. 5th. In an armature of the character described, the combination of laminae *l*, fastening rings *a* having lugs projecting outwardly from the peripheries thereof and securing bolts adapted to unite the fastening rings without passing through said laminae, substantially as described. 6th. In an armature of the character described, the combination of laminae *l*, fastening rings *a* having outwardly extending lugs thereon, bolts *b* adapted to unite said rings without passing through said laminae, and a coil wound between the said lugs and bolts, substantially as described. 7th. In an armature of the character described, the combination of a spider *H* of magnetic material and fastening *a* of non-magnetic material united thereto, substantially as and for the purpose set forth.

No. 46,052. System for Heating Railway Coaches. (*Système de chauffage pour chars de chemin de fer.*)

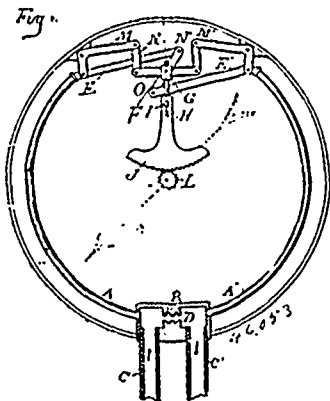


The Consolidated Car Heating Company, assignee of James F. McElroy, both of Albany, New York, U.S.A., 15th May, 1894; 6 years.

Claim. - 1st. A system for heating railway cars, consisting of a steam supplying pipe, a drum, a corrugated copper pipe enveloped by said drum, said pipe connected at each end with said steam supplying pipe, a water circulating system connected with said drum, a means for regulating the circulation of water by the operation of a valve placed in the line of water circulation, substantially as described, and for the purpose set forth. 2nd. A system for heating railway cars, consisting of a series of pipes placed within a car, said pipes containing water of circulation, a drum placed beneath said car, said drum connected with a pipe conducting hot steam to a pipe enveloped by said drum, all arranged in such a manner that the water of circulation is brought into contact with a pipe heated by steam from the locomotive, said heated water circulated through said pipes within the car radiating heat into said car, substantially as described, and for the purpose set forth. 3rd. In a system for heating railway cars, a drip mechanism consisting of a cylinder, a brass pipe therein, connections between said brass pipe and the steam supplying pipe arranged in such a manner that the heat of the steam shall cause the brass pipe to expand and abut against the end of the cylinder or a block placed in said cylinder, substantially as described, and for the purpose set forth. 4th. In a system for heating railway cars, the combination of a steam supplying pipe, a water drum or a jacket provided with a corrugated copper pipe of smaller diameter, than said drum, said pipe connecting at each end with a steam supplying pipe, substantially as described, and for the purpose set forth. 5th. In a system for heating railway cars, the combination of a steam supplying pipe, an enveloping jacket, communication from the top of said enveloping jacket with radiators placed into said car, an expansion drum connected with the end of each radiator and with the lower portion of said jacket by the operation of which the water of circulation will be heated within said jacket and circulated through said radiators, the air from the radiators passing into said expansion drum, said radiators connected with

the lower portion of said jacket, with a means for regulating the circulation of said water within the car, substantially as described, and for the purpose set forth.

No. 46,053. Steam Gauge. (Indicateur de la vapeur.)



The Consolidated Car Heating Company, assignee of James F. McElroy, Albany, New York, U.S.A., 15th May, 1894; 6 years.

Claim.—1st. In a steam or other fluid gauge for the purpose described, the combination of two tubular springs, and indicating mechanism adapted to operate the index hand by the differential movement of said springs under different pressures acting respectively upon the tubular springs, substantially as described. 2nd. In a steam or other fluid gauge for the purpose described, the combination of two tubular springs and indicating mechanism adapted to operate the index hand of said mechanism by the differential movement of the two springs under different pressures acting upon the springs respectively, said differential movement being in proportion to the momentum of steam corresponding to such different pressures upon the springs, substantially as described. 3rd. In a steam or other fluid gauge for the purpose described, the combination with the index hand, of two tubular springs and actuating mechanism for operating said index hand by the differential movement of the two springs under different pressures of steam acting upon said springs, said differential movement being proportioned to the absolute movement of the springs, substantially as described. 4th. In a steam or other fluid gauge, the herein described method of ascertaining the velocity of steam, the same consisting in causing the steam to flow through an orifice and determining the velocity as a factor of the difference in pressure on the two sides of said orifice, substantially as described. 5th. In a steam or other fluid gauge, the herein described method of ascertaining the momentum of steam, the same consisting in causing the steam to flow through an orifice, and determining the momentum as a factor of the pressures of steam on opposite sides of said orifice, substantially as described. 6th. In a steam or other fluid gauge, the combination of a hollow base provided with steam inlet and outlet connection, an orifice or series of orifices formed in said base and through which the steam passes, two tubular springs connected to said base and adapted to be actuated by the pressure of the steam on opposite sides of said orifice and indicating mechanism operated by the differential movement of said springs, substantially as described. 7th. In a steam or other fluid gauge, the combination of a hollow base provided with steam inlet and outlet connection, an orifice or series of orifices formed in said base, and through which the steam passes, two tubular springs connected to said base and adapted to be actuated by the pressure of the steam on opposite sides of said orifice and indicating mechanism operated by the differential movement of said springs, in proportion to the absolute and relative movement of the springs, substantially as described. 8th. In a steam or other fluid gauge, the combination with the tubular spring adapted to be differently actuated respectively by different pressures of steam acting upon them, of indicating mechanism comprising an oscillating lever, a sliding wrist upon one arm of said lever, intermediate connection between said sliding wrist and the tubular springs for oscillating the lever by the differential movement of the springs, intermediate connection between said sliding wrist and the springs for controlling the adjustment of said wrist by the absolute movement of the springs, and an index hand deriving its motion by suitable connection with the other arm of the said lever, substantially as described.

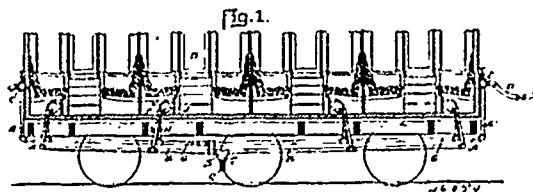
No. 46,054. Car Heating Apparatus.

(Appareil de chauffage des wagons.)

The Consolidated Car Heating Company, assignee of James F. McElroy, both of Albany, New York, U.S.A., 15th May, 1894; 6 years.

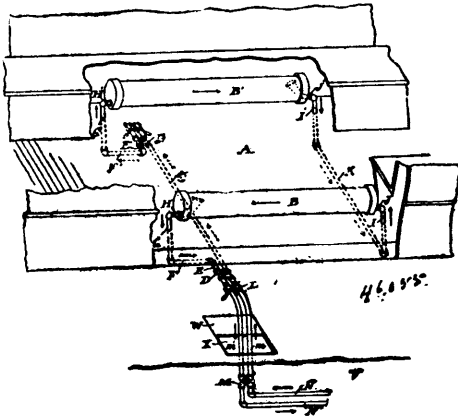
Claim.—1st. In a railway car heater, the combination of two pipes differing in diameter, the larger enveloping the smaller, a

steam space surrounding the smaller pipe, the smaller pipe charged with a heat absorbing substance, one end of said smaller pipe secured in and supported by a suitable coupling, the larger pipe adapted to



receive steam or other heating fluid, substantially as described and for the purpose set forth. 2nd. In a railway storage heater, two pipes differing in diameter, one placed within the other, a coupling-head to which said pipes are secured, the end of the smaller pipe farthest from the coupling-head provided with a cap, a steam space surrounding said smaller pipe, said smaller pipe charged with a heat absorbing substance, said larger pipe adapted to receive steam or other heating fluid, substantially as described and for the purpose set forth. 3rd. In a storage heater, the combination of two pipes differing in diameter, the one placed within the other, the smaller pipe containing a heat absorbing substance, a coupling-head to which each of said pipes are secured at one end, the end of the smaller pipe farthest from the coupling head provided with a cap, a pin on said cap engaging with a socket on the cap of the larger pipe farthest from the coupling-head, substantially as described and for the purpose set forth. 4th. A system for heating railway cars, consisting of a train pipe carrying steam, a supply pipe connected with said train pipe, a series of storage heaters placed within the car, said storage heaters connected with said supply pipe, an exhaust pipe also connected with said storage heaters, substantially as described and for the purpose set forth. 5th. A system for heating railway cars, consisting of a car containing a storage heater composed of two pipes differing in diameter, the one enveloping the other, a heat retaining substance placed in the smaller of the two pipes, a steam space surrounding the smaller pipe, a means for allowing for the unequal expansion of the two pipes, said larger pipe connected with a steam supply pipe, and also with an exhaust pipe, substantially as described and for the purpose set forth. 6th. A system for heating railway cars, consisting of a car containing a storage heater composed of two pipes differing in diameter, the one enveloping the other, a heat retaining substance placed in the smaller of the two pipes, a steam space surrounding the smaller pipe, a means for allowing for the unequal expansion of the two pipes, said larger pipe connected with a steam supply pipe, and also with an exhaust pipe, a drip pocket placed at the lowest point of the exhaust pipe beneath the car, valves on one side of the drip pocket and at the bottom thereof, substantially as described and for the purpose set forth. 7th. In a railway storage heater, two pipes differing in diameter, one placed within the other, a hood hinged near one end thereof partly enveloping said storage heater capable of a limited movement about said storage heater, an opening for the escape of air warmed by said storage heater, said hood adapted to open and close said opening substantially as described and for the purpose set forth. 8th. In a system for heating railway cars, a storage heater composed of two pipes differing in diameter, one enveloping the other, a means for supplying the larger of said pipes with steam, the smaller of said pipes supplied with a heat retaining substance, a car within which said heater is located, a means for regulating the radiation of heat by said storage heater to the interior of the car, substantially as described and for the purpose set forth. 9th. In a railway car-heating apparatus, a storage heater composed of two pipes differing in diameter, the one enveloping the other, said heater placed beneath the seat of a car, means for supplying said heater with steam, a means for carrying away the drip from said heater, the smaller of said pipes charged with a heat retaining substance, with a hood partly enveloping said heater adapted to be raised or lowered for the purpose of opening or closing the passage for the escape of air into the car, substantially as described and for the purpose set forth. 10th. A system for heating railway cars by means of which hot metallic contact is provided between the train pipe and the steam distributing pipes, also between the steam distributing pipes and the return to the drip, substantially as described and for the purpose set forth. 11th. A system for heating railway cars, consisting of a train pipe carrying steam, a supply pipe connected with said train pipe, a series of storage heaters placed within the car, said storage heaters connected with said supply pipe, an exhaust pipe also connected with said storage heaters, a drip pocket provided with a dirt chamber in which the iron rust is washed with the drain to the bottom thereof, and a drip is placed in the side of the chamber, substantially as described and for the purpose set forth. 12th. In a railway car heating system, a steam supply pipe, a heater communicating therewith, an exhaust pipe, a drip pocket with a dirt chamber in the bottom thereof, a valve communicating with said dirt chamber, said drip pocket provided with a drip valve about half way up its side, substantially as described and for the purpose set forth.

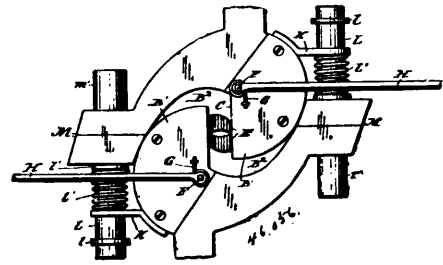
No. 46,055. Apparatus for Supplying Storage Heaters with Hot Water. (*Appareil pour l'alimentation des accumulateurs avec de l'eau chaude.*)



The Consolidated Car Heating Company, assignees of James F. McElroy, all of Albany, New York, U.S.A., 15th May, 1894; 6 years.

Claim.—1st. In an apparatus for supplying storage heaters with hot water, the combination of one or more drums within the car, suitable piping connected with said drums, a four-way valve connected with said piping by the combination and operation of which the supply to and discharge from the drums may be controlled, substantially as described, and for the purpose set forth. 2nd. In an apparatus for supplying storage heaters with hot water, the combination of one or more drums within the car, suitable piping connected with said drums, a four-way valve connected with said piping by the operation of which water may be caused to enter said piping and drums from the supply pipe and when a sufficient amount of water has entered the car may be placed in position to allow for the circulation of the water through the four-way valve, substantially as described, and for the purpose set forth. 3rd. In an apparatus for supplying storage heaters with hot water, one or more drums placed within the car, suitable piping connected with said drums, a four-way valve connected with said piping, a supply pipe coupled with said four-way valve at the side of the car, a return pipe coupled with said four-way valve at the side of the car, a five-way valve in said supply and said return pipes, by the operation of which the drums and piping within the car may be supplied with hot water and the coupling broken at the side of the car without allowing the escape of water, substantially as described, and for the purpose set forth. 4th. In an apparatus for supplying storage heaters with hot water, one or more drums placed within the car, suitable piping connected with said drums, a valve provided with four ports connected with said piping at the side of the car, a rotary stop cock placed within said valve by the operation of which the direction of the flow through the valve may be changed, substantially as described, and for the purpose set forth. 5th. In an apparatus for supplying storage heaters with hot water, one or more drums placed within the car, suitable piping connected with said drums, a valve provided with four ports, a concentrically located rotary cock in said valve by the operation of which the flow through the valve may be from one side of the valve to the other, or from the port on one side of the valve to the port on the same side, depending upon the position of the car, substantially as described, and for the purpose set forth. 6th. In an apparatus for supplying storage heaters with hot water, one or more drums placed within the car, suitable piping connected with said drums, a four-way valve connected with said piping at the side of the car, a supply pipe coupled to said four-way valve, a return pipe coupled to said four-way valve, said return and supply pipes connected with a valve having five ports, a plug extending through the centre of said valve so arranged that by the movement of said plug the direction of the flow through the valve may be governed, substantially as described, and for the purpose set forth. 7th. In an apparatus for supplying storage heaters with hot water, the combination of one or more drums placed within the car, suitable piping connected with said drums, a four-way valve at the side of the car connected with said piping, a supply pipe coupled to said four-way valve, a return pipe coupled to said four-way valve, a five-way valve arranged in said return and supply pipes, so adapted that the water within the drums and piping in the car may be expelled therefrom with a rush, and the drums and piping filling with hot water under boiler pressure, a coupling broken at the side of the car without the discharge of hot water therefrom, substantially as described and for the purpose set forth.

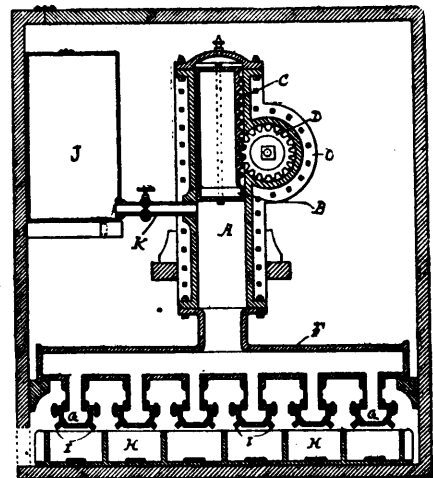
No. 46,056. Coupler for Cars and Air Brakes. (*Atelage de chars*)



George R. J. Newman, Washington, Columbia, U.S.A., 15th May, 1894; 6 years.

Claim.—1st. In a car-coupler, the combination with a draw-head, having a chambered jaw, the chamber of which is formed with a curved outer wall, and a shoulder on the inner wall, a curved coupling-hook having a link connecting with the draw-head and fitted in the chamber, its outer end being formed with a curved outer face and a spring for normally holding the hook out, substantially as described. 2nd. In a car-coupler, the combination with a draw-head, of a chambered jaw thereon, having a segmental outer wall, of a curved coupling-hook working in the chamber and of a curvature substantially that of the outer wall, a shoulder on the inner wall of the chamber, a link connection between the inner wall of the chamber, a link connection between the draw-head and coupling-hook, a spring actuated trigger engaging the hook and normally forcing the same out, and a lever for moving the trigger against the tension of the spring, substantially as described. 3rd. In a car-coupler, the combination with a solid jaw, of a chambered jaw, the chamber of which is formed in the arc of a circle, a shoulder formed on the inner wall of the chamber, a link pivoted in said inner wall and having an elongated slot at its outer end, a curved coupling-hook having a curvature corresponding to that of the chamber, and a recess in which the link rests, a pivot pin in the hook passing through the slot in the link, means for normally forcing the hook out, and a lever for uncoupling the hook, substantially as described. 4th. In a car-coupler, the combination with a draw-head, of a bracket on the head having openings therein, hose couplers formed with ball heads, having valves therein, collars on the rear of the couplers, projections at or near the heads, springs sleeved on the couplers between the projections and brackets, and a socket member on the opposite side of the draw-head having valves therein, substantially as described. 5th. In a car-coupler, the combination with a draw-head, a coupling member secured on one side thereof, a casing on the opposite side of the draw-head having a chambered forward face, tubular extension on the casing, socketed heads for said extension, and valves in the heads, substantially as described.

No. 46,057. Mould Oiler. (*Graisseur pour moules.*)

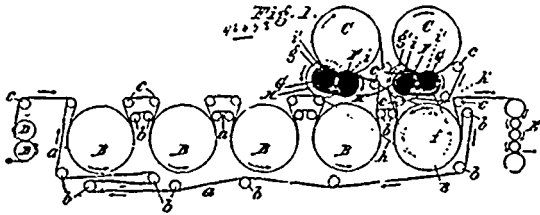


Charles J. Lewis, Grimsby, Ontario, Canada, 15th May, 1894; 6 years.

Claim.—1st. In a brick making machine the combination with the moulds of an oiling device consisting of an oil receptacle, jets in

connection with the oil receptacle arranged to spray the oil on the moulds, and means for forcing the oil from the receptacle through the jets, substantially as specified. 2nd. In a brick making machine the combination with the moulds of an oiling device comprised of a cylinder, a piston working in the cylinder, a cross in connection with the lower end of the cylinder, and jets in connection with the cross-head, arranged to spray the oil on the moulds, substantially as specified. 3rd. In a mould oiling device the combination of a cylinder, a piston within the cylinder, a rack connected to the piston, a pinion operating the rack, a cross-head in connection with the cylinder, a series of oil sprayers in connection with the cross-head, jets connected to the oil sprayers, and arranged to throw the oil on the sides of the moulds, substantially as specified. 4th. In a mould oiling device the combination of a cylinder, a piston within the cylinder, a rack connected to the piston, a pinion operating the rack, a cross-head in connection with the cylinder, a series of oil sprayers in connection with the cross-head, jets connected to the oil sprayers arranged to throw the oil on the sides of the moulds, and an oil tank to supply the said cylinder, substantially as specified.

No. 46,058. Art of and Apparatus for Coating Paper.
(*Art et appareil pour enduire le papier.*)

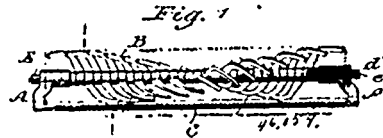


Frank P. Buffington and John T. Suthew, both of Middleton, Ohio, U.S.A., 15th May, 1894; 6 years.

Claim. 1st. In the manufacture of paper, the herein described process of glazing or otherwise coating the surface thereof, which consists in applying the glaze or coating to said surface in the passage of the paper through the drier or other paper making machine, after said paper has passed from between the press rolls and before entering or reaching the calender rolls. 2nd. In the manufacture of glazed or analogously coated paper, the process herein described which consists in first passing the paper between the press rolls, thence through the drier, and, while in the drier and prior to passing between the calender rolls, subjecting it to a glaze or other coating operation, thus glazing or otherwise coating paper during its initial or onward passage through the drier, intervening the press and calender rolls, without necessity of making a special or independent glazing or coating operation after the paper has passed said calender-rolls. 3rd. In the manufacture of paper, the herein described art or process of glazing or otherwise coating the surface thereof, which consists in applying the said coating to one side of the paper while the other side is in contact with a heated drum or drier. 4th. In the manufacture of paper, the herein described process of glazing or otherwise coating the surface thereof, which consists in applying the coating to one surface of the paper after it has passed off the web in the drier, intervening the press and calender-rolls, and while the surface, opposite the point to which the coating is being applied, is in contact with the heated surface of one of the drier-cylinders, substantially as specified. 5th. In a paper making machine, the combination with a drier provided with the customary heated cylinders or drums, of a coating apparatus adjacent to the surface of one of the drums and adapted to apply the coating to one surface while the opposite surface is in contact with the heated surface of said drum, substantially as specified. 6th. In a paper making machine, the combination, with a drier provided with the customary heated cylinders or drums, of a vat or trough adjacent to one of the drums, a rotary cylindrical brush mounted adjacent to said vat and to one of the drums and adapted to apply the glaze or other coating material from said vat to one surface of the paper while the opposite surface is in contact with the heated surface of said drum, substantially as specified. 7th. In a paper making machine, the combination with a drier provided with the customary heated cylinders and drums, of a glaze or coating trough or vat adjacent to one of the drums, a rotary carrier-brush operating in said vat and in contact with the surface of the passing paper, a distributing and smoothing rotary-brush, and suitable belt and pulley mechanism for driving said brushes and distributing the coating over said surface of the paper during its onward passage through said drier, substantially as herein set forth. 8th. In a paper making machine, the combination with a drier provided with the customary heated cylinders or drums, of a glaze or coating vat or trough adjacent to one of the drums, a rotary-brush mounted adjacent to said vat and drum and adapted to apply glaze or other coating-material from said vat to the surface of the passing paper, a second rotary brush also mounted adjacent said vat, drum and first-named rotary-brush, a gear-wheel on the shaft of each of said rotary-brushes, both gears intermeshing to cause said brush shafts to revolve in opposite directions, and suitable mechanism for driving said brushes, whereby the first-named brush raises or upsets the nap or fibre on the surface of the

paper and simultaneously applies the coating thereto, and the other brush re-sets or re-lays said nap or fibre and properly smooths and uniformly distributes said coating on the surface of the paper, substantially as herein set forth. 9th. In the manufacture of paper, the herein described art or process of glazing or otherwise coating the surface thereof, which consists in applying the glaze with a brush revolving or moving in a direction opposite to that of the movement of the paper, said brush raising or upsetting the nap or fibre on the surface of the paper, and then re-setting or re-laying said upset and glazed surface with another brush moving in the same direction as the paper, which latter brush also performs the operation of properly smoothing and uniformly distributing said coating on the surface of the paper, substantially as herein set forth.

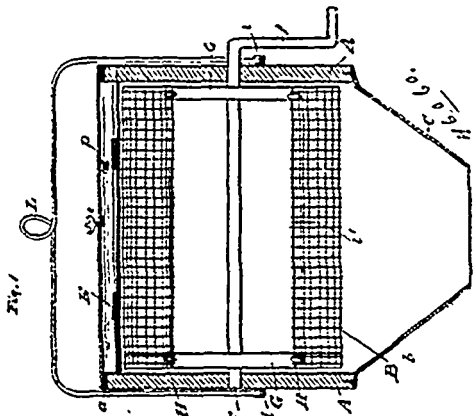
No. 46,059. Harvesting Machine. (*Moissonneuse.*)



Gerard Beckman, New York, State of New York, U.S.A., 15th May, 1894; 6 years.

Claim. 1st. The herein described cutting apparatus for harvesting machines, consisting in a series of spiral fingers, rotating on a horizontal axis, projecting in the direction of rotation to form hooks, their cutting surfaces, or those which sever the grain, describing a cylindrical path, each of said fingers adapted when advancing through the grain, in the manner set forth, to feed the same laterally into the path of the cutting or severing part of a next adjacent finger, and also to cut or sever the grain fed into the path of its own cutting or severing part by another adjacent finger, substantially as set forth. 2nd. In a harvesting machine, the combination of a series of spiral fingers rotating on a horizontal axis, projecting in the direction of rotation to form hooks, their cutting surfaces or those which operate to sever the grain describing a cylindrical path, and a stationary knife having its cutting edge coincident with the said cylindrical path, as set forth. 3rd. A cutting apparatus for harvesting machines, consisting in two series of spiral fingers, which project in alternating directions of spiral inclination upon opposite sides of a common axis of rotation, and form hooks adapted when they rotate to feed the grain left uncut by one of said series to be seized and cut by the other said series, substantially as hereinbefore described. 4th. A cutting apparatus for harvesting machines, consisting in a series of spiral fingers upon a common horizontal axis, projecting in the direction of rotation to form hooks, their cutting or severing surfaces form a cylindrical path, the position of successive fingers along and about the shaft being arranged in a spiral or rhythmic succession, substantially as herein set forth. 5th. A rotary cutter for harvesting machines, comprising a central hub and two spiral sickles projecting on opposite sides and at opposite angles therefrom, said cutter adapted to be assembled with other similar cutters in series upon a shaft, and to operate substantially as hereinbefore described.

No. 46,060. Rotary Ash Sifter.
(*Tamis à cendre rotatoire.*)

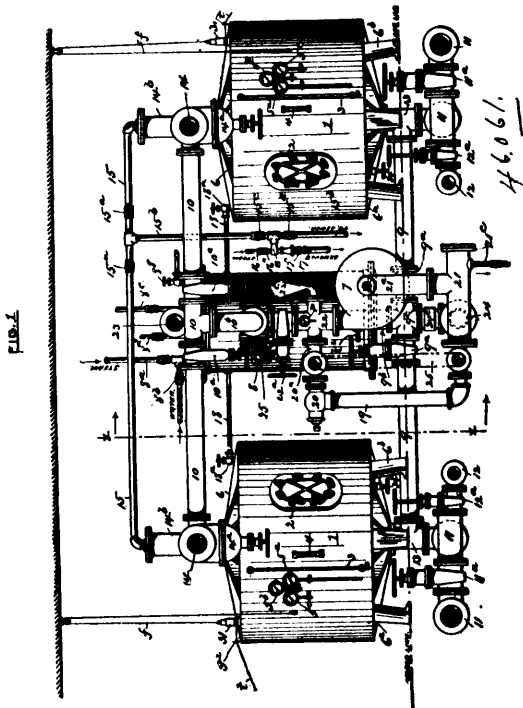


George Prentice Harrison, Windsor, Ontario, Canada, 16th May, 1894; 6 years.

Claim. In an ash sifter, the combination of the cylindrical screen, the correspondingly shaped inclosing casing, formed with the door D and spout C, and the bail L, pivoted to each end of said

casing on a line intermediate of the spout, so as to allow said spout to project laterally and avoid loss of contents while the operator is carrying the screen, substantially as described.

No. 46,061. Process of and Apparatus for Treating Textile Fibres. (Procédé et appareil de traitement des tissus.)



Emile Maertens, Providence, Rhode Island, U.S.A., 16th May, 1894; 6 years.

Claim.—1st. In apparatus for treating textile materials, a treating kier, a pump connecting with the inlet and outlet chambers of said kier through a mechanically operated four-way valve, and piping through which the said pump discharges alternately into said inlet and outlet chambers through the four-way valve under pressure, and through which said pump alternately exhausts or sucks through the four-way valve from said chambers, substantially as described. 2nd. In combination, a kier, a pump and a system of circulating pipes which include the kier and pump, a distributor having its valve chamber with passages opposite each other, leading to opposite ends of the kier, and passages also opposite each other leading to opposite sides of the pump, substantially as described. 3rd. In apparatus for treating textile fibres, and in combination, a kier, a pump, and a reservoir above said pump, all included in a system of valved pipes, said reservoir communicating with the pump suction and opposite ends of the kier through a four-way distributor also in said system, and mechanism for operating said distributor, said pipes and distributor being also arranged to reverse the current through the kier, substantially as described. 4th. In an apparatus for treating textile fibres, and in combination, a closed kier, a closed reservoir, and a pump, all included in a system of valved pipes, said reservoir communicating with the pump suction and opposite ends of the kier through a four-way distributor also in said system, and mechanism for operating said distributor, said pipes and distributor being arranged to reverse the current through the said kier, substantially as described. 5th. In an apparatus for treating textile fibres, and in combination, a closed kier, and a reservoir arranged on a higher plane than said kier, a pump connecting with the reservoir's outlet, a system of valved pipes leading through the kier, and a distributor connecting with the reservoir's inlet arranged to reverse the circulation through said kier, and valved pipes leading also from said pipes arranged to maintain the circulation downward through said reservoir, substantially as described. 6th. In an apparatus for treating textile materials mounted on perforated holders communicating with the inlet and outlet chambers of the treating kier, a suitably connected mechanically operating four-way valve or distributor located below the kier, arranged to automatically reverse the direction of the treating liquid while the latter is passing through said material, and a pump discharging the treating liquid into said kier chambers alternately upon reversing the distributor, provided with pipes whereby the return flow from the chambers is made by gravity and suction through the bottom of the distributor, and thence into the suction side of the pump, substantially as described.

7th. In an apparatus for treating fibrous materials by circulating the treating liquid to and fro through the material in opposite directions at predetermined intervals of time, a heater located in the piping system arranged to receive said liquid as it is discharged from the kier, a pump for effecting the circulation taking its supply from the heater, and an intermittently operated distributor or four-way valve for alternately reversing the flow of the circulating liquid from the top to the bottom of the kier and communicating with the inlet to the heater, substantially as described. 8th. In an apparatus for treating textile materials, provided with a treating kier, a heater or reservoir and a liquor circulating pump, the combination therewith of an intermittently operating four-way valve having the top nozzle communicating with the top of the heater, the bottom nozzle with the bottom of the heater, via the pump, and the two lateral nozzles with the inlet and outlet chambers of the kier, substantially as described. 9th. In an apparatus for treating textile fibres, and in combination, a kier, a pump, a reservoir having in it a coil for changing the temperature, and a system of valved pipes including said kier, reservoir and pump, and a four-way distributor in said system, with connections through said kier, combined with reversing mechanism, and connections through said reservoir, all substantially as described. 10th. In an apparatus for treating textile fibres, and in combination, a kier, a reservoir and a pump, a distributor connected to the force and exhaust sides of said pump, pipes leading from the distributor through the kier, and a discharge pipe leading from the distributor to the said reservoir, said discharge pipe being higher than the kier, and a pipe leading from the reservoir to the distributor, all substantially as described. 11th. In an apparatus for treating textile materials, a piped kier containing perforated holders carrying said material, a pump for circulating the treating liquid, and a heater or reservoir, in combination with an intermittently operated four-way valve or distributor having four nozzles, one communicating with the inlet chamber of said kier, one with the outlet chamber, one with the discharge of said pump, and one with the suction side of the pump through the said heater, the latter being located above said suction, and maintaining a head on the pump, substantially as described. 12th. In an apparatus for treating textile fibres, and in combination, a closed kier, a closed reservoir, and a system of valved pipes including said kier, reservoir and pump, and a four-way distributor in said system, with connections through said kier, arranged for reversed currents, and connections through said reservoir, the whole forming a closed system, substantially as described. 13th. In an apparatus for treating textile material, the combination with the treating-kier, the valve and pipe connections, forming a closed system, and a circulating pump, etc., arranged to circulate the treating-liquids throughout the system, of coils located in the system and arranged for cooling and beating the treating-liquid, as described, during its passage or circulation, substantially as described. 14th. In combination with a kier and pump, and a system of valved pipes whereby circulation is maintained through the kier, a heater or reservoir connected with said system of valved pipes, said heater or reservoir having interior coils connected with said system of valved pipes, said heater or reservoir having interior coils connected with valved steam and water pipes, whereby it may be used either as a heater, cooler or reservoir, substantially as described. 15th. In combination with a kier and pump, and a system of valved pipes, whereby circulation is maintained through the kier, a heater or reservoir connected with said system of valved pipes, said heater or reservoir having interior coils connected with valved steam and water pipes and having also a pipe connected with a blower, substantially as described. 16th. In an apparatus for treating textile materials, and in combination with a pump and kier a heater or reservoir adapted interiorly for the circulation of treating liquids and provided with coils for the circulation of cooling and heating mediums for the purpose of changing the temperature of the treating-liquid, said coils being connected with valved pipes supplying said mediums, substantially as described. 17th. A sampling valve, consisting of a body portion, having a seat for the valve, a hole in said seat communicating with the interior of the kier, a valve having a facing fitted to hold the thread without cutting it, means for forcing the valve to its seat and means for releasing said valve, substantially as described. 18th. In an apparatus for treating textile materials, the combination with a closed treating kier, of a testing-valve secured thereto, consisting of a head having a valved opening communicating with the kier's interior and adapted for the passage of an end of the material under treatment, a self-closing valve for closing said opening, and a movable sleeve fitting the exterior of the head portion, substantially as described. 19th. In an apparatus for treating textile materials mounted in a closed kier, the self-closing testing-valve having the tubular aperture or perforation communicating with the kier's interior for the passage of an end of the material under treatment, substantially as set forth. 20th. In an apparatus for treating textile materials, the combinations with a closed treating-kier and one or more spool or holders mounted therein carrying said material while under treatment, of a self-closing testing-valve communicating with the kier's interior and adapted for the passage through it of an end of the material under treatment, and an interior hood or shield through which said end passes from the spool to the valve, substantially as described. 21st. In an apparatus for treating textile materials, the combination with a closed treating-kier, of a self-closing testing-valve secured thereto and communicating with the kier's interior,

said valve being adapted for the passage of an end of the material under treatment, the valve and its seat, one or both, having a yielding face to preserve the integrity of the sample end when the valve is seated. 22nd. In an apparatus for treating textile materials, provided with a kier having inlet and outlet chambers and perforated holders mounted in the kier communicating with said chambers, the combination therewith of a supplemental perforated holder communicating with one of the main holders, a testing-valve communicating with the interior of the kier having an opening through it for the passage of a yarn or thread and mechanism for circulating the treating liquid through the materials, substantially as described. 23rd. In an apparatus for treating textile materials, a suitably connected kier having a bottom chamber separated from the main chamber by an apertured partition and having a series of holders fitting said apertures, each holder consisting of a capped central perforated tube, a perforated barrel on to which the material to be treated is wound, and closed ends or heads, whereby when in use the treating-liquid passes from the said bottom chamber upwardly into the interior of the holder and outwardly therefrom through the load or material, and vice versa, substantially as described. 24th. In an apparatus for treating textile materials, a kier having a top head provided with a central opening from which extend radiating pipes having smaller openings communicating with the interior of the kier, and a suitably constructed bottom head having in addition an interposed or supplemental chamber communicating with the interior of the kier by a series of sockets, arranged to receive perforated holders, substantially as described. 25th. In an apparatus for treating textile materials, a kier having a bottom head provided with an interposed chamber communicating both with the main chamber of the kier and the lower main opening, and having a discharge valve communicating directly with said interposed and main chambers, substantially as set forth. 26th. In an apparatus for treating textile materials with circulating liquids, a four-way valve distributor arranged to reverse the direction of the treating-liquid, a continuously revolving disc-wheel provided with a toothed segment, a pinion arranged to inter-gear therewith to actuate the valve proper and a locking plate adapted in use to engage the disc wheel to prevent movement of the valve after the pinion and segment have ceased to act, substantially as described. 27th. In an apparatus for treating textile materials with circulating liquids provided with a mounted four-way valve or distributor arranged to reverse the flow of said liquid, mechanism for automatically operating said valve, consisting of a loosely mounted disc adapted to continuous rotation, a pointer-carrying plate intermittently rotated by said disc, an arm or crank secured to the stem of the valve proper and a link jointed to the crank and plate, whereby the valve is vibrated to and fro in unison with the intermittently rotated plate, substantially as described. 28th. In combination with a kier and pump, and a system of valved pipes, whereby circulation is maintained through the kier, a heater or reservoir connected with said system of valved pipes, said heater or reservoir having interior coils connected with valved steam or water pipes, and having also an air pipe connected with a blower, and a pipe connected with a concentrated liquor supply substantially as described. 29th. In an apparatus for treating fibrous materials, a tank for containing concentrated dye-liquor, a filter communicating therewith, a pump for forcing the liquor from said tank and filter into the main circulation or treating liquid, and mechanism for circulating the latter through the holders and material, substantially as described. 30th. In an apparatus for treating fibrous materials mounted on perforated holders communicating with the inlet and outlet chambers of the treating-kier, the combination therewith of a dye-tank provided with a strainer and collecting chamber, a filter connected with the tank having a bed of filtering material, a strainer and collecting chamber, means for forcing liquor from said tank and filter into the main circulating system, and mechanism for repeatedly circulating the treating-liquid through the fibrous material, substantially as described. 31. The system for treating fibrous materials, substantially as heretofore described, the same comprising the following instrumentalities, viz.: one or more kiers having a series of perforated holders mounted therein carrying the material under treatment, a heater or reservoir into which the treating liquor is discharged from the kiers, a series of supply tanks, a dye-liquor tank and filter, communicating with each other, a pump arranged to discharge the dye-liquor into said heater or circulation, automatically operating four-way valve or distributor arranged to reverse the flow of the treating-liquor at predetermined intervals of time, a main pump for effecting the circulation of the treating liquor, and valved connections communicating with the several parts, for the purpose specified. 32nd. The system for treating fibrous materials, substantially as heretofore described, the same comprising the following instrumentalities, viz.: one or more kiers having a series of perforated holders mounted therein, carrying the material under treatment, a heater or reservoir into which the treating-liquor is discharged from the kiers, a series of supply tanks, a dye liquor tank and filter communicating with each other, a pump arranged to discharge the dye-liquor into said heater or circulation, an automatically operating four-way valve or distributor arranged to reverse the flow of the treating liquor at predetermined intervals of time, a main pump for effecting the circulation of the treating-liquor, a blower arranged to circulate air through the materials under treatment, and valved connections communicating with the several parts, for the purpose

specified. 33rd. The system for treating fibrous materials, substantially as heretofore described, the same comprising the following instrumentalities, viz.: one or more kiers having a series of perforated holders mounted therein carrying the material under treatment, an ejector, or other suitable means for forming a vacuum in the kiers, a heater or reservoir into which the treating-liquor is discharged from the kiers, a series of supplying-tanks, a dye liquor tank and filter communicating with each other, a pump arranged to discharge the dye liquor into said heater, an automatically operating four-way valve or distributor arranged to reverse the flow of the treating liquor at predetermined intervals of time, a main pump for effecting the circulation of the treating-liquor, and valved connections communicating with the several parts, for the purposes specified. 34th. The system for treating fibrous materials, substantially as heretofore described, the same comprising the following instrumentalities, viz.: one or more kiers having a series of perforated holders mounted therein carrying the material under treatment, an ejector or other suitable means for forming a vacuum in the kiers, a heater or reservoir into which the treating-liquor is discharged from the kiers, a series of supply tanks, a dye-liquor tank and filter communicating with each other, a pump arranged to discharge the dye-liquor into said heater, an automatically operating four-way valve or distributor arranged to reverse the flow of the treating-liquor at predetermined intervals of time, a main pump for effecting the circulation of the treating liquor, a blower arranged to circulate air through the material under treatment, an indigo tank communicating with the lower discharge outlet of the kiers by an independent valved connection and valved piping connecting the kiers with the several parts, for the purpose specified. 35th. In an apparatus for treating textile materials, the combination of a dye-tank, a filter having a closed system of circulation, in connection with a suitable supply therefor and a pump or other injecting mechanism arranged to discharge dye liquor from said tank and filter into and be diluted with the circulating treating-liquor, substantially as described. 36th. In an apparatus for treating textile materials mounted on perforated holders communicating with the inlet and outlet chambers of the treating kier, the combination therewith of a mechanically operating piped distributor located below the kier arranged to intermittently reverse the flow of the treating liquid, a pump also located below the kier connected with said distributor and kier chambers, a valved manifold communicating with one or more supply tanks, distributor and pump, and mechanism for circulating air through the material under treatment, substantially as described. 37th. An apparatus for treating porous or textile materials, the same comprising a plurality of kiers arranged to contain such material while under treatment, one or more supply tanks, a circulating pump, means for changing the temperature of the circulating treating-liquor, mechanism for forcing air and creating a vacuum, an intermittently-operating distributor, and valved piping connecting the several parts, all combined and adapted for operation whereby at the same time the material in one kier is being subjected to the treating operation the previously treated material is being dried or removed from the other kier followed by recharging the latter with untreated material, substantially as described. 38th. In an apparatus for treating textile materials having a force pump therein and system of pipes for circulation of the treating liquid, means for mechanically returning the treating liquids from the kiers into the reservoirs or supply tanks, the same consisting of a pump, a suction main communicating with the kiers, etc., a stop-valve closing the circulation of the kiers, a valved manifold communicating with the tanks, a valved connection communicating with the pump discharge, and said manifold and a stop-valve interposed between the manifold and the pump suction, substantially as described. 39th. In an apparatus for treating textile fibres, a closed kier, a closed heater or reservoir, and a pump, both included in a system of circulating pipes, an indigo tank in communication with said system, and means for introducing the indigo solution from the indigo tank into said system, substantially as described. 40th. In an apparatus for treating textile materials, a closed kier provided with inlets and outlets for the passage of air and treating liquor, and an indigo tank or reservoir communicating with said outlet, in combination with means for exhausting air from the kier and means for supplying air to the kiers. 41st. An apparatus for treating textile fibres, a closed kiers, a closed reservoir, a pump, and a system of circulating pipes, including said kier, reservoir and pump, an indigo tank in communication with said system, means for introducing the indigo solution from said tank into said system, and means for changing the temperature of the circulating liquor, substantially as described. 42nd. In apparatus for treating textile fibres, a closed kier, a pump, both included in a system of circulating pipes, an indigo tank or reservoir in communication with said system, means for introducing the indigo solution from said tank into said system, and a concentrated liquor tank, also in communication with said system, and means for forcing the concentrated liquor into said system, all substantially as described. 43rd. The improvement in the manufacture of coloured tops or slivers from combed animal fibres, the same consisting in winding a combed sliver in a twisted condition upon a suitable holder, then chemically treating the thus mounted sliver, and drying it. 44th. The improvement in the manufacture of coloured tops or slivers from combed animal fibres, the same consisting in winding a combed and twisted sliver upon a suitable holder, then chemically treating the thus mounted sliver and drying

it and then untwisting the treated sliver. 45th. The improvement in the manufacture of coloured tops or slivers from combed animal fibres, the same consisting in winding a combed and twisted sliver upon a suitable holder, then chemically treating the thus mounted sliver and drying it, then untwisting the treated sliver and then combining and drawing two or more of said slivers into a single sliver. 46th. The improvement in the manufacture of coloured tops or slivers from combed animal fibres, the same consisting in winding a combed and twisted sliver upon a suitable holder, then chemically treating the thus mounted sliver and drying it, then untwisting the treated sliver and then combining, drawing and gilling two or more of said slivers into a single sliver. 47th. The improvement in the manufacture of coloured tops or slivers from combed animal fibres, the same consisting in winding a combed and twisted sliver upon a suitable holder, then chemically treating the thus mounted sliver and drying it, then untwisting the treated sliver from the holder, and then combining, drawing, gilling and balling two or more of said slivers into a top.

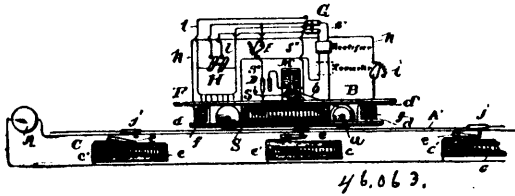
No. 46,062. Panelling for Ceilings and Walls.
(*Boiserie pour plafonds et murs.*)



George Dietrich, Toronto, Ontario, Canada, 16th May, 1894; 6 years.

Claim.—1st. In combination with a suitable backing a series of independent frames containing squares of glass backed by sheets of paper having ornamental designs thereon, substantially as described. 2nd. In combination with a suitable backing, a series of independent frames secured side by side to said backing, squares of glass carried by said frames and backed by sheets of paper having ornamental designs thereon, and strips of moulding overlapping adjoining frames and covering the space between, substantially as described. 3rd. In combination with a suitable backing, a series of independent frames containing squares of glass secured to said backing with the edges of the frames in contact, sheets of paper containing designs behind the glass, and strips of moulding overlapping the adjoining edges of adjacent frames and covering the crack between, substantially as described.

No. 46,063. Electric Propulsion of Vehicles and Boats. (*Propulsion électrique de voiture et vaisseau.*)



Mark Wesley Dewey, Syracuse, New York, U.S.A., 16th May, 1894; 6 years.

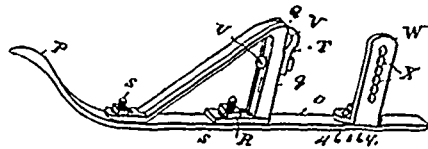
Claim.—1st. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, and a translating device connected with the latter conductor. 2nd. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a vehicle, a secondary circuit on the vehicle in suitable inductive relation to the coils, and an electric motor in the secondary circuit to move the vehicle. 3rd. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a vehicle, a secondary circuit on the vehicle in suitable inductive relation to the coils, and an electric motor to move the vehicle, and controlling devices in the secondary circuit. 4th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a paramagnetic core or body for each of said coils, a vehicle, a secondary circuit on the vehicle in suitable inductive relation to one or more of said cores or coils, and a trans-

lating device in the secondary circuit. 5th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, an iron core or body within each of said coils, a vehicle, a secondary circuit on the vehicle in suitable inductive relation to one or more of said cores or coils, and an electric motor in the latter circuit to move the vehicle. 6th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, iron cores within said coils and having enlarged poles extending beyond the ends of the coils, a vehicle, a secondary circuit on the vehicle in suitable inductive relation to one or more of said cores or coils, and an electric motor in the latter circuit to move the vehicle. 7th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the railway and connected with the conductor, a laminated iron core or body for each of said coils, a vehicle, a conductor on the vehicle in inductive relation to one or more of said cores or coils, and a translating device connected with the latter conductor. 8th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the railway and connected with the conductor, a laminated iron core or body for each of said coils, a vehicle, a conductor on the vehicle in inductive relation to one or more of said cores or coils, an electric motor to move the vehicle in electrical connection with the latter conductor, and controlling devices. 9th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the railway and connected with the conductor, a core or body of iron for each of said coils having poles extended to, beyond, or in proximity to the surface of the road-bed, a vehicle, a conductor on the vehicle in suitable inductive relation to one or more of said cores or coils, and an electric motor to move the vehicle, in electrical connection with the latter conductor. 10th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils, distributed apart along the railway and connected with the conductor, a core or body of iron for each of said coils in inductive relation to the latter, and having its poles extended to, or in proximity to the surface of the road-bed, but located on opposite sides of the centre thereof, a vehicle, a conductor on the vehicle in suitable inductive relation to one or more of said cores or coils, and an electric motor to move the vehicle, in electrical connection with the latter conductor. 11th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the railway and connected with the conductor, a core of iron within each of said coils, and having its poles located on opposite sides of the centre of the road-bed, a vehicle, a conductor on the vehicle in suitable inductive relation to one or more of said cores or coils, and an electric motor to move the vehicle, in electrical connection with the latter conductor. 12th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a paramagnetic core or body within each of said coils in inductive relation to the latter, a vehicle, a conductor on the vehicle in inductive relation to both the cores and coils, and an electric motor to move the vehicle in electric connection with the latter conductor. 13th. In an electric induction railway, a source of irregular or alternating currents, a line conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a core of iron within each of said coils, and having its poles located on opposite sides of the centre of the roadbed, a vehicle, a secondary coil upon the vehicle, a core or body of iron for the latter coil in inductive relation to both the core and coils of the line conductor, and an electric motor to move the vehicle in circuit with the secondary coil conductor. 14th. In an electric induction railway, a source of irregular or alternating currents, a line conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a core of iron within each of said coils having its poles extended to or in proximity to the surface of the road-bed, but located on opposite sides of the centre thereof, a vehicle, a secondary coil upon the vehicle, a core of iron within the latter coil, having its poles extended to or in proximity to the poles of the primary cores and in inductive relation therewith, and an electric motor to move the vehicle in circuit with the secondary coil conductor. 15th. In an electric induction railway, a source of irregular or alternating currents, a line conductor extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor, a laminated core of iron within each of said coils, having its poles extended to or in proximity to the surface of the road-bed, but located on opposite sides of the centre thereof, a vehicle, a secondary coil upon the vehicle, a laminated core of iron within the latter coil having its poles extended to or in proximity to the poles of the primary cores and in inductive relation therewith, and an electric motor to move the vehicle, in circuit with the secondary coil conductor. 16th. In an electric railway, a source of irregular or alternating currents, a conductor or conductors extending therefrom along the way, a laminated paramagnetic core or body having its

poles located one on each side of the centre of the road-bed, a vehicle, a conductor on the vehicle in suitable inductive relation to the core, and a translating device connected with the latter conductor. 17th. In an electric induction railway, a source of irregular or alternating currents, conductors extending therefrom along the railway, a series of coils distributed apart along the way and connected with the conductor in multiple arc, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, and a motor to move the vehicle, or other electric translating device, connected with the latter conductor. 18th. In an electric induction railway, a source of irregular or alternating currents, conductors extending therefrom along the railway, a series of coils distributed apart along the way in multiple arc connection with the conductors, but normally out of circuit, a circuit maker and breaker for each of said coils, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, a magnetic device on the vehicle to operate the circuit makers and breakers to include one or more coils in the vicinity of the vehicle in circuit, and a motor to move the vehicle or other electric translating device connected with the vehicle conductor. 19th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor, but normally out of circuit, a circuit maker and breaker for each of said coils, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, a magnetic device in circuit with an electric conductor on the vehicle to operate one or more of the circuit makers and breakers to include one or more coils in circuit in the vicinity of the vehicle, and a motor to move the vehicle or other electric translating device connected with the vehicle conductor. 20th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way, and connected with the conductor, but normally out of circuit, a circuit maker and breaker for each of said coils, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, a magnetic device in circuit with an electric conductor on the vehicle to operate one or more of the circuit makers and breakers to include one or more coils in circuit in the vicinity of the vehicle, and a motor to move the vehicle or other electric translating device connected with the vehicle conductor. 21st. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor, but normally out of circuit, a circuit maker and breaker for each of said coils, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, a magnetic device consisting of a bar of metal included in a circuit of very low resistance in inductive relation to the conductor on the vehicle to operate one or more of the circuit makers and breakers to include one or more coils in circuit in the vicinity of the vehicle, and a motor to move the vehicle, or other electric translating device connected with the vehicle conductor. 22nd. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor, but normally out of circuit, a circuit maker and breaker for each of said coils, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, a magnetic device on the vehicle consisting of a magnetic bar extending near and parallel to the surface of the road bed and in the same direction as the movement of the vehicle, to operate one or more of the circuit makers and breakers to include one or more coils in circuit in the vicinity of the vehicle, and a motor to move the vehicle or other electric translating device, connected with the vehicle conductor. 23rd. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor, a vehicle, a secondary circuit entirely on the vehicle in suitable inductive relation to the coils, a current rectifier in the latter circuit to straighten the currents therein, and an electric motor to move the vehicle, or other electric translating device thereon, connected in the latter circuit. 24th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, one or more coils distributed apart along the way and connected with the conductor, a vehicle, a secondary circuit entirely on the vehicle in suitable inductive relation to the coils, a current rectifier in the latter circuit to straighten the currents therein, and a continuous or direct current motor to move the vehicle connected in the latter circuit. 25th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor, a vehicle, a secondary circuit on the vehicle in suitable inductive relation to the coils, a current rectifier in the latter circuit to straighten the currents therein, a continuous or direct current motor to move the vehicle, and a switching device for including the motor and battery in latter circuit alternately. 27th. In an electric railway, a source

of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the way and connected with the conductor but normally out of circuit, a circuit maker and breaker for each of said coils, a vehicle, a conductor on the vehicle in suitable inductive relation to the coils, a magnetic device on the vehicle in circuit with an electric conductor to operate one or more of the circuit makers and breakers, a current rectifier on the vehicle for straightening the currents in the conductor thereon, and a motor to move the vehicle or other electric translating device connected with the vehicle conductor. 28th. In an electric induction railway, a source of irregular or alternating currents, one or more entirely insulated conductors extending therefrom along the railway, a vehicle, a secondary circuit entirely on the vehicle, in suitable inductive relation to said conductors, a current rectifier in the latter circuit, and a continuous or direct current motor also in the said circuit. 29th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the railway and connected with the conductor, a core or body of iron for each of said coils having poles extended to and in contact with the rails of the track, a vehicle, a body of iron carried by the vehicle in contact with the rails, a conductor on the vehicle in inductive relation to the body of iron, and an electric motor to move the vehicle, in electric connection with the latter conductor. 30th. In an electric induction railway, a source of irregular or alternating currents, a conductor extending therefrom, a series of coils distributed apart along the railway and connected with the conductor, a core or body of iron for each of said coils having poles extended to and in contact with the rails of the track, a vehicle, iron axles and wheels for the vehicle to move on the rails, one or more coils on the vehicle in inductive relation to the axles, and an electric motor to move the vehicle and in circuit with the coils. 31st. The combination of a car or vehicle, movable along a given path, a series of magnetic cores placed at intervals along said path or line of travel, coils surrounding said cores and connected with a source of alternating currents, a magnetic core carried by the car in close proximity to, or in contact with the poles of the stationary cores, a secondary conductor wound thereon, and an electro-magnetic motor on the car and for propelling the same, and connected in circuit with the secondary conductor.

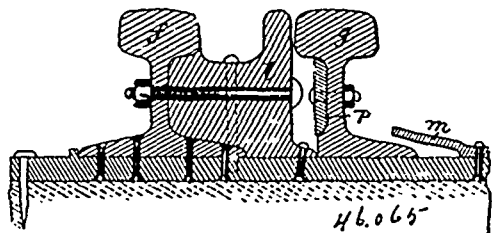
No. 46,064. Pea Harvester. (Arrache-pois.)



James Whitman, Amulree, Ontario, Canada, 16th May, 1894; 6 years.

Claim. 1st. A pea harvesting attachment consisting of a gatherer, a guard stay hinged to the gatherer, and a shoe connected to the guard stay and arranged to travel along the surface of the ground, substantially as set forth. 2nd. A pea harvesting attachment consisting of a gatherer, a guard stay linged at its rear end to the heel of the gatherer its forward end working on a slide pin, a shoe located below the gatherer, a block between the shoe and the gatherer, a bolt passing through the shoe, the block and the guard stay, and fastening together these several parts, and an adjustable clamp secured to the under side of the guard stay, substantially as set forth. 3rd. In a pea harvesting attachment consisting of a shoe having an upwardly pointed toe, a bracket located on the upper side of the shoe and longitudinally adjustable, a holder connected to the bracket, and a vertically adjustable standard to the rear of the bracket connected to the upper side of the shoe, substantially as set forth.

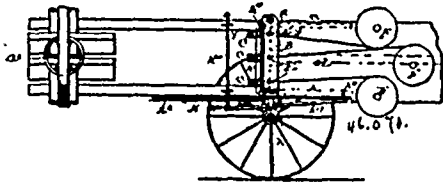
No. 46,065. Railway Frog. (Rail de croisement.)



James Neafie, Boonton, New Jersey, U.S.A., 16th May, 1894; 6 years.

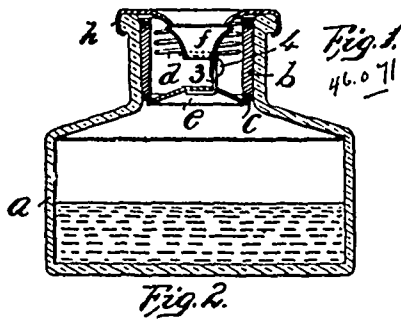
Claim.—1st. The improved frog herein described, with the point and guard-rail thereof, a movable wing at one end containing the

with the trunk and plunger, the reciprocating rack-frame detachably connected with, and operated by the plunger, the crank-shaft driven by the rack-frame, transversely moving reciprocating needles



coupled to the cranks of the shaft, the twistors geared with, and operated by the rack-frame and means for disconnecting the rack-frame from the plunger and again connecting the same. 4th. In a baling press, a needle notched across its end and slotted in a plane at right angles to the notch, a toothed-wheel pivoted or journaled in the slot, the ends of the teeth being notched for the reception of the binding wires, in combination with a rotary twister, having an arm adapted to pass through the notch of the needle and between the teeth of the wheel therein, to take up the binding wire, substantially as described. 5th. In combination with a slotted twister wheel, substantially as shown, a binding needle, provided at its end with the wheel, having the teeth with notched ends to present the wire to the twister.

No. 46,071. Ink Bottle Attachment.
(Attache pour bouteilles à encre.)

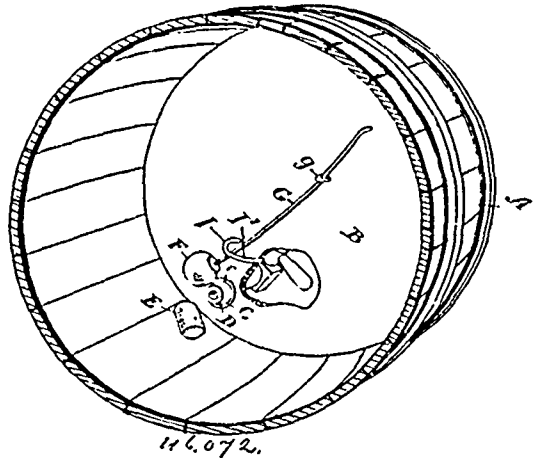


Burt Ramsey, New York, State of New York, U.S.A., 16th May, 1894; 6 years.

Claim.—1st. A hollow stopper containing the automatic sealing device, composed of a coil spring therein, carrying a valve yieldingly held closing the lower end of the stopper and provided with a pen guide arranged to receive the pen and carry down the valve with the same, substantially as described. 2nd. A hollow stopper or cylinder, a retractile coil spring therein, at its upper end secured to the upper portion of the stopper, a valve yieldingly held by said spring closing the lower end of said cylinder and means to receive the thrust of a pen and carry down the valve with the pen, substantially as described. 3rd. The cylinder having the retractile coiled spring therein at its upper end secured to the upper end of the cylinder, the valve carried by the lower end of said spring and yieldingly held thereby closing the lower end of the cylinder, substantially as described. 4th. The hollow stopper having the retractile coil spring therein having the cone-shaped metal valve secured to the lower end thereof, and yieldingly held thereby closing the lower end of the cylinder, substantially as described. 5th. A bottle or ink well, having the automatic pen operated sealing device in its neck, and the metal cap over the mouth thereof permanently secured to the neck with the central opening and downwardly deflected inner edge, as set forth. 6th. The bottle having the internal spring held valve provided with the pen guide, and the metal cap over the mouth of the bottle having its outer edge spun down around the head or the neck, and the central opening over said pen guide, said opening being of less diameter than the pen guide, so that the upper edge of the guide and spring are concealed, substantially as described. 7th. The hollow stopper having the valve seat at its lower end, the retractile spring in said stopper carrying an upwardly dished metal valve at its lower end arranged to yieldingly close the lower end of said stopper and fit the valve seat, substantially as described. 8th. The hollow stopper, the coiled spring therein having its upper convolution secured in the upper end of said stopper, substantially as set forth, the lower end of said spring having the vertical arm, the valve to yieldingly close the lower end of the stopper secured to said arm, and a pen guide secured to said arm, substantially as set forth. 9th. The stopper comprising the retractile coil spring suitably held in the neck or secured to an ink well and having the lower vertical arm carrying the valve, the pen guide

having the downturned lip bent around and clamped to said straight arm, substantially as described.

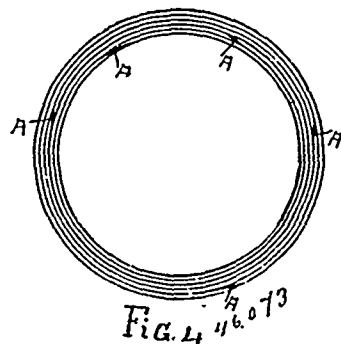
No. 46,072. Automatic Closing Device for Tap Holes.
(Fermeture automatique pour trous de robinets.)



John C. Steele, Thornhill Post Office, Ontario, Canada, 16th May, 1894; 6 years.

Claim.—1st. In a barrel, cask or other vessel, the combination with the tap hole, of a spring stopper, and means whereby it is thrust aside when the tap is forced through the hole into the interior and is brought again to cover such hole when the tap is removed. 2nd. In a barrel, cask or other vessel, the combination with the tap hole, of the ball F suitably secured on the end of the spring, wire rod G secured on the end of the barrel, as and for the purpose specified. 3rd. In a barrel, cask or other vessel, the combination with the tap hole of the ball F, secured on the end of the spring wire rod G, and means for guiding the ball to one side when the tap is thrust in, as and for the purpose specified. 4th. In a barrel, cask or other vessel, the combination with the tap hole, of the ball F secured on the end of the spring wire rod G, and the guiding staple I, arranged as and for the purpose specified. 5th. The combination with the tap hole having the bevelled inner edge c, as specified, of the ball stopper F secured in the end of the spring wire rod G, as and for the purpose specified. 6th. The combination with the tap hole having the bevelled inner edge c, as specified, of the ball stopper F, secured in the end of the spring wire rod G by the washers f, and the bushing H surrounding the wire within the ball F, as and for the purpose specified.

No. 46,073. Wood Rim for Cycles.
(Jante en bois pour cycles.)

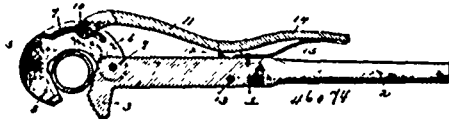


John Banker, Buffalo, New York, U. S. A., 16th May, 1894; 6 years.

Claim. 1st. A rim having three or more sections B, all arranged and combined as shown and described. 2nd. A rim having joints A, shown in figure 4, all arranged and combined as shown and described.

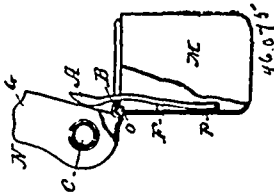
No. 46,074. Wrench. (Clé à écrou.)
Abram S. King, and Roswell Beardsley, both of Ashby, Minnesota, U.S.A., 17th May, 1894; 6 years.

Claim.—1st. In a wrench, the combination with a stock terminating at its upper end in a fixed jaw, of a swinging jaw pivoted to and



embracing the fixed jaw, a lever fulcrumed on the stock and connected with the swinging jaw, and a spring for normally pressing the outer end of the lever toward the stock, substantially as described. 2nd. In a wrench, the combination with a stock terminating at its upper end in a fixed jaw, of a swinging jaw pivoted to and embracing the fixed jaw, and provided with curved guides arranged eccentrically with relation to the pivot of the jaw, and a lever fulcrumed on the stock and engaging the guides, substantially as described. 3rd. In a wrench, the combination with a stock terminating at its upper end in a fixed jaw, of a swinging jaw pivoted to and embracing the fixed jaw, and provided with curved guides arranged eccentrically with relation to the pivot and located on the inner face of the sides of the jaw, a lever fulcrumed on the stock and engaging the guides, and a spring for normally pressing the outer ends of the lever towards the stock, substantially as described. 4th. In a wrench, the combination with a stock having the serrated fixed jaw, of the U-shaped movable jaw having its terminals embracing and pivoted to the heel of the fixed jaw and its outer end abruptly bent, said movable jaw being provided with curved guide grooves, the lever having the bearing ears pivoted to the stock, and provided at its front end with a transverse head engaging said grooves, and a spring for normally pressing the front end of the lever toward the stock, substantially as described.

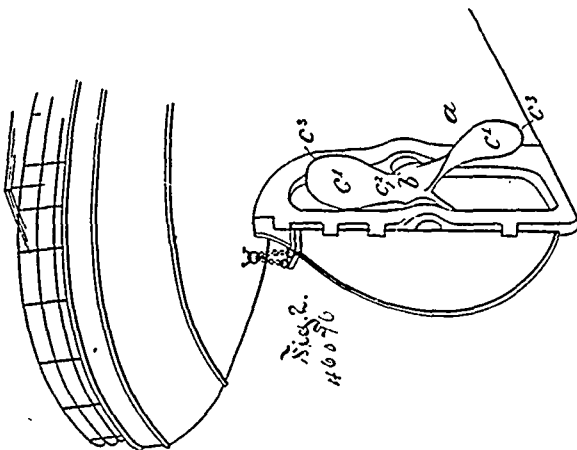
No. 46,075. Combined Match Box and Cigar Tip Cutter. (*Boîte à allumettes et coupe-cigares combinés.*)



John W. Maillot, North Attleborough, Massachusetts, U.S.A., 17th May, 1891; 6 years.

Claim.—1st. In combination with a match-box having a cover provided with an opening, the knife arranged in described relation to the opening in the cover, and having a spring shank, a peg carried by the cover and operating upon the spring shank, substantially as described. 2nd. In combination with a match-box having a pivoted cover provided with a perforation, a spring located within the box having a knife blade rigidly mounted upon its upper end, and means carried by the cover acting upon the spring for holding said cover normally closed, and forcing the knife across the perforation as the cover is opened, substantially as described.

No. 46,076. Screw Propeller. (*Hélice de propulsion.*)

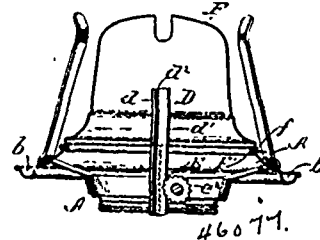


Alfred W. Case, Highland Park, Connecticut, U.S.A., 17th May, 1891; 6 years.

Claim.—1st. A screw propeller comprising a hub with projecting blades, each of which has its uninterrupted working surface described by a straight generatrix and extending without break from the hub

to the outer end of the blade, said working surface being set on an angle across the axis of the hub and also inclined forwardly from the hub to the outer end of the blade, whereby each blade operates to thrust outwardly as well as rearwardly when in motion, all substantially as described. 2nd. A screw propeller consisting of a hub, and a plural number of blades set on an angle across the axis of the screw and projecting therefrom at different angles with relation to said axis, all substantially as described. 3rd. A screw propeller consisting of a hub, and a plural number of blades set on an angle across the axis of the screw, a portion of said blades projecting from the hub at right angles to the axis, and others of the blade projecting from the hub obliquely to the axis and at different angles with relation to each other, all substantially as described.

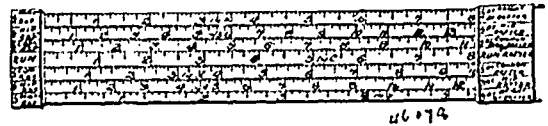
No. 46,077. Lamp Burner. (*Bec de lampe.*)



John J. Donovan, Boston, Massachusetts, U.S.A., 17th May, 1894; 6 years.

Claim.—A lamp burner consisting of a vertically divided cylinder and plate, hinged together at its upper edge on one side only, a sectional wick tube, the sections of which are rigidly secured respectively to the meeting faces of the burner, and each formed with inwardly extending edge flanges, the flanges on one section overlapping and closely fitting the flanges of the other section, forming a brace for the burner sections and a tight joint for the tube, and a hinged cone on the perforated plate, substantially as described.

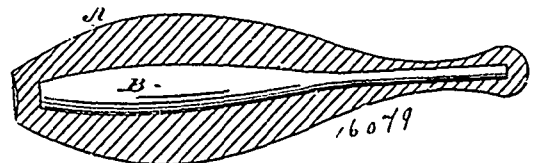
No. 46,078. Roof Framing Rule. (*Règle pour charpente de toits.*)



August G. Dahmer, Alameda, California, U.S.A., 17th May, 1891; 6 years.

Claim.—A roof framing rule A, having a central longitudinal line of graduations indicating the run of a rafter in feet, and fractions thereof, series of parallel graduations at opposite sides of said first graduation and each indicating different pitches, heights and lengths of either hip or common rafters or fractions thereof, without calculation, the said series of graduations being relatively arranged with respect to the central line of graduations but independent of each other, to give the entire lengths and cuts of the entire set of said rafters, and a slide mounted on the rule to align any one of the graduations of the run of the rafter, with one or more of the desired graduations on opposite sides thereof, and said slide bearing indications similar to said indication at the beginning or end of the rule, substantially as described and in the manner and for the purpose set forth.

No. 46,079. Club and Dumb Bell. (*Massues et haltères.*)



Abiel W. Nelson, New London, Connecticut, U.S.A., 17th May, 1894; 6 years.

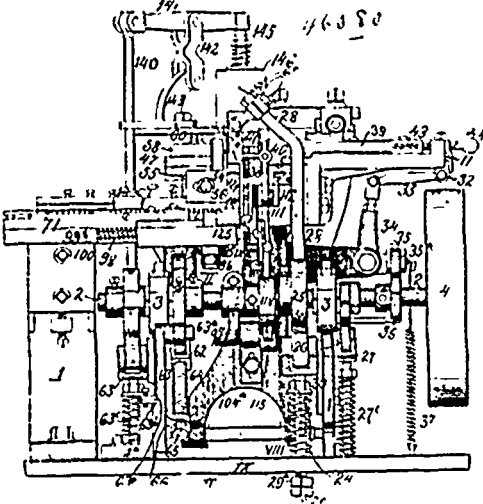
Claim.—A club or dumb-bell composed of a central core piece and an elastic envelope constructed in an integral piece and wholly enclosing said core, substantially as described.

No. 46,080. Type Machine. (*Machine à type.*)

James Gabriel Pavyer, St. Louis, Missouri, U.S.A., 17th May, 1894; 6 years.

Claim. 1st. The combination with a pusher adapted to push the type from the mould in a substantially horizontal direction, of a

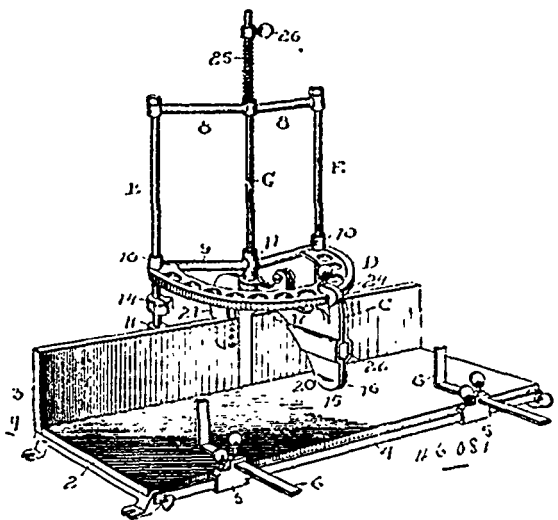
down-carrier 47, having an aperture 46, adapted to receive the type, and vertical guides carrying knives 48, 49, between which the type passes in its downward movement, substantially as and for the pur-



pose set forth. 2nd The combination of the down carrier 47, having a plate 57, with an aperture 46, adapted to receive the type, a vertical passage with knives 48, 47, upon the sides down which the plate and type pass, a pusher working horizontally and adapted to pass through the recess and push the type therefrom, and a horizontal passage having dressing knives 75, 84, at the bottom and top. 3rd. The combination in a type machine, of the vertical and horizontal passages with dressing knives upon opposite sides, the down-carrier 47, having a type recess 46, the pusher 10, working in said recess, the horizontal pusher 91, and the jet breaker 68, upon the down-carrier slide 91, substantially as and for the purpose set forth. 4th. The combination, in a type machine, of the down carrier having a plate 57, with recess 46, adapted to receive the type, the pusher 10, a type passage between guides as 50, 51, 52, 53, with knives 48 and 49, a jet breaker, the slide 59, to which the latter is attached, a horizontal dressing passage and a pusher 91, all constructed and adapted to operate substantially as set forth. 5th. The combination, in a type machine, of the down-carrier 47 having the plate 57 with type recess 46, the pusher 10, vertical guides with knives 48, 49 at opposite sides, jet breakers 68, horizontal passage for the types, pusher 91, adapted to push the type from the vertical into the horizontal passage, lever 62, the down-carrier slide 59 carrying jet breaker and to which said lever is connected, and rotary cam 67 with projections 69, all constructed and adapted to operate substantially as set forth. 6th. The combination of the down-carrier 47, having a type recess 46, cutters between which the down-carrier passes, a cam lever connected to the down-carrier and having an adjustable fulcrum, a rotary cam acting on said lever, and a pusher 10 received by said recess, all constructed and adapted to operate substantially as set forth. 7th. The combination of the down carrier 47, having a type recess 43, cutters between which the down-carrier passes, a cam lever connected to the down-carrier and having an adjustable fulcrum, a rotary cam adapted to depress the lever, a spring adapted to lift the lever, and a pusher adapted to push the type from the recess, substantially as set forth. 8th. The combination with the down-carrier 47, having a type recess, cutters between which the down-carrier passes, and a pusher received by the recess of a cam lever connected to the down-carrier, a cam adapted to depress the lever, a stop rod carrying a spring adapted to lift the lever and passing loosely through an eye, and a nut upon the rod adapted to impinge against the edge and limit the upward movement of the lever, substantially as set forth. 9th. The combination with the lifting piece 6, of the mould of the lifting rod 28, the cam lever 27 having an adjustable fulcrum, a cam adapted to depress the lever, bolt 29 bearing against or attached to the lever and passing loosely through the base 1, lifting spring 24, and a stop nut 29^a on the bolt beneath the base, substantially as set forth. 10th. The combination with the matrix levers 101 and 111, the former being located in front of the latter, and the spring device for pushing their lower ends inward, substantially as described, of the bell crank 115, and cam 118 adapted to press the matrix to the mould and to retract said spring, substantially as set forth. 11th. In a mould for type machines, the combination of stationary and hinged members, forming the lower and upper parts of the mould, of a pusher between two members, and a screw on the hinged member provided with a conical point adapted to engage with a stop carried by said pusher, substantially as and for the purpose set forth. 12th. In a mould for type machines, the combination of stationary and hinged members, forming the lower and upper parts of the mould, a pusher working between the two members, such pusher being provided with an opening and a slot, a conically pointed screw secured in the movable portion of the mould and adapted to engage with the

opening in the pusher, and a fixed pin on the stationary member arranged in the slot of the pusher, adapted to limit the movement of said pusher, substantially as and for the purpose set forth. 13th. The combination in a type casting machine, of the melting kettle, compressed fluid reservoir, chamber 173 in constant communication with the reservoir, chamber 171 having an exhaust valve and communicating with chamber 173 through duct 172, valve 175 adapted to close the duct 172, a chamber 169 in constant communication with the chamber 171, a nipple chamber in constant communication with chamber 169 and having communication with the kettle by a duct governed by a valve as 155, all substantially as set forth. 14th. The combination, in a type casting machine, of a melting kettle, a reservoir for fluid under pressure, chambers 173 and 169 communicating respectively with the fluid reservoir and nipple chamber, a nipple communicating with the melting kettle and the outer air, and the chamber 171 communicating with the chambers 169 and 173, and the outer air valves for closing and opening communication between the chambers 173 and 171, chamber 171 and the outer air, the melting kettle and nipple chamber, and the outer air, the melting kettle and nipple chamber, and the nipple chamber and the outer air, and means for alternately effecting the simultaneous closing and simultaneous opening of said valves, the valves between the chambers 173 and 171, and the nipple chamber and outer air, being closed when the remaining valves are open, and vice versa substantially as and for the purpose set forth. 15th. The described combination, in a type casting machine, of a melting kettle, a nipple having a jet valve 150 and a valve 155, the latter adapted to close communication with the melting kettle, a closed vessel in communication with the nipple chamber and with a chamber 171, chamber 171 having an exhaust valve, a piston 180 working in the chamber and actuating the exhaust valve, a reservoir for fluid under pressure, a chamber 173 in communication with the reservoir, a duct leading from the chamber 173 to chamber 171, and a valve 175 governing said duct and governed by the piston 180, substantially as set forth. 16th. In a type casting machine, the combination of a melting kettle, a chamber communicating with a reservoir of compressed fluid, a closed metal chamber within the melting kettle and communicating therewith and with the compressed fluid chamber, a discharge nozzle communicating with the closed metal chamber valves for controlling the communications between the closed metal chamber and compressed fluid chamber, and the closed metal chamber and the melting kettle, and means for opening and closing said valves alternately, substantially as set forth. 17th. In a type casting machine, the combination of a melting kettle, a chamber communicating with a reservoir of compressed fluid, a closed metal chamber within the melting kettle and communicating therewith, and with the compressed fluid chamber, a discharge nozzle communicating with the closed metal chamber, valves controlling the communications between the closed metal chamber and compressed metal chamber and the melting kettle, levers connected to said valves and cams mounted on a suitable cam shaft and engaging said levers, whereby the valves will be alternately opened and closed, for the purpose herein set forth.

No. 46,081. Mitre Box. (Boîte à onglet.)

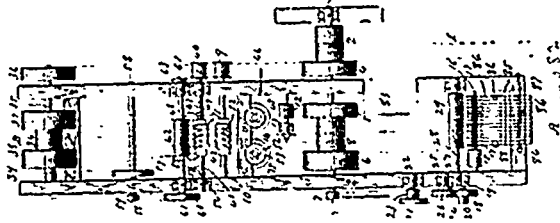


Frank W. Loveall, and Derk J. Rocks, both of Cleveland, Ohio, U.S.A., 17th May, 1894; 6 years.

Claim.—1st. A mitre box having a bar along its front edge, adjustable bearings on said bar, and right angled holders or brackets in said bearing and adjustable therein, substantially as set forth. 2nd. In a mitre box, the base frame and the upright rods adjustable on said frame, in combination with a saw guide fixed thereto, said frame adjustable up and down upon the said upright rods, and said saw-guide having a horizontal movement and capable of being

secured in adjustment on the said frame, substantially as set forth. 3rd. The base frame, the gauge frame having uprights connected across their top, and a saw-guide frame having a central sliding rod, the segment rigid with the cross-bar thereof sliding on said upright and the saw-guide adjustable on said segment, substantially as set forth. 4th. The base frame having a base part and a back part at right angles to one another, guide post rigid with said base frame, and a saw-guide frame provided with a segment extending forward over the box and adjustable up and down upon said guide posts, and a saw-guide pivoted at its rear and adjustably secured upon the said segment at its front end, substantially as set forth. 5th. The base frame having a vertical back portion, a gauge frame consisting of two guide posts rigidly connected at their top and adjustable in the back of said base frame, the saw-guide frame vertically adjustable on said gauge frame, the saw-guide pivoted at its rear and engaging at its front upon said segment, substantially as set forth. 6th. The base frame, the gauge frame supported upon the said base frame and having vertical guide posts rigidly connected across their top, in combination with a vertically adjustable saw-guide frame supported on said gauge frame and having a central rod with the saw-guide attached to the lower end thereof, and said rod sliding in the cross-bar at the top of the said guide posts, and a forwardly extending segment upon which the saw-guide is adjustable to different angles with respect to the box, substantially as set forth. 7th. The box described, the saw adjusting and carrying frames, and the central supporting rod for the saw-guide frame provided with a spring to lift upward on said frame, substantially as set forth. 8th. In a mitre box, a saw-guide made in two parts adjustable one toward the other and a horizontal support for said guide, substantially as set forth. 9th. In a mitre box, a saw-guide having its extremities formed with a guide or run-way for the saw, one of said extremities hanging down at the rear of the box, substantially as set forth. 10th. The saw guide described having the central narrowed portion 17, and the hanging extremities 20 and 21, in combination with the mitre box, substantially as set forth. 11th. The box and the guide posts at its rear and the adjustable stops and bearings 14 thereon, substantially as set forth. 12th. The saw-guide having a channel for the back of a stiff backed saw, substantially as set forth.

No. 46,082. Machine for Making Clothes Pins.
(Machine pour la fabrication d'épingles à linge.)

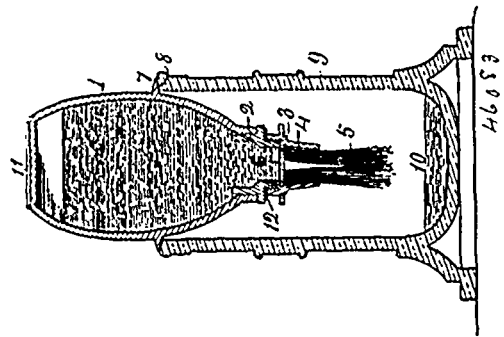


David Howells, Melvin W. Moffitt, Joshua Davis and George W. Campbell, all of Kane, assignees of Charles W. Hall, Bradford, all in Pennsylvania, U.S.A., 17th May, 1894; 6 years.

Claim.—1st. In a machine for making clothes-pins, the combination of the rollers 62, 65 for feeding the blocks, the horizontal saws 49, 56 for forming slits or openings in the sides of the blocks, the upper and lower cutter-heads for moulding the upper and lower faces of the block, the coping saws 45, 52 for forming the spring prongs 79, 80 and tapering openings, the saws for cutting the blocks into pins, and the pressure-bars provided with the weights and adjusting screws for guiding the blocks after they are cut, substantially as shown and described. 2nd. In a machine for making clothes-pins, the combination of the rolls for feeding the blocks to the cutters a pair of primary grooving saws for forming slits or openings in the sides of the blocks, a pair of guides 69 and 70 fitting into said slits or openings, a pair of cutter-heads, a pair of cutters for finishing the grooves formed by the primary saws, the guides 73 and 74, extending above the finishing cutters, the central guide 82 for preventing lateral displacement of the block while being fed to the vertical saw, and the saws for cutting the blocks into pins, substantially as shown and described. 3rd. The combination of a suitable feed, an initial grooving saw 49, a combined coping saw and cutter in line with the initial saw for finishing the groove, a guide 70 extending from one saw to the other, and in position to enter the kerf of the first saw, and suitable moulding cutters for finishing the faces of the blocks as explained. 4th. The combination of a suitable feed, an initial grooving saw 49, a combined coping-saw and cutter in line with the initial saw, for finishing the groove, a guide 70 extending from one saw to the other, and a guide 73 extending above the coping saw, for preventing the block from splitting while being cut by the coping saw, and suitable moulding cutters for finishing the faces of the blocks, as explained. 5th. In a machine for making clothes-pins, the combination with the feeding rolls, the cutters for moulding the faces of the blocks to the desired form, the guides, the severing saws 17, the rolls for feeding the blocks to the severing saws, the pressure-bars 84 pivoted to the machine table, for guiding the pins after they are cut, the adjustable weights 88 on said pressure-bars and the adjusting screws 89 for regulating the distance of the pressure-bars from the table, substantially as described.

No. 46,083. Mucilage Holder.

(Appareil pour contenir du mucilage.)

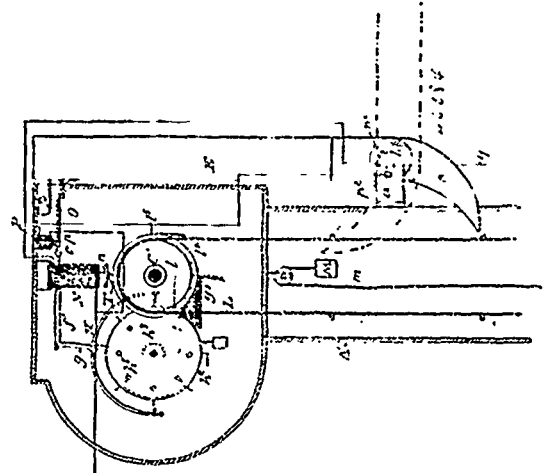


James Chase, Rochester, New York, U.S.A., 17th May, 1894; 6 years.

Claim. 1st. A compressible fountain or elastic bulb for mucilage or other liquids, having at one end a tubular neck, in combination with a screw cap provided with a discharge nozzle and brush or spreading device, and having a porous pad or diaphragm at the inner end of said discharge nozzle, substantially as described. 2nd. A compressible fountain or elastic bulb for mucilage or other liquids having a discharge nozzle, and a brush or spreading device at one end, and provided on the exterior with a thin elastic annular sealing flange, in combination with a vessel provided with a circular mouth with which the thin elastic flange by its flexibility and elasticity closely accommodates itself to hermetically seal the vessel and also sustain the bulb, substantially as described.

No. 46,084. Railroad Signal System.

(Système de signal de chemin de fer.)



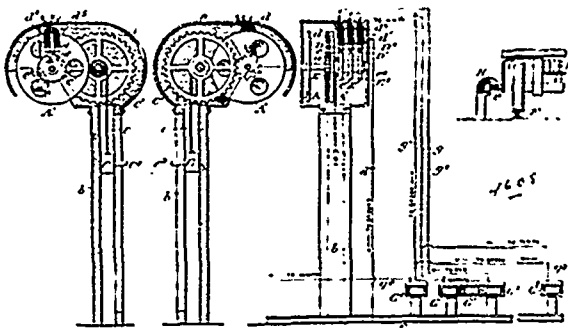
The Hasell Perfected Railway Signal Company, New York, assignee of George Lloyd Thomas, Brooklyn, both in the State of New York, and Edward Clarkson Seward, Montclair, New Jersey, all in the U.S.A., 17th May, 1894; 6 years.

Claim.—1st. The railway signal system, comprising a set of rear signals fixed relatively to one another and mounted to rotate, means for operating the signals when released, header signals and means for operating them, and independent electric circuits including electro-magnets for releasing the signal operating mechanism to display both the rear and the header signals, substantially as set forth. 2nd. A railway signal system, comprising a set of rear signals fixed relatively to one another and mounted to rotate, means for operating the signals when released, header signals and means for operating them, and independent electric circuits including electro-magnets for releasing the signal operating mechanism to display both the rear and the header signals, the header signals being under the control of the rear signal operating mechanism to return them, substantially as set forth. 3rd. In combination, rear signals, means for operating them a header signal, means for operating it, an escapement mechanism and means for operating it, the escapement mechanism being under the control of the header signal, operating means to advance it and under the control of the rear signal operating mechanism to return it, substantially as set forth. 4th. In combination, rear signals, mechanical means for operating them, an electric circuit under the control of a passing train to release the said mechanical operating mechanism, a header signal, an electric circuit under the control of an advancing train to release

the header signal, an escapement mechanism and means for actuating it, the said escapement mechanism being under the control of the header signal releasing circuit to permit the escapement to advance, and under the control of the rear signal mechanical operating mechanism to return it, substantially as set forth. 5th. In combination, rear signals, means for operating them, electric circuits under the control of a passing train to determine the signal to be displayed, an escapement mechanism and means for actuating it, the said escapement mechanism forming a part of one of the signal controlling circuits to make and break the circuit according to the position of the escapement mechanism, substantially as set forth. 6th. In combination, a set of signals comprising different shaped and different coloured arms fixed to rotate together about a common axis, signal actuating mechanism tending to move the signals whenever it is released, and different independent movable stops corresponding to the different arms of the set, under the control of a passing train to arrest and release the set, substantially as set forth. 7th. In combination, a set of signals fixed to rotate together, signal actuating mechanism tending to move the set whenever released, different coloured spectacles under the control of the signal actuating mechanism to be swung into position to correspond to the signal displayed and electric circuits adapted to be completed and broken by a passing train to release the signal operating mechanism, substantially as set forth. 8th. In combination, a set of rear signals, a set of spectacles corresponding to the rear signals, a header signal, means for releasing it, an escapement mechanism in connection with the header signal, releasing means, a toothed disc having a common engagement with both spectacles and with the escapement mechanism, and means for operating the rear signals, substantially as set forth. 9th. In combination, a set of rear signals, a signal actuating mechanism including a sprocket chain, a header signal supported to swing into signalling position under gravity, means for releasing the signal, the sprocket chain having an engagement with the projecting end of the signal to return it to its normal position, substantially as set forth. 10th. In combination, a header signal, a jointed vibrating arm having an engagement with the signal to hold and release it, a swinging gravity stop under the control of the signal to regulate the movements of the jointed vibrating arm, and means for operating the vibrating arm as a whole and independent means for operating one of its joints, substantially as set forth. 11th. In combination, a main track, a shunt track, a header signal under the control of a train passing along the main track, an electric circuit including electro-magnets for operating the header signal and under the control of a train on the shunt track, contact pieces in position to be electrically connected and disconnected by the movement of the signal, the said electro-magnets in the operating circuit having one pole of each connected with a single line wire and the opposite pole of each connected the one with one contact piece and the other with the other contact piece, substantially as set forth. 12th. In combination, a rear signal and its operating mechanism, a header signal under the control of the rear signal operating mechanism to return it, and independent mechanism for releasing and returning the said header signal, substantially as set forth.

No. 46,085. Railway Signal System.

(Système de signal de chemin de fer.)



The Hasell Perfected Railway Signal Company, New York, assignee of George Lloyd Thomas, Brooklyn, both in the State of New York, and Edward Clarkson Seward, Montclair, New Jersey, all in the U.S.A., 17th May, 1894; 6 years.

Claim.—1st. A railway signal system comprising a group of different signals mounted and connected to move at all times together, signal actuating mechanism tending to move the group of signals whenever it is released and different independent movable stops corresponding to the different signals of the group, under the control of a passing train to arrest and release the group, substantially as set forth. 2nd. In combination, several different signals mounted and connected to move at all times together and follow one another in succession into and out of an exposed position, signal actuating means, different independent movable stops corresponding to the different signals for releasing and arresting the signals and electro-magnets under the control of a passing train to complete the circuit and operate the stops, substantially as set forth. 3rd. In

combination, a rotary disc provided with different signals fixed thereon, a housing covering a portion of the disc, a motor tending to rotate the disc continuously in one direction, different stops arranged to release and arrest the disc at intervals, electric circuits including electro-magnets for controlling the stops and a circuit closer carried by the train along the track for completing the said electric circuit, substantially as set forth. 4th. In combination, signals denoting "stop," "block clear" and "block partially clear," mounted at the beginning of a block, signal actuating mechanism, electro magnets for controlling the movements of the signals, contact plates at the beginning and end of the block and at a point intermediate at the ends of the block, the contact plate at the beginning of the block being in electric circuit with the magnet to set the signal "stop," the intermediate contact plate being in electric circuit with the magnet to set the signal "block partially clear" and the contact plate at the end being in electric circuit with the magnet to set the signal "block clear," and a circuit closer carried by a passing train in position to engage the several contact plates, substantially as set forth. 5th. In combination, a railway track, a line of signals located at intervals along the track, contact plates upon opposite sides of the track, electro-magnets for operating the signals, electric circuits including the contact plates and the electro-magnets, one set of electric circuits including the contacts on one side of the track and the electro-magnets and another set of electric circuits including the contacts upon the other side of the track and the aforesaid electro-magnets, and a circuit closer carried by the train in position to engage the contact plates on one side of the track when the train moves along the track in one direction and to engage the contact plates upon the opposite sides of the track when the train moves along the track in the opposite direction, substantially as set forth. 6th. In combination, a set of block signals located along a track and under the control of a passing train to operate them, a shunt track, and a special signal, forming part of the block system and under the control of a train moving along the shunt track in other direction to operate it and clear the block on the main track, substantially as set forth. 7th. Signalling mechanism, comprising a pair of rotary discs spaced apart and having fixed thereon a set of signals, translucent sections inserted in the discs, one in each signal, a housing covering the discs so as to leave one signal only exposed at once, disc actuating mechanism and signal operating mechanism comprising a set of independent stops, and means for actuating them under the control of a passing train, substantially as set forth. 8th. Signalling mechanism comprising a pair of discs spaced apart and mounted to rotate independently of each other, each disc being provided with a set of signals, a housing covering the signals, so as to leave only one signal on each disc exposed at once, disc actuating mechanism and signal operating mechanism under the control of a passing train, substantially as set forth. 9th. In combination, a set of signals at the side of the track, including danger and cautionary signals, means for operating them, corresponding danger and cautionary signals carried by the train moving along the track and means for operating them, the signals carried by the train being under the control of the signals at the side of the track to determine the signal which shall be operated on the train, substantially as set forth. 10th. In combination, a set of signals at the side of a track, corresponding signals adapted to be carried by a passing train, means for operating the signals at the side of the track, signal operating mechanism carried by the train for operating mechanism being in electric circuit with contact pieces carried by the train, and the signals at the side of the track being in electric circuit with the contact plates at the side of the track in position to engage the contact pieces carried by the train, the circuit to be completed by such engagement being determined by the particular signal exposed at the side of the track, substantially as set forth.

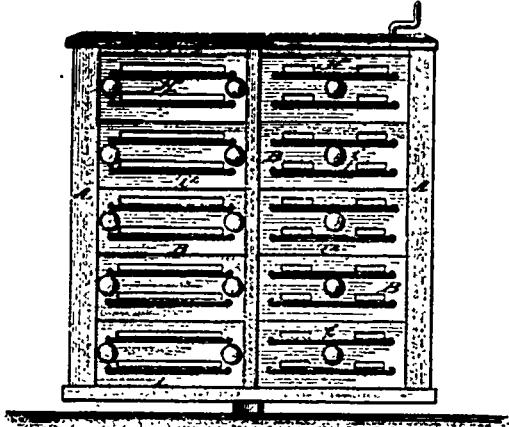
No. 46,086. Exhibitor for Goods.

(Porte et étale marchandises.)

Daniel Braxton English and Calvin S. Parker, assignee of Stephen Hackney Hinnah, all of Way Cross, Georgia, U.S.A., 17th May, 1894; 6 years.

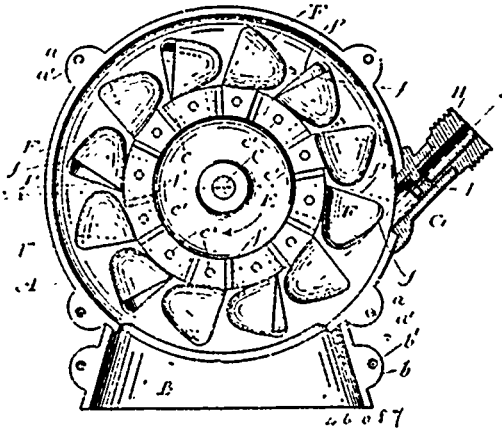
Claim.—1st. The combination with a support of a series of drawers therein arranged one above the other, rollers in and journaled to the said drawers and outlets in the fronts thereof and display racks on the fronts of said drawers arranged each to project slightly farther from the front of the drawer than the next upper rack, said racks being composed of inner and outer rods or bars, substantially as and for the purposes set forth. 2nd. In an exhibitor, substantially as described, a drawer provided on its front with a display rack having inner and outer rods r^1 and r^2 the outer rod r^2 being provided at its ends with inwardly bent arms and the inner rod r^1 being secured to said arms, all substantially as set forth. 3rd. In an apparatus, substantially as described, a drawer provided with a goods supporting roller having a tension ball arranged to bear above said roller provided in its front with an outlet slot and having in advance of said slot a display rack having inner and outer rods r^1 and r^2 , substantially as set forth. 4th. An improved exhibitor consisting of the support the drawers movable therein and arranged in vertical series and having the outlet slots in their fronts, the rollers in said drawers and the display racks arranged at the front thereof and each projecting slightly farther than the next upper rack, substantially as set forth. 5th. An improved goods exhibitor consisting of the case, drawers arranged in vertical series therein and movable in and out

as described, and provided in its outer or front end with an outlet slot and on its said end with a display rack, the rollers arranged within



said drawers and adapted to receive the goods to be displayed, all substantially as and for the purposes set forth.

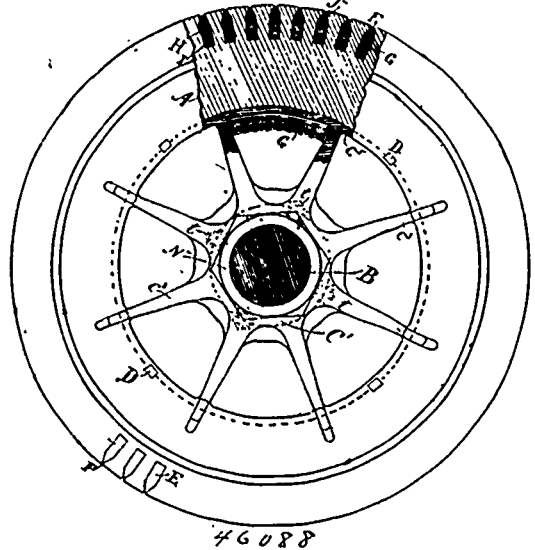
No. 46,087. Hydraulic Motor. (Moteur hydraulique.)



Oliver F. Teel, John A. Comstock and Henry D. Capitain, all of Chicago, Illinois, U.S.A., 17th May, 1894; 6 years.

Claim.—1st. The combination with a water-wheel of a number of buckets, round in horizontal cross-section, of a nozzle presented toward the wheel in the direction of a chord thereof, and in the direction of a chord of each bucket when it is in position to receive the jet, substantially as set forth. 2nd. The combination with a wheel having a number of buckets, round in horizontal cross-section, of a nozzle presented toward the wheel in the direction of a cord thereof, and in the direction of a chord of each bucket when it is in position to receive the jet, said buckets being located alternately with their discharge sides upon opposite sides of a plane which passes through the nozzle and is perpendicular to the axis of the wheel, substantially as set forth. 3rd. The combination with a water-wheel having a number of buckets, of a nozzle presented toward said wheel, in the direction of a chord thereof, the receiving side of each bucket being lower than the discharge side, and all of the buckets being located with their receiving sides in a plane which passes through the nozzle and is perpendicular to the axis of the wheel and with their discharge sides upon opposite sides of said plane, alternating substantially as set forth. 4th. In a rotary hydraulic motor, the combination with a suitable case open at the bottom, and a delivery pipe connected thereto at one side thereof, in the direction of a cord of the circle described by the rotary wheel, of a shaft mounted in said case, a hub mounted on said shaft and cup-shaped buckets *F* having shanks attached to said hub, and cut away helicoidally along their forward edges, substantially as and for the purposes described. 5th. In a rotary hydraulic motor, the combination with a suitable case open at the bottom, and a delivery pipe connected thereto at one side thereof, in the direction of a chord of the circle described by the rotary-wheel, of a shaft mounted in said case, a hub mounted on said shaft, cylindrical buckets with hemispherical ends attached to said hub, and cut away helicoidally leaving a shoulder *f*, and an angular mouth or outlet adjacent thereto in approximately the circles of maximum diameter described by the buckets, substantially as and for the purposes described.

No. 46,088. Armature for Motors and Generators. (Armature pour moteurs et générateurs.)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Norman C. Bassett, Lynn, Massachusetts, U.S.A., 17th May, 1894; 6 years.

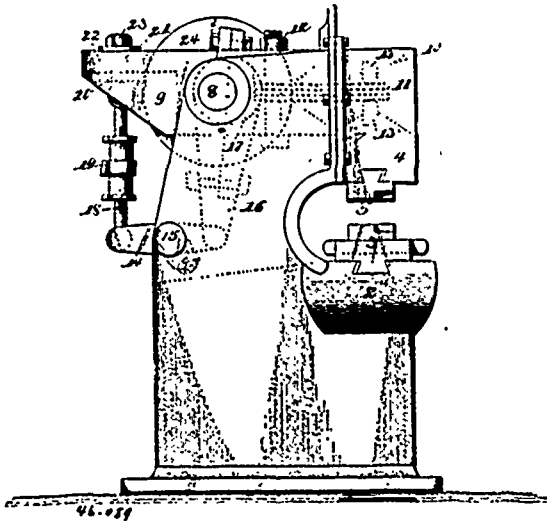
Claim.—1st. The combination, with the laminated armature core and the shaft of the supporting spiders secured to the shaft, and having cylindrical flanges engaging with the interior of the core and of such dimensions as to form a support for substantially all the laminae of the core. 2nd. The combination of the laminated core, the shaft, and the spiders having heads embracing the core between them, and cylindrical flanges engaging with the interior of the core and of such dimensions as to form a support for substantially all the laminae of the core. 3rd. The combination, with the armature core, of the shaft, and the spiders secured to said shaft for supporting the core, said spiders being provided with cylindrical flanges engaging with the interior of the core and having serrated intermeshing edges, substantially as described. 4th. An armature having grooves to receive the coils, said grooves having their sides inclining toward each other near the surface of the armature in combination with coils wound in the grooves and binding pieces adapted to be crowded down upon the coils by said inclined sides, substantially as set forth. 5th. The combination of the armature core having grooves near its surface, with narrow opening or slits, coils wound in said grooves followers placed on said coils and binding pieces in said grooves between said slit and the followers. 6th. The combination of the armature core having grooves near its surface tapering to narrow slits or openings, of the coils wound in said grooves and filling and binding pieces in the tapering portion of said grooves. 7th. The combination of an armature core having grooves near its surface with tapering portions, coils wound in said grooves, followers placed on said coils and binding pieces driven into said grooves.

No. 46,089. Power Hammer. (Marteau mécanique.)

The Laird and Sweeney Manufacturing Co., assignee of James B. Sweeney and Robert W. Laird, all of St. Johnsbury, Vermont, U.S.A., 17th May, 1894; 6 years.

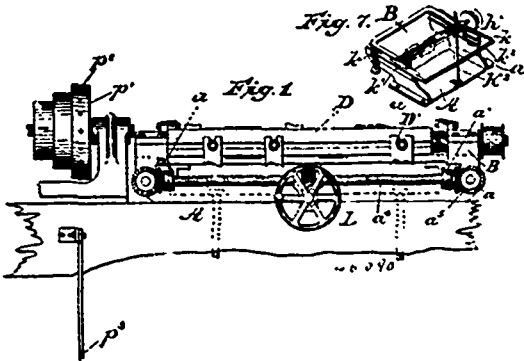
Claim. 1st. A power hammer having a tilting helve, a reciprocating hammer head, and a spring connection between the helve and the head, substantially as specified. 2nd. A power hammer having a tilting valve provided with a bifurcated or recessed extremity, a reciprocating head arranged continuous to the extremity of the helve, a spring secured in the recess of the helve and extending into an opening in the upper end of the head, and elastic blocks carried by the head and engaging said spring, substantially as specified. 3rd. A power hammer having a tilting helve, a reciprocating head, and a spring connect on between the helve and the head, said connection consisting of a spring constructed of series of parallel contiguous metal plates, substantially as specified. 4th. A power hammer having a tilting helve, a head connected to said helve, a tilting lever, means for operating said tilting lever, and an extensible connecting rod between the lever and the helve, substantially as specified. 5th. A power hammer having a driving shaft, a helve fulcrumed upon said shaft and carrying a head, a rocking lever, a pitman eccentrically connected to the driving shaft and connected to one end of said rocking lever, and a connecting rod between the other end of the rocking lever and the rear end of the helve, the connection between said rod and the helve being adjustable longitudinally of the lever to vary the length of the stroke of the hammer, substantially as specified. 6th. In a power hammer, the combination with a frame provided with an anvil, of a head

mounted for vertical reciprocation in ways formed in said frame, a tilting helve, a spring secured at one end to the helve, and slidably connected at the other end to the head by means of elastic spaced



blocks, a driving shaft forming the fulcrum of said helve, a tilting lever operatively connected to the driving shaft, and an extensible connecting rod between the lever and the helve, the connection between said rod and the helve being adjustable longitudinally of the latter, substantially as specified.

No. 46,090. Turning Machine. (Machine à tourner.)



Charles M. Davis and Asher A. White, both of Boston, Massachusetts, U.S.A., 17th May, 1894; 6 years.

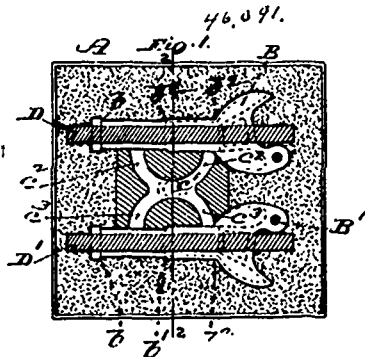
Claim.—1st. In a lathe attachment, the herein described combination of a frame formed of a base and projecting arms which are formed with tracks, a reciprocating cutter-carrier mounted on said tracks, a rotary cutter journaled in the reciprocating cutter-carrier, and means, substantially such as described, for actuating the cutter-carrier, said actuating mechanism being supported by said frame, all substantially as and for the purpose set forth. 2nd. In a lathe attachment, the combination of a frame formed of a base and projecting arms which are formed with tracks, a reciprocating cutter-carrier mounted on said tracks, a rotary cutter journaled in the reciprocating cutter-carrier, means, substantially such as described, for actuating the cutter-carrier, said actuating mechanism being mounted on said frame, an auxiliary frame supported by the aforesaid frame and a work support moving on said auxiliary frame, all substantially as and for the purpose set forth. 3rd. In a lathe attachment, the herein described combination of a frame formed of a base and projecting arms, which are formed with tracks, a reciprocating cutter-carrier mounted on said tracks, a rotary cutter journaled in the reciprocating cutter-carrier, and means, substantially such as described, for actuating the cutter-carrier, said actuating mechanism being supported by said frame, an automatically adjustable work support mounted on said base between the projecting arms thereof, all substantially as and for the purpose set forth.

No. 46,091. Steel Founding. (Art de fonder l'acier.)

James G. McRoberts, St. Louis, Missouri, U.S.A., 17th May, 1894; 6 years.

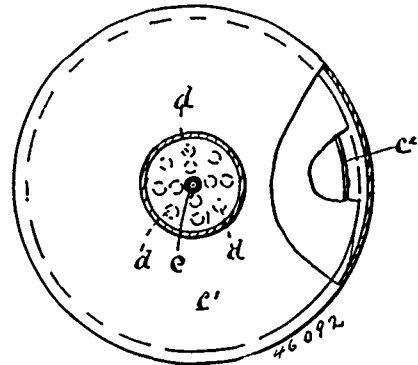
Claim. 1st. The herein described improvement in the art of steel founding the same consisting in introducing the steel through a dry sand gate and forming the casting in a wet sand mould, as set forth.

2nd. The herein described improvement in the art of founding steel the same consisting in introducing the steel through a dry sand gate into and throughout a green sand mould, and so that the heat of the



molten steel shall skin dry the mould-walls in advance of the progress of the metal through the mould.

No. 46,092. Hydraulic Air Compressing Apparatus. (Appareil de compression hydraulique à air.)



Charles H. Taylor, Walter T. Ross, Robert W. Sutherland and Henry Millen, all of Montreal, Quebec, Canada, 17th May, 1894; 6 years.

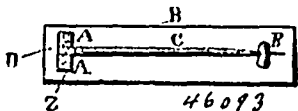
Claim.—1st. A hydraulic air compressing apparatus, comprising a water conductor for a falling body of water, communicating with the air or atmosphere at the end receiving the body of water, in order that air may be sucked into same by the action of the water, and an air conductor, leading from the lower or delivery end of said water conductor, into which such air passes and through which it is forced by said body of water to a tank or receiver. 2nd. In a hydraulic air compressing apparatus, the combination with a main conductor, for a falling body of water, communicating with the air or atmosphere at the end receiving the body of water, and a suitable outflow receiving the water from said main conductor, of an air conductor communicating with the lower or delivery end of said main water conductor, and a suitable tank or receiver to which said air conductor leads. 3rd. In a hydraulic air compressing apparatus, the combination with a main conductor, for a falling body of water, communicating with the air or atmosphere at the end receiving the body of water, an air conductor communicating with the lower or delivery end of said main water conductor, a suitable tank or receiver to which said air conductor leads, and a suitable outflow receiving the water from said main conductor and furnishing a back pressure acting upon said air in its conductor and tank. 4th. In a hydraulic air compressing apparatus, the combination, with a suitable dam and well, of a main conductor located in said well and having its upper receiving end open to receive a falling body of water directed to it by said dam, and its lower delivery end flared or terminating in a hood shaped section with inwardly curved edge, open ended air tubes or ducts extending from a point within said conductor through the body of water to the open air or atmosphere, and an air conductor with open flared or hood shaped lower end located within said main conductor and leading upward through same to any suitable tank or receiver, the space in said well surrounding said main conductor serving as an outflow for the body of water leaving said main conductor, as described.

No. 46,093. Stock for Hinge-Joints of Pins or Brooches. (Tige pour joints de peinture.)

Barton A. Fallou, Providence, Rhode Island, U.S.A., 18th May, 1894; 6 years.

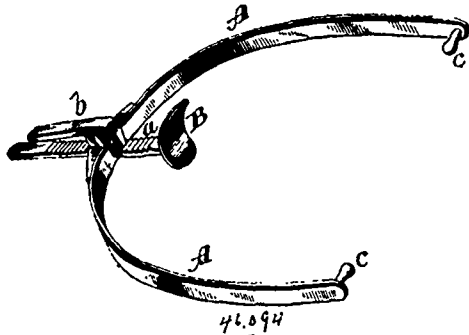
Claim. 1st. The improved stock for hinge joints herein described, made of one piece of stock, having the plane surfaces *a*, *b* and *c* on each side and a central thinner portion *d*, said stock being bent and

drawn so as to form a hinge joint having a continuous base *b, b*, an interior seam *a*, and an aperture *c*, substantially as specified. 2nd.



The improved stock for hinge joints herein described, made of one piece of stock, having plane ends *b, b*, and bent to form an aperture *c*, and the stock grooved transversely, for the reception of the head of the pin tongue and the base thereof adapted to be soldered to a plate *B*, substantially as described.

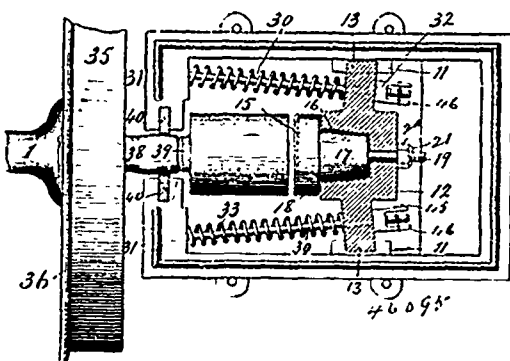
No. 46,094. Dental Articulator. (Appareil dentaire.)



Charles F. Garretson, Knoxville, Iowa, U.S.A., 18th May, 1894; 6 years.

Claim.—1st. A dental apparatus or device for obtaining the bite, consisting of suitable spring-arms for the head and a pad for supporting the chin, substantially as and for the purpose set forth. 2nd. A dental apparatus or device for obtaining the bite, consisting of suitable arms for the head having ear-tips, and a pad for the chin, substantially as and for the purpose described. 3rd. A dental apparatus or device for obtaining the bite, consisting of extensible arms for the head and a pad for supporting the chin, substantially as and for the purpose specified.

No. 46,095. Journal Box. (Coussinet de tourillon.)

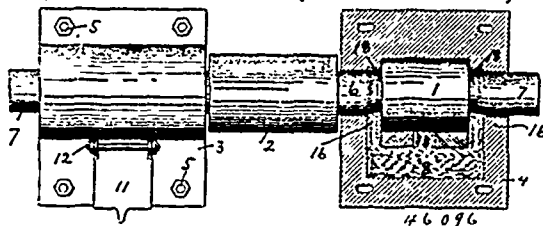


Isbn Metzger, Louisa County, Iowa, U.S.A., 18th May, 1894; 6 years.

Claim.—1st. A journal box having an adjustable abutment for the end of the journal, substantially as set forth. 2nd. An axle or shaft having an enlarged journal, and still larger shoulder for the wheel, in combination with the boxing, substantially as set forth. 3rd. An axle or shaft having a reduced portion adjacent to the journal, and said reduced portion being bevelled or tapered, in combination with the boxing in which said journal is arranged and through the wall of which said reduced portion projects, substantially as set forth. 4th. The combination with a box, of an axle or shaft having a journal in said box and a reduced portion projecting through the wall of said box and being tapered or bevelled away from such wall on both sides thereof, substantially as set forth. 5th. The combination of an axle or journal having a flange thereon, and a box for said axle or journal having a socket or hood fitting over said flange for excluding dirt, substantially as set forth. 6th. The combination with an axle or journal and a box, of a bushing located in said box, and an adjustable follower having an abutment for limiting the end thrust of said axle or journal, and overlapping said bushing for holding the same in place, substantially as set forth. 7th. The combination with an axle or journal and a box thereof, of an adjustable follower having an abutment for limiting the end thrust of said axle or journal, said follower being cushioned

so as to hold it away from said axle or journal, substantially as set forth. 8th. The combination with an axle or journal and a box thereof, of a bushing in said box, an adjustable follower, a revoluble abutment carried by said follower for limiting the end thrust of said axle or journal, said follower being provided with a projection for holding said bushing in place, substantially as set forth. 9th. The combination with an axle or journal and a box thereof, of an adjustable follower having a socket, a revoluble abutment journaled in said socket, for limiting the end thrust of said axle or journal, and means for securing said abutment and follower together, substantially as set forth. 10th. The combination with an axle or journal and a box thereof, of an adjustable follower having a socket, a revoluble abutment journaled in said socket, for limiting the end thrust of the axle or journal and having a stem projecting through said follower, and means for preventing the withdrawal of said stem, substantially as set forth. 11th. The combination with an axle or journal and a box thereof, of an adjustable follower having a conical socket, a revoluble abutment having a conical end fitting in said socket, and an enlarged head adapted to come against the conical sides and inner end of said socket, substantially as set forth. 12th. The combination with an axle or journal and a box thereof, of a follower arranged in said box and having an abutment for limiting the end thrust of said axle or journal, screw rods for adjusting said follower and springs arranged on said rods for holding said follower away from the axle or journal, substantially as set forth. 13th. The combination with an axle or journal and a box thereof, of a bushing or bearing for said axle or journal, having a rocking support, substantially as set forth. 14th. The combination with an axle or journal and a box thereof, of a block or bushing arranged between the axle or journal and said box and having a rounded upper side, and a lug engaging said block or bushing loosely for holding it in place, substantially as set forth. 15th. The combination, with an axle or journal and a box thereof, of a bushing or bearing for said axle or journal, having rounded sides so as to turn in a horizontal plane, substantially as set forth. 16th. The combination, with a journal box, of an axle or journal having a peripheral groove arranged within said box for catching oil and grit, substantially as set forth. 17th. The combination, with a journal box, of an axle or journal having a portion tapering inwardly located within said box and said tapering portion being provided with a peripheral groove also located within the box, substantially as set forth. 18th. A journal or axle having channels or grooves extending in the direction of its length, in combination with a bushing or bearing for said grooved portion, substantially as set forth. 19th. A journal or axle having spiral channels or grooves extending in the direction of its length, in combination with a bushing or bearing for said grooved portion, substantially as set forth.

No. 46,096. Journal Box. (Coussinet de tourillon.)

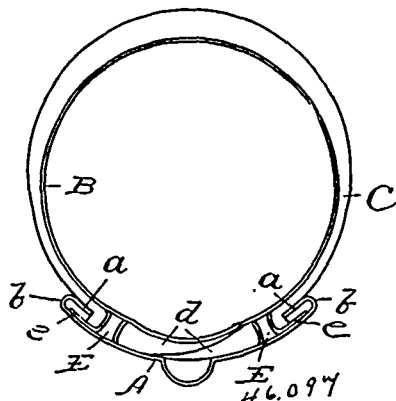


Isbn Metzger, Louisa County, Iowa, U.S.A., 18th May, 1894; 6 years.

Claim.—1st. A shafting provided with an enlarged projection or collar for a journal, the extensions of the sections of said shafting, on each side of said journal being bevelled or slightly reduced in diameter at points adjacent to the sides of said journal, in combination with a boxing constructed of two sections, the upper and lower section respectively provided with circular recesses, conforming to the diameter of said journal, the inner portions of the bores of said boxing, through which the smaller sections of the shafting pass, being inwardly bevelled, an oil well being cut through both of said sections and extending down into the lower section to a point at and below the lower periphery of said journal, a cap or cover for said oil well, and means for holding said upper and lower sections of the boxing firmly and rigidly together, substantially as set forth. 2nd. A shafting provided with an enlarged projection or collar for a journal, the immediate extensions on each side thereof, being of a smaller diameter than said journal, and the main body of said shafting being of a diameter greater than that of said journal, substantially as set forth. 3rd. A journal in combination with a bearing or boxing having its lower side provided with a circular seat to conform to the journal, and an oil well cut into the lower part of said boxing, and having a recess extending back under the journal so as to form a receptacle for catching grit, etc., adhering to the journal, substantially as set forth. 4th. A bearing or boxing constructed in two sections, the upper and lower sections respectively being provided with a deep circular recess to conform to the diameter of the journal, and having a bore for the extension of the shafting of a smaller diameter than that of the said recesses, an oil well cut through the upper section and extending down through the lower section, with a space leading to the lower periphery of the recess in the lower section, said oil

well being recessed deeper than the bottom of said space leading to said lower periphery, so as to receive and hold any wearings or grit or sand, a cap or cover for said oil well and means for holding said upper and lower sections firmly and rigidly together, substantially as set forth. 5th. A shafting or axle having an enlarged journal, in combination with a bearing or boxing provided with an oil well and a circular seat for the journal, said seat being counter-sunk or cut away at the end of said enlarged journal, and said counter-sink being connected with the oil well, substantially as set forth. 6th. A shafting or axle having an enlarged journal, in combination with a bearing or boxing provided with an oil well and a circular seat for the journal, said seat being counter-sunk or cut away at both ends of the journal, and also at an intermediate point, and said counter-sinks being connected with the oil well, substantially as set forth. 7th. A journal in combination with a bearing or boxing having its lower side provided with a circular seat to conform to the journal, an oil well cut into the lower part of said boxing, said circular seat being counter-sunk or cut away from a point substantially under the centre of the journal to form a receptacle for grit, etc., and the said counter-sink being connected with the oil well, substantially as set forth. 8th. A journal in combination with a bearing or boxing having a circular seat for said journal, and an oil well, said circular seat being recessed under the journal and said recess being connected to said oil well, the bottom of said recess and oil well being inclined outwardly, and a removable plug for draining said oil well and recess, substantially as set forth.

No. 46,097. Pneumatic Tire. (Bandage pneumatique.)



The Derby Cycle Company, assignee of Charles Francis Pease, all of Chicago, Illinois, U.S.A., 18th May, 1894; 6 years.

Claim.—1st. The combination with the wheel rim, the edges whereof are bent over to form hooks which open toward the vertical centre of the wheel, of an inflatable core and a flexible sheath therefor, the latter being provided with an annular shoulder along each side adapted to abut against the edge of the bent over portions of the rim, and said sheath being also provided with metallic guards adapted to set under said bent over portions of the rim, substantially as specified. 2nd. The combination of the wheel rim having the annular shoulders at each side, with an inflatable core and a flexible sheath therefor, the latter having shoulders which are adapted to engage the shoulders of the rim, and also having metallic guards consisting of the eyelets E passing through the shouldered portions of the sheath and projecting guards c overhanging said portions, substantially as specified. 3rd. The combination with the wheel rim, the edges whereof are bent over to form hooks which open toward the vertical centre of the wheel, of an inflatable core and a flexible sheath therefor, the latter being provided with an annular shoulder along each side adapted to abut against the edge of the bent over portions of the rim, and said sheath being also provided with metallic guards adapted to set under said bent over portions of the rim, and with edges extended so as to overlap each other above the hollow of the rim, substantially as specified.

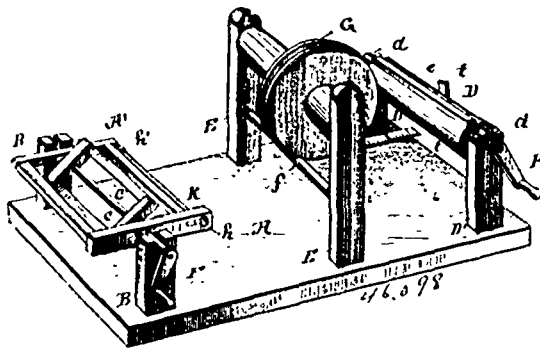
No. 46,098. Cloth Measuring Machine.

(Machine à mesurer les draps.)

William H. Holloway, Brazil, Indiana, U.S.A., 18th May, 1894; 6 years.

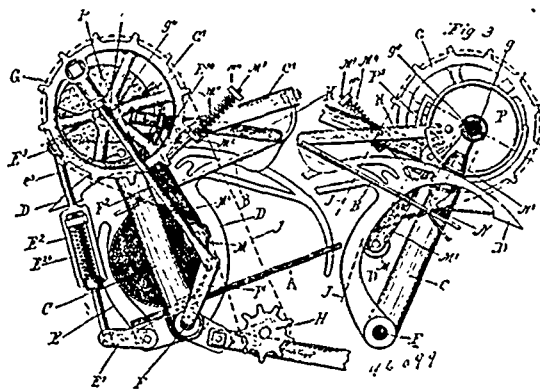
Claim. 1st. In a cloth measuring machine, a reel consisting of two rectangular frames of unequal size, the large frame enclosing the smaller and both mounted on a common shaft, and adapted to coincide in their relation to each other, or to be positioned at different angles to their mounting, substantially as described. 2nd. In a cloth measuring machine, a reel consisting of two rectangular frames of unequal size, the larger inclosing the smaller and both mounted on a common shaft, and adapted to be positioned at different angles to each other, the larger frame having a cloth attaching device, and means for rotating the frames, substantially as set forth. 3rd. The combination of the spring actuated tape-wheel and the cylinder D having a raised portion c, with the roll composed of the rectangular frames A¹, C¹, and shaft C, and means for actuating the same,

substantially as described. 4th. A reel composed of a central shaft, and two rectangular frames of unequal size, the smaller being



adapted to turn within the larger, and means for supporting and actuating the same, in the manner described and for the purpose set forth.

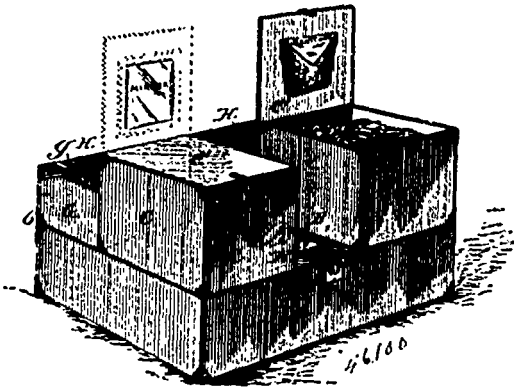
No. 46,099. Grain Binder. (Lieuse à grain.)



The Warder, Bushnell and Glessner Company, Springfield, Iowa, assignee of Maurice Kane, Austin, Illinois, all in the U.S.A., 18th May, 1894; 6 years.

Claim.—1st. In a grain-binder, the binder main wheel G, journalled eccentrically on the binder frame, devices which communicate motion to it by the engagement with its eccentric periphery, the needle or binder arm and the mechanism through which it derives movement from the binder main wheel arranged to bring the needle to the end of its advance movement when the binder main wheel actuating devices are engaged with the portion of its periphery most remote from its centre of rotation, substantially as set forth. 2nd. In a grain-binder, the main wheel G, journalled eccentrically on the binder frame, the knottor and the mechanism through which it derives motion from the binder main wheel, arranged to cause the knottor's rotation to be made, while the devices which engage and drive the binder main wheel are operating upon that portion of its periphery which is more distant from its centre of rotation, substantially as set forth. 3rd. In a grain-binder, in combination with the needle rock-shaft and its crank arm, the binder main wheel and the link from the crank wrist thereof to the wrist of the needle crank arm, the main driving sprocket pinion and the chain which communicates power therefrom to the binder main wheel, said binder main wheel being journalled eccentrically, the centre of construction being in a line from its centre of motion to the point of tangency and the departure of the drive chain when the centre of motion is in line with the wrist of the needle crank arm and the crank wrist of the binder main wheel G, substantially as set forth. 4th. In a grain-binder, in combination with the main driving sprocket pinion H, and binder main wheel G, journalled eccentrically, the chain which communicates power from the former to the latter, the lever M¹, fulcrumed on the frame and carrying the tightener pulley, the link M², spring M³, stop bracket M⁴, and nut m⁴, connected and co-operating, substantially as set forth. 5th. In a grain-binder, the main wheel journalled eccentrically and carrying the bundle ejecting arm, and the chain by which said wheel is rotated, combined substantially as set forth, whereby the rotary movement of the wheel while the ejecting arm is performing its office is communicated to it by engagement of a portion of its arc on the side nearer the centre of motion. 6th. In a grain-binder, the combination with a needle shaft and needle, of an eccentrically journalled sprocket-wheel, connections between such needle shaft and wheel, and mechanism for driving the said wheel, substantially as and for the purpose set forth.

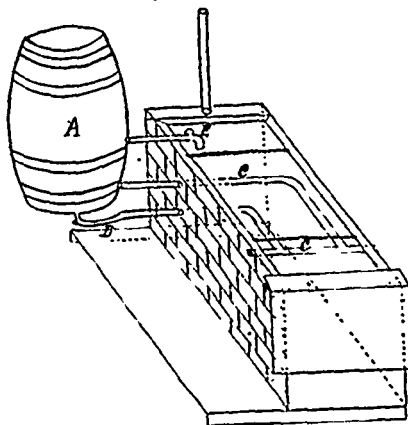
No. 46,100. Travelling Case. (Caisse de voyage.)



Florence Ireneo Leonard, Arlington, Georgia, U.S.A., 18th May, 1894; 6 years.

Claim.—1st. A travelling case comprising a box or main compartment, the cover therefor and the hat box mounted upon the opposite ends of said cover and having lids, substantially as set forth. 2nd. An improved travelling case having the main compartment or box and the lid thereof, provided with hat boxes upon its ends and with the long lingerie box extended alongside the hat boxes, substantially as set forth. 3rd. An improved travelling case consisting of the main box, the lid or cover therefor, provided on its upper side centrally between its ends with the handle, and the hat boxes fixed upon the ends of said cover on opposite sides of the handle and having lids, substantially as and for the purposes set forth. 4th. The improved travelling case herein described consisting of the main box or compartment the lid thereof having upon its opposite ends hat boxes separated at their adjacent edges affording space for the handle, the handle secured to the lid between the hat boxes and the lingerie box secured upon said lid at one edge thereof and extended alongside the hat boxes, the said hat and lingerie boxes being provided with lids, substantially as and for the purposes set forth. 5th. In a travelling case, the combination: with the main box or compartment, and its lid having the handle between its ends and having the hat boxes mounted on the lid, and provided on their upper sides with independent lids and also having the lingerie box provided with an independent lid, and extended alongside the hat boxes, all substantially as described, whereby access may be had to the interior of the main box without opening either of the hat or the lingerie boxes or to any one of the latter boxes without opening the main box, all substantially as and for the purposes set forth.

No. 46,101. Process of Rolling Sap. (Procédé pour bouillir la sève.)



D. John Grondin, Yamachiche, Quebec, Canada, 18 Mai, 1894; 6 ans.

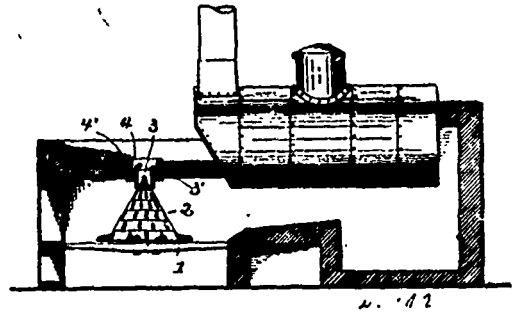
Résumé. La combinaison de un ou plusieurs tuyaux serpentant dans le feu et sortant de tel poêle, ou fourneau de manière à pouvoir connecter et faire bouillir l'eau d'érable au dedans et au dehors en même temps et avec le même feu dans un ou plusieurs vaisseaux au besoin et demande de ceux qui font du sucre d'érable, tel que ci-dessus décrit et pour les fins indiquées.

No. 46,102. Burner for Saw-Dust. (Foyer à bran de scie.)

Russell Harvey Nogar and Albert Cooke, both of Toledo, Ohio, U.S.A., 19th May, 1894; 6 years.

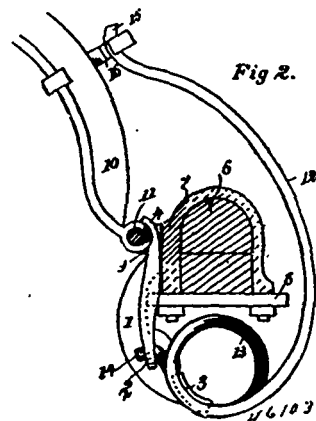
Claim.—1st. In a burner for saw dust, the combination with a cone shaped burner, a hopper arranged above the same and provided

with laterally projecting lugs, and a revoluble collar within which the hopper is arranged, said revoluble collar having internal spiral ribs, whereby as the collar is revolved, the hopper is raised or



lowered from the apex of the burner. 2nd. A burner for saw-dust and the like, conical in shape, and composed of a series of corrugated truncated conical sections arranged one above the other, the corrugations alternating, providing a series of non-aligning air passages. 3rd. In a burner for saw-dust and the like, the combination with a grate of a cone shaped burner, revolubly arranged thereon and the wings formed upon the lower portion of the cone shaped burner to clear the grate when said burner is revolved. 4th. In a burner for saw-dust and the like, the combination of a grate of a standard thereon, a cone shaped burner journaled upon said standard and adapted to be revolved by a key. 5th. An improved burner, conical in shape and composed of a series of tapering ring sections, each section having an interior pin and hook, whereby the said ring sections are connected with one another.

No. 46,103. Combined Anti Rattler and Shaft Support. (Tuteur de limonière et compensateur combinés.)



Demas A. Barrackman, Decatur, Illinois, assignee of Henry Carpenter, Davenport, Iowa, both in the U.S.A., 19th May, 1894; 6 years.

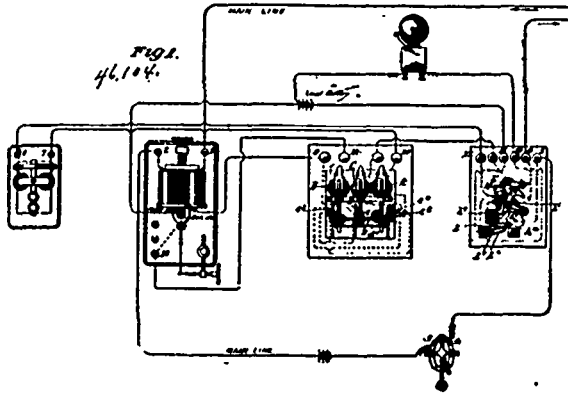
Claim.—The combination of the hanger 1 comprising the eyes 2, the plate 3 grooved in its under surface, the hooked upper termination 4 and the recessed face, together with springs 12 coiled at 13 and adapted to engage grooves of plate 3, hooked at 14 to engage eyes 2, and adapted to connect with link 16 and through such link, with the shaft, substantially as and for the purpose set forth.

No. 46,104. Electric Selecting Device. (Commuteur électrique.)

The Electric Selector and Signal Company, assignee of Samuel S. Bogart, all of New York, State of New York, U.S.A., 19th May, 1894; 6 years.

Claim.—1st. In an electric selecting device, a movable wheel, bar or sector, provided with a mechanical representation of a fixed combination of electrical impulses, consisting of a series of members, each member representing one or more of the electrical impulses, and separated from the adjoining member of the combination, in combination with an electro-magnet, and its armature lever acting directly on the wheel and responding to the transmitted impulses to positively impel the wheel or sector to work out the combination, and means for transmitting the combination impulses. 2nd. In an electric selecting device, a movable wheel, bar or sector, provided with a mechanical representation of a fixed combination of electrical impulses, consisting of members separated by a space or spaces, in combination with a movable wheel, bar or sector, provided with a

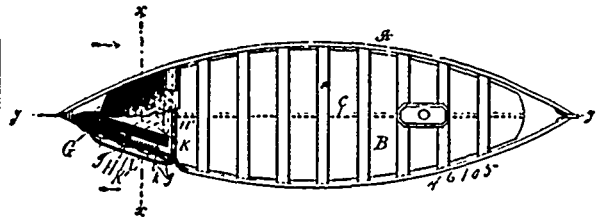
mechanical representation of the spaces between the members of the combination on the combination sector, in combination with two electro-magnets provided with their respective armature levers and



responding to the transmitted impulses, one to impel the combination sector, and means for transmitting the electrical impulses to each of said magnets. 3rd. In an electric selecting device, two wheels or sectors mounted upon the same shaft, one provided with a mechanical representation of a fixed combination of electrical impulses, and the other provided with a mechanical representation of the spaces between the members of the combination wheel, each of said wheels or sectors operated by the armature lever of an electro-magnet, one of them by impulses transmitted through the front stop of the relay, and the other by impulses transmitted through the back stop of said relay. 4th. In an electric selecting device, a wheel or sector provided with a mechanical representation of a fixed combination of electrical impulses, separated by a deep cut between the members of the combination, and operated by a pawl and armature lever of an electro-magnet acting directly on the wheel and responding to electrical impulses transmitted through the magnet, in combination with means for checking the wheel or sector at each impulse, an electro-magnet and its armature lever for releasing the checking mechanism, and means operated by the armature lever of the combination magnet for shifting the current to the releasing magnet to restore the wheels or sectors to starting point. 5th. In an electric selecting device, a combination wheel, a spacing wheel and a check wheel each mounted upon the same shaft, the combination and spacing wheel operated by electrical impulses transmitted through their respective magnets and the checking mechanism released by an impulse transmitted through the releasing magnet, in combination with means operated by the pawl of the combination magnet to shift the current to the releasing magnet when a false impulse is transmitted or when the combination phase is completed, and means for shifting the current back to the operating magnets actuated by the return of the wheels to starting point. 6th. In an electric selecting device, a selecting instrument, an answer-back instrument and a signalling instrument each provided with its respective electro-magnet, the selecting instrument provided with a movable wheel or sector responding to its fixed combination of electrical impulses transmitted through its operating magnet, in combination with means operated by the impelled wheel or sector to shift the current to the answer back, means operated by the answer back magnet to shift the current to the signalling magnet and means operated by restoring the answer-back mechanism to its starting point to shift the current from the signalling magnet and restore it to the selecting instrument. 7th. In an electric selecting device, a wheel or sector provided with a mechanical representation of a fixed combination of electrical impulses, an electro-magnet provided with an armature lever and its pawl to impel the wheel and work out the combination in response to the electrical impulses, in combination with a checking mechanism to hold the wheel or sector at each forward movement and prevent it from returning backward, and mechanical devices operated by the armature lever and its pawl to release the checking mechanism when a false impulse is transmitted. 8th. In an electric selecting device, two wheels or sectors mounted upon the same shaft, one provided with a mechanical representation of a fixed combination of electrical impulses consisting of a series of members with intervening spaces, and the other provided with a mechanical representation of the spaces between the members of the combination wheel or sector, in combination with a checking mechanism to hold the wheels at each forward impulse, two electro-magnets and their appropriate armature levers and pawls to work out the combination in response to the impulses transmitted and means operated by either magnet to release the checking mechanism and means for returning the wheels or sectors to the starting point when released. 9th. In an electric selecting device adapted to respond to a fixed combination of electrical impulses, a checking device consisting of two wheels having teeth or ratchets with their radial faces cut in opposite directions, in combination with two pawls co-operating with the wheels, one to

limit the forward stroke and the other to prevent a backward return of the wheels, means operated by the electrical impulses for releasing the checking device when a false impulse is transmitted or when the combination has completed its phase, and means for returning the instrument to its starting point when the checking device is released. 10th. In an electric selecting device adapted to respond to a fixed combination of electrical impulses, a wheel or sector provided with a mechanical representation of the combination impulses consisting of a series of members with a raised space between them, an electro-magnet with its armature lever and pawl to work out the combination in response to the impulses, a checking device to prevent the backward movement of the sector, and means operated by the sliding of the pawl on the raised space between the members of the combination for releasing the checking device to allow the instrument to be returned to starting point. 11th. In an electric selecting device adapted to respond to a fixed combination of electrical impulses, the instrument provided with a mechanical representation of the electrical combination impulses and means for working them out, and also provided with a wheel or sector having a series of teeth or ratchets, in combination with mechanism for operating a cut-out or semaphore, having a wheel or sector provided with a series of teeth or ratchets corresponding with those in the combination instrument, and means for working the wheels in unison after the phase of the combination instrument is completed. 12th. In an electric selecting device, a wheel or sector adapted to respond to a fixed combination of electrical impulses, and also to a series of additional impulses to complete the course, means for transmitting to the instrument, first the fixed combination of impulses, to the selecting instrument and then the additional impulses to complete the phase of the wheel, in combination with a mechanical device operated by the additional impulses transmitted after the combination impulses. 13th. In an electric selecting device, a wheel or sector adapted to respond to a fixed combination of electrical impulses, and also to a series of additional impulses to complete its course in combination with a mechanical device adapted to respond to a series of impulses to perform mechanical work, a transmitting instrument, and means for transmitting first the fixed combination of electrical impulses to the selecting instrument, means for shunting the current to the electro-magnet of the mechanical device, and then the additional impulses to perform mechanical work.

No. 46, 105. Life-Boat. (Canot de Sauvetage.)

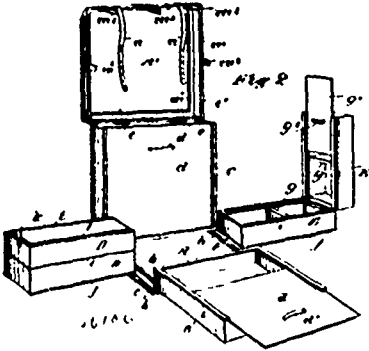


John Antone Aniello and Toussaint Pierre Boscher, both of New Orleans, Louisiana, U.S.A., 19th May, 1894; 6 years.

Claim.—1st. A life-boat provided with an inner bottom sloping toward the stern of the boat and terminating in a well, scupper holes at each side of said well, splash boards clear of and exterior to said scupper holes and extending partly below the same, and a shield clear of said splash-board and below the same to prevent the outside water from being wedged up beneath said splash board, substantially as and for the purpose described. 2nd. A life-boat provided with an inner bottom sloping aft, a well let down in the rear part of said inner bottom, inclined timbers in said well, scupper holes at each side of said well, wash-boards resting on said timbers and partly covering said well, and a splash-board clear of and exterior to said scupper holes and extending partly below the same, substantially as and for the purpose described. 3rd. A life-boat provided with an inner bottom sloping aft, a well let down in the rear part of said inner bottom, inclined timbers in said well, scupper holes at each side of said well, wash-boards resting on said timbers and partly covering said well, and a splash-board clear of and exterior to said scupper holes and extending partly below the same, and a shield clear of said splash-boards and below the same to prevent the outside water from being wedged up beneath said splash-boards, substantially as and for the purposes described. 4th. A life-boat provided with air chambers and an inner bottom over said air chambers and sloping aft, a well G, let down in the rear part of said inner bottom, scupper holes g, at each side of said well, wash boards K, and K', having an aperture k, therein over said well, a splash board L', exterior to and protecting said scupper holes from inflowing water, and a shield L'', beneath said wash-board and separated therefrom by an open space 1, substantially as and for the purposes described. 5th. A life-boat provided with air chambers and an inner bottom over said air chambers and sloping aft, a well G, let down in the rear part of said inner bottom, scupper holes g, at each side of said well, wash-boards K and K', having an aperture k, therein over said well, inclined pieces H, placed in said well beneath said wash-boards, a splash-board L',

exterior to and protecting said scupper holes from inflowing water and a shield L², beneath said wash-board and separated therefrom by an open space I, substantially as and for the purposes described.

No. 46,106. Trunk. (Coffre.)



William H. S. Westlake, Lock No. 4, Pennsylvania, U.S.A., 19th May, 1894; 6 years.

Claim. 1st. In a trunk, the combination with a bottom piece, of a series of rectangular boxes hinged thereto, by their outer edges at lower ends, and a lid adapted to bind the tops of the boxes together substantially as described. 2nd. In a trunk, the combination with a bottom piece, of boxes hinged thereto by their lower ends, and adapted to fold outwardly or stand upright on said bottom, and a hinged lid adapted to bind the tops of the boxes together, substantially as described. 3rd. In a trunk, the combination with a rectangular bottom piece, of two boxes hinged to opposite edges of the bottom piece, intervening boxes also hinged to edges of the bottom piece, and a lid hinged to one box and adapted to bind the tops of all the boxes together, substantially as described. 4th. In a trunk, the combination with a rectangular bottom piece, of a marginally secured substantially rectangular guard rail, boxes hinged by lower ends upon said rail, and a hinged lid adapted to bind the tops of all the boxes together, substantially as set forth. 5th. In a trunk, the combination with a rectangular bottom piece, a substantially rectangular guard rail secured thereto and projected at the edge of said bottom piece, and two boxes approximating in width the length of two opposite sides and hinged thereto so as to be adapted to stand upright on the bottom piece, or receive an outward folding adjustment of two pairs of folding boxes hinged by one edge of one box of a pair to other parts of the guard rail and a hinged lid, substantially as described. 6th. In a trunk, the combination with a bottom piece, a guard rail thereon at its edge, and boxes hinged thereto so as to fold outwardly or stand upright, of elastic joint strips between the boxes, an elastic joint strip between the bottom piece and boxes, and a hinged lid adapted to bind the tops of all the boxes together, substantially as described. 7th. In a trunk, the combination with a rectangular bottom piece, and a guard rail secured by transverse plates thereon and conforming to the edge of the bottom so as to project therefrom, of a plurality of boxes hinged to the guard rail and adapted to stand on the bottom or fold outwardly, a lid hinged to one box and binding all together when shut, and means to secure the lid in closed adjustment, substantially as described. 8th. In a trunk, the combination with a rectangular bottom piece, a guard rail secured thereon and conforming with the margin of the bottom piece, and two spaced boxes substantially equal in width with the length of the opposite sides of the bottom and loosely jointed to the guard rail, of two pairs of folding boxes hinged to opposite parts of the guard rail and adapted to stand between the other boxes, joint strips intervening the folded boxes and spaced boxes, a joint strip between all the boxes and the bottom piece, a hinged lid, a joint piece between the lid and all the boxes, and means to secure the lid in closed adjustment, substantially as described. 9th. In a trunk, the combination, with a rectangular bottom piece, a guard rail thereon, two parallel and spaced boxes hinged by lower ends to the rail, two pairs of folding boxes hinged to the rail and intervening the spaced boxes, and a hinged lid adapted to bind the tops of all the boxes together, of hinged angular corner pieces, and adjustable straps extending diagonally on the lid from said corner pieces, substantially as described. 10th. In a trunk, the combination, with a rectangular bottom piece a guard rail thereon, two opposite spaced boxes hinged to said rail, and two pairs of folded boxes intervening the spaced boxes and also hinged to the rail, angular corner pieces hinged by lower ends to the corners of the guard rail, buffer holders hinged to upper ends of the angular corner pieces, elastic buffer blocks thereon, and adjustable straps extended from the holders, of removable brace bars on the folded boxes, a hinged lid adapted to bind the tops of all the boxes together, elastic joint strips between the boxes, a joint strip between

the lid and boxes, a joint strip between the boxes and bottom piece, and elastic buffers on said bottom piece, substantially as described

No. 46,107. Work Ticket and Method of and Apparatus for Manufacturing Work Tickets. (Billet d'ouvrier, Méthode et appareil pour sa fabrication.)

46107

William B. Hamilton, Toronto, Ontario, Canada, 19th May, 1894; 6 years.

Claim.—1st. The herein described work schedule form comprising a plurality of main or principal sections, each of which has blanks for exhibiting thereon details of manufacture of a class and quantity of work, and in connection therewith a series of number of subsidiary sections, each of which has blanks for exhibiting thereon the operations to be performed, and the other details pertaining to the same class and quantity of work, a portion of the entire number of the subsidiary sections being for use conjointly with each of the main or principal sections, substantially as and for the purpose specified. 2nd. The herein described shoe factory work schedule form provided with blanks wherein to designate materials to be used, tools to be employed, operations to be performed, wages to be paid, in the cutting, fitting, sole, and bottoming departments in the manufacture of shoes, the class or style to which shoes belong, the identity of a separate lot or quantity thereof, and the number of pairs of shoes combined in one lot or quantity during the process of manufacture, substantially as and for the purpose set forth. 3rd. The herein described shoe-factory work-schedule form provided with blanks wherein to designate operations or work to be performed in the bottoming departments in the manufacture of shoes, substantially as and for the purpose set forth. 4th. The herein described shoe-factory work schedule form provided with blanks wherein to designate operations or work to be performed in the fitting departments in the manufacture of shoes, substantially as and for the purpose set forth. 5th. In the manufacture of work-schedules or work-tickets for the purpose of exhibiting the details of a manufacture, the method herein set forth of establishing standard schedules or specifications of the class-details of manufacture of different classes of work made in a factory, which consists in compiling the class details of manufacture of each class, and exhibiting the same by a permanent complement of work-tickets, each of which exhibits the class-details of manufacture pertaining to but one class or kind of work, substantially as and for the purpose specified. 6th. In the manufacture of factory work-schedules for the purpose of exhibiting the details of a manufacture, the herein described method of manufacturing specific work-schedules, in respect to the class details of manufacture of classes of work, which consists in establishing a complement of duplicating means and reproducing therefrom the standard-schedules or specifications of the class details of manufacture of class of work, substantially as and for the purpose specified. 7th. In the manufacture of factory work-schedules for the purpose of exhibiting the details of a manufacture, the method herein described of establishing duplicating means for duplicating standard-schedules or specifications of the class details of manufacture of classes of work which consists in employing a complement of permanent printing forms each of which is independently composed with the details of manufacture of one of the said classes, substan-

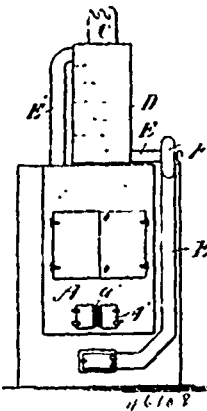
tially as set forth. 8th. In the manufacture of factory work-schedules for the purpose of exhibiting the details of a manufacture the herein described method of manufacturing a specific work-schedule in respect to the class-details of manufacture of an individual class of work which consists in duplicating by means of a factory class-detail printing-form, on a previously printed work-schedule-form, the standard-schedule or specification of the class-details of manufacture of the said individual class of work, substantially as set forth. 9th. In the manufacture of factory work-schedules for the purpose of exhibiting the details of a manufacture, the herein described method of manufacturing specific work-schedules, in respect to the lot or case-details of manufacture of quantities of work, which consists in composing in a printing-form a plurality of type representing a plurality of one of the said details, or a plurality of a combination of two or more of the said details of manufacture of a class of work and in printing by one impression a plurality of one of the said details or a plurality of a combination of two or more of said details, on certain blanks of previously printed work-schedule-forms intended for exhibiting the said details thereon, substantially as and for the purpose specified. 10th. In the manufacture of factory work-schedules for the purpose of exhibiting the details of a manufacture, the method herein described of composing a factory case-detail printing-form comprising a plurality of type representing a plurality of one of the case-details or a plurality of a combination of two or more of the case-details of a quantity of a class of work, which consists in arranging a quota of a full complement of type-bars, each bar of which has a plurality of one of the digits formed thereon in type, and the position of the type on the bars being arranged to coincide with the position of certain blanks on a factory work-schedule-form, substantially as set forth. 11th. In the manufacture of factory work-schedules for the purpose of exhibiting the details of a manufacture, the method herein described of manufacturing a specific work-schedule in respect to the lot or case details of manufacture of an individual quantity of work which consists in printing by one impression a plurality of one of the said details or a plurality of a combination of two or more of said details, on certain blanks of a previously printed work-schedule-form intended for exhibiting the said details thereon, substantially as set forth. 12th. The herein described work-schedule-form for factory use in exhibiting the details of a manufacture consisting of a sheet of suitable material having thereon a printed form identifying certain blanks parts of the sheet with their use for exhibiting thereon certain details of manufacture of a class and quantity of work, the said blank parts of the work-schedule-form being arranged relatively to coincide respectively with type composed in manufacturing detail-printing-forms for indicating specifically the details of manufacture of said class and quantity of work, substantially as described. 13th. The herein described work-schedule-form designed for factory use in exhibiting the details of a manufacture consisting of a sheet of suitable material having thereon a printed form identifying certain parts of the sheet with their use for exhibiting thereon the manufacturing details indicating the materials to be used, the devices or tools to be employed, the operations to be performed, the wages to be paid and the identification of the class of work to which said details appertain, the said parts of the work-schedule-form being arranged relatively to coincide respectively with type composed in a factory class-detail printing-form for indicating on said work-schedule-form these details of a class of work, substantially as described. 14th. The herein described work-schedule-form designed for factory use in exhibiting the details of a manufacture consisting of a sheet of suitable material having thereon a printed form identifying certain parts of the sheet with their use for exhibiting thereon the manufacturing details indicating the identification of a distinct lot or "case" and the quantity therein, the said parts of the work-schedule-form being arranged relatively to coincide respectively with type composed in a factory case detail printing-form for indicating simultaneously a plurality of these details of manufacture on said work-schedule-form, substantially as described. 15th. In an apparatus for manufacturing factory work-schedules for the purpose of exhibiting the class details of a manufacture, the herein described factory class detail form having a series of permanently fixed type receptacles, the position of the said type receptacles being arranged relatively to coincide respectively with the position of certain blanks of a factory work-schedule form intended for exhibiting the class details of manufacture therein, substantially as described. 16th. In an apparatus for manufacturing factory work-schedules for the purpose of exhibiting the case details of a manufacture, the herein described factory case detail printing form composed of a quota of a complement of type-bars for printing at one impression a plurality of the same case detail, or a plurality of a combination of two or more case details, each of the said type-bars having a plurality of one of the digits formed thereon in type, the position of the type on the bars being arranged relatively to coincide respectively with the position of certain blanks of a factory work-schedule form intended for exhibiting the said details thereon, substantially as described. 17th. In an apparatus for manufacturing work-schedules, a manufacturing detail printing form having an assemblage of type composed and arranged in order to print the specific details of manufacture of a class or kind of work, in combination with a manufacturing detail printing form having an assemblage of type composed and arranged in order to print a plurality of a detail of manufacture of a quantity of a class of work, and means whereby imprints from these manufacturing detail printing forms may be obtained, substantially as and for the purpose set

forth. 18th. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing form having an assemblage of type composed and arranged in order to print the specific details of manufacture of a class or kind of work, a work-schedule form having blanks designed for exhibiting thereon the said details of manufacture, and means whereby an imprint from the printing form may be made on a work-schedule form, substantially as and for the purpose specified. 19th. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing form having an assemblage of type composed and arranged in order to print a plurality of a detail of manufacture of a quantity of a class or work, a work-schedule form having blanks designed for exhibiting therein the said details of manufacture, and means whereby an imprint from the printing form may be made on the work-schedule form, substantially as and for the purpose specified. 20th. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing form having an assemblage of type composed and arranged in order to print the specific details of manufacture of a class or kind of work, a work-schedule form having blanks designed for exhibiting them the said details, means for receiving and supporting the work-schedule form in position for obtaining an imprint from the printing form, a platen supported and operated direct by a pressure-lever, a pressure-lever which raises and lowers the platen direct, a fulcrum on which the platen-lever is supported and pivoted, and a bed for supporting the lever-fulcrum and printing-form, substantially as and for the purpose specified. 21st. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing-form having an assemblage of type, composed and arranged in order to print a plurality of a detail of a manufacture of a quantity of a class of work, a work-schedule form having blanks designed for exhibiting thereon the said details, means for receiving and supporting the work-schedule form in position for obtaining an imprint from the printing-form, a platen supported and operated direct by a pressure-lever, a pressure-lever which raises and lowers the platen direct, a fulcrum on which the platen is supported and printed, and a bed for supporting the lever-fulcrum and printing-form, substantially as and for the purpose specified. 22nd. In an apparatus for manufacturing detail printing-form having an assemblage of type, composed and arranged in order to print the specific details of a manufacture of a class or kind of work, a work-schedule form having blanks for exhibiting them the said details, a frame for receiving and supporting the work-schedule-form in position for obtaining an imprint from the printing-form, the said frame having apertures where the type coincide with the blanks of the work-schedule form means of support for said frame which yield to applied pressure, and means whereby an imprint from the printing-form may be made on the work-schedule form, substantially as and for the purpose specified. 23rd. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing-form having an assemblage of type, composed and arranged in order to print a plurality of the details of manufacture of a quantity of a class of work, a work-schedule form having blanks designed for exhibiting thereon the said details, a frame for receiving and supporting the work-schedule-form in position for obtaining an imprint from the printing-form, the said frame having apertures where the type coincide with the blanks of the schedule-forms, means of support for said frame which yield to applied pressure and means whereby an imprint from the printing-form may be made on the work-schedule-form, substantially as and for the purpose specified. 24th. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing-form having an assemblage of type composed and arranged in order to print the manufacturing details of work, a work-schedule form having blanks designed for exhibiting thereon the said details of manufacture, a frame for receiving and supporting a work-schedule-form in position for obtaining an imprint from the printing-form, means of support for said frame which yield to applied pressure a platen supported and operated direct by a pressure-lever, a pressure-lever which raises and lowers the platen direct, a fulcrum on which the platen-lever is supported and pivoted and a bed for supporting the lever-fulcrum, printing-form and receiving-frame-supports, substantially as and for the purpose specified. 25th. In an apparatus for manufacturing work-schedules, the combination of a manufacturing detail printing-form having an assemblage of type composed and arranged in order to print the manufacturing-details of work to be manufactured, a work-schedule-form having blanks for exhibiting thereon the said details of manufacture, means for receiving and supporting the work-schedule-form in position for obtaining an imprint from the printing-form a platen supported and operated direct by a pressure-lever, a pressure-lever which raises and lowers the platen direct, a fulcrum on which the platen-lever is supported and pivoted, adjustable cushions by which the immediate pressure of the platen is equally applied and a bed for supporting the lever fulcrum, printing-form and adjustable cushions, substantially as and for the purpose specified. 26th. In an apparatus for printing work-schedules, the combination of a platen supported and operated direct by a pressure-lever, a pressure-lever on which is hung the platen, a movable fulcrum on which the platen-lever is supported and pivoted, a slide way along which the fulcrum moves, a lever jointed with the movable fulcrum, a spring and its fulcrum by which the platen lever is held in suspension, substantially as and for the purpose specified.

No. 46,108. Device for Providing Hot Air for Furnaces. (*Appareil pour approvisionner l'air chaud aux chaudières.*)

Fig 2

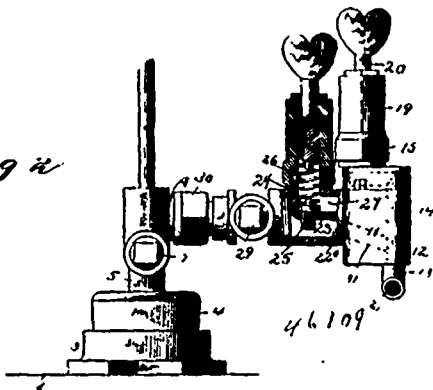
Archibald P. Campbell, Portage La Prairie, Manitoba, Canada, 19th May, 1894; 6 years.



Claim.—1st. The combination with a boiler or other furnace and the main flue or chimney for carrying off the waste products of combustion, of circulating air ducts or passages formed upon the casing of said flue or chimney, and ducts or pipes connecting said circulating ducts or passages with the ash-pit of the furnace, substantially as set forth. 2nd. The combination with a boiler or other furnace and the main flue or chimney for carrying off the waste products of combustion, of circulating air ducts or passages formed upon the casing of said flue or chimney, ducts or pipes connecting said circulating ducts or passages with the ash-pit of the furnace, and a branch connection of one or more of the tubes of the boiler or boilers with the said fresh air duct, substantially as set forth. 3rd. The combination with a boiler or other furnace, and the main flue or chimney for carrying off the waste products of combustion of circulating air passages formed upon the casing of said flue or chimney, ducts or pipes connecting said circulating ducts or passages with the ash-pit of the furnace, and an air space formed upon the furnace front and connected with said air duct, substantially as set forth. 4th. The combination with the main flue of boilers, of circulating air ducts 4, formed upon it and of circulating pieces O, passing through said flue and forming a continuation of said duct, and of pipes or ducts connecting it with the ash-pit of a boiler furnace, substantially as set forth. 5th. The combination with the main flue or chimney of boilers, air circulating ducts or passages formed thereon and cross tubes passing transversely through said flue or chimney, substantially as set forth.

No. 46,109. Apparatus for Bunging Beer and Other Casks, Etc. (*Appareil pour bondonner les barils de bière et autres.*)

Fig 2

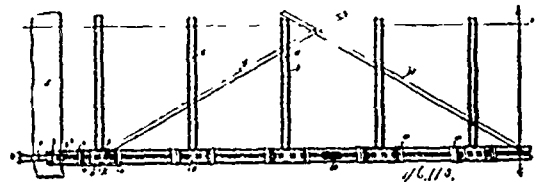


Louis Wagner and John Marr, both of Baltimore, Maryland, U.S.A., 19th May, 1894; 6 years.

Claim.—1st. A bunging device adapted to be interposed between a gas conduit and the cask to be bunged, provided with two independent passage-ways, a check valve in one of said passage-ways adapted to operate to permit ingress of gas to the cask, and a pressure controlled valve in the other passage-way adapted to operate upon a preponderance of pressure in the cask, substantially as set forth. 2nd. A bunging device adapted for connection with a gas conduit, and a cask, provided with a check valve to permit the ingress of gas to the cask and prevent the egress therefrom, an automatic valve adapted to open to permit such egress and means acting to keep this automatic valve normally closed for controlling it so as to prevent its opening excepting under a predetermined accumulated pressure in the cask, substantially as set forth. 3rd. A bunging device having a check valve adapted to permit the ingress of gas into a cask and to prevent the egress of the same, a pressure controlled valve normally closed and adapted to open upon the accumulation of the predetermined amount of gas in the cask to permit the egress of the same, and a second pressure controlled valve independent of the main gas conduit and communicating with the passage-way of the bunging device and adapted to operate at a pressure exceeding that at which the first pressure controlled valve operates, substan-

tially as set forth. 4th. In a bunging device the combination with a suitable casing or chamber having an orifice adapted to be connected with a gas conduit and a second orifice adapted to be connected with a cask, of the pressure controlled valve 17, the check valve 33 independent of the first mentioned valve, and independent passage-ways in said bunging device controlled by the said valve as described, and both extending from the first mentioned orifice to the second orifice, substantially as set forth. 5th. A bunging device having a suitable chamber or casing, an outwardly opening spring-controlled check valve 17 therein, the inwardly opening check valve 33 independent of the check valve 17, and a second pressure controlled valve 25 adapted to operate only at a higher pressure than that which will actuate the valve 17, as and for the purposes described. 6th. The combination with a plurality of casks, of suitable vent bungs therein, sleeves or conduits 5 in the said bungs, a series of bunging devices connected with said sleeves and provided each with a check valve 33, a pressure-controlled exit valve 17, a main gas pipe or conduit connected with the said bunging devices beyond the said valves, and a pressure-controlled valve or escape 25 independent of the main gas conduit and connected with one of said bunging devices, substantially as set forth. 7th. A bunging device having the valve chamber 11, a passage way therethrough controlled by a valve 17, means for keeping the latter yieldingly upon its seat, a check valve 33 controlling a second passage-way through the said valve chamber, a second pressure-controlled valve 25 operating at a different degree of pressure from that actuating the said valve 17, and a cut off cock 29, substantially as set forth.

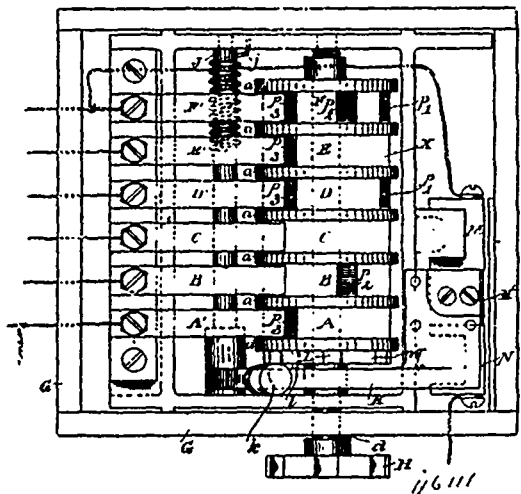
No. 46,110. Bridge. (Pont.)



Narcisse Pierre Massicotte, Ste. Geneviève de Batiscan, Québec, Canada, 19 mai, 1894; 6 ans.

Résumé.—1° La combinaison et l'assemblage du haut des montants, encoches dans leurs âmes et maintenant les patins des rails jumelés des arches et assemblés par la plaque A, avec oreilles D et coussinets c, tels que représentés aux plans (Pl. 2 et 3,) avec les tirants en fer F, qui empêchent l'écartement tout en haut le tablier avec les supports et l'arche, le tout tel que décrit à la spécification ci-dessus. 2° Les plaques d'assemblage B (pl. 1 et 4) pour assembler les extrémités des rails à leurs jonctions. 3° La combinaison de l'attache et de la repoussée des pieds des arches sur les piles, avec plaques, rails, tirants en fer, etc., tels que représentés à la planche No. 5.

No. 46,111. Electric Switch. (Commulateur électrique.)



The Consolidated Car Heating Company, assignee of James F. McEroy, both of Albany, New York, U.S.A., 21st May, 1894; 6 years.

Claim.—1st. In an electric switch, a cylinder, a series of metallic plugs placed in said cylinder flush with the surface thereof, a means for connecting said metallic plugs with an electric heater, a means for connecting said metallic plugs with the poles of a battery, substantially as described, and for the purpose set forth. 2nd. In an electric switch, a cylinder, metallic plugs arranged in series in said

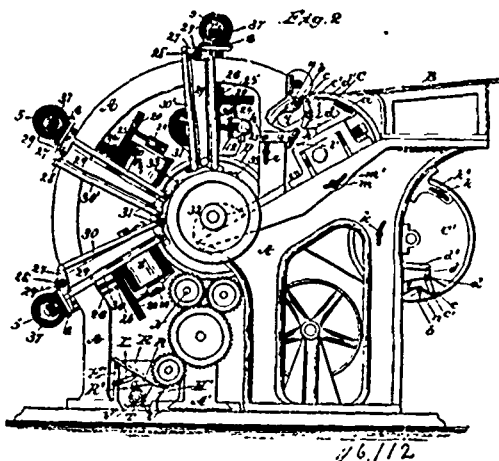
cylinder, metallic connections between said plugs and wires connected with an electric heater, a means for conducting the current of electricity to said metallic connections, with a ground wire extending from one of said metallic connections, substantially as described, and for the purpose set forth. 3rd. In an electric switch, a cylinder, a series of metallic plugs therein flush with the surface, a spindle upon which said cylinder is mounted, a series of electric fingers in contact with said plugs, one of said fingers attached to a wire carrying the current of electricity to the switch, one of said fingers attached to a wire connected with the ground, substantially as described, and for the purpose set forth. 4th. An electric switch containing a series of metallic plugs, said plugs arranged in the cylinder in such a manner that they are in series, a series of metallic fingers arranged to come into contact with said metallic plugs in the course of the revolution of the cylinder in such a manner that all the metallic plugs in each series will be in contact with their corresponding fingers simultaneously, with a means for connecting said metallic plugs to each other, substantially as and for the purpose set forth. 5th. In an electric switch, the combination of a cylinder containing a series of metallic plugs arranged in such a manner that the metallic plugs are in series, a series of metallic fingers arranged to come in contact with said metallic plugs in the course of the revolution of the cylinder in such a manner that all of the metallic plugs in each series will be in contact with their corresponding fingers simultaneously, with a means for connecting said metallic plugs to each other, a spindle upon which said cylinder is mounted, said spindle journaled in a suitable frame, with a knob at the end of said spindle by means of which the cylinder may be rotated, substantially as described and for the purpose set forth. 6th. In an electric switch, the combination of a cylinder containing a series of metallic plugs arranged in such a manner that the metallic plugs are in series, a series of metallic fingers arranged to come in contact with said metallic plugs in the course of the revolution of the cylinder in such a manner that all of the metallic plugs in each series will be in contact with their corresponding fingers simultaneously, with a means for connecting said metallic plugs to each other, a spindle upon which said cylinder is mounted, said spindle journaled in a suitable frame, with a knob at the end of said spindle by means of which the cylinder may be rotated, a rocking shaft mounted in said frame, a bell-crank lever secured to said rocking shaft, a metallic disc on one arm of said bell crank lever adapted to make and break the circuit by entering and leaving the space between the two poles of the switch, substantially as described and for the purpose set forth. 7th. In an electric switch, the combination of a cylinder, a series of metallic plugs placed in said cylinder, said plugs arranged in such a manner that they are in series, a series of metallic fingers arranged to come in contact with said metallic plugs in the course of the revolution of the cylinder in such a manner that all of the metallic plugs in each series will be in contact with their corresponding fingers simultaneously, with a means of connecting said metallic plugs to each other, one end of said cylinder provided with a wheel, with a notched or corrugated periphery, a lever mounted upon a shaft, said shaft suitably journaled in the frame of the switch, one arm of said shaft provided with a lug fitting to engage in the notches or corrugations or said wheel, by means of which said cylinder may be locked, with a disc at the end of said lever arm adapted to fit between the poles of the switch, substantially as described and for the purpose set forth. 8th. In an electric switch, the combination of a suitable frame, a metallic post insulated from said frame connected with the electricity bearing wire, a similar metallic post insulated from said frame and separated from first mentioned post a short distance and connected by wire to a metallic finger, a rocking shaft mounted in said frame carrying a pivotally connected lever, a metallic disc secured to said lever but insulated therefrom capable of fitting snugly between said metallic posts, a cylinder mounted upon a spindle journaled in said frame, a wheel secured to one end of said cylinder, having a notched periphery, a lug protruding from said lever capable of engaging with the notches in said wheel, said cylinder provided with one or more metallic plugs, with a series of metallic fingers resting upon said cylinder and coming into contact with said metallic plugs as the cylinder is revolved, one of said metallic fingers connected by wire to the ground or to the negative pole of the battery, substantially as described and for the purpose set forth. 9th. In an electric switch, a cylinder, a series of longitudinal passageways cored out of said cylinder extending from one end thereof in a line parallel to the axis, a series of metallic plugs placed in said passageway, a series of insulating material placed in said passageway, with means for connecting said metallic plugs, said cylinder having its periphery cut down in part forming annular depressions, extending around the cylinder, said metallic plugs being flush with the surface of said annular depressions in the periphery of said cylinder, with metallic fingers placed to come into contact with said annular depressions, with means for conducting the electricity to the switch, substantially as described and for the purpose set forth.

No. 46,112. Printing Press. (Presse à imprimer.)

Eugene Semple Bradford, St. Louis, Missouri, U.S.A., 21st May, 1894; 6 years.

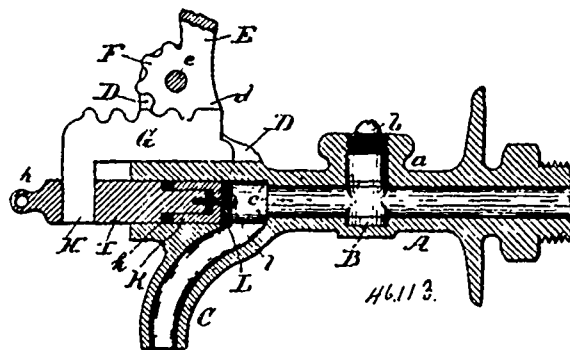
Claim.—1st. The combination in a rotary printing press, of an impression cylinder, a centrally pivoted gripper finger pivoted to a vibrating arm, one end of said finger projecting through the peri-

phery of the cylinder to grip the paper against the cylinder, the other end moving in a guide slot within the cylinder to cause the gripper-finger to hold the paper when the arm to which the finger is



pivoted is thrown into a certain position, and to recede within the cylinder when thrown in another position, the vibrating arm to which the gripper finger is pivoted vibrating within the cylinder, and suitable mechanisms connected to said vibrating arms and operated by the pins or lugs on the frame outside of the cylinder to vibrate it at fixed, definite periods by the revolution of the cylinder, substantially as specified. 2nd. In a plate printing press, the wiper frame 12 having arms upon which are mounted rolls for carrying the wiper cloth which revolve with the wiper plate, and gear-wheels and shaft carried on the wiper frame and rotating one of the spools which are mounted on the wiper frame and a shaft on which the wiper frame is mounted, whereby the wiper frame and cloth is rotated, and the cloth fed from one spool to the other, substantially as specified. 3rd. The combination with a wiper frame of a plate printing press, mounted on the end of a revolving shaft, of the driving mechanisms mounted on the wiper frame for winding the cloth from one spool to another on the wiper frame, of a rock-shaft connected with a drum on the shaft of the machine, and means intermediate of said shaft and the gearing which feeds the cloth to feed it intermittently beneath the wiper frame, as specified. 4th. In a plate printing press, the wiper frame, spools mounted on said frame and revolving therewith to carry the wiper cloth, the shaft 7 to which the wiper frame is attached, a sleeve surrounding said shaft and through which the shaft is adjustable vertically but which revolves with the shaft, a spring between the sleeve and the wiper frame, and means for adjusting the shaft through the sleeve, substantially as specified.

No. 46,113. Faucet. (Robinet.)

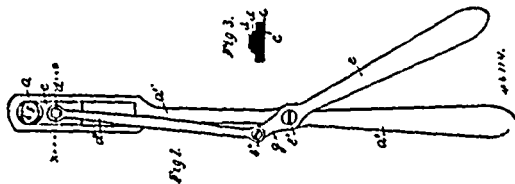


Alexander Hurst and Jesse I. Boyer, both of Reading, Pennsylvania, U.S.A., 21st May, 1894; 6 years.

Claim.—1st. The combination with the faucet, having oppositely situated flanges, of the handle terminating in a toothed sector flange, crumpled to and between the flanges, the V shaped stop lug formed at the juncture of the sector and handle, the rack plate slidably located between the said flanges, but not secured to them, the depending arm formed at right angles to the rack plate and extending through the plunger, and the plunger having an operating handle formed upon its outer end, substantially as shown and described. 2nd. In a faucet having flanges opposite the faucet's mouth, the inner screw threaded projection formed integral with the faucet stem, the valve seat made in the wall of the said stem, and the valve operated through the said projection, combined with

the operating handle, the plunger, the rack-plate having an arm depending through the plunger, the toothed sector forming one end of the operating handle fulcrumed to the said flanges, and the V-shaped lug formed at the juncture of the handle and sector, to stop the outward movement of the said rack plate and plunger, substantially as shown and described.

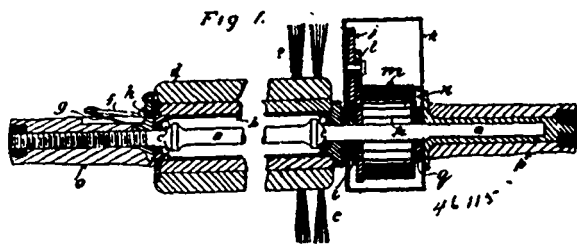
No. 46,114. Veterinary Tooth Cutter.
(Instrument pour couper les dents.)



Hiram C. Staunbridge, New Bedford, Massachusetts, U.S.A., 21st May, 1894; 6 years.

Claim.—1st. An instrument for shortening the teeth of horses, consisting of an oblong flat link, having the inside of one of its ends provided with a semi-circular knife edge arranged in a plane with its under surface, and its other end extending into and forming a handle for said instrument, a lever pivoted on said handle, a knife adapted to slide longitudinally of and within said link, having its edge in a plane with the under side of said link, and actuated through a lever pivoted to said sliding knife and to the short arm of a lever pivoted on said handle, whereby when the lever, which is pivoted on said handle, is brought into line therewith, the edge of the sliding knife is caused to approach the knife edge in the end of the link, all as shown and described.

No. 46,115. Rotary Hair Brush. (*Brosse rotative.*)



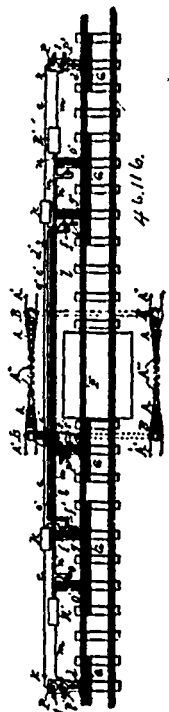
Charles Morell Wilson, Dungannon, Tyrone, Ireland, 21st May, 1894; 6 years.

Claim.—In rotary brushes for hair and the like of the class herein described, in combination, a spindle carrying a fixed handle and a brake at one end, a casing revolving upon said spindle, carrying the brush and operated by a train of wheels gearing into a drum, a coil spring, one end of which is attached to the drum, the other end being attached to the central spindle, passing through said drum, an outer cover or casing attached to a handle free to rotate on said spindle, a pawl attached to said casing and gearing in a ratchet-wheel on said spindle, substantially as described and illustrated.

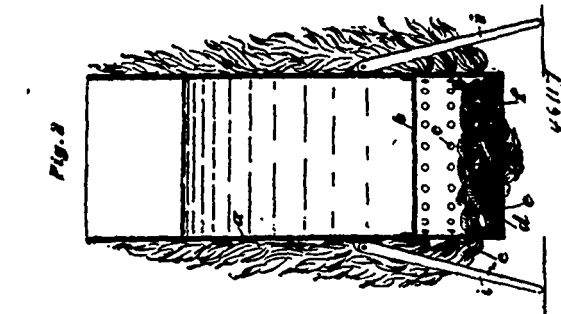
No. 46,116. Automatic Railway Gate.
(*Barrière automatique de chemin de fer.*)

Charles Henry Sherwood, Utica, and Henry Clay Lyman, Sherburne, both of New York, U.S.A., 21st May, 1894; 6 years.

Claim.—1st. An automatic pneumatic railway gate comprising mechanism for opening and closing the gate, an air-cylinder having its piston actuating said mechanism, air compressors supplying said cylinder with compressed air, and track instruments operating said compressors as set forth. 2nd. An automatic pneumatic railway gate comprising a vertically swinging gate-arm, gears moving said gate-arm to and from the closed position, an air cylinder having its piston actuating said gears, air-compressors remote from the gate and having their discharge pipes communicating with one end of the aforesaid air-cylinders, normally closed valves communicating with the opposite end of the air-cylinder, and track-instruments operating said air-compressors and valves, as set forth. 3rd. An automatic pneumatic railway gate comprising a vertically swinging gate-arm, gears moving said arm to and from its closed position, an air cylinder having its piston actuating said gears, an air-compressor remote from the gate and communicating with one end of the air-cylinder to move the gate to its closed position, an air-compressor in proximity to the gate communicating with the opposite end of the air-cylinder to move the gate to its open position, valves relieving the air-cylinder from compressed air in front of the piston, and track-



No. 46,117. Spirit Stove. (*Poêle à alcool*)



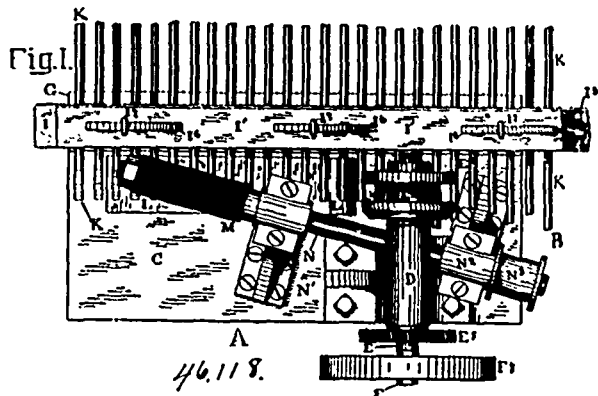
Max Drake, Schoenberg, Germany, 21st May, 1894; 6 years.

Claim.—1st. A cooking apparatus comprised of an upper compartment to receive the victuals, and a lower compartment or combustion chamber having holes in the cylindrical position and in the

instruments operating said air-compressors and valves, as set forth. 4th. In combination with the railway track and gate proper, gears moving said gate to and from its closed position, an air-cylinder having its piston connected to said gears to operate the same, air compressors remote from the gate in opposite directions therefrom, air-reservoirs receiving the compressed air, pipes leading from said reservoirs to one and the same end of the aforesaid air-cylinder to move the gate to its closed position, normally closed valves connected to said pipes, track-instruments operating said compressors and valves, an air-compressor in proximity to the gate and communicating with the aforesaid air-cylinder, to move the gate to its open position, a relief valve communicating with said cylinder, and track instruments operating said air-compressors and valves, as set forth. 5th. In combination with the gate proper, an air cylinder provided with a piston, mechanisms transmitting motion from said piston to the gate, air-compressors remote from the gate, reservoirs receiving the compressed air, a pressure-equalizing pipe connecting said reservoirs, pipes leading from the reservoirs to one and the same end of the aforesaid air-cylinder, normally closed valves connected to the latter pipes, normally closed relief valves communicating with the opposite end of the air-cylinder, track-instruments operating the air-compressor and actuated by the engine or cars passing in either direction, and track-instruments actuating the valves only in one direction, as set forth. 6th. A gate formed with a flexible end section sustained normally in line with the main portion of the gate, as and for the purpose set forth. 7th. A gate having its free end portion connected to the main portion by sustaining the end portion ball and socket joint, and a spring normally in line with the main portion, as set forth and shown. 8th. In combination with the railway, a pneumatic alarm actuated by air-compressors remote from the alarm-signal, and actuating the same, and track-instruments operating said air-compressors, as set forth. 9th. In combination with the railway, an alarm bell, a rotary fan, bell hammers operated by said fan, air-compressors actuating the fan, and track-instruments operating the air-compressors, as set forth. 10th. In combination with the railway, an alarm bell, a rotary fan, bell-hammers attached to the axis of said fan, air-compressors remote from the bell, track-instruments operating said compressors, air-reservoirs receiving the compressed air, pipes leading from the reservoirs to the fan, normally closed valves connected to said pipes, and track-instruments opening said valves, as set forth. 11th. In combination with the railway and gates at opposite-sides thereof, pulleys fixed to the axes of said gates, a tubular frame extending under the gates, sheaves pivoted to the interior of said frame, and a continuous cable or chain extending through the tubular frame and carried on the aforesaid pulleys and sheaves to move the gates in unison. 12th. In combination with the gates pulleys fixed to the axes of said gates, a tubular frame extending under the gates, and provided with removable cars for affording access to the interior of the frame, sheaves pivoted to the interior of said frame, and a continuous cable or chain passing through the tubular frame and carried on the aforesaid pulleys and sheaves, as set forth.

bottom, as shown and for the purpose specified. 2nd. The combination in a cooking apparatus comprised of an upper compartment to contain the victuals, and lower combustion compartment to contain fuel and arranged as specified, of the sliding ring *l*, and feet *i*, and handle *m*, all connected to the apparatus, as shown and for the purpose specified.

No. 46,118. Machine for Scarfing the Ends of Cane Strips for Splicing. (*Machine à assembler les bouts de canne pour les joindre à onglet.*)



Henry B. Morris, Michigan City, Indiana, U.S.A., 21st May, 1894; 6 years.

Claim.—1st. The hereinbefore described cane-strip clamp, comprising in its organization, a longitudinally-grooved section, a corresponding, interlocking tongued section, a guide-plate attached to one section, holes or recesses therein through which the cane-strips are inserted transversely to the clamp, and means, substantially as described, for locking the clamp-sections and compressing the cane-strips, whereby the cane-strips are held centrally, at regulated distances apart, and moved bodily with the clamp. 2nd. The hereinbefore described cane-strip clamp, comprising in its organization, corresponding longitudinally-grooved end tongued sections, a guide-plate attached to one section, holes or recesses therein through which the cane-strips are inserted transversely to the clamp, projections on one section to prevent longitudinal motion of one section relatively to the other, and means, substantially as described, for locking the clamp-sections and compressing the cane-strips, for the purposes described. 3rd. The combination, substantially as hereinbefore set forth, of a scarfing-cutter extending obliquely inward in the direction of the movement of the cane-strips, and gearing for driving it in the proper direction to scarf the strip progressively from its end inward, as specified. 4th. The combination, substantially as hereinbefore set forth, of a transversing feed-clamp, a strip-supporting plate, and a scarfing-cutter mounted on an axis oblique to the line of motion of the feed-clamp, and inclined inwardly in the direction of the movement of the clamp, whereby the strip is scarfed from its end inward, as specified. 5th. The combination, substantially as hereinbefore set forth, of a transversing feed clamp, shears for trimming the ends of the cane-strips, a scarfing-cutter mounted on a shaft oblique to the line of movement of the feed-clamp, and inclined inwardly in the direction of its movement, and gearing for driving the shears and cutters in the proper direction, as and for the purposes specified. 6th. The combination, substantially as hereinbefore set forth, of a transversing feed-clamp-shears for trimming the ends of the cane-strips, feed-rolls intermediate of the clamp and shears and a scarfing-cutter mounted on a shaft oblique to the line of movement of the clamp, and inclined inwardly in the direction of this movement, and gearing for driving the shears, rolls and cutter in the proper direction, as and for the purposes specified. 7th. The combination, substantially as hereinbefore set forth, of a traversing feed-clamp in which the strips to be trimmed are mounted, and by which they are carried at suitable distances apart, rotary shears for trimming the ends of the strips, shafts on which the shears are mounted and which are supported in bearings at one end, pressure rolls interposed between the feed-clamp and the shears and mounted on the outer unsupported ends of the shafts, whereby the strips are positively held as they pass crosswise through the shears and are prevented from springing or yielding, and cutters for further trimming the strips after they have passed by the shears.

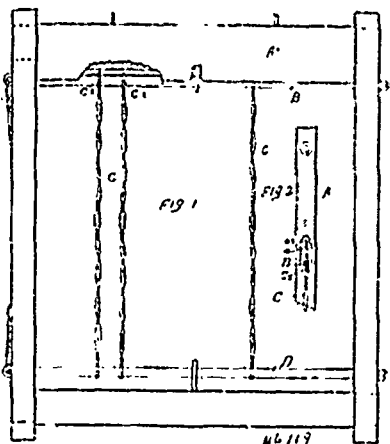
No. 46,119. Harness Rail for Looms.

(*Attelage de rails pour métiers.*)

Angus Park and Albert Thornton, both of Sherbrooke, Quebec, Canada, 21st May, 1894; 6 years.

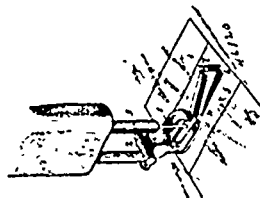
Claim.—A wooden top-bar for loom heddle frames, having in its lower edge a longitudinal groove adapted to receive the upper heddle rod, and also to receive and house the twisted upper ends of wire

heddles. 2nd. A wooden top bar for loose heddle frames, having in its lower edge a longitudinal groove adapted to receive the upper heddle rod and also having above such groove a narrower groove



merging into it, all substantially as set forth 3rd. A wooden heddle frame having its top-bar of greater breadth than its bottom rail, such top-bar having in its lower edge the compound groove *a*¹, *a*², as and for the purpose set forth. 4th. In a wooden heddle frame, the combination with the side bars having therein the usual mortises to receive the tenons of the top and bottom bars, a solid wooden bar for the top or bottom of such frame, made as described, with the ordinary sized tenons, and having its breadth extended beyond such tenons, and having within the edge of such extended breadth, the grooves, as and for the purposes set forth.

No. 46,120. Sewing Machine Attachment.
(*Attache de machine à coudre.*)



Mary Tobener, Gold Hill, Nevada, U. S. A., 21st May, 1894; 6 years.

Claim. In a sewing machine attachment for the purpose set forth, a conical sleeve suitably supported having a dividing partition secured to one of the inner sides of the sleeve and extending toward the opposite inner side thereof, said divider extending through and projecting outwardly from the larger end of said sleeve, and tapering proportionately to the taper of the sleeve, with the parts of said free projecting end extended laterally in opposite directions, said sleeve directly opposite the dividing partition having a slot extending throughout the length thereof, substantially as described.

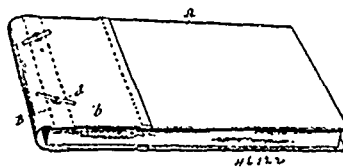
No. 46,121. Ointment. (*Onguent.*)

Thomas Shea, Clyde, Ontario, Canada, 21st May, 1894; 6 years.

Claim.—A compound composed of resin, bees-wax, olive oil, linseed oil and with or without carbolic acid, all in the proportions as and for the purpose set forth.

No. 46,122. Cover for Manuscript.

(*Couverture de manuscrit.*)

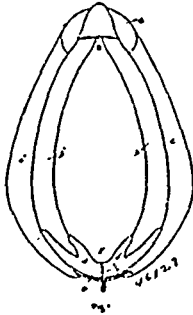


George H. Kent, Cambridge, Massachusetts, U.S.A., 21st May, 1894; 6 years.

Claim.—A reversible cover for manuscript books, both leaves of which have a rigid or non-flexible portion A, a perforated still strip

B, extended portions *b*, between the portions A and B, these strips being connected by a flexible back, the flexible portion *b*, having a length allowing either cover to be turned entirely over upon and to lie flat against or under the opposite cover, and the perforations in the said strips coinciding with each other and adapted to receive fastenings for holding in such cover, interposed leaves of paper correspondingly perforated.

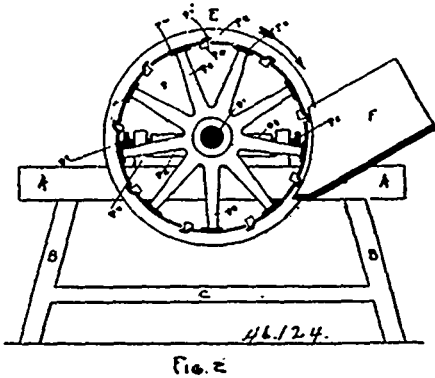
No. 46,123. Horse Collar. (Collier de cheval.)



Joseph Edward Lortie, Montreal, Québec, Canada, 21 mai, 1894; 6 années.

Résumé. Dans un collier d'attelage pour chevaux, l'échancrure E, placée au bas du collier à l'intérieur, en combinaison avec la monture A, A', les coussins C, C', et la fermeture D, le tout tel que ci-dessus décrit et pour les fins sus-mentionnées.

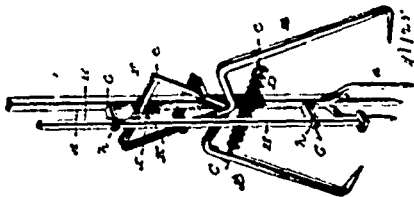
No. 46,124. Curd Cutting Machine. (Machine à couper le caillé dans les fromageries.)



Joseph Anselme Gosselin, Drummondville, Québec, Canada, 21 mai, 1894; 6 années.

Résumé. Une machine à couper le caillé des fromageries, composée d'un cylindre B, formé d'une roue évidée *e*, *e'*, *e''*, et de deux couronnes *c*¹, reliées par des couteaux *c*¹⁰, *c*¹¹, *c*¹², muni d'un essieu *e*¹, à manivelle *e*², *e'*, en combinaison avec les coussinets mobiles *c*², *c'*, *c*³, le bâti A, B, C, D, et le dallot F, le tout tel que ci-dessus décrit et pour les fins sus-mentionnées.

No. 46,125. Fish Spear. (Harpon.)

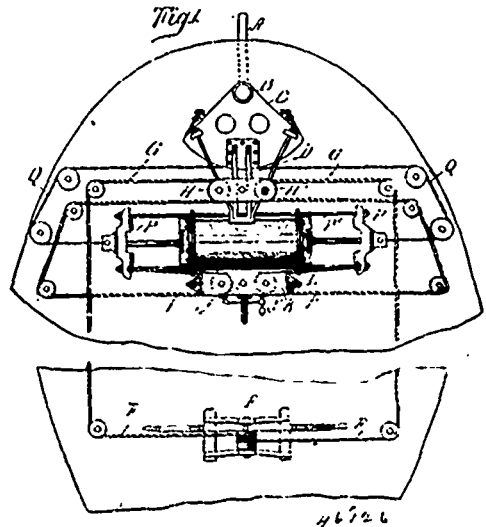


John D. Dreese, Halstead, Kansas, U.S.A., 22nd May, 1894; 6 years.

Claim.—1st. In a fish-spear, the combination with a pronged spear having pivoted to its stem spring actuated hooked arms, a lever pivoted to an upper free end of one arm and adapted to engage the opposite arm and hold said arms distended against the tension of a spring secured to said arms, and a trip-lever working in bearings on the stem of the spear and carrying a lug for releasing the locking lever, substantially as shown and described. 2nd. In a

spear, the combination of the main shaft with the pronged head, hooked arms pivoted to the shaft, a locking lever F, pivoted to the upper end of one arm adapted to rest in a notch at the end of the second arm, and a trip lever working in bearings on the main shaft and carrying a lug I, serving the double purpose of releasing the lever F, and also as a stop for the upper free ends of the spring actuated arms B, substantially as shown and described.

No. 46,126. Vessel Steering Gear. (Appareil pour gouverner les vaisseaux.)



Daniel Marshman Maxon, and Walter H. Whittemore, both of Bay City, Michigan, U.S.A., 22nd May, 1894; 6 years.

Claim.—1st. In a steering gear, the combination of a power cylinder, a piston therein, a valve to control said piston, a connection from the piston to the rudder, and a connection from the piston and valve to the wheel, substantially as described. 2nd. In a steering gear, the combination of a power cylinder, a piston therein, a valve to control said piston having supply ports to admit pressure to both sides of the piston at the same time, connections from the piston to the rudder, a steering wheel, connections from the wheel to the valve and the piston, substantially as described. 3rd. In a steering gear, the combination of a power cylinder, a piston therein, a valve controlling said piston, having supply ports to admit pressure to both sides of the piston at the same time, connections from the piston to the rudder, a wheel, connections from the wheel to the valve, and a restricted exhaust passage, from the cylinder, substantially as described. 4th. In a steering gear, the combination with a wheel, a rudder, and a valve controlled power cylinder, of cable connection from the wheel on opposite sides, sheaves on the tiller on which said cable is looped, sheaves on the valve operating bar over which said cable is looped, and a piston-rod extending both sides of the piston to the ends of which the opposite ends of the cables are secured, substantially as described. 5th. In a steering gear, the combination of a power cylinder, a piston therein, connections from the piston to the rudder, a valve chamber, a valve having ports adapted to admit steam to both sides of the piston at the same time, a piston-rod extending through both ends of the valve chamber, a plate connecting the opposite ends of the rod beside the valve chamber, sheaves on the plate, and cables from the rudder passing in opposite directions around the sheaves and connected to opposite ends of the piston-rod of the power piston, substantially as described. 6th. In a steering gear, the combination of a power cylinder, a piston therein, connected from opposite sides to opposite sides of the rudder quadrant, a valve controlling the admission of fluid to the cylinder, a wheel, and connection from the wheel to the rudder, valve and piston, whereby the wheel may be used to operate the valve or the rudder, substantially as described. 7th. In a steering gear, the combination of the power cylinder, a valve chamber, the valve M therein, having tubular heads *d* provided with a series of restricted ports *e*, ports controlled by the valve to admit steam to both ends of the cylinder at the same time, and means for actuating the valve, substantially as described.

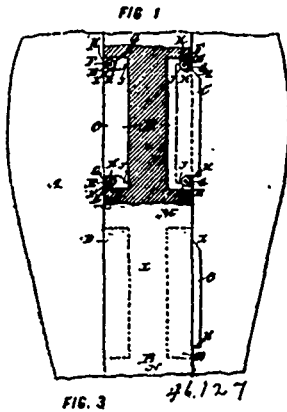
No. 46,127. Lee Wing for Vessels.

(*Dérive pour vaisseaux.*)

Nathan Cooper Jessup, Southampton, New York, U.S.A., 22nd May, 1894; 6 years.

Claim. 1st. In vessels the hull and keel, the latter constructed with sockets in its side faces and a solid wall *L* intervening between said sockets, in combination with a lee wing movably mounted in each of said sockets, when moved in one direction projecting laterally

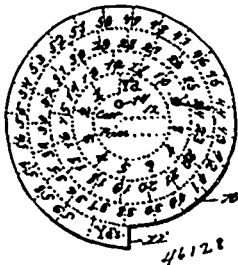
from said keel for preventing leeway, and when moved in the other direction moving within its socket and means for moving said wings, substantially as set forth. 2nd. In a vessel, the hull and keel, the



latter constructed with a plurality of sockets in each of its side faces, with a solid web L between said sockets, with a solid under face N beneath said sockets, and with solid portions M between the ends of said sockets, in combination with lee wings for said sockets, and means for moving said wings, substantially as set forth. 3rd. In a vessel, the hull and keel, in combination with a lee wing C carried by the keel and having rack teeth H and stop projection J, and a gear E having a shaft F for manipulating it and constructed with a toothed segment G engaging said rack and a segment K in the path of and engaging said stop J for limiting the movement of the wing, substantially as and for the purpose set forth. 4th. In a vessel, the hull and keel, the latter constructed with a solid bottom face N, and having a socket above said face, in combination with a lee-wing C in said socket, movable outward therefrom, and having a stop J, and a gear for moving said wing standing in the path of said stop J, substantially as and for the purpose set forth.

No. 46,128. Price and Cost Tag.

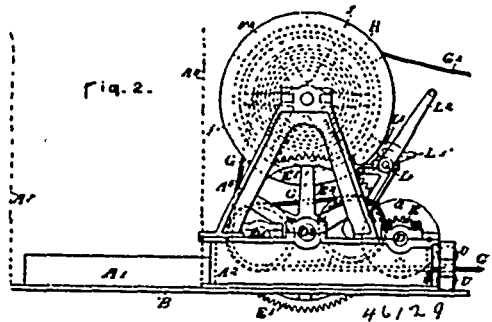
(Etiquette pour prix et coût.)



James D. Parrott, Litchfield, Illinois, U.S.A., 22nd May, 1894; 6 years.

Claim.—1st. A combined cost, price and invoicing tag, constructed of a portion of card-board having lines of perforations therein extending transversely of said tag and intersecting each other, the spaces between the said lines of perforations being provided with designating symbols. 2nd. A combined price, cost and invoicing tag, constructed of a portion of card-board having lines of perforations therein extending transversely of said tag, the spaces between the said lines of perforations being intersected by cross lines of perforations, substantially as shown and described. 3rd. A combined cost, price and invoicing tag, constructed of a circular portion of card-board and having a convolute line of perforations therein extending to the centre of said tag, the spaces between the circles of said convolute lines being intersected by cross lines of perforations, substantially as shown and described. 4th. A combined price, cost and invoicing tag, constructed of a circular disc of card-board, having a convolute line of perforations extending to the centre of said tag, and a series of equidistant cross lines of perforations connecting the circle lines of said convolute line of perforations, substantially as shown and specified. 5th. The combined price, cost and invoicing tag, constructed of a circular disc of card-board having a convolute line of perforations extending to the centre of said tag, a series of equidistant cross perforations, a perforation within the centre of said tag, and numerals, or marks, upon the face of said tag and between the cross lines of perforations, substantially as specified.

No. 46,129. Winding Engine. (Machine d'extraction.)



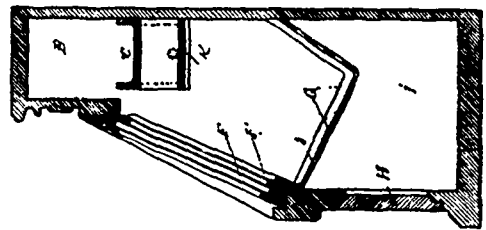
Henry L. Reynolds and Henry W. Ketchum, both of Seattle, Washington, U.S.A., 22nd May, 1894; 6 years.

Claim.—1st. In a winding engine, the combination with the cable winding mechanism, of a separate drum adapted to receive and store the cable as it is wound up, and means for rotating it, substantially as shown and described. 2nd. In a winding engine, the combination with the cable winding mechanism, of a separate drum adapted to receive and store the cable as it is wound up, and means for rotating it at a variable speed so that it will promptly take up the slack, whether winding at the centre or outer edge of the drum, substantially as shown and described. 3rd. In a winding engine, the combination with the two winding drums having grooves upon their circumference adapted to receive several coils of cable, of a storing drum for receiving and storing the cable as it comes from the winding drums, and means for turning the said drums, substantially as shown and described. 4th. In a winding engine, the combination with two winding drums, having grooves upon their surfaces, the axes of said drums being tipped with relation to each other so that in passing around each drum the cable is carried lengthwise in relation to the other drum and amount equal to the distance between the grooves on said drum, of a storing drum to receive and store the cable as it comes from the winding drum, and means for rotating the said drums, substantially as shown and described. 5th. In a winding engine, the combination with the cable winding mechanism, of a separate storing drum, a friction driving device upon said storing drum, and means for operating it from some member of the cable winding mechanism, substantially as shown and described. 6th. In a winding engine, the combination with two winding drums having grooves upon their surfaces adapted to receive several coils of cable, of a storing drum for receiving and storing the cable as it comes from the winding drums, and means for rotating said storing drums at a variable speed so that it will just take up the slack whether winding at the centre or outer edge of the drum, substantially as shown and described. 7th. In a winding engine, the combination with two winding drums having grooves in their surfaces adapted to receive several coils of cable, of a separate storing drum to receive and store the cable as it leaves the winding drums, and means for rotating it from the winding drums, said means including a friction driving device, whereby the storing drum is rotated only sufficient to take up the slack whether winding at the centre or edges of the drum, substantially as shown and described. 8th. In a winding engine, the combination with two winding drums having grooves in their surfaces adapted to receive several coils of cable, a separate storing drum and means for rotating the drums, with an overhauling drum for pulling out the main cable, and means for operating it to wind up its cable when the main cable is running out, substantially as shown and described. 9th. In a winding engine, the combination with the cable winding mechanism, a separate storing drum for receiving and storing the cable as it is wound in, and means for operating said mechanisms, of an overhauling drum and operating means so arranged as to wind its cable upon the overhauling drum when the winding drums are reversed, substantially as shown and described. 10th. In a winding engine, the combination with the cable winding and storing mechanism, and means for operating them in reverse directions, of an overhauling drum, a friction driving device for operating the same, and a brake whereby the rotation of the overhauling drum may be checked or stopped at will, substantially as shown and described. 11th. In a winding engine, the combination with the cable winding mechanism, a storing drum to receive and store the cable as it is wound in, of an overhauling drum, a friction device which may be engaged with either the storing or overhauling drums, and brakes upon each of said drums, substantially as shown and described. 12th. In a winding engine, the combination with the cable winding mechanism, a storing drum to receive and store the cable as it is wound in, of an overhauling drum, a friction device which may be engaged with either the storing or overhauling drums, and brakes connected together, so that they may be made to engage with either the storing or overhauling drum, but with only one at a time, substantially as shown and described. 13th. In a winding engine, the combination with the main cable winding and storing winding and storing mechanisms, and means for operating them, of

an overhauling drum, and means for operating it so arranged as to wind its cable opposite to the main cable, and a brake on the overhauling drum, substantially as shown and described. 11th. In a winding engine, the combination with the separate winding and storing drums, and means for operating them, of a separate overhauling drum, and means for operating it to wind its cable opposite to the main cable, and a brake on the overhauling drum, substantially as shown and described. 15th. In a winding engine, the combination with the separate winding and storing drums, and means for operating them, with a separate overhauling drum, and means for operating it to wind its cable opposite to the main cable, and brakes for the overhauling and storing drums connected together so that they may be applied to either drum, but to only one at a time, substantially as shown and described. 16th. In a winding engine, the combination with the separate winding and storing drums, and means for operating them, an overhauling drum and means for operating it so as to wind its cable opposite to the storing drum, a shaft extending across the face of both drums, a handle and brake shoes upon said shaft so placed that a movement of the handle in one direction will engage one drum and a movement in the other direction will engage the other drum, substantially as described. 17th. In a winding engine, the combination with the separate winding and storing drums, and means for operating them, of a movable cable guide between the winding and storing drums and operated from the storing drum, said guide receiving the cable from the winding drums and laying it regularly on the storing drum, substantially as shown and described. 18th. In a winding engine, the combination with the separate winding and storing drums, and means for operating them, of a cable laying mechanism operated from the storing drum, said cable laying mechanism consisting of a member traversing across the face of the drum, a pulley for holding the cable, and a swivelling connection between the pulley and said traversing member whereby the pulley may adjust itself to the cable at all points, substantially as shown and described. 19th. In a winding engine, the combination with the separate winding and storing drums, and means for operating them, of a movable cable guide between the winding and storing drums and operated from the storing drum, said guide receiving the cable from the winding drums and laying it regularly on the storing drum, and a fixed cable guide to receive the cable as it comes from the storing drum and guide it upon the winding drums, substantially as shown and described. 20th. In a winding engine, the combination with the winding drums, and means for operating them, a shaft, a friction device upon said shaft and means for operating it, separate storing and overhauling drums mounted loosely upon said shaft at opposite sides of said friction device, friction surfaces upon each of said drums adapted to be engaged by said friction device and means for engaging the friction device with either drum at will, substantially as shown and described. 21st. In a winding engine, the combination with the winding drums, and means for operating them, a shaft, a friction device upon said shaft and means for operating it, separate storing and overhauling drums mounted loosely upon said shaft at opposite sides of said friction device, friction surfaces upon each of said drums adapted to be engaged by said friction device and means for engaging the friction device with either drum at will, and a brake mechanism adapted to engage either drum at will, substantially as shown and described. 22nd. In a winding engine, the combination of the winding drums and means for operating them, a shaft, mounted in bearings so that it may be moved endwise, means for rotating it, a friction device fixed to said shaft, separate storing and overhauling drums mounted loosely upon said shaft upon opposite sides of said friction device, means for preventing endwise movements of said drums, and means for moving the shaft and friction device endwise to engage and rotate either drum at will, substantially as shown and described. 23rd. In a winding engine, the combination of the winding drums and means for operating them, a shaft mounted in bearings so that it may be moved endwise, means for rotating it, a friction device fixed to said shaft, separate storing and overhauling drums mounted loosely upon said shaft upon opposite sides of said friction device, means for preventing endwise movements of said drums, a collar having a flange at each end fixed to the shaft, a ring upon said collar between the flanges, a fixed nut and screw working therein and connected to said ring, whereby the shaft and its friction device may be moved and held into engagement with either of its drums, substantially as shown and described. 25th. In a winding engine, the combination of a power shaft and means for rotating it, a pinion upon said shaft which may be moved endwise thereon, a bull wheel, engaging with said power shaft pinion, a pinion connected to said bull wheel, winding drums, a gear connected to said winding drums and meshing with the bull wheel pinion and so placed that it will mesh with the power shaft pinion when it is moved upon its shaft, and means for shifting said power shaft pinion, sub-

stantially as shown and described. 26th. In a winding engine, the combination of a power shaft and means for rotating it, a pinion upon said shaft which may be moved endwise thereon, a bull wheel engaging with said power shaft pinion, a pinion connected to said bull wheel, winding drums, a gear connected to said winding drums and meshing with the bull wheel pinion and so placed that it will mesh with the power shaft pinion when it is moved upon its shaft, and means for shifting said power shaft pinion, and a separate storing drum and means for rotating it, substantially as shown and described. 27th. In a winding engine, the combination of a power shaft and means for rotating it, a pinion upon said shaft which may be moved endwise thereon, a bull wheel, engaging with said power shaft pinion, a pinion connected to said bull wheel winding drums, a gear connected to said winding drums and meshing with the bull wheel pinion and so placed that it will mesh with the power shaft pinion when it is moved upon its shaft, and means for shifting said power shaft pinion, a drum shaft and means for rotating it, a storing and overhauling drum mounted loosely thereon and means for rotating either from the shaft by a frictional connection, substantially as shown and described. 28th. In a winding engine, the combination with the winding drum, a shaft carrying the same, and means for rotating it, of a yielding connection between the drum and its shaft which will give before, any other member of the mechanism, substantially as shown and described. 29th. In a cable winding mechanism, the combination of the drum shaft and means for rotating it, a ring surrounding shaft having its interior surfaces conical and sloping towards the center, with friction blocks between the shaft, and the ring and means for drawing the blocks at each end toward those at the other end, substantially as shown and described. 30th. In a cable winding mechanism, the combination of the drum shaft and means for rotating it, a ring surrounding said shaft having its interior surfaces conical and sloping towards the centre, with friction blocks between the shaft and ring, means for drawing the blocks at each end toward those at the other, and keys for preventing the blocks from slipping on the shaft, substantially as shown and described. 31st. In a winding engine, the combination with the two winding drums having grooves upon their circumferences adapted to receive several coils of cable, and means for rotating them, of a yielding mechanism in the winding drum which may be adjusted so that normally the drums will turn with the shaft but will permit the drum to turn upon the shaft before a breaking strain is brought upon the winding mechanism, substantially as shown and described.

No. 46,130. Réfrigérateur. (Refrigerator.)



Mois-e Auvin, Montreal, Quebec, Canada, 22nd May, 1891; 6 years.

Résumé.—1° Dans un réfrigérateur, la combinaison de l'auge à la glace C avec le réceptacle à eau D tel que décrit. 2° Dans un réfrigérateur, la combinaison des vitraux inclinés et glissants E F et donnant accès à l'intérieur du réfrigérateur tel que décrit. 3° Dans un réfrigérateur, le fond incliné et perforé G tel que décrit et pour les fins indiquées.

No. 46,131. Combined Seed Planter and Fertilizer Dropper. (Semoir et distributeur d'engrais combinés.)

Samuel L. Allen, Cinnaminson, New Jersey, U.S.A., 22nd May, 1891; 6 years.

Claims.—1st. In a combined seed planter and fertilizer dropper, a wheel mounted frame in combination with a fertilizer hopper, a seed hopper, a spindle rod E passing through both of said hoppers, directly operated by the implement wheels, and the worm fertilizer agitator F¹, having its two halves working in opposite directions, and seed stirrer E² consisting of two pairs of paddles e² actuated by the same spindle rod within said hopper, substantially as described. 2nd. In a fertilizer or seed dropper, a wheel mounted frame in combination with a hopper, an automatically operated spindle rod passing through said hopper, and the double spiral feed worm E¹ mounted on said spindle rod, and a cam e², substantially as and for the purposes described. 3rd. In a fertilizer dropper, a wheel mounted frame in combination with a hopper, an automatically operated spindle rod passing through said hopper, feed plates pivoted within said hopper, and a worm mounted on said spindle and engaging with said plates, substantially as and for the purposes described. 4th. In a fertilizer dropper, a hopper provided with a revolvable feed worm in combination with vibratory feed plates and mechanism for actuating said worm and plates, substantially as described. 5th. In a fertilizer dropper, a hopper provided with

vibratory feed plates B², B³, having the lugs b², in combination with a cam P, arranged to control the motion of said feed plates, and a handle rod P¹ actuating said cam, substantially as described.

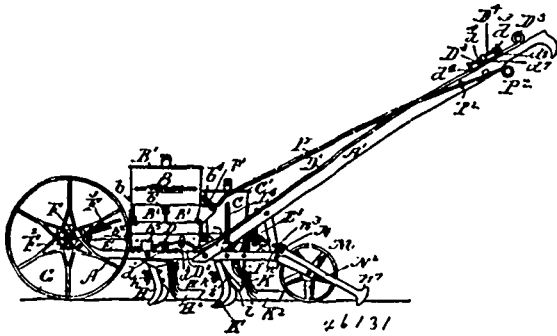


Fig. 1.

6th. In a seed planter, a wheel mounted frame in combination with a stationary hopper, a spindle rod passing through said hopper, and directly and automatically operated by the driving wheels, and a stirrer E², consisting of two pairs of paddles e² fixed on said spindle rod, substantially as described. 7th. In a planter, a stationary hopper in combination with a flexible sliding band provided with an opening corresponding to the hopper outlet, a spring tension at one end of said band, a bell crank lever, and a sliding operating handle rod, substantially as described. 8th. In a planter, a stationary hopper, a sliding discharge regulating band, a graduated plate, and a handle rod having suitable connection with said band, and provided with an index engaging with said plate, substantially as described. 9th. In a planter provided with handle bars, a graduated seed or fertilizer index plate at the top of the handle bar, in combination with discharge regulating mechanism, an operating rod and a regulating index traversing said plates, substantially as described. 10th. In a planter, a stationary flanged graduated plate, in combination with discharge regulating mechanism, a sliding operating rod provided with stops, and a thumb screw provided with an index, substantially as described. 11th. In a planter, a receptacle, in combination with a movable convex spring shutter closing the mouth of said receptacle, and a revoluble toothed cam wheel engaging with said shutter whereby the shutter is automatically opened at proper intervals, substantially as described. 12th. In a planter, a receptacle in combination with a movable spring shutter closing the mouth of said receptacle, a revoluble spindle, a detachable cam wheel engaging with said shutter when mounted on said spindle, and means for holding said shutter in an open position, whereby the implement is readily converted from hill sowing and vice versa, substantially as described.

No. 46,132. Ash Sifter. (Crible à cendre.)

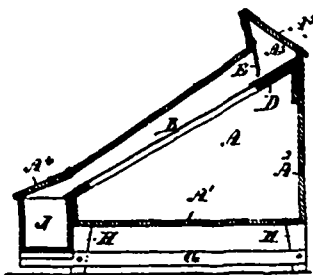


Fig. 4.

Elijah W. Benjamin, Napanee, Ontario, Canada, 22nd May, 1894; 6 years.

Claim. An ash or cinder sifter, consisting of a closed box or shell A, having tapering sides and closed at the ends, the larger end provided with a door A², a hopper A³, or aperture at the apex and provided with a sloping lid A⁴, a sloping sieve B, dividing said box parallel to the longer side, a scuttle or rectangular box J, at the foot of the sieve, a cover or lid A⁴, hinged to said shell and forming a continuation thereof to cover said box J, and with or without a curtain E, and a floor D, as set forth.

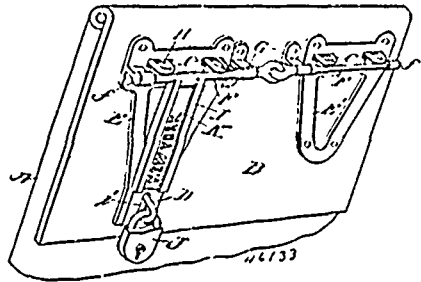
No. 46,133. Mail Bag Fastener.

(*Fermeture pour sacs de malle.*)

Lewis Williams, Belleville, Illinois, U.S.A., 22nd May, 1894; 6 years.

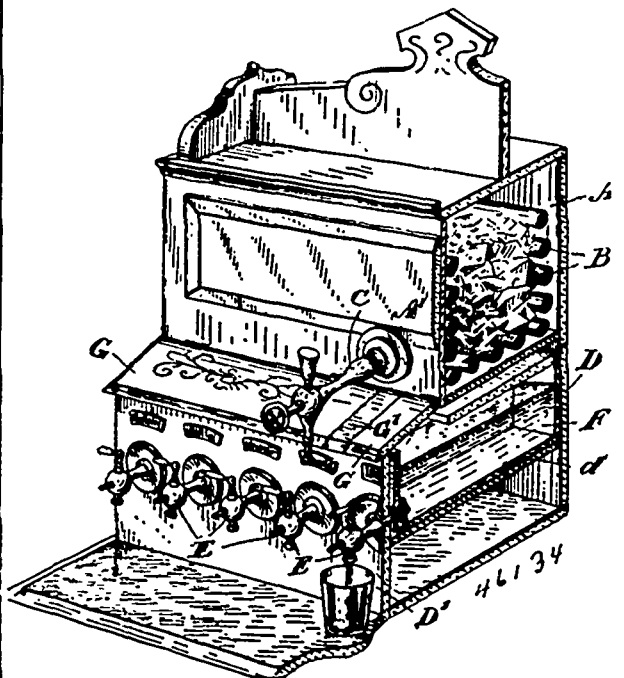
Claim. 1st. In a mail-bag fastener, the combination with the mail bag and its flap, of a series of staples secured to the upper edge

of the bag, a rod mounted on the flap and cam-hooks mounted on the rod, which are adapted to be received by the staples, substantially as described. 2nd. In a mail-bag fastener, the combination



with the staples C, of the flap through which said staples are adapted to pass, a rod mounted on the flap, provided with cam-hooks which are adapted to co-operate with the staple, and a hasp on the rod for operating and locking the same, substantially as described. 3rd. The combination with the staples C, which are adapted to pass through the flap of a mail bag, of plates secured to said flap and provided with openings registering with the staples, a rod mounted on said flap, cam hooks mounted on the rod, and a hasp in the form of a handle for locking the rod, substantially as described. 4th. The combination with the staple C, of a flap formed with openings which are adapted to register with said staples, a rod mounted on the flap and provided with cam-hooks for engaging the staples, said rod being formed with a universal joint, and means for locking the rod, substantially as described. 5th. In a mail bag fastener, the combination with the bag and its flap, of the staples C and D, mounted on said bag and adapted to pass through the flap, of a rod provided with cam-hooks for engaging the staples and locking the flap in place, and a hasp on the rod formed with flanges for the reception of a destination card, which hasp is adapted to be turned down over the staple D, to retain the cam-hooks in a locked position, substantially as described. 6th. The combination with the staples C, of a rod E, provided with cam hooks H, hasp I, staple D, and lock J, substantially as described.

No. 46,134. Soda Fount. (Fontaine à soda.)

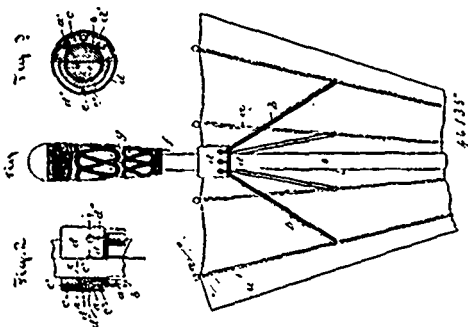


Jonathan Nelson, Toronto, Ontario, Canada, 22nd May, 1894; 6 years.

Claim. In a soda fount, the combination, with the ice chamber from which the carbonated water is drawn, of a syrup chamber, the front portion of which extends beyond the front face of the ice chamber, a series of syrup tanks extending from front to rear of the syrup chamber and provided with suitable faucets which extend through the front of the syrup chamber into the tanks, and lids

bridging the space between the front of the ice chamber and the front of the syrup chamber, beneath which lids the front ends of the syrup tanks are situated, as and for the purpose specified.

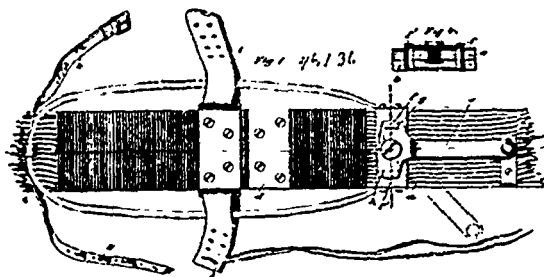
No. 46,135. Umbrella, Parasol, &c.
(Parapluie, parasol, etc.)



John Forbes, No. 11, Harrington Square, Middlesex, England, 22nd May, 1891; 6 years.

Claim.—1st. In an umbrella, parasol or the like, a paragon rib *a*, and two stretchers *b*, *b* one on each side, substantially as set forth. 2nd. In an umbrella, parasol or the like, the runner to which the stretchers are pivoted provided with a series of recesses each adapted to receive one of the points of the ribs, so that said ribs may lie closer to the stick when closed, substantially as set forth. 3rd. In an umbrella, parasol or the like, the combination of a runner *c* provided with a recess *c*¹, for each point of a rib and adapted to receive such point, a fast collar *c*² on said runner, a removable collar *c*³ on said runner, at such a distance from the fast collar as to leave a circular groove between the two adjacent edges of said collars, a ring sleeve *d* adapted to turn on said runner and provided with an internal collar *d*¹, fitting the circular groove of the runner and provided at its lower edge with a slot *d*² for each point of a rib, and a pin *e* inserted in the collar *c*¹, and adapted to engage a notch in the collar *d*¹, substantially as set forth. 4th. In an umbrella, parasol or the like, the combination of a runner *c* to which the stretchers are pivoted and provided with a series of recesses each adapted to receive one of the points of the ribs, a ring sleeve or casing on said runner held rotatively on said runner and provided with a corresponding series of slots at its lower edge through which the points of the ribs may pass and means of limiting its rotary movement on said runner, substantially as set forth. 5th. In an umbrella, parasol and the like, the combination with the stick *s*, and handle *g*, of a runner *c*, provided with recesses to receive the points of the ribs, a rotary ring held longitudinally on said runner and forming teeth adapted to cover said points when the ring is turned, a recess in the upper edge of said runner and a pin tooth or lug *j* on the handle, adapted to engage said recess and prevent said runner from turning, substantially as set forth. 6th. The combination, with an umbrella, parasol and the like, of a sheath or cover *h* wholly or partly of leather, and a chain *i* provided with a clasp, adapted to keep said sheath closed, substantially as set forth.

No. 46,136. Folding Snow-shoe. (Raquette pliante.)

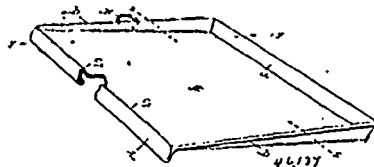


Herman Bremer, Halberstadt, Kingdom of Prussia and Germany, 22nd May, 1891; 6 years.

Claim. 1st. A snow-shoe consisting of two parts or leaves adapted to be folded up into compact shape to facilitate packing and transport, the main feature of the said shoe being that the two hinged portions thereof are arranged to be connected or disconnected at will by means of one connecting lever or clasp pivoted to one of the hinged parts or leaves, so that it may be thrown into or out of engagement as the case may be, the mutual strain of either, of the connected parts or leaves upon the other serving to impart resiliency to

the snow-shoe at the joint or tread, constructed and arranged substantially as hereinbefore described. 2nd. In the snow-shoe referred to in the first claim, mechanism for connecting or disconnecting the two parts of the shoe, mainly consisting of a double-armed lever pivoted to the upper part or leaf of the shoes, and the two arms of which engage with hooks or pegs, secured to the lower part or leaf of the said shoe, and protruding through the upper part hereof, the said lever being secured in position when the leaves are locked together, by causing its free end to engage in a suitable recess provided in the upper part of the shoe, constructed and arranged substantially as hereinbefore described.

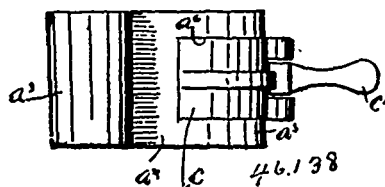
No. 46,137. Kneading Board. (Pétrin.)



Mary M. Everhard, St. Joseph, Michigan, U.S.A., 22nd May, 1891; 6 years.

Claim.—1st. As an improved article of manufacture, a kneading or moulding board formed from sheet metal and having the rear, vertically-disposed, integral wall *a*, the lateral walls tapering from their inner to their outer ends, the shallow outer or forward transverse wall *c*, and the depending, transversely disposed flange, substantially as and for the purpose set forth. 2nd. As an improved article of manufacture, a moulding or kneading board formed from sheet metal and having its marginal edges turned slightly upward from the body portion, the forward edges of a less elevation than the rear edge and having a depending flange, substantially as specified. 3rd. As an improved article of manufacture, a moulding or kneading board having its marginal edges turned slightly upward from the body portion and provided with barrels to receive a strengthening wire, and also having a flange depending from its forward edges, substantially as specified.

No. 46,138. Car Coupler. (Attelage de chars.)

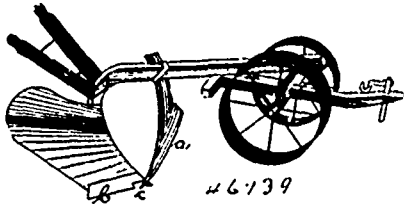


Charles James Hall, City of Quebec, Quebec, Canada, 22nd May, 1891; 6 years.

Claim.—1st. A car coupler comprising a draw-bar and a draw-head formed in separate parts and the draw-head movably connected with the draw-bar, for the purposes set forth. 2nd. A car coupler comprising a draw-bar and draw-head the latter pivotally connected to the former and adapted to have an oscillatory movement independently thereof, for the purpose set forth. 3rd. A car coupler comprising a draw-bar and a draw-head formed in separate parts, the draw-head movably connected with the draw-bar, and means tending to maintain such draw-head in its normal position in line with said draw-bar. 4th. A car coupler comprising a draw-bar and a draw-head formed in separate parts the draw-head pivotally connected to the draw-bar and adapted to have a lateral oscillatory movement independent thereof, and butting shoulders or stops limiting such oscillatory movement. 5th. A car coupler comprising a draw bar and a draw-head formed in separate parts, the draw-head pivotally connected to the draw-bar and adapted to have a lateral oscillatory movement independently thereof, butting shoulders or stops limiting such oscillatory movement, and means tending to maintain such draw-head in its normal position in line with said draw-bar. 6th. A car coupler comprising a draw-bar and a draw head formed in separate parts, the draw-head movably connected with the draw-bar and having a rigid hooked engaging or coupling finger and a movable hooked engaging or coupling finger with means tending to maintain the latter in its normal coupling position. 7th. In a car coupler, the combination with a draw-head having a rigid hooked engaging or coupling finger and a movable hooked engaging or coupling finger and with a yielding resistance device tending to maintain such movable finger in its normal coupling position, of a positive locking device to hold such movable finger in its normal coupling position. 8th. A car coupler comprising a draw-bar and a draw-head formed in separate parts, the draw-head movably connected with the draw bar and adapted to have a lateral oscillatory movement independently thereof, butting shoulders or stops limiting such oscillatory movement, and means tending to maintain such draw-head in its normal position in line with said draw-bar, said draw-head hav-

ing a rigid hook engaging or coupling finger and a movable hook engaging or coupling finger, with means tending to maintain such movable finger in its normal coupling position. 9th. A car coupler comprising a draw-bar *d* and a draw-head *a* formed in separate parts, the draw-head movably connected with the draw-bar and adapted to have a lateral oscillatory movement independently thereof, butting shoulders or stops *e e'* limiting such oscillatory movement, and means tending to maintain such draw head in its normal position in line with said draw-bar, said draw head having a rigid hook engaging or coupling finger *a'* and a movable hook or coupling finger *c*, with means tending to maintain such movable finger in its normal coupling position, substantially as described.

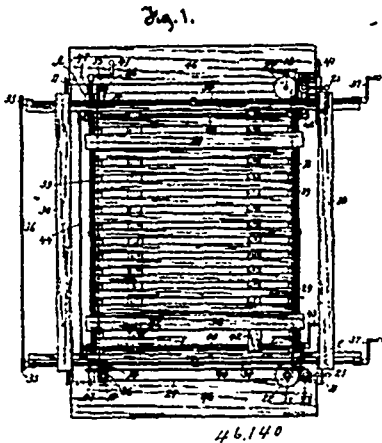
No. 46,139. Plough. (Charrue.)



Gustav Paasche, Gardelegen, German Empire, 22nd May, 1894; 6 years.

Claim.—1st. A plough-share having a notch at its forward edge near the point to receive the point of the coulter, substantially as described. 2nd. A plough comprising a beam mould board, share and a notch at or near the plough point to receive the point of the coulter, substantially as described. 3rd. The combination of a plough having a notch at or near the point with a coulter attached to the beam at its shank and connected to the plough point at its point, substantially as described.

No. 46,140. Article Holding Tables for Polishing Machines. (Table pour machines à polir.)



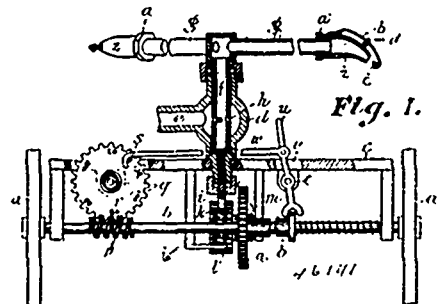
The Moro Carving Machine Company, assignee of Frederick H. Barnard, all of Minneapolis, Minnesota, U.S.A., 23rd May, 1894; 6 years.

Claim.—1st. The combination of a main frame of the character described having supporting wheels travelling on a track thus providing for the movement reciprocally of the frame horizontally in one direction, another frame substantially as large horizontally as and telescoping vertically in the main frame, means for raising and lowering the telescoping frame, and opposite parallel clamping bars, substantially as long as the frame mounted on the telescoping frame, and means whereby the bars can be coincidentally moved towards and from each other, said bars by their length and adjustments being adapted to clamp large articles of furniture on the frame, as set forth. 2nd. The combination of a quadrangular open main frame, a quadrangular open frame telescoping vertically in the main frame, means substantially as described for elevating and lowering the latter frame, clamping bars mounted in the telescoping frame below its top arranged to move concurrently towards and from each other, means for operating the clamping bars, and a table or bottom in the telescoping frame below the clamping bars, substantially as described. 3rd. The combination of a quadrangular open main frame, a quadrangular open frame telescoping vertically in the main frame, an independent removable frame supported on the telescoping frame, said last mentioned frame having a removable table or top and independent clamping devices, substantially as described. 4th. In an article-holding quadrangular open frame for a polishing

machine, the combination with the article-supporting frame, of parallel clamping bars above and substantially as long as the frame, mounted on a plurality of reversely screw-threaded shafts connected with each other operatively, and means for rotating the shafts, substantially as described. 5th. In an article-holding frame for a polishing machine, the combination with the article-holding frame, of a plurality of parallel clamping bars above the frame, mounted on a plurality of reversely screw threaded shafts connected with each other operatively, and other parallel clamping bars, also above the frame mounted at right angles to the first mentioned set of clamping bars, on a plurality of reversely screw threaded shafts connected to each other operatively, substantially as described. 6th. In an article-holding frame, the combination with a quadrangular open main frame, and a quadrangular open frame telescoping vertically in the main frame, of a plurality of vertically disposed screws footed and mounted on the main frame at the corners thereof respectively, a sprocket chain connecting the screws operatively with each other, nuts travelling on the screws which nuts support the telescoping frame thereon and movable vertically therewith, substantially as described. 7th. In an article-holding frame, the combination with a quadrangular open main frame, and a quadrangular open frame telescoping vertically in the main frame, of a plurality of vertically disposed screws footed and mounted on the main frame at the corners thereof, respectively, a sprocket chain connecting these screws operatively with each other, nuts travelling on the screws, which nuts support the telescoping frame thereon, and a vertical shaft having bearings on the main frame and provided with a crank handle, and with a pinion meshing with a toothed wheel on one of the vertical screws, substantially as described. 8th. The combination with a quadrangular open main frame and a quadrangular open vertically telescoping frame, of a screw 13 having its bearings revolvably in the main frame, a bracket 14 on the telescoping frame through which the screw passes loosely, a nut travelling on the screw which nut is provided with a tang 16, and fingers 17 on the bracket, adapted to receive the tang and prevent the nut from rotating with the screw, substantially as described.

No. 46,141. Travelling Lawn Sprinkler.

(Machine à arroser le gazon.)

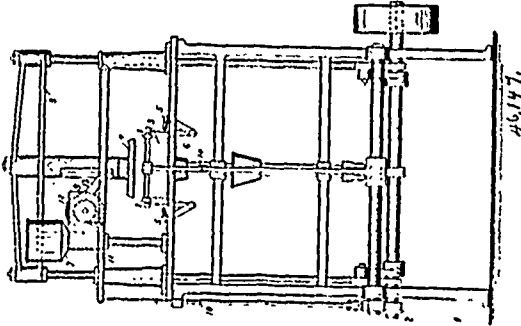


The Portland Lawn Sprinkler Company, Portland, Maine, assignee of Jerome B. Fellows, Conway, New Hampshire, all in the U.S.A., 23rd May, 1894; 6 years.

Claim.—1st. In an automatic travelling lawn sprinkler, a frame mounted on wheels, a stand pipe mounted on said frame, a rotary pipe inside of said stand pipe and a spindle attached to the bottom of said rotary pipe extending through the bottom of the stand pipe and having a worm on its lower extremity adapted to mesh with gear for propelling the machine over the ground, as and for the purposes set forth. 2nd. The combination, with a travelling lawn sprinkler of mechanism for automatically stopping the onward motion of the sprinkler after it has travelled a certain distance without shutting off the supply of water, substantially as and for the purposes set forth. 3rd. The combination, with an automatic travelling lawn sprinkler having a suitable frame mounted on wheels, a stand pipe mounted on said frame, a rotary cap carrying sprinkler arms attached to the top of said stand pipe, and a vertical shaft adapted to be rotated by said sprinkler arms and having a worm on its lower extremity meshing with gear for propelling the machine over the ground, of means for automatically stopping the onward motion of said machine at a given point, as and for the purposes set forth. 4th. The combination, with an automatic travelling lawn sprinkler having a suitable frame mounted on wheels, a stand pipe mounted on said frame, a rotary cap carrying sprinkler arms attached to the top of said stand pipe, a vertical shaft adapted to be rotated by said sprinkler arms and having a worm on its lower extremity meshing with gear for propelling the machine over the ground, of a worm on the axle, a gear mounted on a suitable frame meshing with said worm and having a graduated scale and a lug on the side thereof, a lever pivoted in the machine frame, a clutch on the axle adapted to engage the gear in said axle, and a link connecting said lever and said lug, substantially as and for the purposes set forth. 5th. The combination, with a travelling lawn sprinkler, of curved nozzles attached to the ends of the sprinkler arms and adapted to be turned

and over the edges formed by the meeting of the concave and convex sides on to the concave side where the edges of said covering are inserted in the slits. 7th. As an improved article of manufacture, a rim for bicycle wheels, composed of wood and having a covering of flexible material, substantially as described. 8th. As an improved article of manufacture, a laminated wooden wheel for bicycles, concavo-convex in cross section, and having a covering of flexible material, substantially as described.

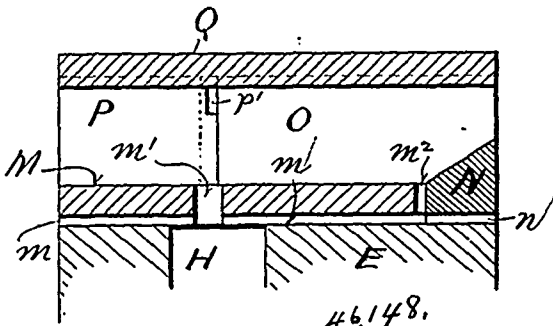
No. 46,147. Machine for Packaging Seeds in Envelopes. (*Machine pour emballer les grains dans les enveloppes*)



Samuel Weed Blach, Yonkers, assignee of Emanuel Rau, Brooklyn, both of New York, U.S.A., 23rd May, 1894; 6 years.

Claim.—1st. In a machine for packaging seeds in envelopes, the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding envelope, blanks and means for closing down and sealing all the flaps, substantially as described. 2nd. In a machine for packaging seeds in envelopes, the combination with a plunger on which the envelope flaps are partially folded, of a seed receptacle, a conduit therefrom through the plunger, means for feeding seeds, means for folding envelope blanks and means for closing down and sealing all the flaps, substantially as described. 3rd. In a machine for packaging seeds in envelopes, the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, a wheel with pockets for seeds, means for rotating said wheel, means for folding envelope blanks, and means for closing down and sealing all the flaps, substantially as described. 4th. In a machine for packaging seeds in envelopes, the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, a wheel with pockets for seeds, conveyors for the envelope blanks, a conveyor cam, means actuated by said cam for rotating said wheel and reciprocating said conveyors, means for folding envelope blanks, and means for closing down and sealing all the flaps, substantially as described. 5th. In a machine for packaging seeds in envelopes, the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, a wheel with pockets for seeds, conveyors for the envelope blanks, a conveyor cam, means actuated by said cam for rotating said wheel and reciprocating said conveyors, means for folding envelope blanks, and means for closing down and sealing all the flaps, substantially as described.

No. 46,148. Furnace. (*Fournaise.*)

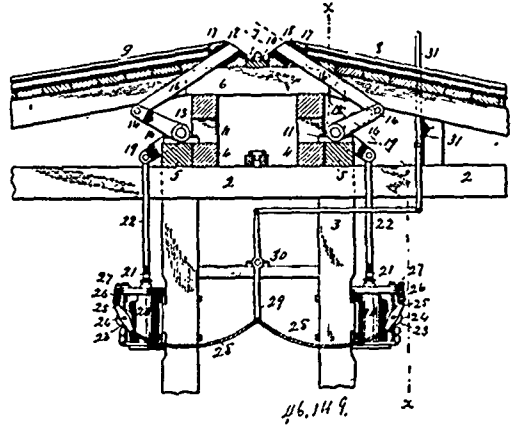


George M. Conway and Harold G. Underwood, both of Milwaukee, Wisconsin, U.S.A., 23rd May, 1894; 6 years.

Claim.—1st. In a furnace, the combination, with a bridge-wall, provided with damper-controlled air-flues and a transverse air-space communicating therewith, of a series of gas and air mingling and combustion chambers communicating with said air-space, and with each other, said chambers being open at each end, the inlet opening of each chamber being of full height, and the outlet opening converging to a contracted throat. 2nd. In a furnace, the combination,

with a bridge-wall, provided with damper-controlled air-flues, and a transverse air-space communicating therewith, of a boiler, and a series of gas and air mingling and combustion chambers, radially disposed about said boiler, and interposed between it and said air-space, said chamber communicating with said air-space, and with each other, and being open at each end, the inlet opening of each chamber being at full height, and the outlet opening converging to a contracted throat. 3rd. In a furnace, the combination, with a boiler, of a series of gas and air-mingling and combustion chambers, composed of sections of tiles, the bottom tiles being rounded and grooved on their under surfaces, and the top tiles rounded on their upper surfaces in conformity with the shape of said boiler, and radially disposed about the same, the upper and lower tiling being separated by a series of partition plates forming therewith the said chambers, and there being air-passages through the bottom tiles and partitions for the admission of air within said chambers. 4th. In a furnace, the combination, with a bridge-wall provided with air-flues, and a transverse air-space communicating therewith, of a series of gas and air-mingling and combustion chambers, communicating with said air-space, and with each other, and damper-casings fitting in the mouths of said flues, ash-shields and lugs, crank-arms rigidly attached to said shafts, damper-rods pivotally attached to said crank-arms and projecting outside of the furnace-wall, and adjustable securing devices for holding said damper-plates in any desired position.

No. 46,149. Log Kicker. (*Tourne-billot.*)

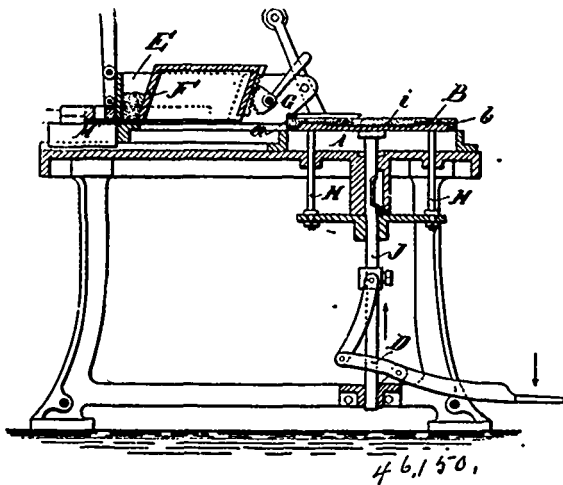


George A. Kelly, Minneapolis, Minnesota, U.S.A., 23rd May, 1891; 6 years.

Claim.—1st. The combination with the log trough or platform, and the side timbers thereof, of oppositely inclined kicking bars arranged on opposite sides thereof, and projecting through boxes arranged at the sides of said trough or platform, the rock shafts, the arms 14, fixed thereon and engaging lower ends of respective kicking-bars, a crank-arm on each shaft, a steam cylinder arranged beneath each crank-arm, the pistons of said cylinders connected with said crank-arms, and means for admitting steam to either of said cylinders, substantially as described and for the purpose specified. 2nd. The combination with the log trough, having the side timbers, of the transverse metal boxes attached to said timbers and having the funnel-shape described, the inclined kicking bars, a rock-shaft arranged beneath said bars and provided with arms 14, having yokes wherein the lower ends of said bars are pivoted, a crank-arm or its equivalent on said yoke shaft, a steam cylinder, the piston and piston rod thereof, a connecting rod or rods arranged between said piston and said crank arm, a valve for said cylinder, and means for operating the same to admit steam to raise the piston and thereby force said kicking bars through their boxes and into contact with the log in said trough. 3rd. The combination with the log trough or platform, of the metal sleeves or boxes arranged upon each side and inclined toward the middle thereof, the metal kicking bars to operate in said boxes, the rock shafts 12 and 13, bearings therefor, the arms 14, provided on said rock shaft and pivoted to the lower ends of respective kicking bars, a depending crank-arm upon each rock shaft, two short cylinders having pistons respectively connected with said crank arms, valves for said cylinders, returning springs for said valves, an operating lever and flexible connections 28, 28 extending therefrom to said valves, whereby the same may be operated independently and singly by a single lever, substantially as and for the purpose specified. 4th. The combination with a log trough, of thrusting bars arranged upon opposite sides thereof and transversely and angularly with respect thereto, a steam cylinder, a piston and piston-rod therefor, means for operating the same, and bell cranks between said piston and piston-rod and said bars, substantially as described. 5th. In a steam log kicker, the combination, of a log trough and transverse thrusting bars to each side of the log trough, and suitable steam cylinders connected to said thrusting bars to push them endwise

against the log in the log trough to unload the said log from the log trough onto the log deck to either side, for the purpose specified. 6th. In a steam log kicker, the combination with a log trough and transverse thrusting bars, suitable guides in the sides of the log trough for said bars, and a steam cylinder for forcing the thrusting bars against the log in the log trough to unload it, for the purpose specified. 7th. In a log kicker, the combination of a log trough, transverse thrusting bars to each side of the log trough, guides on said log trough to receive said thrusting bars, a rock shaft to each side of the log trough, and arms on said rock shafts to connect with the thrusting bars, and a motor to operate the rock shafts independently, for the purpose specified. 8th. In a log kicker, the combination of a log conveyor, thrusting bars to each side of the log conveyor, a rock shaft to each side of the log conveyor, and arms on said rock shafts to connect with the thrusting bars, motors to operate said shafts independently, for the purpose specified. 9th. In a log kicker, the combination of a log conveyor, transverse thrusting bars to each side of the log conveyor, guides to each side of said log conveyor to receive said thrusting bars, a rock shaft to each side of the log conveyor, arms on the rock shaft to connect with each of said rock shafts to operate them independently, for the purpose specified. 10th. In a log kicker, the combination of a log conveyor, transverse thrusting bars to each side of the log conveyor, guides each side of said log conveyor to receive said thrusting bars, a rock shaft to each side of the log conveyor, and arms to said rock shafts to connect with the thrusting bars, and a suitable motor to operate the rock shafts independently, for the purpose specified. 11th. In a log kicker, the combination of a log conveyor, with a transverse thrusting bar to each side of the conveyor, and a steam cylinder connected by suitable means for forcing said bar endwise against the log on the conveyor to force it on the log deck. 12th. In a log kicker, the combination of a support for logs or timbers, thrusting bars on opposite sides of the support and transverse to the position of the log or timber, suitable supports for said thrusting bars, and steam cylinders for forcing said bars endwise against the side of the log or timber to roll or to push it, for the purpose specified.

No. 46,150. Roofing Tile. (Tuile pour toiture.)



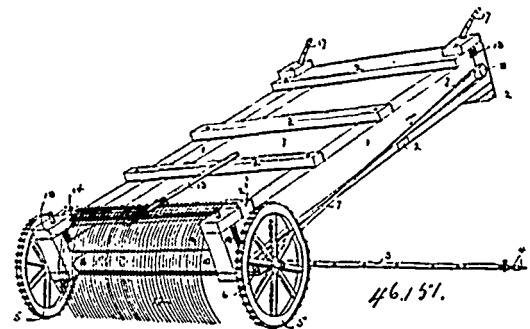
Karl Thomann, Merseburger Strasse, of Halle an der Saale, Saxony, Prussia, Germany, 25th May, 1894; 6 years.

Claim.—1st. A roofing-tile having on its upper and on its lower face respectively ledges *a* and *b*, and in addition an engaging hook or rib *N*, substantially as and for the purpose herebefore set forth. 2nd. A roofing-tile having on its upper and on its lower face respectively ledges *a* and *b*, and in addition an engaging hook or rib *N*, the lower ledge *b* being either rectangular or hook-shaped or dovetailed, substantially as and for the purpose as described. 3rd. A roofing-tile having on its upper and on its lower face respectively ledges *a* and *b*, and in addition an engaging hook or rib *N*, the upper or lower face of the tile, or both, being strengthened by ribs *i*, substantially as and for the purpose as described. 4th. A roofing-tile having on its upper and on its lower face respectively ledges *a* and *b*, and in addition an engaging hook or rib *N*, the ledges being shaped in such a manner, that two tiles when joined together from an interstice *c*, and may be fixed or secured by simply suspending them or hooking them on to the rafter, substantially as and for the purpose herebefore set forth. 5th. A roofing-tile having on its upper and on its lower face respectively ledges *a* and *b*, and in addition an engaging hook or rib *N*, the ledges being either hook-shaped or dovetailed, and the ribs *N* being adapted to be joined together and secured in position by means of wedge-shaped keys *d*, substantially as and for the purpose herebefore set forth. 6th. A machine or apparatus for the manufacture of roofing-tiles with ledges *a* and *b*, on their upper and lower faces, and with engaging-hooks or ribs *N*, said apparatus chiefly comprising a moulding-box *A*, provided with

a plate *B*, and a ledge-forming apparatus *E*, *F*, either the box *A*, with plate *B*, or the ledge-forming apparatus, being adapted to be shifted horizontally on a table, so that the box *A*, will be situated under the ledge-forming apparatus, in order to produce the ledge *a*, substantially as and for the purpose herebefore set forth. 7th. In a moulding-machine for the manufacture of roofing-tiles with ledges *a* and *b*, on their upper and lower faces, and with engaging-hooks or ribs *N*, a ledge-forming apparatus chiefly comprising a hopper-shaped receptacle *E*, the inner part *F* of which is adapted to slide up and down obliquely, and a sliding partition or movable bottom *M* adapted to serve as a cutting-knife, substantially as and for the purpose herebefore set forth. 8th. In a moulding machine for the manufacture of roofing-tiles with ledges *a* and *b*, on their upper and lower faces, and with engaging-hooks or ribs *N*, a moulding box *A*, in combination with a top plate *B*, adapted to be placed in the said box, and to be removed from the same sideways after a tile has been moulded, substantially as and for the purpose herebefore set forth. 9th. In a moulding-machine for the manufacture of roofing-tiles with ledges *a* and *b*, on their upper and lower faces, and with engaging-hooks or ribs *N*, the combination of a moulding-box *A* with a vertically movable top-plate *B*, a pedal-lever *D*, spindle *J*, and thrust bars *H*, *H*, for the purpose of lifting the plate *B*, out of the box after a tile has been moulded, substantially as and for the purpose herebefore set forth.

No. 46,151. Hay Loading Machine.

(Rateau chargeant le foin)

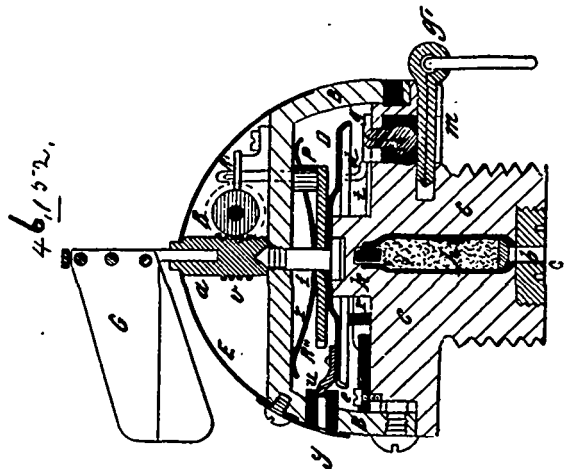


Joseph Henry Chartier, Coaticook, Québec, Canada, 25 mai, 1894; 6 ans.

Résumé.—La combinaison dans un rateau à charger le foin, des fourches 12, des roues 5, cliquets 15, et roues à rochet 16, des rouleaux 6, 6' et 8, 8', avec les toiles 9 et 10, la courroie 7, ressorts 18 et bannes ajustables 3, avec leurs boulons 4.

No. 46,152. Fuse for Projectiles.

(Fusée pour projectiles.)

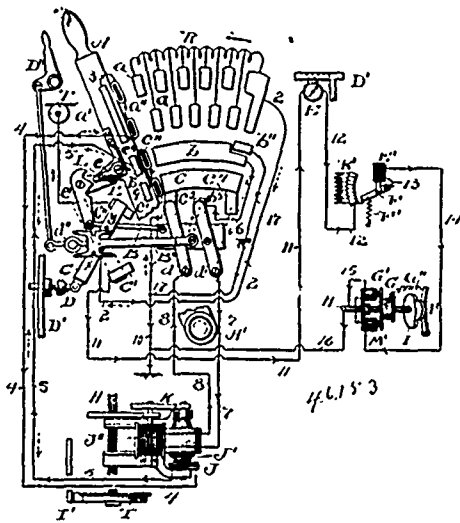


Pélicien Maubeuge, Termonde, Belgique, 25th May, 1894; 6 years.

Claim.—1st. A mechanism enabling a cartridge *h* to be ignited at a predetermined moment under the action of a spring percussion device which is disengaged at the moment when the tappet *l*, which retains the sear of this device, passes to the front of a notch *c*, in a disc *D*, which turns by reason of a transmission of motion utilizing the rotation, of the projectile upon an axis exempt from this rotation, which is that of a small vane *G* placed outside the projectile, and which is struck obliquely by the air owing to the inclination of the projectile in its trajectory. 2nd. The arrangement of a safety

clamp *g*, enabling the sear of the percussion device to bear upon the tappet *l* only at the moment of departure of the projectile, a small block *m* then remaining at the rear by reason of its inertia and thus withdrawing the said safety clamp *g*, the said block having until then been maintained in its place in the fuse by the pin *g'*, which is withdrawn only at the moment when the firing takes place. 3rd. The device by which the disc *D*, being pressed by the spring *r* is caused to move to the front and consequently disengages the tappet *l* and releases the percussion device if, the fuse having been adjusted for a greater distance than that to be fired, the projectile encounters the ground or the aim before the disengagement of the percussion device is effected by the passage of the notch *c* to the front of the tappet *l*. 4th. The device for adjusting fuse by putting in relative positions the body *C, C'* of the fuse containing the percussion device and the box *B, B'*, which contains the disc *D*, so that the tappet *l* and the notch *c* are separated by an arc corresponding to the number of revolutions which the projectile has to perform before exploding, which arc is measured by graduations provided on the fuse, and the value of which is indicated in the firing tablets. 5th. The employment of a movable cartridge serving to ignite the fuse, which enables the latter to be charged only at the moment when it is to be used, constructed and arranged, substantially as herein before described. 6th. A percussion apparatus with perpendicular action on the axis of the fuse and the hammer *h*, and sear *d*, which are so constructed that in the cocked position their centres of gravity are in the lines *g, g'* of the fuse which pass through their axis *g, g'*, in such a manner that the parts *h, d*, are during the rotation of the projectile in centrifugal equilibrium, as and for the purpose specified.

No. 46,153. Method of and Apparatus for Arresting the Motion of Electrically Propelled Mechanisms. (*Méthode et appareil pour arrêter le mouvement d'un mécanisme mû par l'électricité.*)



Elmer A. Sperry, Cleveland, Ohio, U.S.A., 25th May, 1894; 6 years.

Claim.—1st. The method of arresting the motion of an electro-motor-driven mechanism supplied with a controller having an operating handle, the same consisting in disconnecting the motor from its source of electrical supply, reversing the circuit relation of the armature and the field, connecting the terminals of such motor upon a local circuit wherein is located a variable resistance, and varying said resistance by different or various movements or manipulations of the said operating handle. 2nd. The method of arresting the motion of an electro-motor-driven rotating mechanism supplied with a controller having an operating handle, the same consisting in disconnecting the motor from its source of electrical supply, reversing the circuit relation of the armature and the field, connecting the terminals of such motor upon a local circuit wherein is located a variable resistance, and also means for utilizing the current therein for frictionally arresting the motion of such rotating part, varying said resistance and frictionally arresting the motion by different or various movements or manipulations of the said operating handle. 3rd. The method of arresting the motion of an electro-motor-driven rotating mechanism supplied with a controller having an operating handle, the same consisting in disconnecting the motor from its source of electrical supply, reversing the circuit relation of the armature and the field, connecting the terminals of such motor upon a local circuit wherein is located a variable resistance, and also means for utilizing the current therein for applying a brake to said rotating part, varying said resistance and applying the brake by different or various movements or manipulation of the said operating handle. 4th. The method of arresting the motion of an

electro motor driven rotating mechanism, the same consisting in disconnecting the motor from its source of electrical supply, reversing the circuit relation of the armature and the field, connecting the terminals of such motor upon a local circuit wherein is located a variable resistance, and also mechanism for utilizing the rotation in applying a brake, same being called into action by the current within said local circuit, varying said resistance and applying the brake by current generated from the moving motors. 5th. In an electric controller, a moving element, a finger-like actuator for limiting the movement of said element, co-operating with the said finger-like actuator, a switch shifter for the element having a number of independent notches, and mechanism whereby with each succeeding engagement between the actuator and the shifter the finger will operate upon first one and then another of the notches. 6th. In an electric controller, a system of electrical connections from the controller to a device controlled thereby, a set or series of contacts within said controller, a principal moving element for said controller provided with co-operating contacts whereby contact is made and broken with the said series, an auxiliary moving element which engages and is moved by the said main moving element at some predetermined point in its movement, in combination with circuit controlling mechanism operated by said auxiliary moving element, whereby the said circuit connections are changed at the time of each engagement between the main moving element and the auxiliary element and are held in such changed relation during the normal operation of the main moving element of the controller. 7th. In an electric controller, two moving elements, one actuated by the other at or near the end of its stroke or movement, an electric switch, circuits controlled thereby, means connected with one of the elements whereby the said switch is thrown from one of its circuit connections to another, in combination with an interlocking device between the said moving elements whereby the actuating element is prevented from farther movement until the movement of the said other element has been fully accomplished. 8th. In an electric controller, a main element and a series of contacts operated thereby, an electric machine controlled thereby, having a main circuit, a supply circuit for the system, means connected with the controller for disconnecting the supply circuit from the said main circuit and closing said main circuit upon a local circuit, and a current regulator within said local circuit actuated by the said main moving element. 9th. In an electric controller, having a main moving element, a current indicator forming a part thereof, a circuit therefor, a switch in said circuit actuated by the normal movement or operation of said moving part. 10th. In an electric controller, main contacts which are made and broken by the main moving element of the controller, a multi-contact switch within such controller, the contacts which are in series circuit relation with separate main contacts of the controller in such a manner that its circuits may be entirely open-circuited thereby. 11th. In an electric controller, a moving element, a case for the controller and an indicator connected with the controller and extending to the exterior surface of said case for indicating the position of said moving element within the controller. 12th. In an electric controller, a circuit breaker consisting of a stationary contact, a contact mounted upon a moving element of the controller and a blow-out magnet mounted upon said moving element of the controller. 13th. In an electric controller, a circuit breaker consisting of a stationary contact, a contact mounted upon a moving element, of the controller and an electro-magnet mounted upon said moving element, the circuits of which are connected with the moving contact. 14th. In an electric controller, the main moving element, an auxiliary moving element operated therefrom, and a third element operated from said auxiliary element in combination with means whereby the phase of movement between the auxiliary and third element may be reversed. 15th. In a controller for an electric motor, means connected with the controller for alternating the circuit connections thereof between two independent circuits, a variable resistance for the circuits and an extra resistance included in one of such last named circuits. 16. In a controller for an electric motor, means connected with the controller for altering the circuits thereof periodically and placing the said motor upon a local circuit, a resistance for such local circuit, in combination with means for automatically varying such resistance. 17th. In an electric controller, a two-way switch, a supply circuit connection for such switch, a local circuit connection for such switch, a main moving element of the controller, an electric motor connected with such controller, having fields and armature, a reversing switch for either field or armature located within such controller, in combination with mechanism whereby the two-way switch and the reversing switch are simultaneously operated, and means for reversing the relative movement of the said two-way and reversing switches. 18th. In a controller, a moving element, an auxiliary moving element which is operated thereby, being capable of change as to phase of movement relatively to the said moving element, a connection between the two, a shifter for the connection, and an elastic medium between the shifter and the connection. 19th. In an electric controller, a pivoted shifter, notches thereon located on each side of its pivot, a finger-like actuator for said shifter, co-operating with said notches, the actuator having a forward and back movement, in combination with means whereby the insufficient movement of said shifter by the actuator in its said forward movement is corrected upon its backward movement. 20th. In an electric controller, a shifter, a vibrating element moving therewith and provided with notches

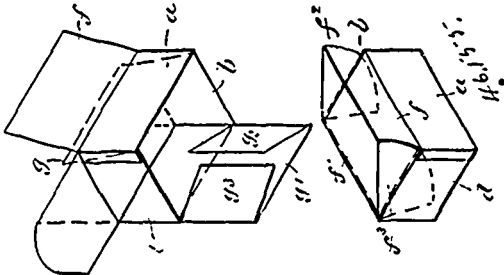
opening opposite each other, a pivoted oscillator, the pivot being located between the notches and projections connected with the oscillator for the notches, the arrangement being such that the oscillator is operated by the said vibrating element through the engagement of one of its notches only, and means whereby the projections may be shifted with reference to the oscillator. 21st. In an electric controller, a shifter, a vibrating element moving therewith and provided with notches opening opposite each other, a pivoted oscillator, the pivot being located between the notches and projections connected with the oscillator for the notches, the arrangement being such that the oscillator is operated by the said vibrating element through the engagement of one of its notches only, and means whereby the projections may be shifted with reference to the notches, an operating element for the projections, in combination with an elastic medium located between the said element and projections. 22nd. In an electric controller, a shifter, a vibrating element moving therewith and provided with notches opening opposite each other, a pivoted oscillator, the pivot being located between the notches and projections connected with the oscillator for the notches, independent means connecting said projections for controlling movement of the same, an actuator for the said independent element for moving and holding the said projections and located over the said pivot. 23rd. In an electric brake, a brake reel, a magnet co-operating therewith surrounding the axle, a groove sunk in the face of such magnet and independent coils within such groove on either side of the axle. 24th. In an electric brake, a moving electro-magnet, a contact therefor, a stationary co-operating contact supported thereon provided with an arm, a stationary guide for the arm, and an electric circuit including said contact and magnet. 25th. In an electric brake, a coil mounted on an axle, a separable casing for such coil provided with lugs for grasping an insulating disc, and an electric contact borne by said disc.

No. 46,154. Composition for Producing Artificial Emery Wheels. (*Composition pour la production de roues d'émeri.*)

Justin Dutrey, New Orleans, Louisiana, U.S.A., 25th May, 1894; 6 years.

Claim.—The herein described composition of matter to be used for producing artificial emery wheels, consisting of sulphur, Portland cement, emery (coarse or fine), Venetian red and common sugar in the proportions specified.

No. 46,155. Paper Box. (*Boîte en papier.*)



Edward James Major, Montreal, Quebec, Canada, 25th May, 1894; 6 years.

Claim.—1st. As a new article of manufacture, a paper box having a double bottom, double top, back and front of single thickness, and ends of triple thickness. 2nd. The herein described box constructed from a blank consisting of an oblong rectangular strip cut and scored and having rectangular corner portions removed at each end of the strip and rectangular intermediate portions removed from each side of the strip, for the purpose set forth. 3rd. The herein described box constructed from a blank consisting of an oblong rectangular strip cut and scored and having rectangular portions removed to secure a bottom formed of two overlapping portions, each end formed by two overlapping portions, a top or lid formed of two overlapping portions opening lengthwise of the box and the outer portion having end flaps adapted to be inserted at each end of the box, for the purpose set forth. 4th. A blank for a paper box of oblong rectangular form cut and scored and having parts removed to form front *a*, outside end section *b*, back *c*, outside end section *d*, pasting strip *e*, inside lid section *f*, outside lid section *f'*, lid flap *f''*, *f'''*, inside bottom section *g*, outside bottom section *g'*, and inside end sections *g''*, *g'''*, all substantially as shown and described.

No. 46,156. Ticket. (*Billet.*)

Lynn Tell Leet, Montreal, Quebec, Canada, 25th May, 1894; 6 years.

Claim.—1st. In a ticket or form, the combination, with a dating section containing date-indicating characters and blank spaces, the space in line with the months running at right angles to those in line with the years, of a section expressing value and duration, and containing sum-indicating characters and blank spaces, the spaces in line with the numbers of the days running at right angles to those

in line with the sum-indicating characters. 2nd. In a ticket or form, a horizontal row of characters at the top of the ticket, denoting the months of the year, a column of figures to one side of the

MONTH	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sept.	Oct.	Nov.	Dec.
1891.		21.										
1892.												
1893.												
1894.												

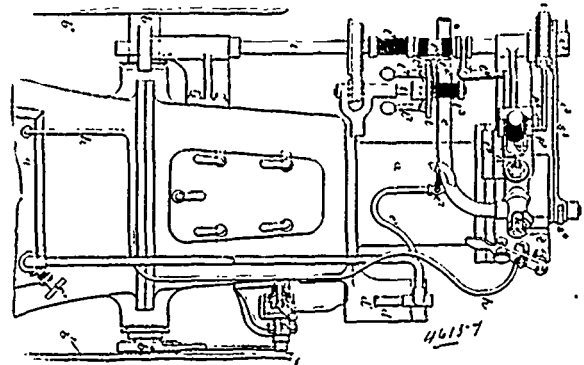
N.B.—ENTER DAY OF MONTH OPPOSITE YEAR AND UNDER MONTH OF ISSUE.

NO. OF DAYS INSURANCE.	1	2	3	4	5	6	7	8	10	12	16	30
HOUR A.M.												
PREMIUM	0 25	0 50	0 75	1 00	2 25	1 50	1 75	2 00	2 50	3 00	3 50	4 50
HOUR P.M.												
PREMIUM	0 50	1 00	1 50	2 00	2 50	3 00	3 50	4 00	5 00	6 00	7 00	9 00

N.B.—ENTER HOUR IN A.M. OR P.M. SPACE UNDER NO. OF DAYS AND OPPOSITE AMOUNT REQUIRED.

ticket denoting the years, rows and columns of blank spaces common to or in line with both the month and year indicating characters, a horizontal row of figures located centrally of the ticket, denoting the number of days duration of the ticket, spaces to the left of the ticket containing characters denoting the hours A.M. and P.M., and sums of money, and blank spaces common to or in line with both the duration indicating characters and the hour and sum-indicating characters as described.

No. 46,157. Gas Engine. (*Machine à gaz.*)



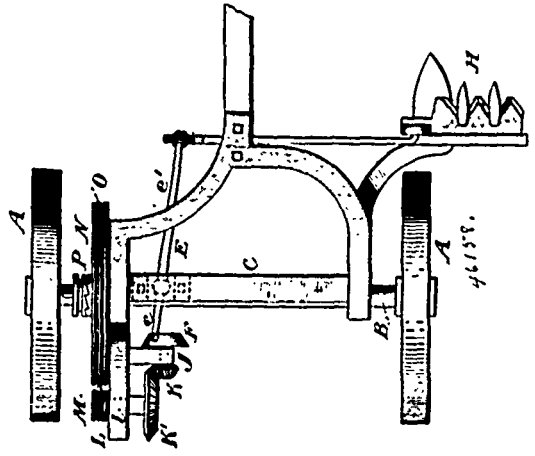
Henry Thomas Dawson, Salcomb, Devon, England, 25th May, 1894; 6 years.

Claim.—1st. In a gas engine, the combination of a combustion chamber arranged at one end and forming part of the cylinder, and which contains valves opening inwards for the passage of the gases into and from the combustion chamber, and a valve opening inwards for the ignition of the charge together with means for operating said valves. 2nd. In a gas engine, the combination of parts for the admission of gas to the combustion chamber consisting of the valve *p*, its stem *p'*, the chamber *m*, the spring *p''*, the collar *p'''*, and the finger *p''''* suitably controlled to thrust the valve open when required. 3rd. In a gas engine, the combination of parts to control the outlet of the gases from the combustion chamber consisting of valve *q*, its stem *q'*, the chamber *n*, the spring *q''*, the collar *q'''*, and the fingers *q''''*. 4th. In a gas engine, valves opening inwards into the combustion chamber, held to their seats by springs and moved at suitable times by fingers on axes which are caused partially to rotate, and which fingers operate at short radius when the valve is near to the seat and at longer radius when the distance of the valve from its seat is greater, whereby more silent working at high speed is obtained. 5th. In a gas engine, the combination of parts consisting of a combustion chamber forming part of the working cylinder, and inlet, outlet, and ignition valves in connection with the combustion chamber, such valves being controlled by an eccentric, and a cam on a shaft parallel to the cylinder and revolving in time with the engine's cycle. 6th. In a gas engine, a governor which through the medium of right and left handed screws moves a sleeve and thereby shifts an inclined or stepped bar or part which by other gear receives a reciprocating movement and imparts the same to a gas admission valve, thereby suitably regulating the movement of the said valve. 7th. An ignition apparatus for a gas engine, consisting of a holder *r*, containing discs of fire clay *r'*, or other suitable pieces of refractory material, and conducting channels suitably controlled

for admitting to the midst of the discs or pieces a mixture of gas and air which being burnt heats the discs or pieces, and an ignition valve and operating parts by which the said heated discs or pieces are enabled to ignite the charge in the combustion chamber of the engine, the opening of said valve permitting a portion of the charge to pass to the heated surfaces. 8th. In an ignition apparatus of a gas engine consisting of a tube heated externally, making the said tube of separate rings held together by the pressure of a block and spring. 9th. In an ignition apparatus of a gas engine, consisting of a tube heated externally, the combination with such tube, of a movable shield of metal or refractory material fitting around same. 10th. In an ignition apparatus of a gas engine, consisting of a tube heated externally, making the said tube with external corrugations whereby when used in combination with a shield it is rendered less liable to be fractured by sudden changes in temperature. 11th. In an ignition apparatus of a gas engine, consisting of a tube heated externally, the combination with such tube, of a reciprocally movable shield fitting around the tube and adapted to be moved back and forth along such tube for the purpose set forth, with means for reciprocating same. 12th. In an ignition apparatus, of a gas engine, consisting of a tube heated externally and provided with a shield around the tube, corrugating the shield to assist in regulating the passage of heat to the tube. 13th. In an ignition apparatus, of a gas engine, consisting of a tube heated externally, the combination with the said tube, of a heating apparatus consisting of a modified Bunsen burner using gas at low pressure with or without an air blast, substantially as described. 14th. In a gas engine, having a slide valve to open the ignition port, the combination of an ignition apparatus consisting of a tube heated externally, with said slide valve, the ignition apparatus being mounted within and upon the cover of said valve as described. 15th. In an ignition apparatus of a gas engine, consisting of a tube heated externally, combining with such ignition apparatus, a valve within the combustion chamber opening and closing the entrance to the ignition tube, substantially as shown. 16th. In an ignition apparatus of a gas engine, consisting of a tube heated externally, mounting the ignition tube upon a reel-shaped block or plug and fitting the same into an aperture in the combustion chamber with its face exposed within the combustion chamber, substantially as shown and described. 17th. An ignition apparatus for a gas engine consisting of a furnace cell, heated by the combustion of gas and air supplied by a compound pump, which forces gas and air separately and in suitable proportions into two reservoirs which supply a mixing chamber in connection with the furnace cell. 18th. In a gas engine, a reciprocating and revolving piston consisting of a tube fitting the interior of the cylinder and closed by a cup-shaped diaphragm which is free to expand without deforming the piston tube. 19th. In a gas engine, having a reciprocating and revolving piston consisting of a tube fitting the interior of the cylinder and closed by a cup-shaped diaphragm which is free to expand without deforming the piston tube, the pillar or support *F'*, transmitting the force of the explosion from the diaphragm to the head of the connecting rod. 20th. In a gas engine, the combination with a reciprocating and revolving piston and the connecting rod of a combined ball and gimble joint effecting a connection between said piston and connecting rod. 21st. In a gas engine, a governor consisting of a disc with weight arms jointed to it and controlled by springs, a series of cams to actuate the gas admission valve mounted on the same axis with the disc and free to turn and to move endwise thereon, links connecting the weight arms and the cams and a connection between the cams and the axis such as to compel the turning and endwise movements of the cams on the axis to take place simultaneously, the whole so arranged that when the weights move under the influence of centrifugal force the cams slide along the axis and one passes into and another out of action, substantially as described. 22nd. In a gas engine, having an enclosed crank chamber and a moving piston causing a fluctuation of pressure in such chamber, the combination with same and the ignition tube or capsule, of inlet and outlet valves allowing a blast to be drawn to urge the flame of a burner. 23rd. In a gas engine, the combination with the ignition tube or capsule of an india-rubber or other hand pump for supplying air to obtain an efficient heating of such ignition tube or capsule, in the manner shown. 24th. In a gas engine, the combination with the ignition tube or capsule of a Bunsen burner having a forced jet of air admitted at the base of the burner tube in a direction such that it traverses the tube in the direction of its length, for the purpose set forth. 25th. In a gas engine, the combination with the ignition tube or capsule of a Bunsen burner, having a semi-annular mouth so placed that the flame issuing from it envelops the ignition tube or capsule, for the purpose set forth. 26th. In a gas engine having a cylinder, an enclosed crank chamber communicating with and a piston working in said cylinder and causing a fluctuation of pressure in said crank chamber, the combination with same and the ignition tube or capsule, of inlet and outlet valves allowing a blast to be drawn and forced into said ignition tube, an india-rubber or other hand pump also communicating with said ignition tube, and a Bunsen burner having a forced jet of air admitted at the base of the burner tube in a direction such that it traverses the tube in the direction of its length, and said burner also having a semi-annular mouth so placed that the flame issuing from it envelops the ignition tube or capsule, for the purpose set forth. 27th. In a gas engine, the means for regulating the supply of gas by a governor having an eccentric or cam

mounted on a disc or wheel on a rotating shaft and acting in each revolution on a lever in connection with the gas valve, such eccentric or cam being controlled by a weight and spring so that the greater the speed of rotation, and hence the centrifugal force, the less the action to open the gas valve. 28th. In a gas engine, the means for lubricating the crank bearing, by a scoop dipping down into the oil in the crank chamber.

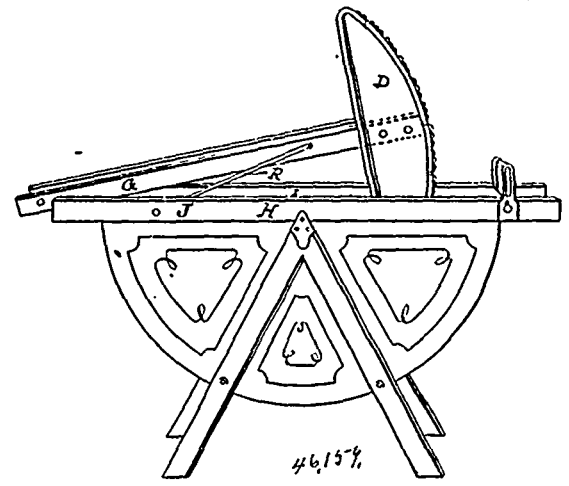
No. 46,158. Harvester Motor. (Moteur de moissonneuse.)



James H. Birks, and Samuel Birks, both of Chicago, Illinois, assignees of John U. G. Morrison, Petrosdie, South Dakota, all in the U.S.A., 25th May, 1894; 6 years.

Claim.—In the mechanism which operates the cutter bar of a harvester, the lever *E* fulcrumed on a ball joint, connected at one end by a ball joint with the cutter bar pitman, and having the other end ball jointed to a rotary disc, as and for the purpose set forth.

No. 46,159. Washing Machines. (Machine à laver.)



John Tipp, Prince Albert, Ontario, Canada, assignee of Erasmus M. Pedigo, and John E. Hickman, Santa Rosa, California, U.S.A., 25th May, 1891; 6 years.

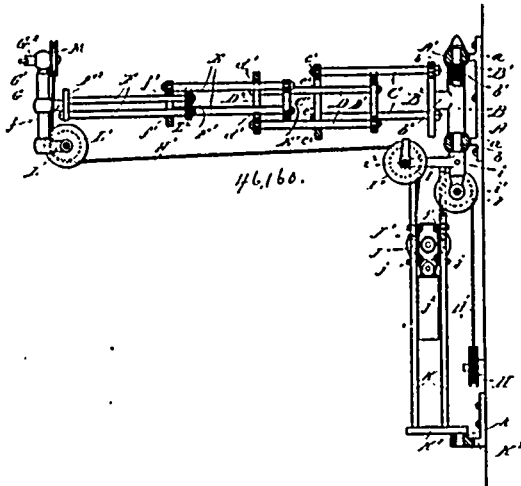
Claim. 1st. In washing machines, the wringer attachment *K* and the supports *A, A*, fastening the attachment to the suds box, as well as the manner of connecting the support with the zinc suds box by means of small nails. 2nd. The malleable cast iron hinges *R*, with the attached solid shoulders *S, S*, and the manner of connecting the rubber to the suds-box or frame by means of nuts *T, T*.

No. 46,160. Extensible Tool Carrying Bracket, for Power Actuated Devices. (Console à rallonge pour outil.)

Horace Hobbs, and Augustus William Friese, both of Milwaukee, Wisconsin, U.S.A., 25th May, 1891; 6 years.

Claim. 1st. An extensible tool carrying bracket comprising two or more sections each composed of two or more parallel rods or bars, secured at their opposite ends to suitable transversely arranged plates, and the rods of each section having sliding engagement with the plates upon the adjacent sections, substantially as described. 2nd. An extensible bracket comprising two or more sections each composed of two or more parallel rods or bars secured at their

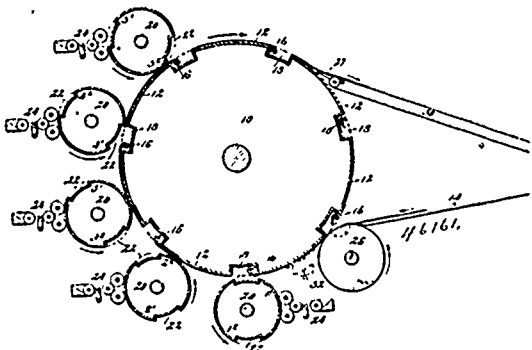
opposite ends to transversely arranged plates, and the rods or bars of each section having sliding engagement with the plates upon the adjacent sections, the section at one end of the series, being pivot-



ally engaged with a suitable support, and the section at the opposite end of said service series being provided with a suitable adjustable support for the tool actuating mechanism, substantially as set forth. 3rd. The combination with an extensible tool carrying bracket comprising two or more sections having sliding engagement with each other and pivotally engaged at one end with a suitable support, suitable transmitting and tool actuating pulleys journaled upon said bracket, a belt trained over said pulleys and leading to a suitable source of power, vertically disposed guides secured at their upper ends to the bracket adjacent to its pivotal support, and at their lower ends engaged with a cross-piece pivotally supported in line with the pivotal support of the bracket, and a weighted frame having sliding engagement with said vertical guides and carrying pulleys engaged with loops in said belt, substantially as set forth.

No. 46,161. Multicolour Printing Press.

(*Presse à imprimer à multicolore.*)



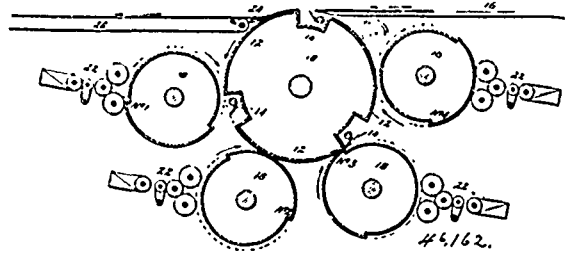
Emma Louisa Forbes, assignee of William C. Wendte, both of Boston, Massachusetts, U.S.A., 25th May, 1894; 6 years.

Claim.—1st. A multicolour printing machine consisting of an impression cylinder having two or more impression surfaces of equal size, with a gap for each containing grippers, in combination and in operative contact with two or more equal sized form-cylinders, the radius of each of which is an aliquot part of the diameter of the impression-cylinder, with two forms on each of said form-cylinders, each form covering less than half its circumference and adjusted angularly, to register with an independent series of the impression-surfaces, and with inking apparatus for each form-cylinder adapted to ink both forms with a single colour, substantially as described. 2nd. A multicolour printing machine consisting of an impression-cylinder having two or more impression surfaces of equal size, with a gap for each containing grippers, in combination and in operative contact with two or more equal sized form-cylinders, the radius of each of which is an aliquot part of the diameter of the impression-cylinder, with two forms on each of said form-cylinders, each form covering less than half its circumference and adjusted, angularly, to register, each form with an impression-surface after passing the preceding impression-surfaces, and with two sets of inking apparatus for every form-cylinder, constructed and adapted to ink each of the two forms thereon independently of each other, substantially as described. 3rd. In a multicolour printing press adapted for printing sheets, an impression-cylinder, in combination and in operative contact with two or more form-cylinders, each provided with two forms

which cover respectively less than half its circumference, with a plurality of impression-surfaces on the impression-cylinder, every alternate one of which registers with one of the forms of a form-cylinder, and every intermediate impression-surface with the other, and with grippers for each impression-surface in gaps on the impression-cylinder, between said surfaces, substantially as described. 4th. In a multicolour printing press adapted for printing sheets, the combination of an impression-cylinder provided with two or more impression-surfaces separated by gaps, with two or more forms on two or more equal sized form-cylinders, a fraction of the diameter of one of which, having unity for its numerator and the number of forms for its denominator, is an aliquot part of the diameter of the impression-cylinder, and with form supports separated by gap-spaces to carry said forms, of size and angular position corresponding with the impression-surfaces and gaps of the impression-cylinder, and registering each set of related forms with an independent series of impression-surfaces on the impression-cylinder, substantially as described.

No. 46,162. Multicolour Printing Press.

(*Presse à imprimer à multicolore.*)



Emma Louisa Forbes, assignee of William C. Wendte, both of Boston, Massachusetts, U.S.A., 25th May, 1894; 6 years.

Claim.—1st. In a multicolour printing press, the combination of an impression-cylinder provided with an odd plurality of impression-surfaces, with two or more form-cylinders placed operatively in relation thereto and adapted each to carry one form covering less than half the circumference of the same, and each adjusted angularly to register upon every second impression-surface of the impression-cylinder as the cylinders revolve, substantially as described. 2nd. In a multicolour printing press, the combination of an impression-cylinder provided with an odd plurality of impression-surfaces, with grippers for each arranged to close upon alternate impression-surfaces as they pass under the sheet-feeding devices, with form-cylinders in operative contact therewith, the radius of each of which is an odd aliquot part of the diameter of the impression-cylinder, and each bearing a form-support covering less than half the surface of the form-cylinder and a relatively depressed surface for the remainder, together with inking apparatus to supply the forms with the requisite colours for the several impressions they print, substantially as described. 3rd. In a multicolour printing press adapted for printing sheets, an impression-cylinder provided with an odd plurality of impression-surfaces separated from each other by gaps containing grippers, in combination with as many equal sized form-cylinders as there are forms to be printed, with a form-support on each equal in length to one of the impression-surfaces and occupying less than half the periphery of each form-cylinder by a length equal to that of a gap on the impression-cylinder, with a relatively depressed surface on each form-cylinder occupying the rest thereof, and with cam devices closing every alternate set of grippers as the same pass the sheet-feeding devices, substantially as described. 4th. In a multicolour printing press for printing sheets, a feed cylinder adapted to seize and transfer the sheets presented to it, in combination and in operative contact with an impression-cylinder bearing an odd plurality of impression-surfaces, with grippers for each and means for closing the same on the sheets presented by the feed-cylinder to every second impression-surface, with form-cylinders carrying forms adapted to print the several colours in register upon the intermittent series of sheets and with means for releasing and delivering each printed sheet from the press in continuous alternation with the feed of blank sheets to the same, substantially as described.

No. 46,163. Rotary Meat Cutter. (*Machine pour viande.*)

Levi Tracy Snow, New Haven and Oliver Dwight Woodruff, Southampton, both in Connecticut, U.S.A., 25th May, 1894; 6 years.

Claim. The herein described rotary meat cutter comprising three main elements, namely, a case or frame cast in one piece, a combined integral forcer cutter and former, having the general form and action of a screw, and a handle comprising the handle proper and a retaining screw, the said case being constructed with a circular chamber having its outer end flared outwardly and containing internal spirally arranged grooves and ribs, terminating at their outer ends in the same or substantially the same vertical plane at a point just within the end of the said chamber, and the said screw being constructed with an outwardly flaring outer end to conform to the outwardly flaring outer end of the said chamber, and having spir-

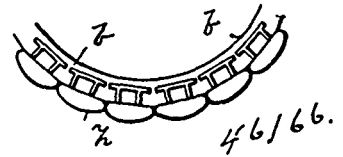
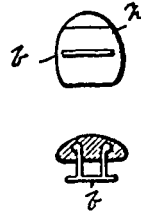
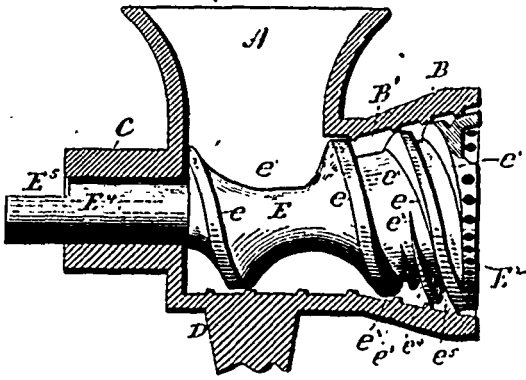
ally arranged ribs and grooves terminating at their outer ends in the same or substantially the same vertical plane at a point which will be within the outer ends of the ribs and grooves in the said chamber

sliding in the bottom of the said sheath and having prongs for the withdrawing of said clip, substantially as described.

No. 46,166. Fastener for Artificial Teeth. (Attache pour dents artificielles.)

Fig. 1.

Fig. 5.



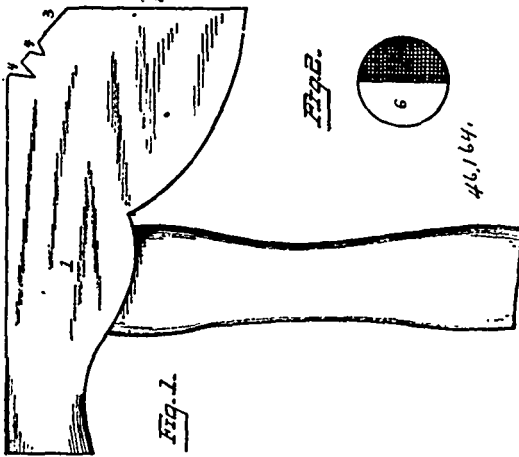
when the parts are assembled, and furnished at a point beyond the outer end of its ribs and grooves with a circular series of forming openings which fall within the range of the outer ends of the ribs and grooves in the chamber when the cutter is assembled and discharge the cut meat, and the said handle being applied to the inner end of the screw which projects through the case, and which screw is held in place by the said handle and the equalization of endless thrust upon it, substantially as described.

Hugo Kalbe, Berlin, Germany, 26th May, 1894; 6 years.

Claim.—1st. An improved device for fastening artificial teeth, consisting of a double T-shaped yoke, connected to the tooth and fastened to the rubber mass, especially as described. 2nd. The connection of artificial teeth provided with double T-shaped yokes, consisting in connecting the extremities of the stays of the double T-shaped yoke, especially as described and for the purpose specified.

No. 46,167. Game Apparatus. (Appareil de jeu.)

No. 46,164. Hatchet. (Hachette.)



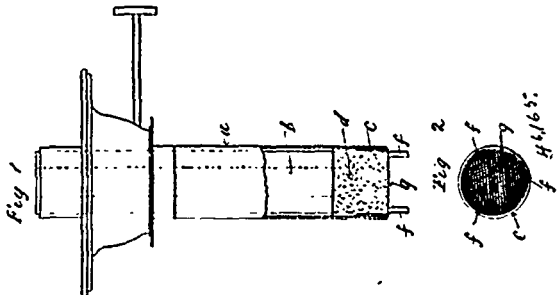
John C. Seales, Chicago, Illinois, U.S.A., 26th May, 1894; 6 years.

Claim.—1st. As a new article of manufacture, a hatchet having constructed in or upon its outer or front portion at a convenient distance from the cutting edge, one or more notches or claws for extracting nails, substantially as described. 2nd. As a new article of manufacture, a hatchet having the face of the head partly smooth and partly serrated or grooved for the double purpose of removing the hoop with the smooth portion and of driving nails with the zrooved or serrated portion, substantially as described.

Clement Coleridge Clawson, Newark, New Jersey, U.S.A., 26th May, 1894; 6 years.

Claim.—1st. The herein described wall or partition a^o, and a series of sties or compartments provided with hinged bottoms, in combination with means, substantially as described, for forcing a coin or counter in front of said wall or partition, and mechanism for conveying the coin or counter back of said wall or partition for operating either of said hinged bottoms connected with said sties or compartments, substantially as and for the purposes set forth. 2nd. The herein described wall or partition a^o, pins i arranged on said partition or wall, and a series of sties or compartments provided with hinged bottoms, in combination with means, substantially as described, for forcing a coin or counter in front of said wall or partition, and mechanism for conveying the coin or counter back of said wall or partition for operating either of said hinged bottoms, substantially as and for the purposes set forth. 3rd. In a game-apparatus, in combination, a casing, having a wall or partition a^o therein, pins i on said wall or partition, a spring-actuated rod provided with a coin-receiving recess, means for receiving the coin from said recess in said rod and forcing it onto said pins, and coin-receiving sties or compartments, each compartment being provided with a hinged bottom, and mechanism for operating said hinged bottoms, substantially as and for the purposes set forth. 4th. In a game-apparatus, in combination, a casing, having, a wall or partition a^o therein, pins i on said wall or partition, a spring-actuated rod provided with a coin-receiving recess, means for receiving the coin from said recess in said rod and forcing it onto said pins, and coin-receiving sties or compartments, a hinged bottom c in each sty or compartment, a cam-shaped arm c¹ on each bottom, an arm c² thereon, and a spring f connected with each arm c², and mechanism adapted to engage with said cam-shaped arms c¹, upon the interposition of a coin or counter, to operate either of the hinged bottoms, substantially as and for the purposes set forth. 5th. In a game-apparatus, in combination, a wall or partition a^o, pins i arranged thereon, substantially as set forth, a coin-receiver g, provided with a lip g², coin receivers k, k¹ and k², each provided with an opening or lip k¹, means for conveying a coin or counter into said receiver g, and mechanism for conveying the coin from said receiver k, k¹ or k², back of said wall or partition a^o, substantially as and for the purposes set forth. 6th. In a game-apparatus, in combination, a wall or partition a^o, pins i arranged thereon, substantially as set forth, a coin-receiver g provided with a lip g², coin receivers k, k¹ and k², each provided with

No. 46,165. Lamp Wick Oil Tube Filter. (Filtre pour tubes de mèches de lampes.)

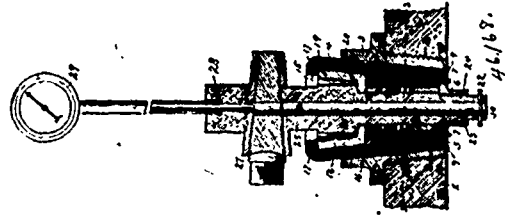


Samuel Jones, Newtonwards, County Down, Ireland, 26th May, 1894; 6 years.

Claim.—In wick tubes an outer sheath surrounding the wick, a cup with a perforated bottom containing the filtering material and

a lip k^4 , means for conveying a coin or counter into said receiver g , and mechanism for conveying the coin from said receivers k , k^1 or k^2 , back of said wall or partition a^6 , consisting essentially of chutes l , l^1 and l^2 , having coin-guides l^1 and l^2 , substantially as and for the purposes set forth. 7th. The herein described wall or partition a^6 , and a series of sties or compartments, provided with hinged bottoms, in combination, with a coin receiver g , provided with a lip g^2 , coin receivers k , k^1 and k^2 , each provided with an opening and a lip k^4 , means for conveying a coin or counter into said receiver g , and mechanism for conveying the coin from said receivers k , k^1 or k^2 , back of said wall or partition a^6 , substantially as and for the purposes set forth. 8th. The herein described wall or partition a^6 , and a series of sties or compartments, provided with hinged bottoms, in combination, with a coin receiver g , provided with a lip g^2 , coin receivers k , k^1 and k^2 , each provided with an opening and a lip k^4 , means for conveying a coin or counter into said receiver g , and mechanism for conveying the coin from said receivers k , k^1 or k^2 , back of said wall or partition a^6 , consisting essentially of coin chutes l , l^1 and l^2 , having coin guides l^1 and l^2 , substantially as and for the purposes set forth. 9th. The herein described wall or partition a^6 , and a series of sties or compartments, provided with hinged bottoms in combination, with a coin receiver g , provided with a lip g^2 , coin receivers k , k^1 and k^2 , each provided with an opening and a lip k^4 , means for conveying a coin or counter into said receiver g , consisting essentially of a spring-actuated rod provided with a coin-receiving recess, from which the coin is dropped into said receiver g , and mechanism for conveying the coin from said receivers k , k^1 or k^2 , back of said wall or partition a^6 , substantially as and for the purposes set forth. 10th. The herein described wall or partition a^6 , and a series of sties or compartments, provided with hinged bottoms, in combination, with a coin receiver g , provided with a lip g^2 , coin receivers k , k^1 and k^2 , each provided with an opening, and a lip k^4 , means for conveying a coin or counter into said receiver g , consisting essentially of a spring-actuated rod provided with a coin-receiving recess, from which the coin is dropped into said receiver g , and mechanism for conveying the coin from said receivers k , k^1 or k^2 , back of said wall or partition a^6 , consisting essentially of coin chutes l , l^1 and l^2 , having coin guides l^1 and l^2 , and spring-fingers o , o^1 and o^2 , connected with said spring-actuated bar, substantially as and for the purposes set forth. 11th. The herein described spring-actuated rod n , provided with fingers o , o^1 and o^2 , in combination with coin chutes l , l^1 and l^2 , and hinged bottoms of coin-receptacles, said hinged bottoms being adapted to be operated by said fingers, upon the interposition of a coin or counter, when said spring-actuated rod is depressed, substantially as and for the purposes set forth. 12th. The herein described spring-actuated rod n , provided with fingers o , o^1 and o^2 , in combination with coin chutes l , l^1 , and l^2 , and hinged bottoms of coin receptacles, each bottom being provided with a cam-shaped arm e adapted to be operated by said fingers, when a coin has been placed between them, an arm e^2 connected with said hinged bottom, and a spring connected with each arm, substantially as and for the purposes set forth. 13th. In a game apparatus, in combination, a wall or partition a^6 , pins arranged on said wall or partition, substantially as set forth, and coin receivers k , k^1 and k^2 , in said wall or partition, arranged substantially as and for the purposes set forth. 14th. In a game apparatus, in combination, a wall or partition a^6 , pins arranged on said wall or partition, substantially as set forth, coin receivers k , k^1 and k^2 in said wall or partition, and coin-receiving sties or compartments C , C^1 and C^2 arranged, substantially as and for the purposes set forth. 15th. In a game apparatus, in combination, a wall or partition a^6 , pins arranged on said wall or partitions, substantially as set forth, coin receivers k , k^1 and k^2 in said wall or partition, and coin-receiving sties or compartments C , C^1 and C^2 , each sty or compartment having a hinged bottom c , means for conveying a coin or counter from said receivers k , k^1 or k^2 back of said wall or partition, and mechanism for operating either of said hinged bottoms, substantially as and for the purposes set forth. 16th. The herein described game-apparatus, comprising therein a wall or partition a^6 , and a series of sties or compartments, provided with hinged bottoms, a series of pins arranged on said wall or partition, means for forcing a coin or counter in front of said wall or partition, mechanism for conveying the coin or counter back of said wall or partition, for operating either of said hinged bottoms connected with said sties or compartments, openings a^{12} in the opposite sides of the casing of said apparatus, a bar r in said openings adapted to slide across the face of said wall or partition a^6 , and coin receiving recesses r^2 and r^3 in said bar, substantially as and for the purposes set forth. 17th. The herein described game-apparatus, comprising therein a wall or partition a^6 and a series of sties or compartments provided with hinged bottoms, a series of pins arranged on said wall or partition, means for forcing a coin or counter back of said wall or partition, for operating either of said hinged bottoms connected with said sties or compartments, openings a^{12} in the opposite sides of the casing of said apparatus, a bar r in said openings adapted to slide across the face of said wall or partition, coin-receiving recesses r^2 and r^3 in said bar, and guides t and t^1 on said wall or partition, substantially as and for the purposes set forth. 18th. In a game-apparatus of the class herein set forth, in combination, with the casing A , and a partition or wall a^6 , a bar r adapted to slide from side to side across the face of said wall or partition, coin-receiving recesses r^2 and r^3 in said bar, and guides t and t^1 on said wall or partition, substantially as and for the purposes set forth.

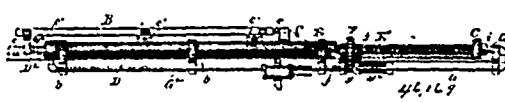
No. 46,168. Vent Bung. (Ouverture de bondon.)



Louis Wagner, Baltimore, Maryland, U.S.A., 26th May, 1891; 6 years.

Claim.—1st. In a bunging apparatus, the combination with the expandible bung, of spreading plates or devices at or near the inner and outer ends of the bung, one of said plates having a screw thread and engaging the bung by suitable projections to prevent rotation, and a hollow rotary shaft having a transverse cock and a screw thread engaging the said screw-threaded plate and engaging by a suitable shoulder the other plate, substantially as set forth. 2nd. In a bunging apparatus, the combination with a conical expandible bung adapted to fit within a bushing or bung-hole, of a spreading plate engaging the outer end of the bung and having a seat 20, a spreading plate having a screw-thread 21, and engaging the inner end of the bung, and the sleeve 22, having the shoulder 21, the duct or aperture 26, the transverse cock 27, and the screw-thread 23, at its inner end, substantially as set forth. 3rd. The combination with the internally tapered elastic sleeve 4, having the chamber or recess 15, and the shoulder 16, the conical spreading plate 18, in said recess resting on said shoulder and parallel with and entering within the said bushing, the plate 6, having a screw threaded and engaging the bung to prevent rotation, and the hollow shaft 22, having the shoulder 21 and the screw-thread 23, substantially as set forth. 4th. The combination with an elastic bung, having a recess at its outer end, and a central chamber 11, of a conical spreading plate in said recess, a spreading plate at the inner end of the bung, means for forcing said plates together, and a ring 13, in said chamber between the plates, substantially as set forth.

No. 46,169. Feed Mechanism for Saw-Mill Carriages. (Mécanisme d'alimentation pour châssis de scieries.)

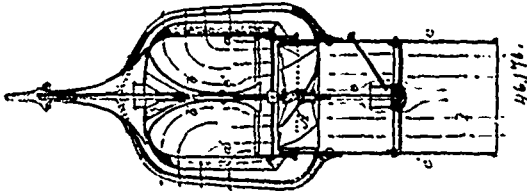


George Wilberforce Soble, Meridian, Mississippi, U.S.A., 26th May, 1891; 6 years.

Claim.—1st. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder and a piston adapted to be connected with the saw-mill carriage, of means for adjusting the working length of said cylinder, substantially as set forth. 2nd. The combination in a steam feed mechanism for saw-mill carriages, of a cylinder and an adjustable head adapted to regulate the working length of said cylinder, substantially as set forth. 3rd. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder, a piston in said cylinder, and a piston rod connecting said piston with a carriage, of a movable head for said cylinder, and means for moving said movable head whereby to regulate the working length of said cylinder, substantially as set forth. 4th. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder, a piston in said cylinder adapted to be connected with a carriage, and a steam pipe communicating with one end of said cylinder, of a movable head in one end of said cylinder, and means for introducing steam into said cylinder through said movable head, substantially as set forth. 5th. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder, a piston in said cylinder connected with the carriage, and a steam pipe communicating with one end of the cylinder, of a movable head or piston at the other end of the cylinder, a movable pipe communicating with said head or piston, a steam pipe connected with said pipe, and means for moving said pipe and head or piston carried thereby, whereby to regulate the working length of the cylinder, substantially as set forth. 6th. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder, of a piston in said cylinder, a piston rod connecting said piston with the carriage, an adjustable head in one end of said cylinder, steam connections with one end of the cylinder and with said adjustable head at the other end of the cylinder, and means for producing a cushion between the working piston and said adjustable head, substantially as set forth. 7th. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder, of a piston in said cylinder, a piston rod connecting said piston with the carriage, a movable head having an opening therein at one end of the cylinder, steam connection with movable head and with the opposite end of the cylinder, and a rod carried by said piston and adapted to enter the opening in the movable head, whereby to produce a cushion between

the piston and movable head, substantially as set forth. 8th. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder and a piston therein adapted to be connected with the carriage, of a movable frame, a movable head for the cylinder carried by said frame, and bumpers also carried by said frame, and means for the passage of steam to and from the cylinder through said movable head and also into the opposite end of the cylinder, substantially as set forth. 9th. In a steam feed mechanism for saw-mill carriages, the combination with a runway, a cylinder, a piston in said cylinder and a carriage on said runway connected with said piston, of a movable head in one end of said cylinder for regulating the working length of the cylinder, bumpers for said carriage in proximity to said movable head and means for moving said movable head and bumpers simultaneously, substantially as set forth. 10th. In a steam feed mechanism for saw-mill carriages, the combination with a cylinder, a piston in said cylinder and a piston rod connecting said piston with a carriage, of a movable head in one end of said cylinder, means for permitting the passage of steam to and from said cylinder through said movable head, and worm or screw gearing for moving said movable head whereby to regulate the working length of the cylinder, substantially as set forth. 11th. In a steam feed mechanism for saw-mill carriages, the combination with a runway, a carriage mounted thereon, a cylinder, a piston in said cylinder connected with the carriage and means for introducing fluid to one end of said cylinder, of a tubular worm or screw, a piston or head carried by said tubular worm or screw and adapted to constitute one head of the cylinder and having an opening communicating with said tubular worm or screw, a pinion mounted on said worm or screw and having threads to mesh therewith, a pinion meshing with the first mentioned pinion, means for transmitting motion to said pinions and means for preventing the rotation of said worm or screw, substantially as set forth. 12th. In a direct acting steam feed for saw-mill carriages the combination with a cylinder, of an adjustable head or piston introduced into the cylinder at the opposite end from the working piston, said adjustable head or piston having an opening for the passage of steam, so that wherever the adjustable head or piston may be, it will, in effect, form the end of the cylinder so that the steam will properly enter and leave that end of the cylinder substantially as set forth. 13th. In a direct acting steam feed for saw-mill carriages, the combination with a cylinder and its working piston, of an adjustable piston or head introduced into the cylinder at the opposite end from the working piston, said adjustable head or piston constituting one end of the cylinder, and means for moving said movable head or piston and holding it at any desired position in the cylinder, substantially as set forth. 14th. In a direct acting steam feed for saw-mill carriages the combination with a cylinder and its piston, of an adjustable head or piston for said cylinder introduced at the opposite end of the cylinder from the working piston and carrying a bumper for the carriage, substantially as set forth.

No. 46,170. Ventilator. (Ventilateur.)



Théophile Lessard, Montréal, Québec, Canada, 26 mai, 1894; 6 ans.

Résumé.—1°. Dans un ventilateur, la combinaison d'une turbine matrice et d'une hélice élévaire A, telles que décrites et pour les fins indiquées. 2°. Dans un ventilateur, la combinaison d'une hélice élévaire A, et d'un cône directeur b, b', tels que ci-dessus décrits et pour les fins indiquées.

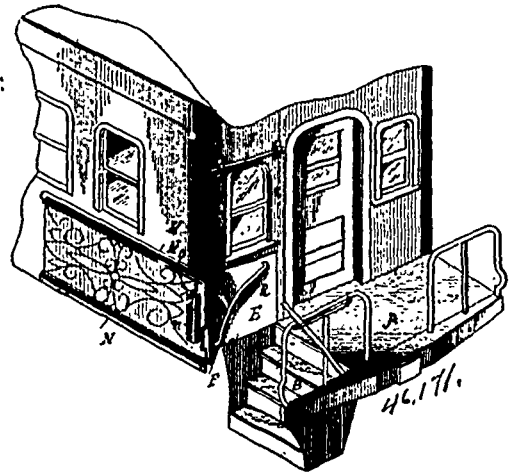
No. 46,171. Platforms and Gates for Cars.

(Plateforme et barrière pour chars.)

Erastus W. Appelman, Clermont, Iowa, U.S.A., 29th May, 1891; 6 years.

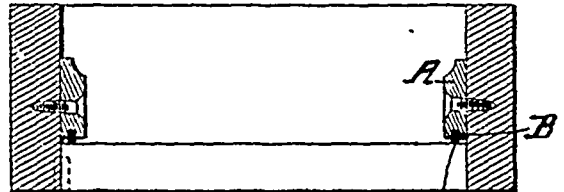
Claim.—1st. A platform for a car provided with the ordinary steps thereof, a movable cover for said steps pivoted to the car and adapted to be folded up to clear the steps and passage way and to be let down covering said steps and forming a part of the floor of the platform, said movable cover provided with a hand rail on its under side or outer side adapted to be used as the ordinary hand rail when the cover is up, substantially as shown and described. 2nd. A car platform having a plate E pivoted to the car, substantially as shown, and connected to and actuated, in folding, by a rod H extending up from said plate, at the corner of the car, and said rod H connected to a hand lever by which the device is operated, substantially as described. 3rd. A car platform having a plate E pivoted to the car, adapted to cover and uncover the steps thereof, combined with a gate M closing the entrance to the steps, said gate M held in ways on the outside of the car and adapted to be drawn forward in the lowering of the plate E, and driven back by the rais-

ing of the plate E, said gate M connected to said plate E by a slot and roller, substantially as shown. 4th. A car platform, the combination of a plate E covering and uncovering the steps thereof and



pivoted to the car, and an actuating mechanism consisting of a rock shaft J, rod H, link G, and projection F, substantially as shown. 5th. A car platform having a plate pivoted to the car and adapted to cover and uncover the steps, combined with an actuating mechanism, which actuating mechanism is provided with a handle K near the door of the car, and a rock shaft J, and connecting rods H extending down the corner of the car and connected to the plate in combination with a gate closing and enclosing the entrance to the platform, pivoted to the car and to the before mentioned plate, substantially as shown.

No. 46,172. Door Stop. (Arrête-porte.)

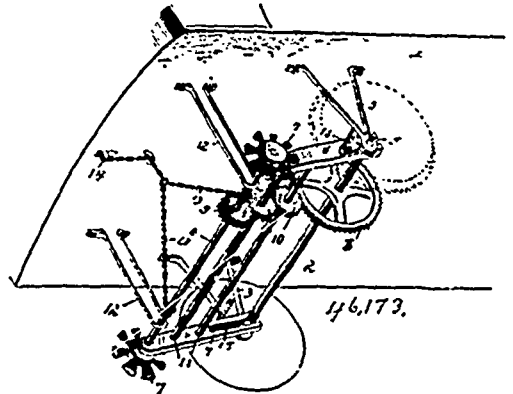


Hiram M. Freeman, Napoli, New York, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. A door stop, consisting of a strip provided with a groove running its entire length and elastic material resting in and projecting beyond the edge of the strip, substantially as set forth. 2nd. A door stop, consisting of a series of strips arranged as door jams, grooves in said strips or jams and elastic material loosely located in and projecting beyond the edge of said strips, substantially as set forth.

No. 46,173. Track Cleaning Apparatus.

(Appareil pour nettoyer les rails.)

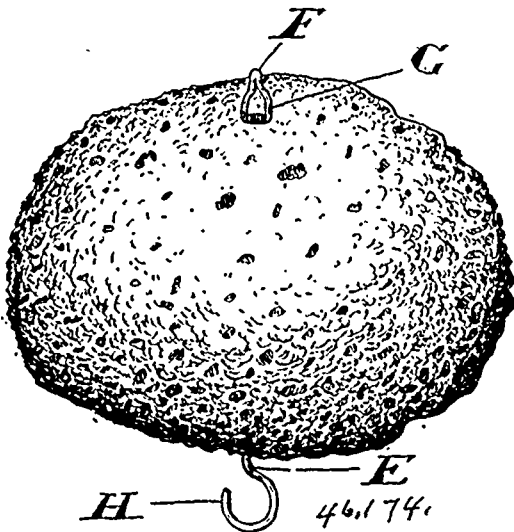


Robert L. Mason, Butte City, Montana, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. In a track cleaning apparatus, the combination with a driving axle, of a pivotal frame swivelled upon said axle, a brush

carrying shaft journalled upon the frame, and connected by intermediate gearing with the axle, operating devices to elevate the free end of the frame, and means whereby the frame is guided eccentrically to the axle, substantially as specified. 2nd. The combination with a driving axle, of a frame provided with side arms having slotted extremities to receive said axle, springs to normally hold the slotted extremities of the arms in engagement with the axle, a brush carrying shaft journalled upon the frame, and connected by intermediate gearing with the axle, an eccentrically fulcrumed shifting block secured to the frame and having its fulcrum arrange above the of the axle, and means to elevate the free end of the frame, substantially as specified. 3rd. The combination with a driving axle, of a frame swivelled thereon, and having a slotted connection with the axle, springs to hold said frame in operative position, depending guide loops engaging a transverse shaft of the frame, a brush carrying shaft journalled upon the frame, and connected by intermediate gearing with the axle, and means for elevating the free end of the frame, substantially as specified. 4th. The combination with a driving axle carrying a gear-wheel, of a frame having side arms provided with slotted extremities to engage the axle, eccentrically fulcrumed shifting blocks carried by the frame, springs to hold the slotted extremities of the arms in engagement with the axle, a brush carrying shaft connected by intermediate gearing to the gear-wheel which is fixed to the axle, pendent guiding loops engaging the transverse shaft of the frame, and elevating mechanism comprising an operating lever, and a chain connecting said lever to the frame, whereby the free end of the latter may be elevated to throw the brush carrying shaft out of gear with the axle, substantially as specified.

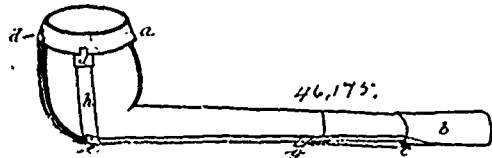
No. 46,174. Sponge Rack. (Râtelier pour éponge.)



William Richard Howse, Whitby, Ontario, Canada, 29th May, 1894; 6 years.

Claim.—1st. In a sponge rack, a link adapted to pass through a sponge and so shaped that it may be readily connected to or disconnected from another link or a point of support, substantially as and for the purpose specified. 2nd. In a sponge rack, a chain formed of a series of links, each adapted to pass through a sponge and so shaped that one or more may readily be disconnected from the chain without disturbing the others, substantially as and for the purpose specified. 3rd. In a sponge rack, a link adapted to pass through a sponge and provided at one end with a hook and at the other with an eye or its equivalent, substantially as and for the purpose specified. 4th. In a sponge rack, a chain formed of a series of links, each adapted to pass through a sponge and detachably connected together by hooks and eyes formed on or connected to them, substantially as and for the purpose specified. 5th. In a sponge rack, the combination in a link pointed at its upper end, of an eye formed in the link below the said pointed end, and a hook formed in or connected to the lower end of the link, substantially as and for the purpose specified. 6th. In a sponge rack, a chain formed of a series of links, each adapted to pass through a sponge and detachably connected together by hooks and eyes formed on or connected to them, in combination with a frame provided with horizontal bars, to which the ends of the chain are connected, substantially as and for the purpose specified. 7th. In a sponge rack, a chain formed of a series of links carrying sponges and detachably connected together by hooks and eyes formed on and connected to them, in combination with a frame provided with horizontal bars to which the ends of the chain carrying the sponges are connected substantially as and for the purpose specified.

No. 46,175. Pipe Cover. (Couvercle de pipe.)

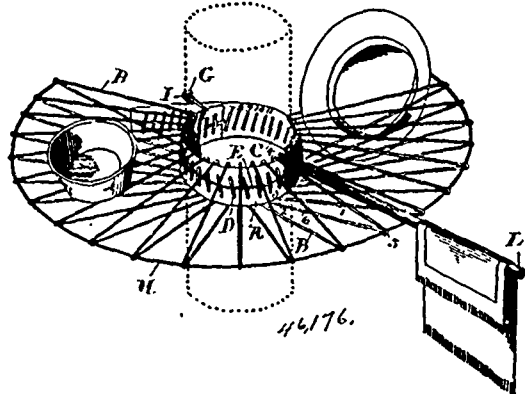


Henry W. Gerhardt, Neepawa, Manitoba, Canada, 29th May, 1894; 6 years.

Claim.—1st. The combination of the circular cap, made of leather or other suitable material fastened on the bowl of the pipe, by means of a skeleton pocket made of elastic, fitting around the bowl of the pipe, and fastened to the cover of the mouth-piece, substantially as described. 2nd. A pipe-cover in the shape of a flattened tube, having on end closed to admit it being adjusted over the mouth-piece, which said cover is fastened to the cover of the bowl by an elastic, substantially as described.

No. 46,176. Stove Pipe Shelf.

(Tablette pour tuyaux de poêle.)



Charles N. Johnson, San Francisco, California, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. A clamp for a stove pipe shelf, consisting of a pivoted member having a link-shaped outline, an opposite member having a series of parallel oblong perforations or grooves to receive the first, and a hook or catch adapted to engage with the vertex or outer end of said pivoted member, and thereby retain the latter in one of said grooves, substantially as shown and described. 2nd. A clamp for a stove pipe shelf consisting of a link-shaped member I, which is pivoted to one end of the pipe-encircling rim A, and is adapted to enter one of a series of parallel grooves C near the other end of the rim A, and hook G formed of the extremity of the wire composing the shelf, said hook being adapted to engage with the outer end of said pivoted member, substantially as shown and described. 3rd. In a stove pipe shelf, the combination of the wires B, forming the top and bottom of the shelf proper, the inner flat metal rim A, said metal rim being perforated with a series of parallel grooves C, substantially as and for the purpose set forth. 4th. In a stove pipe shelf, the combination of the inner flat metal rim A, and the wire B radiating from and encircling said rim, a series of parallel oblong perforations in said rim through which portions of said wire are adapted to protrude, and a wire E encircling said rim and passing between said protruding portions of said wire B and the outer surface of said rim A, substantially as set forth. 5th. In a stove pipe shelf, the combination of the inner flat metal rim A, and the wire B radiating from and encircling said rim, a series of parallel oblong perforations in said rim through which portions of said wire are adapted to protrude, and a wire E encircling said rim and passing between said protruding portions of said wire B and the outer surface of said rim A, and the described means for clamping the shelf on the pipe, substantially as shown and described. 6th. In a stove pipe shelf, the combination of a flat metal rim with a series of adjoining triangular arms radiating from said rim, a series of parallel oblong perforations or slots in said rim, said slots being adapted to allow a concaved side of said triangular arms to protrude through the rim, said triangular arms being formed of a continuous piece of wire, substantially as and for the purpose set forth.

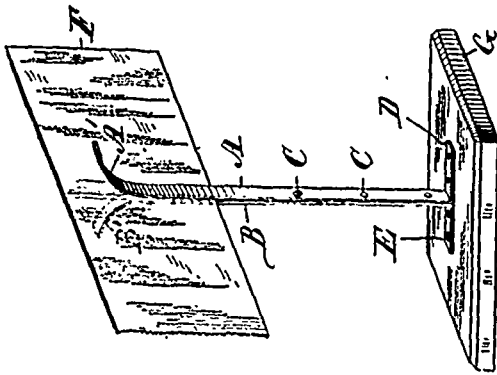
No. 46,177. Blotting-Sheet Holder.

(Porte-papier brouillard.)

William Millar, New Hamburg, Ontario, Canada, 29th May, 1894; 6 years.

Claim.—1st. A blotting-sheet holder, consisting of two parallel strips A, B, of rolled spring steel riveted together for a portion of their length, said strips having outwardly turned jaws A', B', and

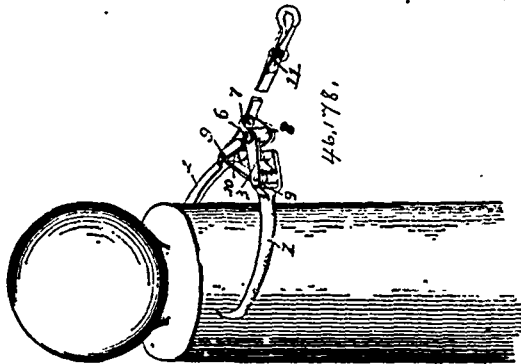
if desired, feet D, E, perforated, as and for the purpose set forth. 2nd. A blotting-sheet holder comprising two correspondingly-shaped flat strips A, B, of rolled spring steel having parallel portions secured



46,177.

together by rivets C, C, or other fastening, and jaws A¹, B¹, yielding to hold the blotting-sheet interveningly, as set forth. 3rd. A blotting-sheet holder, comprising the strips A, B, correspondingly curved and oppositely riveted together to hold a blotting-sheet interveningly, by friction, as set forth.

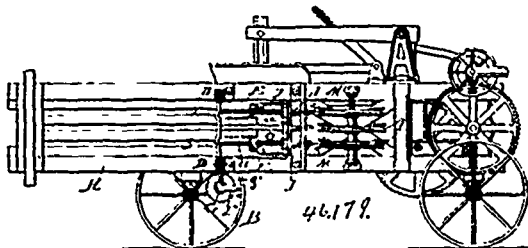
No. 46,178. Hitching Device. (Enrênoire.)



John Gust Engburg, Menomine, Michigan, U.S.A., 29th May, 1894; 6 years.

Claim.—In a hitching device, the combination with the curved arms terminating at their outer ends in inwardly disposed points and provided near their opposite ends with frames having transversely disposed anti-friction rollers journaled therein, the outer sides of said frames being extended ^{to} beyond to form pivoted arms provided at their inner sides with hollow studs, a transverse pintle extending through the studs, a clevis loosely mounted upon the pintle, a coiled spring arranged upon the studs, and having its terminals reversely disposed, and engaging with the opposite cross-bars of the frames, and the hitching strap passed loosely through the clevis at the outer side of one of the members under the anti-friction roller thereof, across under and over the anti-friction roller of the remaining member, and secured to the cross-bar of the frame of the first mentioned member, substantially as specified.

No. 46,179. Baling Press. (Presse d'empaquetage.)

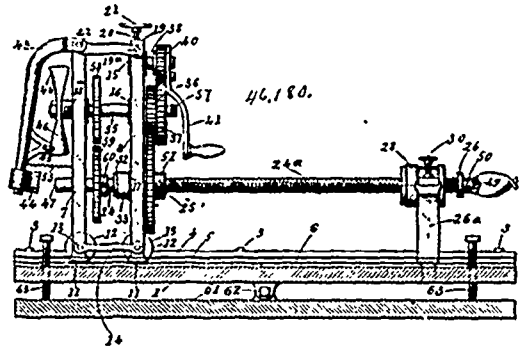


Andrew Wickey, Chicago, Illinois, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. The combination with a baling press having suitable tying devices, of a lateral arm secured to the frame and projecting outwardly some distance therefrom, a crank pivoted to the end of

said arm and arranged to swing toward the same in the tying operation, suitable connections between the said crank and the driving mechanism for oscillating it upon its pivot at the proper moment, a wire-inserting needle pivoted to the end of the crank, suitable openings in the frame of the press to allow said needle to pass through and guiding devices to carry the needle to the tying mechanism, substantially as described. 2nd. The combination in a baling press provided with suitable tying mechanism, of a laterally extending arm secured to the frame, a crank pivoted to the end of this arm and having suitable connections with the driving mechanism, a series of needles pivoted to the free end of the crank and provided with the springs J, suitable openings in the sides of the press to allow the needles to be inserted therein, and a slotted plunger provided with the springs C¹, substantially as described. 3rd. The combination in a baling press provided with suitable tying devices and having slots in the sides thereof, of a laterally extending arm D, secured to the frame, a crank E, pivoted at the extremity of said arm and oscillated by means of suitable connections with the driving mechanism, a series of needles J, pivoted to the free end of the crank and provided with a spring J¹, tending to throw them away from the tying devices, a slotted plunger C, provided with the springs C¹, arranged to oppose the spring J, and a series of dogs O, arranged to allow the needles to pass over them in their forward movement, but to intercept them upon their return, substantially as described. 4th. In a self-tying baling press and in combination with suitable driving, feeding and tying devices, a wire-inserting needle suitably mounted, said needle being formed by bending a metal plate upon itself in the shape of a letter U in cross-section and providing between the sides thereof suitable devices for spacing the latter apart and for guiding the wire therein. 5th. In a self-tying baling press and in combination with suitable driving, feeding and tying devices, a wire-inserting needle formed by bending a metal plate upon itself in the shape of the letter U in cross-section and having the rollers K, the shoulder K¹, and the opening K², through the back of the needle, substantially as described. 6th. The combination with the frame of a baling press provided with a tying device and a slot in its side extending substantially the full length of the compression chamber, of a plunger slotted in the same plane as the frame and provided with suitable driving mechanism, a wire-inserting needle mounted upon the frame in the plane of said slots, and movable both longitudinally and laterally of the frame, connecting gear between the needle and the driving mechanism of the press for thrusting the needle into the slots and withdrawing it therefrom, a tripping device to start the needle inward at substantially the commencement of the forward stroke of the plunger and reversing mechanism to withdraw the needle when the tie is made, substantially as described.

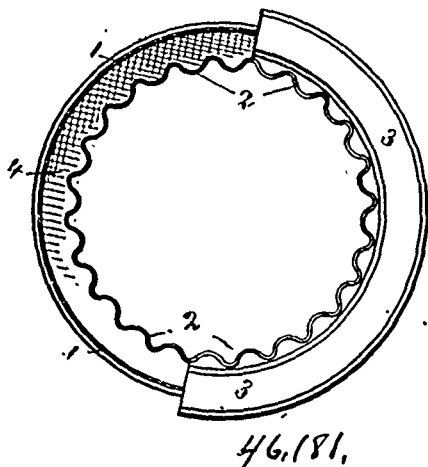
No. 46,180. Earth Boring Machine. (Sonde à trépan)



Walter Edward Everitt, Buffalo, New York, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. In an earth boring machine, the combination with a screw-bar connected with the carriage or frame at its rear end, and mounted in vertically movable boxes located in the supporting frame, and connected together by connecting bars at its rear end, and having its front end mounted in a correspondingly screw threaded screw box secured to a fixed support, and formed in two parts pivoted together so as to be opened when required, gearing substantially as above described for driving the screw-bar, and means for raising said boxes and screw-bar, for the purposes described. 2nd. In an earth boring machine, the combination with a pivoted hammer provided with a friction roller 45, secured to a bracket on the handle, of an operating cam for actuating the hammer, and gearing, substantially as above described, connected with the cam shaft and screw-bar for giving an intermittent feed to the screw-bar between the strokes of the hammer, substantially as described. 3rd. In an earth boring machine, the combination with a pivoted hammer, of a cam for operating the hammer, gearing connected with the cam shaft and screw-bar, for giving an intermittent feed to the screw-bar between the strokes of the hammer, and a lever and ratchet pawl connected with the shaft 35, for operating the device, substantially as described.

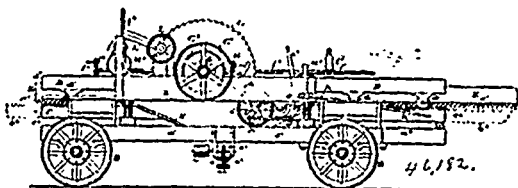
No. 46,181. Stove Pipe Thimble. (*Dé de tuyau de poêle.*)



Archibald Fairgrieve, Toronto, Ontario, Canada, 29th May, 1891; 6 years.

Claim.—The corrugations of the inner pipe partly constituting the thimble, as aforesaid as shown by letter 2, substantially as and for the purpose hereinbefore set forth.

No. 46,182. Transportable Circular Saw-Mill. (*Scierie circulaire portative.*)



Jeremiah H. Matthews, South Bend, Indiana, U.S.A., 29th May, 1894; 6 years.

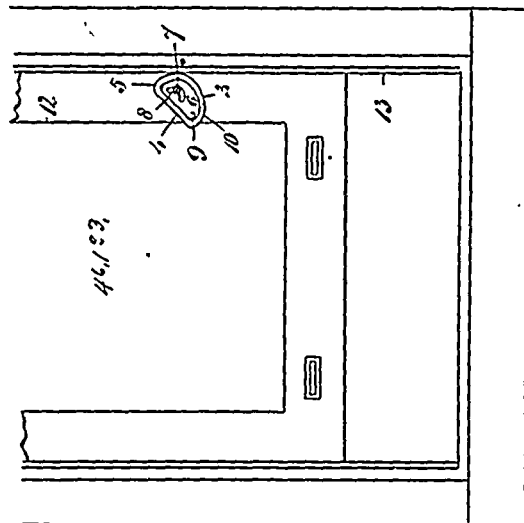
Claim.—1st. A transportable circular saw-mill, the frame A, consisting of longitudinal sills or timbers, with cross sills or timbers securely bolted and braced thereon, substantially as shown and described. 2nd. A transportable circular saw-mill, the frame A consisting of longitudinal sills or timbers, with cross sills or timbers securely bolted and braced thereon, a trough secured crosswise to and under said frame, said trough forming part of a box similar to a hopper box, the ends of the same being secured to the bottom of husk frame, and the sides to the longitudinal timbers of frame A, for the purpose of breaking the husk frame Z, substantially as shown. 3rd. A transportable circular saw-mill, having a trough secured crosswise to and under the main frame A, through which the transverse bars or scrapers of an endless carrier operate, said trough forming part of a box, similar to a hopper box, the sides and ends of the same being secured to main and husk frames, and slanting gradually from the bottom of the husk frame to the trough on both sides of the same, and the entire width of the main and husk frames, in combination with the main frame A, the trucks B, the husk frame Z, the track timbers C, the carriage D, and operating mechanism therefor, the saw and operating mechanism therefor, substantially as described. 4th. A transportable circular saw-mill, the combination of the main frame A, the trucks B, the track timbers C, the husk frame Z, with a chute N¹, which is secured to husk frame Z, partly under and in front of saw, and above hopper N, said chute or trough having a double bottom, the upper one made removable, all substantially as shown and described.

No. 46,183. Sash-holder and Fastener. (*Arrête-croisite.*)

James Robertson, Anslow Barington Rudd and Henry Horatio Neilson, all of Perth, Ontario, Canada, 29th May, 1891; 6 years.

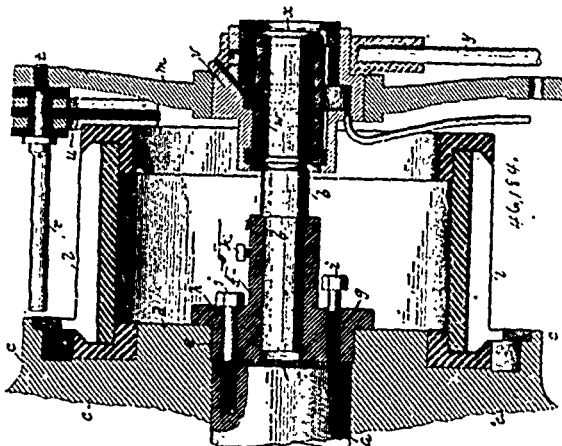
Claim.—A sash-holder and fastener consisting of the combination of a fixed pin, a movable plate having a curved slot formed therein

and adapted to receive and travel over said pin, the said plate being provided with a curved edge inclined relatively to said slots so as to



provide an intermediate curved wedge-like piece, substantially as and for the purpose set forth.

No. 46,184. Dynamo and Motor. (*Dynamo et moteur.*)

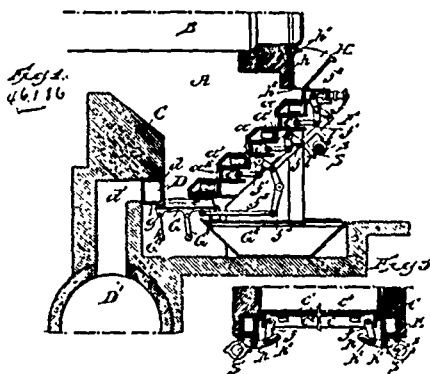


The Waddell-Entz Company, New York, State of New York, assignee of Montgomery Waddell, Bridgeport, Connecticut, both in the U.S.A., 29th May, 1891; 6 years.

Claim.—1st. The combination with an armature shaft, of an extension thereof on the commutator side of the armature, the end of the extension forming a bearing, a device adapted to support commutator brushes on said bearing, and means preventing rotation of said device, substantially as described. 2nd. The combination with an armature shaft, of an extension thereof on the commutator side of the armature, the end of the extension forming a bearing, a device adapted to support commutator brushes on said bearing, said extension consisting of a separate section or spindle b, secured to and in line with the main shaft, and means preventing rotation of said device, substantially as described. 3rd. The combination with an armature shaft, of an extension thereof on the commutator side of the armature, the end of the extension forming a bearing, a device adapted to support commutator brushes on said bearing, said extension consisting of a separate section or spindle b, secured to and in line with the main shaft, and means for adjustment of said section or spindle to bring its axis into exact alignment with the axis of the main shaft when necessary, substantially as described. 4th. The combination of an armature shaft having no supporting bearing on the side of the armature which carries the commutator cylinder, an extension of said shaft, and a brush carrier on such extension, substantially as described. 5th. The combination of an armature shaft having no supporting bearing on the side of the armature which carries the commutator cylinder, an extension of said shaft, a brush-carrier, and a rod z, secured to the carrier and to a fixed support, such as the floor, to prevent rotation of the carrier, substantially as described. 6th. The combination of an armature shaft having no bearing on the side of the armature which

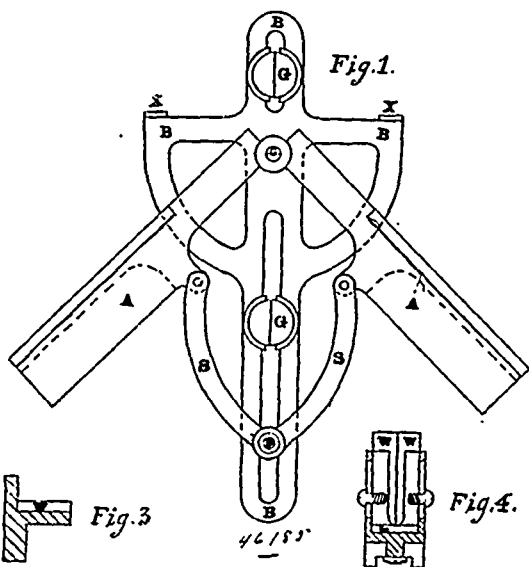
carries the commutator cylinder, an extension of said shaft, and a brush carrier on such extension, a rod *y*, secured to the carrier and to a fixed support, such as the floor, to prevent rotation of the carrier, and a spring tending to counteract the weight of the carrier on said extension of the shaft, substantially as described. 7th. The combination of two conducting rings insulated from each other, commutator brushes carried respectively by said rings, and a spider for supporting the rings, substantially as described. 8th. The combination in a brush carrier, of duplicate rings, having bored enlargements *q* forming supports for rods *T*, and the commutator brushes, said rings facing in opposite directions, side by side, but insulated from each other, and the enlargements *q* on the two rings alternately, substantially as described. 9th. The combination of a shaft, an armature supporting body thereon, a body *f* secured to one of said parts, namely, the shaft and the armature, and screws *t j* in said body *f*, a part of the screws bearing against a part of the screws screwing into the other part, whereby by adjusting said screws the position of the armature on the shaft can be adjusted, substantially as described. 10th. The combination of a shaft *a*, a part *c* thereon, a hub or part *f* secured to the part *c*, and having bolt holes at intervals, bolts in some of said holes and bearing against the end of the shaft, and bolts in other of said holes, and entering holes in the end of the shaft *a*, whereby the part *c* is held from axial movement in either direction on the shaft, and whereby said part *c* can be adjusted, substantially as described. 11th. The combination in a brush carrier of duplicate rings, having bored enlargements *c*, extending further on one side of the body of the ring than on the other, forming supports for rods *r*, and the commutator brushes, said rings facing in opposite directions, side by side, but insulated from each other, and the enlargements *q* on the two rings alternating, substantially as described.

above it, and having air passages leading from its central cavity through its face into the furnace in combination with an automatic feed hopper at the top of the grate. 3rd. In a furnace for generat-



ing heat by the combustion of fuel, a furnace grate consisting of a series of hollow shelves extending across the furnace and constituting air conduits as well as grate bars, said shelves being arranged so that each one of the series will lie below and extend further forward than the one above it, and having backwardly inclined faces and air passages leading from its central cavity through said faces into the furnace. 4th. In a furnace for generating heat by the combustion of fuel, a furnace grate consisting of a series of shelves, each shelf being arranged below and extending further forward than the shelf above it, a stoking plunger or plungers arranged to operate in the space between the overlapping shelves, but not constituting an essential part of the fuel supporting grate, and means for introducing air beneath the mass of fuel resting on the grate bars to maintain the combustion of said fuel. 5th. In a furnace for generating heat by the combustion of fuel, a furnace grate consisting of a series of hollow shelves extending across the furnace and constituting air conduits as well as grate bars, said shelves being arranged so that each one of the series will lie below and extend further forward than the one above it, and having air passages leading from its central cavity through its face into the furnace, and stoking plungers arranged in the spaces between the shelves. 6th. In a furnace for generating heat by the combustion of fuel, a furnace grate consisting of a series of hollow shelves extending across the furnace and constituting air conduits as well as grate bars, said shelves being arranged so that each one of the series will lie below and extend further forward than the one above it, and having air passages leading from its central cavity through its face into the furnace, openings *d*¹ at the end of each shelf for the admission of air into the central cavities of said shelves and a conduit for conducting the air to the various shelves. 7th. A grate having a series of shelves, each shelf being arranged below and extending forward of the shelf above it, plungers arranged in the spaces between the shelves, means for reciprocating the plungers, and means for adjusting the throw of said plungers. 8th. A grate having a series of hollow shelves, each shelf being arranged below and extending forward of the shelf above it, and having an inclined corrugated front face and provided with air outlets, substantially for the purpose specified. 9th. A grate having an inclined series of shelves extending across the furnace, and a passage *h*² extending down behind one or more of the shelves, substantially as described. 10th. A grate having an inclined series of shelves extending across the furnace, a passage *h*² extending down behind one or more of the shelves and plungers arranged to reciprocate in the spaces between the shelves. 11th. A grate having an inclined series of hollow shelves *a* extending across the furnace and having outlets for air in the faces of said shelves, a passage *h*² extending down behind the perforated shelves, a series of plungers arranged in the spaces between the shelves, and means for reciprocating the plungers. 12th. The combination, in a grate of an inclined series of hollow shelves *a* extending across the furnace and having perforations *a*¹ in the shelves for the passage of air, a passage *h*² extending down from the top and behind the shelves for a portion of the length of the grate, plungers arranged to reciprocate across the passage *h*², and plungers adapted to reciprocate in the spaces between the shelves below the passage *h*². 13th. The combination in a grate with a series of shelves as described, having spaces between the shelves, of a plunger or plungers arranged to operate between the shelves and having slots *c*¹, substantially as specified, and so that a slice bar can be introduced to stir the fire. 14th. The combination in a grate, with a series of shelves as described, having spaces between the shelves, of a plunger or plungers arranged to operate between the shelves and having slots *c*¹, and a sliding damper *c*² with corresponding slots *c*², substantially as and for the purpose specified. 15th. A grate having an inclined series of shelves *a* extending across the furnace, said shelves being provided with slots or perforations for the escape of air, openings *d*² leading into the ends of the shelves, a passage or passages *E* leading to the shelves and serving to convey air thereto, and a passage as *D*, so arranged as to be heated by the combustion of the products of

No. 46,185. Mitre Box. (Boite à ongles.)



Thomas Harold and John McColl, both of Vancouver, British Columbia, 29th May, 1894; 6 years.

Claim. - 1st. The combination of the bed plate B, B, B, B, and the arms a, a, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the arms a, a, with the quadrants S, S, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the quadrants S, S, and the guide pin *p*, of guide slot in bed plate leg B, substantially as and for the purpose hereinbefore set forth. 4th. The combination with the saw guide frames G, G, and saw guides W, W, of bed plate legs B, B, substantially as and for the purpose hereinbefore set forth.

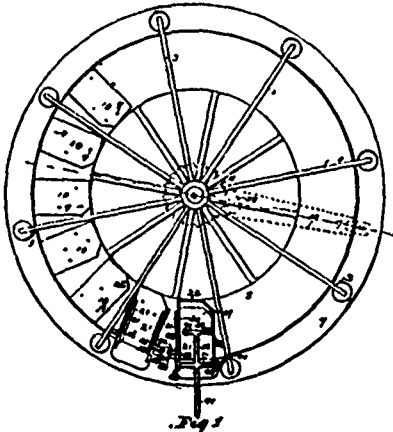
No. 46,186. Furnace Grate. (Grille de foyer.)

Teile Henry Müller, Philadelphia, Pennsylvania, U. S. A., 29th May, 1894; 6 years.

Claim. - 1st. In a furnace for generating heat by the combustion of fuel, a furnace grate consisting of a series of hollow shelves extending across the furnace and constituting air conduits as well as grate bars, said shelves being arranged so that each one of the series will lie below and extend further forward than the one above it, and having air passages leading from its central cavity through its face into the furnace. 2nd. In a furnace for generating heat by the combustion of fuel, a furnace grate consisting of a series of hollow shelves extending across the furnace and constituting air conduits as well as grate bars, said shelves being arranged so that each one of the series will lie below and extend further forward than the one

combustion, all substantially as specified, and so that hot air may be fed into the furnace. 16th. The combination in a grate with an inclined series of shelves extending across the surface and having spaces between the shelves, and a series of plungers adapted on being reciprocated to stir the fuel and push it down the series of shelves, of a grate at the bottom of the series of shelves, and means for reciprocating or rocking said grate. 17th. The combination in a grate with an inclined series of shelves as described, having spaces between the shelves, of a hopper adapted to deliver fuel to the series of shelves, and a series of plungers operating between the shelves adapted to stir the fuel and push it down the inclined shelves. 18th. The combination in a grate of a hopper, a gate independent of the stoking mechanism arranged to cut off the interior of the furnace from the fuel in the hopper whereby the burning back of the fire is prevented, and an inclined series of horizontal shelves, forming the grate surface. 19th. The combination with a hopper from which fuel is fed to a furnace, of a transverse shelf extending below the mouth of the hopper, a grate situated below said shelf, a stoking plunger operating to push forward and stir the fuel fed from the hopper, and a gate separate from said plunger to prevent burning back, substantially as and for the purpose specified. 20th. In a furnace for generating heat by the combustion of fuel, the combination with a furnace grate consisting of an inclined series of shelves as described, having spaces between the shelves, means for introducing air beneath the mass of fuel on the grate, means for reciprocating said plungers and links adapted to secure the plungers to the beam for reciprocating them, said links being so arranged as to be disconnected at will, whereby any particular plunger may be put out of action if desired. 21st. In a furnace for generating heat by the combustion of fuel, the combination with a furnace grate consisting of an inclined system of shelves as described, having spaces between the shelves, plungers arranged in the spaces between the shelves, a suitable motor, links secured to the plungers and having notches adapted to engage with the pins on the motor, all as specified, and so that any plunger can be disconnected at will from its actuating motor. 22nd. In a furnace for generating heat by the combustion of fuel, the combination with an inclined grate, of means for feeding fuel at the top of said grate, means for introducing air beneath the mass of fuel on the grate to maintain combustion, and automatic means for constantly withdrawing ashes from the bottom of the grate. 23rd. In a furnace for generating heat by the combustion of fuel, the combination with a furnace grate consisting of a series of shelves extending across the furnace, each shelf being arranged below and extending further forward than the shelf above it, of means for introducing air beneath the fuel on the grate to maintain combustion, a stoking plunger or plungers arranged to operate in the spaces between the shelves, and automatic means for constantly withdrawing ashes from the bottom of the grate. 24th. In a furnace for generating heat by the combustion of fuel, the combination with a grate consisting of a series of shelves extending across the furnaces, each shelf being arranged below and extending further forward than the shelf above it, of means for feeding fuel at the top of said grate, a stoking plunger or plungers arranged to operate in the spaces between the shelves, means for introducing air beneath the mass of fuel on the grate, and automatic means for constantly withdrawing ash from the bottom of the grate.

No. 46,187. Apparatus for Sorting Cards and Compiling Statistics. (*Appareil pour assortir des cartes et compiler les statistiques.*)



John Kinsley Gore, Newark, New Jersey, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. In a sorting machine, the combination of a holder for a pile of cards or other articles, and having a movable support for such pile, a series of differing selecting devices, and mechanism for bringing said selecting devices successively and said holder opposite each other, and means for operating said support to release

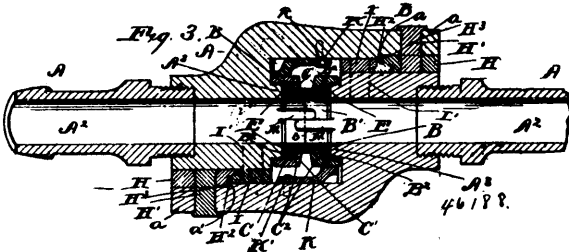
said articles, substantially as set forth. 2nd. The combination of an endless series of holders having means of supporting and releasing the cards, an endless series of selecting devices beneath said holders, means for bringing said holders and devices successively opposite to each other, and mechanism operating, when the devices are in said position to release the cards, substantially as set forth. 3rd. The combination of a suitable frame, a second rotary frame, a series of holders having card supporting and releasing devices and a series of selecting devices below said holders, the former supported upon one of said frames and the latter supported upon the other of said frames, and means for actuating the rotary frame to bring the said holders and selecting devices successively opposite to each other, substantially as set forth. 4th. The combination of a suitable frame, a second rotary frame, a series of holders and a series of selecting devices the former supported upon one of the said frames and the latter supported upon the other of said frames, and beneath the holders, means for actuating the rotary frame to bring the said holders and devices successively opposite to each other, and means for moving one of said frames in a direction parallel with the axis of the rotary frame, to release the contents of the holder, substantially as set forth. 5th. The combination of the frame 3, a vertical shaft therein provided with horizontal supporting plates arranged one above the other in two or more stories, two or more series of selecting devices and holders arranged in corresponding stories and carried respectively by said supporting plates and frame 3, and means for actuating said shaft, substantially as set forth. 6th. The combination of a series of holders having movable supports, and a series of selecting devices, means for rotating one of said series intermittently and mechanism for moving one of said series relatively to the other in a direction parallel with the axis of rotation to operate said supports and release the contents of the holders, substantially as set forth. 7th. In a card sorting machine, the combination with the rotary frame, of a radial shaft, a cam thereon having a suitable connection with said frame for rotating it intermittently, a cam on said shaft engaging said frame or part connected therewith for moving it in a direction parallel with its axis of rotation, and a catch operated by said radial shaft for preventing the rotation of the frame while it receives its latter movement, substantially as set forth. 8th. The combination of the frame 3, the shaft 6 mounted therein and provided with the supporting plates 8, the selecting devices carried by said plates, card holders 21 mounted on said frame, the shaft 44 provided with the cams 50, 63 and 72, a ratchet movement for intermittently rotating the shaft 6, and operated by said cam 50, a catch 66 operated by the cam 72, and means for rotation the shaft 44, substantially as set forth. 9th. In a sorting machine, a selecting device having a plate 10, provided with regular series of perforations 11, and the pins 6 adjustable from one to the other of the perforations of said series, said pins being adapted to pass through the perforations of the cards of the desired class, and to support the cards whose perforations do not correspond to the arrangement of the pins, substantially as set forth. 10th. The combination, in a sorting machine, with one or more holders adapted to hold and deliver cards to be sorted, of a series of separate plates 10 having the upwardly projecting pins 9, the plates being adapted to collect and retain their appropriate cards and be independently removed from the machine with their contents, substantially as set forth. 11th. The combination of a supporting plate having a pin 13, and spring 14, and a spring-actuated catch 17, of the plate 10, provided with pins 9, and having the slot 12, substantially as set forth. 12th. In a sorting machine, the combination of a selecting device, a holder adapted to contain the cards or other articles to be sorted, laterally movable shelves for sustaining said cards, and means for bringing said selecting device and holder together and for withdrawing said shelves, substantially as set forth. 13th. The combination of the selecting device having upward projections adapted to support the cards to be sorted and to permit the deposit of the properly perforated cards, a holder for the cards to be sorted, removable shelves for sustaining the cards in the holder, and means for bringing said selecting device and holder together, and means co-operating with the selecting device to keep the cards in the holder horizontal upon the withdrawal of the said shelves, substantially as set forth. 14th. The holder 21, having the shelves 20 pivotally mounted thereon, outwardly extending stop arms connected with the shelves, a selecting device having upward projections adapted to be moved towards said holder, and suitable connections whereby said movement causes the oscillation of said stop arms and the withdrawal of said shelves, substantially as set forth. 15th. The combination with the selecting device having upward projections, of the holder above said device and provided with the vertically movable follower 37, and means for maintaining the horizontal position of the follower to properly confine the cards in conjunction with the projections of the selecting device, substantially as set forth.

No. 46,188. Hose Coupler. (*Joint de boyaux.*)

William Martin, Dunkirk, New York, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. In a two-part hose-coupling, a coupling-section provided with a seat, a rigid arm projecting beyond the plane of the seat and carrying a locking-lug, plate or member, and a pivoted or swinging locking-plate, lug or member having its engaging surface arranged so that it may be swung eccentrically to the plane of the

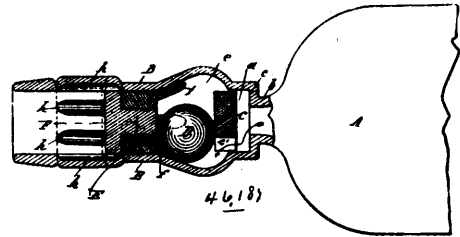
seat, substantially as set forth. 2nd. In a two-part hose-coupling, a coupling-section comprising a body portion having a seat or meeting-face and an arm projecting outwardly from the free end and at



one side of the body portion, said arm or extension and body portion having each a locking-lug, plate or member adapted to mesh with or engage a locking-member on the companion section of the coupling, one of said locking-members being pivoted so as to be capable of swinging or oscillating and the trend or arrangement of the engaging surface of said swinging or oscillating locking-member being such that in uniting the two coupling-sections a tight joint shall be formed between the meeting-faces or seats of the two sections, substantially as set forth. 3rd. In a two-part hose-coupling, a coupling-section provided with a seat or meeting-face, one or more pivoted locking-lugs, plates or members adapted, respectively, to mesh with or engage a locking-plate, lug or member on the companion coupling-sections, and suitable means for limiting the oscillation of said pivoted locking-member or members, the trend or arrangement of the engaging surface of said locking-member or members being such that in uniting the two coupling-sections a tight joint shall be formed between the seats or meeting-faces of said sections, substantially as and for the purpose set forth. 4th. A hose-coupling consisting of two like parts or members each whereof comprises a body portion having a continuous passage therethrough, an arm or extension extending outwardly and longitudinally from the face of the body portion at one side of the continuous passage of the body portion, said arm or extension and body portion having each a locking or oscillating locking plate, lug or member, the locking-member on the arm being adapted to mesh with or engage the pivoted locking-member on the body portion of the companion member of the coupling and the pivoted locking-member on the body portion being adapted to engage with the pivoted locking-member on the arm or extension of the companion member and in such a manner as to form a tight joint at the meeting-faces of the halves or members of the coupling, substantially as set forth. 5th. A hose-coupling consisting of two parts or members, each member comprising a body portion, an oscillating locking-plate, lug or member pivoted to one side of the body-portion, an arm extending outwardly and longitudinally from the face and at the opposite side of the coupling member, an oscillating locking-plate, lug or member pivoted to the inner side of said arm, the locking-plates, lugs or members of each member of the coupling being undercut substantially as indicated and adapted to mesh or interlock with the locking plates, lugs or members of the companion member of the coupling, and suitable means for limiting the oscillation of said locking-members, substantially as set forth. 6th. A hose coupling consisting of two like parts or members of any suitable construction to form a joint against leakage when coupled together, each part or member of the coupling comprising a body portion, an oscillating locking-plate, lug or member secured to the one side of the body portion, the latter having a shoulder for limiting said oscillation, an arm extending outwardly and longitudinally from the face and opposite side of the coupling, a pivoted locking-member secured to the inner side of said arm, the latter having a shoulder for limiting said oscillation, said last-mentioned locking-member being adapted to mesh or interlock with the oscillating or pivoted locking-member on the body-portion of the companion member of the coupling, and the pivoted or oscillating locking-member on the body-portion being adapted to mesh or interlock with the corresponding locking-member on the arm of the companion member, substantially as set forth. 7th. A hose-coupling member comprising a body-portion having a continuous passage therethrough, and a removable annular meeting-face, a nut or sleeve for securing said face to the body-portion, an arm arranged at one side of the meeting-face and rigid with the body-portion of the coupling, and a dog pivoted to the inner side of said arm and adapted to be swung into tight engagement between said side of the arm and the adjacent side of the locking-nut or sleeve, substantially as set forth. 8th. A hose-coupling member comprising a body-portion having a continuous therethrough, an arm extending outwardly and longitudinally from the face of body-portion and an annular flange about the aforesaid passage way at the inner end or face of the body-portion, an annular disc seated against said flange, and a nut or sleeve mounted on said flange and adapted to hold the aforesaid disk in place, and a dog pivoted to the inner side of the aforesaid arm of the body-portion and adapted to be swung into tight engagement between said side of the arm and the adjacent side of the aforesaid locking-nut or sleeve,

9th. A hose-coupling, the halves or members whereof are provided respectively, with a tongue or projecting member rigid or integral with the body-portion of the coupling-member and adapted to extend into the passage way provided through the companion coupling member, the tongue or projecting member of the one coupling-member having such arrangement relative to the tongue or projecting member of the other coupling-member, that said tongues or projecting-members shall engage each other substantially as indicated when the two coupling-members are united together, substantially as set forth.

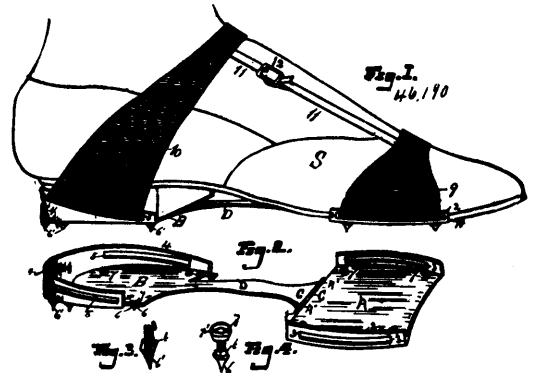
No. 46,189. Bottle. (Bouteille.)



Emil Klahn, West Hoboken, New Jersey, U.S.A., 29th May, 1894 ; 6 years.

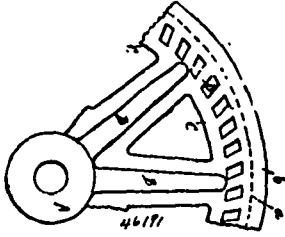
Claim.—1st. A bottle having in its neck a compression by which a valve seat is formed, a bulge beyond the valve seat, and channels or ducts formed by bulge in the said neck, and running from the bulge in an upward direction, substantially as and for the purpose set forth. 2nd. A bottle having in its neck a compression by which a valve seat is formed, a bulge beyond the valve seat, an annular expansion, and channels or ducts running upwards in different lines from the bulge into the expansion, and from the expansion respectively, substantially as and for the purpose set forth. 3rd. The combination of a bottle having a valve seat in its neck, a bulge beyond the valve seat, and channel or ducts formed by bulges in the neck and running upwards from the aforesaid bulge, with a valve, a ball which is located in the bulge and rests on the valve, and a closing plug, substantially as set forth. 4th. The combination of a bottle having a valve seat, a bulge beyond the valve seat, an annular expansion, and channels running upwards in different lines from the bulge into the expansion, and from the expansion respectively, with a valve, a ball, which is located in the bulge and rests on the valve, and a closing plug, substantially as set forth.

No. 46,190. Ice Creeper. (Grappin.)



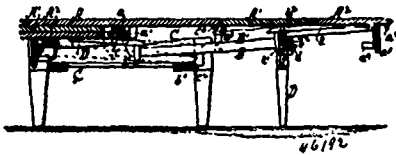
Joseph Carr, Saginaw, Michigan, U.S.A., 29th May, 1894 ; 6 years.

Claim.—1st. In an ice creeper, the combination with the sole A, provided with upwardly extending rims 2, 2, containing slots 3, 3, and strap 9, of the heel B, connected to and hinged to the sole A, by the connecting piece D, and hinge C, the heel B, being provided with a rim 4, to fit around the heel of the shoe, and grooves 5, 5, and strap 10 secured through the grooves, and the calks 6, 6, consisting of a sharp pointed bolt, having a square head 6, back of the shoulder of the point, the screw threaded end 8, nut 7, adapted to fit upon the screw threaded end 8, said nut being provided with a groove 7', and adapted to fit into a bevelled socket B', the lower half of the socket B', being square and adapted to receive a square head 6 of the bolt, substantially as and for the purpose set forth. 2nd. In an ice creeper, the combination with the creeper provided with a bevelled socket upon the upper side of the creeper for receiving a bevelled nut, and a square socket underneath the bevelled socket for receiving the square head of the calk, of a calk adapted to fit into the square socket with one end screw threaded, and passing up into the bevelled socket, and a bevelled nut adapted to be secured upon the upper end of the calk in the bevelled socket holding the calk in position, substantially as and for the purpose set forth.

No. 46,191. Car Wheel. (Roue de chars.)

Leonard Roll, Wilkesbarre, Pennsylvania, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. A car wheel having a double series of inclined oblong holes extending through its tread, and a circumferential rib extending upwardly between the adjacent ends of the holes and forming a narrow continuous beating surface, substantially as set forth. 2nd. A car wheel having a double series of inclined oblong holes extending through its head, said holes being arranged longitudinally in line with each other and curved outwardly in opposite directions, and a circumferential rib extending upwardly between the adjacent ends of the holes, substantially as set forth.

No. 46,192. Extension Table. (Table à rallonge.)

William Mayer, New York, State of New York, assignee of Friedrich Wolter, Helmsted, Duchy of Brunswick and German Empire, 29th May, 1894; 6 years.

Claim.—1st. The combination with the frame of a table, of legs hinged thereto, an arm *d* connected to said legs, an arm *a*² attached to the outer extension plate and engaging said arm *d*, substantially as and for the purpose set forth. 2nd. The combination with the frame of a table, of slides *B*, *B*¹, plates *A*¹, *A*², the support *a*² attached to slide *B*, a hook *c*¹ mounted on said support, a catch on plate *A*² engaging said hook supporting legs for said plates, and means for automatically raising and lowering said legs as the plates are drawn or closed, substantially as set forth. 3rd. The combination with the frame guides and top plates of a table, of legs hinged to said frame, an arm *c* attached to one of the top plates, a finger *c*¹ mounted on said arm, a cross tie *d*¹ which said finger engages to force said legs into a vertical position, an arm *a*² attached to the outer extension plate, and an arm *d* mounted on cross tie *d*¹, and engaged by arm *a*² to lift the legs when the plates are being closed, substantially as set forth. 4th. The combination with the frame and top plates of a table, of slides *B*, *B*¹ arranged one above the other, a support *a*² attached to the former and guiding the latter

slide legs for supporting said top plates, and means for automatically raising and lowering said legs as the plates are drawn or closed, substantially as set forth.

No. 46,193. Shoe and Stocking Protector. (Protecteur pour chaussures et bas.)

Herbert L. Phelps and Frank E. Jack, both of Chicago, Illinois, U.S.A., 29th May, 1894; 6 years.

Claim.—1st. A protector for the backs of shoes and backs of stockings, consisting of a strip of rubber cloth, or other water-proof fabric, adapted to the back of the heel and ankle and extending forward at the sides about to the line of the heel front, an elastic loop attached to the lower corners thereof, and an elastic strap adapted to pass over the instep to secure the protector in place, substantially as described. 2nd. In a protector for the backs of shoes and the backs of stockings, a body piece *a* of rubber cloth, or other water-proof fabric, adapted to fit the back of the shoe and ankle and extend forward slightly at each side thereof, in combination with strips *B* of stiff elastic material secured to the front edges of the body, and an elastic loop *D* secured to the lower corners of the body and adapted to pass under the shoe just in front of the heel thereof, on a line a little forward of the attachment of said loop to the said corners, for securing the protector in place for use, substantially as described. 3rd. In a protector for the backs of shoes and the backs of stockings, a body *a* of rubber cloth, or other water-proof fabric, adapted to fit the back of the heel and ankle and extend forward at each side nearly to the front of the heel proper, in combination with side strips *B*, of stiff elastic material applied to the front edges thereof, an elastic loop *D*, secured to the lower corners of the body and adapted to pass under the shoe in front of the heel thereof on a line somewhat in front of the points of attachment to the corners, and a fastening strap *E*, adapted to pass over the instep and secured to the respective edges of the protector, substantially as described. 4th. In a protector for the backs of shoes and the backs of stockings, the body *a* of rubber cloth, or other suitable material, adapted to be applied to the back of the heel and ankle and having its side edges constructed with an inclination or bend *g*¹ at the lower end thereof, and falling backward from the main line of said edges, in combination with an elastic bottom loop *D*, and an instep strap *E*, substantially as described.

CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO THE FOLLOWING PATENTS.

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| 3454. JOHN K. FISKEN, 2nd five years of No. 31,217, from the 1st day of May, 1894. Improvements in Bag Holders, 1st May, 1894. | 470. A. HARRIS, SON & CO. (assignees), 3rd five years of No. 19,370, from the 17th day of May, 1894. Improvements in Grain Binders, 14th May, 1894. |
| 3455. THE NATIONAL GAS FUEL COMPANY (assignees), 2nd five years of No. 31,224, from the 1st day of May, 1894. Improvements in Air Injecting Device for Boiler Furnaces, 1st May, 1894. | 3471. LOUIS HAMMEL, 2nd five years of No. 31,367, from the 15th day of May, 1894. Improvements in Furniture Casters, 15th May, 1894. |
| 3456. GEORGE GROS and LOUIS GFORGE POURE, 2nd five years of No. 31,306, from the 9th day of May, 1894. Improvements in Apparatus for Receiving Letters, &c., 7th May, 1894. | 3472. GEORGE ALBERT HARVIE, 2nd five years of No. 31,389, from the 17th day of May, 1894. Improvements in Temporary Binders, 17th May, 1894. |
| 3457. ISRAEL L. CARR, 2nd five years of No. 31,335, from the 11th day of May, 1894. Improvements in Chemical Fire Extinguishers, 7th May, 1894. | 3473. HUGO WOLLHEIM, 2nd five years of No. 31,508, from the 6th day of June, 1894. Re-agent for the Treatment of Sewage and other foul or waste waters, and for general Disinfecting, Preservative and Remedial purposes, 18th May, 1894. |
| 3458. WILLIAM ZAHN, 2nd five years of No. 31,312, from the 9th day of May, 1894. Improvements in Processes of Tanning, 7th May, 1894. | 3474. FREDERIC ECAUBERT, 2nd five years of No. 31,505, from the 6th day of June, 1894. Improvements in the Manufacture of Watch Cases, 23rd May, 1894. |
| 3459. E. B. JAMES, 2nd five years of No. 31,296, from the 8th day of May, 1894. Improvements in Ink Stands, 8th May, 1894. | 3475. JOHN T. WILLIAMS, 2nd five years of No. 31,439, from the 25th day of May, 1894. Improvements in Electro-Magnetic Transmitters, 23rd May, 1894. |
| 3460. ALONZO LOBDELL, 2nd five years of No. 31,400, from the 21st day of May, 1894. Improvements in Process of Manufacturing Round Reins, Bridles, Winker Braces and the like, 8th May, 1894. | 3476. HOWARD A. CARSON, 2nd five years of No. 31,451, from the 27th day of May, 1894. Improvements in Apparatus for Raising and Moving Earth, 23rd May, 1894. |
| 3461. JOHN GOOD, 2nd five years of No. 31,351, from the 14th day of May, 1894. Improvements in Steam Boiler Furnaces, 8th May, 1894. | 3477. WILLIAM H. COOPER, 2nd five years of No. 31,462, from the 31st day of May, 1894. Improvements in or relating to corsets, 23rd May, 1894. |
| 3462. JOSEPH M. DUNCAN, 2nd five years of No. 31,724, from the 16th day of July, 1894. Improvements in Evaporating Pans, 9th May, 1894. | 3478. WILLIAM A. FIRSTBROOK, 2nd five years of No. 31,444, from the 27th day of May, 1894. Improved Seal Lock for Hasp Fasteners, 23rd May, 1894. |
| 3463. JOSEPH POLLOCK and EDWARD G. GREGORY, 2nd five years of No. 32,904, from the 21st day of November, 1894. Improvements on Brake Shoes, 9th May, 1894. | 3479. JOHN H. SNELLING, 2nd five years of No. 31,454, from the 27th day of May, 1894. Improvements in Steering Apparatus for Vessels, 25th May, 1894. |
| 3464. JAMES R. BURNS, 2nd five years of No. 31,353, from the 14th day of May, 1894. Improvements in Lobster Pounds, 9th May, 1894. | 3480. CARL HOFFNER, 3rd five years of No. 19,492, from the 31st day of May, 1894. Improvements relating to the Decomposition of Metallic Haloid Salts by Electrolysis, 29th May, 1894. |
| 3465. EDWARD W. HARRAL, 3rd five years of No. 19,331 from the 13th day of May, 1894. Material for covering carriages, 11th May, 1894. | 3481. ZEBULUN A. LASH, 2nd five years of No. 31,527, from the 7th day of June, 1894. Improvements in Letter Files, 31st May, 1894. |
| 3466. WILLIAM T. BATE, 2nd five years of No. 31,419 from the 22nd day of May, 1894. Improvements in Portable Steam Boilers, 11th May, 1894. | 3482. ZEBULUN A. LASH, 2nd five years of No. 31,528, from the 7th day of June, 1894. Improvements in Letter Files, 31st May, 1894. |
| 3467. WILLIAM C. LEAVITT, 2nd five years of No. 32,942, from the 27th day of November, 1894. Improvements in Handles for Metallic Vessels, 12th May, 1894. | 3483. THE CANADIAN GENERAL ELECTRIC COMPANY, (assignees) 2nd five years of No. 31,485, from the 1st day of June, 1894. Armatures for Dynamos, 31st May, 1894. |
| 3468. GEORGE DICKSON, 2nd five years of No. 31,365, from the 15th day of May, 1894. Improved Window Blind Fastener, 14th May, 1894. | |
| 3469. CARL HAGGENMACHER, 2nd and 3rd six years of No. 45,327, from the 14th day of February, 1900. Improvements in Suspension Rods for Swinging Sieves, 14th May, 1894. | |

TRADE - MARKS

Registered during the month of May, 1894, at the Department of Agriculture—
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4936. A. BERTHÉ, de Montréal, Qué. Une sorte de papier imprégné de substances aromatiques, et qui, brûlé dans les appartements les parfume et les assainit, 4 mai, 1894.
4937. McDUGALL, BARRETT & COMPANY, of Montreal, Que. Cloths, 4th May, 1894.
4938. E. A. SMITH, of St. John, N.B. Flour, 4th May, 1894.
4939. SMITH, FISCHER & COMPANY, of Montreal, Que. Cigars, 4th May, 1894.
4940. THE FAULTLESS CHEMICAL COMPANY, of Baltimore, Maryland, U. S. A. Chewing Gum, 5th May, 1894.
4941. THE DR. DAVID KENNEDY CORPORATION OF RONDOUT, of Kingston, New York, U. S. A. Medicines, 7th May, 1894.
4942. THE CRESCENT WATCH CASE COMPANY, of Newark, New Jersey, U. S. A. Watch Cases, 8th May, 1894.
4943. THE TEXTILE PUBLISHING COMPANY, of New York, N. Y., U. S. A. A Weekly Periodical devoted to Textile Materials, manufacture and distribution, 8th May, 1894.
4944. } THE WOODBERRY MANUFACTURING COMPANY, of Baltimore,
4945. } Maryland, U. S. A. Cotton Duck, 11th May, 1894.
4946. THE WOODBERRY MANUFACTURING COMPANY, of Baltimore, Maryland, U. S. A. Cotton Duck and Twines, 11th May 1894.
4947. THE MERCHANTS PORTRAIT COMPANY OF TORONTO, LIMITED, Toronto, Ont. Portraits and Pictures, 12th May, 1894.
4948. ELMER H. STONE, of Detroit, Michigan, U. S. A. A Salve, 16th May, 1894.
4949. C. F. BOEHRINGER AND SOEHNE, of Waldhof, near Mannheim, Germany. Iron Derivatives of Albumen, to be used in medicines and food compounds, 19th May, 1894.
4950. HORACE HASZARD, of Charlottetown, P. E. I. Canned Lobster, Mackerel and Salmon, 21st May, 1894.
4951. GEORGE OLMSTED, of London, Ont., trading as GEORGE OLMSTED & COMPANY. Cigars, 21st May, 1894.
4952. } LEONARD McGLASHAN & GARDNER C. CLARKE, of Humberstone,
4953. } Ont., trading as the ONTARIO SILVER COMPANY. Forks, Spoons and Table Implements, 21st May, 1894.
4954. LISTER & COMPANY, LIMITED, of Manningham Mills, Bradford, Yorkshire, England. Mohair, Plushes, 23rd May, 1894.
4955. LISTER & COMPANY, LIMITED, of Manningham Mills, Bradford, Yorkshire, England. Artificial Sealskins, 23rd May, 1894.
4956. } THE FARBWERKE vorm MEISTER LUCIUS AND BRÜNING, of
4957. } Hoechst a Main, Germany. Chemical Substances prepared for use in medicine and pharmacy, 23rd May, 1894.
4958. THE MECHANICAL FABRIC COMPANY, of Providence, Rhode Island, U. S. A. Mechanical Fabrics (card cloth), 23rd May, 1894.
4959. WILLIAM HOWE, of Ottawa, Ont. Paints, White Lead, Zinc White, Varnishes and Colours, 28th May, 1894.
4960. S. DAVIS & SONS, of Montreal, Que. Cigars, Cigarettes and Tobaccos, 29th May, 1894.
4961. JOHN ROBERTSON & SON, of 6 Candle Lane, Seagate, Dundee, Scotland. Scotch Whisky, 29th May, 1894.
4962. THE STARR MANUFACTURING COMPANY, LIMITED, of Dartmouth, Nova Scotia. Skates, 31st May, 1894.

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7368. CANADA. A Portfolio of Original Photographic Views of Our Country, Volume I., No. 1, May 12th, 1894. Art Publishing Co., Toronto, Ont., 1st May, 1894.
7369. CANADIAN APPEALS, by C. H. Masters, B. A., Barrister, Assistant Reporter of the Supreme Court of Canada, Ottawa, Ont., 1st May, 1894.
7370. THE MAPLE. Patriotic Song. Words by Rev. William Wye Smith. Music by A. J. Gilmour. The Anglo-Canadian Music Publishers' Association, Ltd., London, England, 2nd May, 1894.
7371. CLARKE'S MAGISTRATE'S MANUAL. Third Edition. Revised, Enlarged and Improved. The Carswell Co., Ltd., Toronto, Ont., 4th May, 1894.
7372. THE MYSTERIES OF THE BIBLE EXPLAINED, by Thomas E. Johnson, Barrie, Ont., 4th May, 1894.
7373. BIRD'S EYE VIEW OF THE CENTRAL BUSINESS PORTION OF WINNIPEG, MANITOBA. Clarence Edward Steele, Winnipeg, Man., 5th May, 1894.
7374. PHOTOGRAPH OF THE BONELESS MAN. James A. Stubbert, North Sydney, Cape Breton, N.S., 5th May, 1894.
7375. THE CYCLISTS' ROAD GUIDE OF CANADA, WITH MAP. W. H. Miln and Fred Bryers, Toronto, Ont., 5th May, 1894.
7376. INFORMATION TO STAMMERERS, FORM B. Samuel T. Church, Toronto, Ont., 7th May, 1894.
7377. HENDERSON'S MANITOBA, NORTH-WEST TERRITORIES GAZETTEER AND WINNIPEG DIRECTORY OF 1894. James Henderson, Winnipeg, Man., 8th May, 1894.
7378. D. L. MOODY vs. HENRY VARLEY, AT WORLD'S FAIR, ON NATURE OF CHRIST'S ATONEMENT, ETC., by W. Rilance. Wm. Briggs (Book Steward of the Methodist Book and Publishing House), Toronto, Ont., 9th May, 1894.
7379. THE HOME LAND. Sacred Song. Words by L. A. Morrison. Music by J. W. Campbell. John W. Campbell, Campbell's Cross, Ont., 9th May, 1894.
7380. DOMINION AYRSHIRE HERD BOOK, VOLUME I. The Agricultural and Arts Association, Toronto, Ont., 10th May, 1894.
7381. THE DOMINION SWINE BREEDERS' RECORD, VOLUME I. The Agricultural and Arts Association, Toronto, Ont., 10th May, 1894.
7382. THE DOMINION SWINE BREEDERS' RECORD, VOLUME II. The Agricultural and Arts Association, Toronto, Ont., 10th May, 1894.
7383. THE DOMINION SWINE BREEDERS' RECORD, VOLUME III. The Agricultural and Arts Association, Toronto, Ont., 10th May, 1894.
7384. DOMINION SHORT-HORN HERD BOOK, VOLUME I. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7385. DOMINION SHORT-HORN HERD BOOK, VOLUME II. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7386. DOMINION SHORT-HORN HERD BOOK, VOLUME III. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7387. DOMINION SHORT-HORN HERD BOOK, VOLUME IV. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7388. DOMINION SHORT-HORN HERD BOOK, VOLUME V. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7389. DOMINION SHORT-HORN HERD BOOK, VOLUME VI. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7390. DOMINION SHORT-HORN HERD BOOK, VOLUME VII. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7391. DOMINION SHORT-HORN HERD BOOK, VOLUME VIII. The Dominion Short-horn Breeders' Association, Toronto, Ont., 10th May, 1894.

7392. DOMINION SHORT-HORN HERD BOOK, VOLUME IX. The Dominion Short-Horn Breeders' Association, Toronto, Ont., 10th May, 1894.
7393. CANADA. A Portfolio of Original Photographic Views of Our Country, Volume I, No. 2, May 19th, 1894. Art Publishing Co., Toronto, Ont., 12th May, 1894.
7394. THE PATRONS MILK PASS BOOK. John W. Moore, Peterborough, Ont., 14th May, 1894.
7395. BUDS AND BLOSSOMS. Poems by M. J. Thayers, Toronto, Ont., 14th May 1894.
7396. PLAN OF THE CITY OF WINDSOR AND VICINITY, 1894. George McPhillips, Windsor, Ont., 14th May, 1894.
7397. RÉVÉREND PÈRE L. SOULLIER, O. M. I., (photo A). Jules Ernest Livernois, Québec, Qué., 14 mai, 1894.
7398. RÉVÉREND PÈRE L. SOULLIER, O. M. I., (photo B). Jules Ernest Livernois, Québec, Qué., 14 mai, 1894.
7399. RÉVÉREND PÈRE L. SOULLIER, O. M. I., (photo C). Jules Ernest Livernois, Québec, Qué., 14 mai, 1894.
7400. ROBERTSON'S LANDMARKS OF TORONTO. J. Ross Robertson, Toronto, Ont., 14th May, 1894.
7401. TOURIST AND CANOEIST INDEX MAP AND CHART OF THE MUSKOKA LAKES. George William Marshall, Toronto, Ont., 15th May, 1894.
7402. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME I. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7403. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME II. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7404. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME III. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7405. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME IV. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7406. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME V. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7407. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME VI. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7408. THE CLYDESDALE STUD BOOK OF CANADA, VOLUME VII. The Clydesdale Horse Association, Toronto, Ont., 15th May, 1894.
7409. WANTED. By Mrs. G. R. Alden, (Pansy.) Wm. Briggs. (Book-Steward of the Methodist Book and Publishing House.) Toronto, Ont., 15th May, 1894.
7410. SUNDAY AFTERNOON ADDRESSES IN CONVOCATION HALL, QUEEN'S UNIVERSITY, KINGSTON, ONTARIO, SESSION, 1894. Queen's College Publishing Syndicate, Kingston, Ont., 16th May, 1894.
7411. CRITICISMS ON CHRISTIAN SCIENCE CONSIDERED IN THE LIGHT OF HISTORY, COMMON SENSE AND THE BIBLE. By William Rilance, Wm. Briggs. (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 17th May, 1894.
7412. HENDERSON'S CITY OF WINNIPEG DIRECTORY FOR 1894. James Henderson, Winnipeg, Man., 18th May, 1894.
7413. LE DIRECTORY DE QUEBEC, CONTENANT LES ADRESSES PAR ORDRE ALPHABÉTIQUE, 1894-95. (The Quebec Directory, containing Alphabetical List of the Citizens of Quebec.) T. L. Boulanger et Ed. Marcotte, Québec, Qué., 18 mai, 1894.
7414. THE KING'S HIGHWAY; OR, DIRECTIONS TO SEEKERS OF ENTIRE SANCTIFICATION. By Rev. Richard Wilson, Owen Sound, Ont., 21st May, 1894.
7415. THE MEDICAL PROFESSION IN UPPER CANADA, 1783-1850. By Wm. Canniff, M.D., M.R.C.S. Eng. Wm. Briggs. (Book-Steward of the Methodist Book and Publishing House), 25th May, 1894.
7316. IMPERIAL BRITAIN. A Patriotic Drama. Suitable for Public School Exhibitions. By W. M. McVicar. A. & W. MacKinlay, Halifax, N.S., 25th May, 1894.
7417. MINUETTO SCHERZOSO. Organ Solo. By J. Humfrey Anger. Whaley, Royce & Co., Toronto, Ont., 26th May, 1894.

7418. THE BRITISH COLUMBIA MERCANTILE AGENCY REFERENCE BOOK, VICTORIA, B.C., 1894-95. Jerome E. Church, Victoria, B.C., 26th May, 1894.
7419. BURMAN'S POCKET PARISH INDEX. Robert Dennis Richardson, Winnipeg, Man., 28th May, 1894.
7420. DISCOURSES AND ADDRESSES. By George Douglas, D.D., L.L.D. Wm. Briggs. (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 28th May, 1894.
7421. DAVY'S ADVERTISER, NUMBER 2, 1894. Cornu & Richer, Montreal, Que., 28th May, 1894.
7422. L'INDICATEUR DE QUEBEC ET LEVIS, 1894-95. (The Quebec and Levis Directory.) T. L. Boulanger & Ed. Marcotte, Québec, Qué., 28 mai, 1894.
7423. ON THE OLD TIME PORCH. Song. Words and Music by Elson H. Bailey, Whaley, Royce & Co., Toronto, Ont., 29th May, 1894.
7424. THE THRESHERS' PERFECT ACCOUNT BOOK. Walter Torrance Muir, Brantford, Ont., 30th May, 1894.
7425. THE LIFE AGENTS MANUAL. By J. D. Houston. Containing Premium Rates and Synopsis of Policy Conditions of all Companies actively doing business in Canada. Richard Wilson Smith, Montreal, Que, 30th May, 1894.
7426. THE QUEBEC LEGAL CHART, 1894-95. Henry Ryerson Hardy, Toronto, Ont., 31st May, 1894.
7427. A CALENDAR OF PROMINENT EVENTS IN BRITISH HISTORY AND OTHER MATTERS OF INTEREST TO ENGLISHMEN, which is now being preliminarily published in separate articles in the "Anglo-Saxon," Ottawa, (Temporary Copyright.) A. A. Howard Moore, Gananoque, Ont., 31st May, 1894.

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