Photographic.

Mr. Valentine Blanchard has made known a very simple and excellent plan for keeping wet plates in a sensitive condition for a considerable time, after removal from the bath. The plan is to add a few grains of a salt of bromine—cadmium or ammonium—to the collodion. An old collodion works best. We have tried it with success, adding two grains of bromide of ammonium to the ounce of collodion. In some instances our plates remained three hours in the shield before exposure, and developed without surface stains. The rationale of this method is explained as follows by the *Photographic News*:

The value of a bromide in securing immunity from stains, comets, and other markings has long been known; but its mode of operation in doing this has not been well understood. Its action in permitting long keeping, however, is easily explained. The process of double decomposition, in which the bromide salts employed in the collodion are changed into bromide of silver, is much slower, as is well known, than is the conversion of iodides; and when a simply bromized collodion is employed, the immersion in the nitrate bath needs to be very much prolonged, in order to convert the whole of the bromide in the collodion into bromide of silver. In effecting his purpose Mr. Blanchard just pursues the opposite course. Employing a very highly bromized collodion, he gives the plate the shortest possible immersion in the nitrate bath, keeping it in motion from the first, to get rid rapidly of the greasy, streaky appearance of the plate. The solution running evenly over the film, without streaks or oily-looking lines, which is generally regarded as the indication of sufficient immersion, is, in reality, no test of the conversion of the salts in the collodion film into salts of silver; it merely indicates that the alcohol and etherin the film have become thoroughly mixed with the aqueous solution, and that the mutual repulsion has ceased. Under ordinary circumstances, however, by the time this is thoroughly effected, the mutual decomposition of the iodides originally in the collodion and the nitrate of silver, and the formation of iodide of silver and a nitrate of potash, or other base is also complete. With bromides, as we have said, this operation is not so rapidly completed; if therefore, a collodion film containing a large portion of bromide be immersed and kept in motion so as rapidly to get rid of greasiness, and then removed after a very brief immersion, the film will contain a large portion of the bromide—say, of cadmium or ammonium—which remains undecomposed, and is not converted into bromide of silver. In this fact lies the safety of the plate for long exposures. The free nitrate of silver—which would otherwise be crystallizing on the surface of the film, or, by the concentration of the solution caused by evaporation, acquiring a readier tendency to abnormal reduction—now performs a different office: being in contact with the unconverted bromide of cadminm or ammonium, it is decomposed by it, and aids in the formation of bromide of silver in the film. Instead of being made stronger by evaporation of water, the free nitrate is made weaker by the loss of the silver which combines with the bromine, whilst the nitric acid, combining with the base which leaves the bromine, produces an innocuous, or possibly in some cases a hygroscopic, and therefore beneficial salt. It will thus be readily seen how the use of a large portion of bromide and a very short immersion of the plate in the nitrate bath tend to prevent the stains of crystallization or of reduction consequent on long exposure in warm weather. The mode in which the effect in question is secured in the case described may possibly suggest an explanation of the general action of bromides as aids to clean negatives. It is probable in most cases where a freely bromized collodion is employed, and the plate kept in the nitrate bath the usual two or three minutes, that some portion of unconverted bromide remains in the film, and that the formation of bromide or silver goes on after the plate leaves the bath, the bromide of silver being formed at the expense of the free nitrate on the film, which is thus much weakened. As the use of a weak solution of nitrate silver, at times secured by re-dipping the plate in a weak bath, is known to be conductive to cleanliness, the weakening of the free nitrate by the formation of bromide of silver may also be a source of the cleanliness well known as an accompaniment of the use of bromides.

The amount of bromide in collodion for very long exposures may vary from two grains to two and a-half. Any soluble bromide may, we presume, be used without impropriety.

Sheathing Iron Vessels with Wood.

A correspondent gives us an account of a method of repairing an iron steamer running between New York City and South Amboy, which, in fifteen years' service had become very much corroded externally, although her frame was sound. She was taken out of the water and planked with three-inch yellow pine from the keel to the guard braces, the planks being bolted with five-eighth bolts every linear foot, with large square washers on the inside of the hull; an oak keel was also added and the work was done within five weeks. She is 270 feet long and 30 feet beam, and required over 9000 bolts. She is now believed to be good for at least another fifteen years' work. Parties specially interested in the object are advised to investigate the matter. It is very important if as feasible as our correspondent believes it to be.

SOMETHING NEW IN THE MOON.—At a late session of the French Academy of Sciences, M. Delaunay read a paper, by M. Flammarion, on the subject of a recent change in the moon's surface. A crater well defined and perfectly well known to astronomers has disappeared within a year, and its place is now marked by a large white spot in the middle of a plain. It is the first time that any change in the moon's surface has been noticed. M. Chacomar made a like observation.

OFFICIAL REPORT OF PATENTS AND CLAIMS

[Issued by the United States Patent Office,

FOR THE WEEK ENDING JUNE 18, 1867.

Reported Officially for the Scientific American

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:—

On filing each Caveat	$10
On filing each application for a Patent, except for a design	$15
On issuing each original Patent	$20
On appeal to Commissioner of Patents	$20
On application for Reissue	$30
On application for Extension of Patent	$50
On granting the Extension	$50
On filing a Disclaimer	$10
On filing application for Design (three and a half years)	$10
On filing application for Design (seven years)	$15
On filing application for Design (fourteen years)	$30

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay $500 on application.

☞ Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & Co., Publishers of the SCIENTIFIC AMERICAN, New York.

65,785.—GLUE.—William Adamson, Philadelphia, Pa.

I claim a glue consisting of size aerated, or treated with gas, substantially in the manner described.

65,786.—PROCESS OF MANUFACTURING AERATED GLUE.—William Adamson, Philadelphia, Pa.

I claim the mode or process substantially as herein described of aerating carbonating size for converting the same into glue.

65,787.—MANUFACTURE OF GLUE.—William Adamson, Philadelphia, Pa.

I claim the combination substantially as described of glue or size with carbonate of soda for the purpose specified.

65,788.—CAR TRUCK.—C. F. Allen, Aurora, Ill.

1st, I claim an eight wheel truck which is composed of two independent four wheel trucks connected together by means of a platform, A, which is supported upon, and connected by pivots to laterally swinging spring beams, arranged substantially as described.

2d, In an eight wheel truck, I claim the combination of the laterally swinging and vertically elastic beams, D D and E, with the side springs, f f, and equalizing beams, D' D', so arranged that the weight of the load upon the center of the platform, A' will be uniformly disposed upon all the axles of the trucks, substantially as described.

3d, The connecting platform, A, constructed of wood and metal provided with a swinging beam, K, and strengthened by means of trusses or braces, J J, substantially as de cribed.

4th, In combination with the bars, b, b', braces, c c, pedestals, a a, steps, e' e', and saddles, e2 e2, I claim the transverse beams, C C, metal boxes, e e, pillow blocks, d d, tulcra straps, g', and the equalizing beams, D D, with their springs and connecting loops all arranged and operating substantially as and for the purposes described.

65,789.—FLOUR BOLT.—Elkanah Bateman, Frederick City, Md.

I claim the buckets, n, arranged and operating in combination with the bolting cylinder and fan, substantially as herein set forth.

65,790.—CAR SPRING.—Julien F. Belleville, Paris, France.

I claim the spring composed of trunco-conical disks having the form and proportions herein specified, arranged in pairs, united by means of a rod passing through the center of the said disks as shown and set forth.

65,791.—FAUCET.—Marshall Burneet, Boston, Mass.

I claim a faucet having the cylinder, C, valve, F, cone, H, and cam lever, I J, all constructed and arranged substantially as shown and described.

65,792.—FLOAT OR RAFT.—Andrew Carson, Memphis, Tenn.

1st, I claim constructing a float for saw mills or the purposes herein described, by securing a sufficient quantity of light timber or other material together in a solid mass, and supporting a platform on the same, substantially as herein described, for the purpose set forth.

2d, I claim attaching side floats to the main float, for steadying the structure, and making room to deposit the sawed lumber, as herein described.

65,793.—GRAIN DRYER.—Lewis S. Chichester (assignor to himself C. W. Mills and G. H. Nichols), Brooklyn, N. Y.

1st, In a grain drying apparatus, I claim a chamber above the fire into which air is admitted in large volumes and descends and mingles with the products of combustion and passes into the grain dryer, substantially as and for the purpose specified.

2d, I claim the arrangement of the hot and cold air flues, f and n, trunks, g org' and valves, l l,' and m m', for regulating the temperature of the air passing into the grain drying chamber, k, substantially as specified.

3d, I claim a series of half pipes crossing the grain chamber and opening at or near both ends into air spaces or flues as set forth, so that the current of air shall pass through and beneath the half tubes and in contact with the grain as set forth.

65,794.—MACHINE FOR FILLING CYLINDRICAL MOLDS FOR RUBBER GOODS.—J. W. Cobb, Melrose, Mass.

I claim so connecting by gear or otherwise the pattern roll, M, with the filling roll, R, that the said filling roll, R, shall always revolve with greater rapidity than the pattern roll, M, made substantially as described and for the purpose set forth.

65,795.—SLATE FRAME.—J. M. & John Connel, Jr., Newark, O.

I claim a corner casing of elastic or resilient material constructed substantially as described to hook into notches in the edges of the slate.

65,796.—WOOD PLANING MACHINE.—W. H. Doane and W. E. London, Cincinnati, Ohio. Antedated Dec. 18, 1866.

1st, We claim the combination of two or more removable tonguing and growing cutter heads, having attaching stems, formed on or applied to them, two or more spindles with their upper ends below the surface of the planing bed, and a rotary planer, constructed and arranged so as to operate substantially as and for the purpose set forth.

2d, Placing the beading shaft of a planing and matching machine within or upon the pressure bar for the several purposes and in the manner described.

65,797.—AXLE BOX.—D. H. Dotterer (assignor to himself and Dillwyn Parrish, Jr. Philadelphia, Pa.

1st, I claim the hollow roller, B, having openings arranged substantially as described, for permitting the lubricating material to pass through the said roller to the stationary pin, E.

2d, The said stationary pin, E, and its longitudinal groove, q, in combination with the hollow roller and its openings.

3d, The stationary pin, E, arranged within the box and confined thereto by the detachable cap or follower, k, and substantially as described.

65,798.—GANG PLOW.—C. L. Eastham, Rhodes Point, Ill.

1st, I claim the combination of the axle, A, and hinged bar, C, provided with the lever, l, and having the plows attached thereto as described, all constructed and arranged to operate substantially as set forth.

Second, The combination of the lever, L, connected to the plow beams and having a fulcrum at or near the axle, with the elbow lever, E, pivoted to the tongue or equivalent part arranged to operate as described.

65,799.—CAR REPLACER.—N. H. Edgerton, Pottsville, Pa.

1st, I claim the reversible and detachable canting block, K, secured to the rail, A', and the depressed foot, n, substantially as described.

2d, I claim the plated incline, D, having a projecting foot, m, in combination with a canting block, K, adjusted substantially as described.

3d, I claim the combination and arrangement of my second claim with the inclined block, C, when both are constructed and operating substantially as described.

65,800.—SPECTACLE.—George D. Edmondson (assignor to himself and Albert R. Clark), Detroit, Mich.

I claim the spectacles with lenses each of which consists of two pieces of different relative convexity and set at a different angle in the bezel, substantially as described.

65,801.—ROCK EXCAVATOR.—W. H. Elliot, New York City.

1st, I claim the combination of car, a, track, h', and drilling machine, e, when said machine is suspended from a car, substantially as herein shown and described.

2d, Platform, c, in combination with car, a, and drilling machine, e, substantially as and for the purpose herein set forth.

3d, Adjustable support, f and f', in combination with car, a, and drilling machine, e, substantially as and for the purpose herein shown.

4th, Frame, m", in combination with drilling machine, e, and platform, c, for the purposes herein set forth.

5th, Braces, o, in combination with platform, c, substantially as and for the purpose herein set forth.

65,802.—DRILLING MACHINE.—W. H. Elliot, N. Y. City.

1st, I claim the carriage, k, with springs, n or n', in combination with cranks, h', and drill spindle, l, when operating substantially as herein shown and described.

2d Projections, n', and a corresponding collar on the drill spindle, in combination with spring, n, when employed substantially as and for the purpose herein specified.

3d, The combination of crank, h'. drill spindle, l, and spring, n, when employed as devices for producing excess of motion in the drill spindle over that given to the connecting rods by the cranks which shall cause the machine to feed towards the rock, substantially as shown.

4th, The pawl, u, and rack, u', when acted upon by devices producing excess of motion in the drill spindle over that of the connecting rods for the purpose of feeding the machine towards the rock, substantially as herein set forth.

5th. Plate, m', with its diagonal edge when acting on the notches on the collar, m, to revolve the drill when operated upon by devices producing excess of motion in the drill spindle over that of the connecting rods, substantially as shown and described.

65,803.—PACKING PUMP JOINTS.—Benaiah Fitts, Newark, N. J.

1st, I claim the packing composed of india-rubber, or other similar substances, formed or constructed substantially as set forth and described, that is to say, a packing made by applying the prepared india-rubber in the plastic state to the different surfaces as shown, and compressing it to fit all the inequalities, recesses or grooves in the metal, and being made in vulcanizing to adhere firmly to one part of the metal leaving the other to be freely removed.

2d, I claim a pump valve composed of a metallic case in which is confined india-rubber adhering to the metal by being vulcanized therein and forming an elastic face, as described.

65,804.—FRUIT PARER.—D. H. Goodell, Antrim, N. H.

I claim the combination of the arm, V, with the notched slot, S, in the plate, for the purpose described.

I also claim the described fruit parer, when all its parts are arranged and operated as set forth.

65,805.—CIGAR-MAKING MACHINE.—John Hafer and J. A. Henderson, Bedford, Pa.

1st, We claim the packing tube, C, arranged and operating as described.

2d, The combination as described of a fixed hopper tube or feed pipe with a reciprocating tube, for the purpose set forth.

3d, The combination substantially as described of a fixed hopper tube or feed pipe with a plunger reciprocating inside and a packing tube reciprocating outside the feed pipe for the purpose of filling a wrapper with fine-cut tobacco.

65,806.—SORGHUM STRIPPER.—David Hain, H. A. Gross and Martin Hain, Gasconade county, Mo.

1st, We claim two pairs of semi-elliptical knives, c2 c3, one pair of which is to be placed in front of the other, substantially as described and set forth.

2d, We claim the flexible handles, c c', in combination with the knives, c2 c3, for the purpose of allowing the said knives to yield readily to any variation in the size of the stalk passed between them.

3d, We claim the knife handles, C', and the toggle bars, D, when combined as herein described and set forth for the purpose of opening or raising the knives, C8.

4th, We claim the knife handles, C', the toggle bars, D, the spring, D2, or its equivalent, the rod, D', the link, d, and the treadle, D3, when constructed and arranged substantially as herein described and set forth.

65,807.—TYPOGRAPHIC MACHINE.—Tho. Hall, Bergen, N. J.

1st, I claim weights attached to the type levers when they are so arranged that they act with less power when the type is making its impression than at any other position.

2d, The stop mechanism, 1111, and hollow shaft, 2' substantially as described.

3d, The arrangement for moving table, by varying length of levers to suit each type, substantially as described.

4th, The method of spacing between letters and words by a variable length of lever, J, by which the space for each letter is increased or diminished equally, substantially as shown.

5th, Moving paper by the clutch, n, on straight rod, m, substantially as described.

6th, Lever, Q, and connections for moving table, substantially as described.

7th, Parallel motion for moving table backward and forward, substantially as described.

8th, Ring, R, or its equivalent, for stopping type when making an impression.

9th, Automatic stop operating when the printing has reached the end of the line, substantially as described.

10th, Varying the length of movement of the table, P, or substance to be printed upon by causing the keys to move different distances before acting on the feed mechanism.

65,808.—ELECTRIC APPARATUS FOR LIGHTING GAS ENGINES.—Oscar Hammel, Jersey City, N. J.

1st, The arrangement of the battery, B, coil, C, pendulum switch, G, and electric hammer, E, all constructed and operating substantially as and for the purpose set forth.

2d, The pendulum switch, F, in combination with the slide, H, or its equivalent, constructed and operating substantially as and for the purpose described.

3d, The electric hammer, E, in combination with the slide, H, or its equivalent, and with the pendulum switch, G, constructed and operating substantially as and for the purpose set forth.

4th, The saddle, p, on the electric hammer, E, in combination with the serrated bar, q, on the slide, H, or its equivalent, constructed and operating substantially as and for the purpose described.

65,809.—LEMON SQUEEZER.—Oswald Hesselbacker and Henry Moesta, Detroit, Mich.

1st, I claim the construction of the frame of a lemon squeezer of the parts, A and B, and a circular bracket, C, which latter is adapted for receiving and supporting a straining cup, D, beneath a plunger, E, substantially as described.

2d, The combination of the vibrating slotted cam lever, G J, and plunger, E, with the cup, D, and its supporting segment, C, constructed and arranged substantially as and for the purposes described.

65,810.—SEED PLANTER.—C. T. Holman, Conneautville, Pa.

1st, I claim perforating the shank of the furrowing tooth and arranging the seed tube to pass through it, substantially as described.

2d, I claim arranging the hoppers on and hinging the furrowing, seeding and covering fixtures or devices to the blocks, J J, arranged to traverse between ways and adapt the planter to rows of different widths, substantially as described.

3d, And in combination with devices hinged to the blocks, J J, I claim the swinging bar, Q', worked by the cam, Q, and so arranged as to work and operate the several parts in the different portions in which they may be placed to vary the width of the rows planted.

4th, I claim making the swinging bar, M', which connects the shank of the furrowing tooth to the link so long that the tooth and link may be traversed on it, substantially as described, in adjusting the machine to rows of different widths.

65,811.—WATER ELEVATOR.—Thomas Holmes, Bristol, R. I.

I claim the combination of the brake lever, G, and pawl, F, with the gear wheels, D C, when arranged substantially as described and for the purpose set forth.

65,812.—BREECH-LOADING FIRE-ARM.—W. W. Hubbell (assignor to himself and J. H. Orne), Philadelphia, Pa.

1st, I claim the breech, B, with its rear face, c, secured firmly in the concaved front of the ordinary screw base, a, of the barrel by the fixed shaft or center, b, with this breech, B, operating the breech, C', under the side ribs, n', by means of the link, D, and locking by their faces, f and e, and by the projection, d, into the bore of the barrel, all within the recess substantially as described.

2d, The detachable cheek pieces, E E, arranged for the introduction of the breech, C', to and its withdrawal from the recess and the rear of the barrel, substantially as described.

3d, The single retracting bar, G, moving in a groove, 4, in one of the two opposite sides of the recess, both in loading and extracting the cartridge shell by the projection, 5, in the slot, 9, and intercepted at each end of the latter by the breech, C', substantially as described and shown.

4th, The stationary rear striker, I2, and the breech, B, and its striker, I1 operating together as described both with and without the front striker, I, when the ends of the striker and breech pieces are beveled, substantially as specified.

5th, The ribs, n', in combination with the rear space, w, and with the retractor, G, to insure the insertion of the flange of the shell in the rear of the retractor head, 6 as described.

6th, The combination of the breech, B, link, D, breech, C', retractor, G arm, F, with the strikers, constructing and operating together successively in the recess and with the barrel to insert, fire, withdraw, add eject the primed ammunition or shell, as described.

65,813.—COUGH MIXTURE.—P. M. Huffman, Harvard, Ill.

I claim a cough mixture which is composed of the several ingredients mixed together in about the proportions specified.

65,814.—CARPET LINING.—M. A. Johnson, Lowell, Mass.

I claim as a new article of manufacture a felted hair bat, or its equivalent, covered with strips of paper on one or both of its sides, and leaving intervening uncovered spaces between the strips for the dust to pass through.

65,815.—SHOE HOLDER.—L. C. Keeler, Montrose, Pa.

I claim a shoe holder constructed as described consisting of the standards, B B', one or more, provided with hooks, a, stirrup or plate, A, and clasp, D, substantially as herein shown and described.

65,816.—PARLOR TENPIN ALLEY.—E. W. Keyes, Boston, Mass.

I claim a parlor alley made with movable or folding buffers, D D', substantially as described and for the purpose set forth.

65,817.—CONSTRUCTION OF SIGNS.—G. H. Kitchen, New York City.

I claim a prismatic illuminator formed of an opaque case with openings to which prisms are applied, substantially as and for the purposes set forth.

65,818.—APPARATUS FOR WASHING AND SEPARATING COAL.—C. A. Comp, New York City.

1st, I claim the arrangement of the grinding rollers, C, and elevator, D, in combination with the assorting drum, E, consiructed and operating substantially as and for the purpose set forth.

2nd, The arrangement of the assorting drum, E, in combination with the separating machines, G, constructed and operating substantially as and for the purpose described.

3d. The arrangement of the drying drum, A, in combination with the separating machines, G, and assorting drum, E, constructed and operating substantially as and for the purpose set forth.

65,819.—FENCE.—I. L. Landis, Lancaster, Pa.

I claim so constructing the panels of a fence that one of the rails of each panel shall overlap the corresponding rail of the adjoining panel and securing the same together by a wire fence, in the manner specified.

I also claim specially the mode of fastening shown in Fig. 5.

65,820.—CIRCULAR COKE OVEN.—F. J. F. Laumonier, Augers, France.

1st, I claim a circular coke oven composed of any suitable number of radial compartments converging toward a central chimney, substantially as herein described.

2d, The combination with the radial compartments of a circular coke oven as described of the flues for conducting the products of combustion from the said compartments to the central chimney under the arrangement herein shown and specified.

3d, The combination with the radial compartments provided with openings in their top of the circular railway passing over the said openings, as and for the purposes set forth.

4th, The application and use in connection with the herein-described coke oven of the water conduit or pipe encircling the same, substantially as and for the purposes herein specified.

65,821.—SHAFT COUPLING.—W. E. London and John Richards, Cincinnati, Ohio.

We claim the use of two conical sleeves within two separate conical shells arranged to act independently on each shaft and forming the two halves of a shaft coupling, as herein set forth and described.

65,822.—MELODEON.—La Fayette Louis, Providence, R. I.—Antedated June 11, 1867.

1st, I claim combining with a tremolo valve, h, hinged directly to an immovable or fixed valve seat, an auxiliary valve, g, for regulating the direct passage of the air from the reeds to the bellows, substantially as described.

2d, I also claim in combination with the valve, h, the lever, m, and its counter-balancing weight, q, when this lever is pivoted or hung directly in or to the valve board, substantially as set forth.

3d, Applying such weight to the lever by means of an adjusting screw, substantially as set forth.

4th, Combining with the valve, g, the buttons, r, made adjustable with respect to the valve seat, substantially as described.

5th, Also combining with a tremolo valve, h, and a direct passage valve,

a lever extended down from the valve to such position that it may be operated by the knee or foot of the performer, substantially as set forth.

65,823.—APPARATUS FOR HEATING CHEESE VATS.—Henry W. Millar, Utica, N. Y.

1st, I claim, in combination with one or more cheese vats, a heater constructed of metallic pipes, substantially as herein described and set forth.

2d, Connecting a coil of metallic pipes which forms either wholly or in part the heater of a cheese vat with one or more perforated pipes, G, placed in said cheese vat, substantially as herein described and for the purpose specified.

3d, In combination with a cheese vat and a circulating heater for said vat, the arrangement of the heating pipes, G, and the cool water pipe, E, substantially as herein described and for the purpose specified.

4th, The combination of the pan, H, with a coil heater, D, and one or more cheese vats, when constructed and arranged substantially as herein described and for the purposes specified.

5th, The use of the eccentric legs or levers, in combination with a cheese vat, constructed and operating substantially as herein described and set forth.

65,824.—LIFE BOAT.—M. V. Nobles, Elmira, N. Y.

1st, I claim covering the hold of a life boat with a flexible air and water-tight covering supported by and fastened to a sustaining frame, substantially as described.

2d, I also claim making the cover of a life boat of double rubber or other cloth with airspace between, so that it may be inflated and thus made more buoyant, substantially as described,

3d, I also claim ventilating the hold of a life boat through a hollow mast furnished with separated passages whether by natural or artificial currents of out-going impure and incoming fresh or pure air, substantirlly as described.

65,825.—BOAT-DETACHING TACKLE.—M. V. Nobles, Elmira, N. Y.

I claim, in combination with hinged and dropping holding heads, the lifting and lowering rods, l, and the locking and unlocking arms, b, all operated by one lever or one shaft so that the whole may be within the control of one person, substantially as and for the purpose described.

65,826.—METHOD OF UNLOADING GRAIN.—Isaac H. Palmer, Lodi, Wis.

1st, I claim valves in the floors of cars, carriages, etc., for drawing off grain or other materials without handling the same, substantially as described.

2d. The slide valves, b, in combination with the racks, e, pinions, i, and shatt, D, substantially as described.

3d, The pivoted valve, c, in combination with crank, i, substantially as described.

65,827.—GLOVE FOR HUSKING CORN.—Albert W. Preston, Mazon, Ill.

I claim a husking glove made to cover the back of the hand, thumb, and fingers, and the fronts of the ends or first joints of the thumb and fingers with a strap around the thumb and wrist, substantially as shown and described.

I claim a husking glove with the front of the fingers and thumb covered or shod with sheet metal, substantially as described.

And in combination with the plate on the thumb, I claim the spur or projection, G, on said plate.

And in combination with the plate on the forefinger, I claim the spur or projection, K, on said plate for opening the husks on the ears of corn.

And in combination with the plate on the forefinger and the spur for opening the husks, I claim the projection or arm, J, to rest on the back of the middle finger to prevent the plate from turning on the forefinger.

I claim making the backs of the fingers to lace up, substantially as described, so as to adapt the glove to fingers of different sizes.

65,828.—MILK CAN.—William Ralph, Utica, N. Y.

1st, I claim the socket, a, when applied substantially as described for the purpose mentioned.

2d, The combination of the plate, B, socket, a, and handle, C, for the purpose set forth.

65,829.—STAY OR BRACE FOR BOOTS OR SHOES.—Timothy K. Reed, East Bridgewater, Mass., assignor to himself and Elmer Townsend, Boston, Mass.

I claim the application and arrangement of a metallic brace stay or cap with respect to the junction of the sides of the slit in the upper of a balmoral boot or shoe, as herein described.

Also, as an improved manufacture, a balmoral boot or shoe as provided with a stay brace or cap arranged with respect to the junction of the sides of the slit of its upper, as hereinbefore explained.

65,830.—PROCESS OF REFINING IRON, STEEL, AND OTHER METALS.—Jacob Reese, Pittsburgh, Pa.

1st, I claim refining iron, steel, and other metals, by means of a blast of atmospheric air, or other de-carbonizing blast in a refinery or furnace heated with coke or other carbonaceous fuel, when a layer of metallic oxide is interposed between the fuel and the metal under treatment, for the purposes hereinbefore set forth.

2d, The use of a covering of metallic oxide for protecting metals from the influence of carbon, substantially as hereinbefore described.

3d, The use of hydro-carbon liquid, vapor, or gas, in the procecs of refining iron or steel, in the manner substantially as hereinbefore described.

4th, The use of a hydro-carbon liquid, vapor, or gas, for the purpose of removing sulphur and phosphorus, or either of them, from iron, steel, or other metals, in the process of refining, substantially as hereinbefore described.

65,831.—MACHINE FOR MAKING FISH BARS FOR RAILROAD RAILS.—Jacob Reese, Pittsburgh, Pa.

I claim the combination of the moving die, o, and stationary grooved die, o', with the punches, s' s', operating and arranged substantially as described for the purpose of pressing, punching, and bending fish bars at one operation.

65,832.—MACHINE FOR STRAIGHTENING CYLINDRICAL BARS OF METAL.—Jacob Reese, Pittsburgh, Pa.

1st, I claim rolling and straightening cylindrical rods, bars, shafts, and tubes or pipes of iron, steel, or other metals, between the conical faces of revolving disks or the conical ends of revolving rolls, arranged substantially in the manner and for the purposes above set forth.

2d, The pair of revolving cone-faced disks, arranged as described, so as to revolve in opposite directions, having their axes of revolution inclined so as to bring their operative faces, forming the bite of the disks, parallel to each other, and having their axes in slightly different planes for the purpose of giving a combined rotary and forward motion to the metallic rod bar shaft or tube held between the bite of the disks, substantially as hereinbefore described.

3d, The combination of a pair of rolls or disks, d d' having conical ends or faces, with the rest roller, n, arranged and operating substantially as hereinbefore described.

4th, The combination of the screw, p, with the axle, p', and disk or roll, d', for the purpose of increasing or lessening the distance of the disk or roll, d', from its corresponding disk or roll, b, substantially as above described.

65,833.—PAPER BRIM.—C. E. Richards, North Attleboro, Mass.

I claim a braid or band composed of a series of paper threads or strands united together, and to be used as and for the purposes set forth.

65,834.—SULKY PLOW.—John C. Rogers, Alden, N. Y.

1st, I claim connecting a sulky to a plow by means of the link or universal joint D1, or equivalent, for the purpose and substantially as herein described.

2d, The combination and arrangement, with a plow of common construction, of the rack, D, link, D1, pinion, E, crank shaft, E1 F, weighted pawl, G, and ratchet wheel, G1, all arranged upon a sulky, in the manner and for the purpose substantially as described.

3d The projection, d2, or equivalent, formed upon or connected to the lower end of the rack, D, in rear of the link or universal joint, D1, for the purpose and substantially as described.

4th, The spring rods, I I, when constructed and used for the purpose, substantially as herein set forth.

5th, The jaws, J, in combination with the pole of a sulky plow, for the purpose and substantially as described.

65,835.—WINDOW-SASH SUPPORTER.—Blaney E. Sampson, Boston, Mass., assignor to himself and J. B. Proctor, Fitchburg, Mass.

I claim the combination as well as the arrangement of the inclined plane, b, the roller, c, the carrier rod, d, its arm, f, or arms, f f', the spring, e, and the spring latch, l, arranged in the window frame, the whole being substantially as described.

65,836.—MODE OF BOXING OIL CANS.—David Saunderson, (assignor to John Ringer), St. Louis, Mo.

I claim the combination of the wooden box, B, can, F, and wedge, A, as above named and described and for the purposes set forth.

65,837.—SAD IRON.—William Siefert, New York City.

I claim a sad iron having stem, C, with spiral spring, s, and projection, a, thereon, in combination with the slot, v v', with the upward projection therein, as described, when constructed, arranged, and operating as herein specified.

65,838.—COMPOSITION FOR MATCHES.—E. K. Smith, Philadelphia, Pa.

I claim a composition, consisting of the materials described, for the purpose specified.

65,839.—NUMBERING MACHINE.—Sam. Soule, Milwaukee, Wis.

1st, I claim the stamp frame with its shaft and plate, J, cylinder, a, ratchet, S, type wheels, v v v, frames, B C, dog, d, and dogs, e f, all constructed and arranged substantially as and for the purposes set forth.

2d, The arrangement of the arm, E, plate, F, roller frame, H, with rollers, K R, and spring, c, in combination with the revolving table, M, and screw, P, when used in the manner and for the purposes set forth.

3d, The guide frame, X, and rubber, Z, for regulating the printing of the type by means of its slide, x2, in the manner and for the purposes specified.

65,840.—MEDICAL COMPOUND.—Jas. H. Sperling, Peru, Ill.

I claim the combination of the said ingredients in the proportions designated substantially, and applied in the manner set forth.

65,841.—DITCHING MACHINE.—Nathan Starbuck, Wilmington, Ohio.

I claim the combination of the vertically adjustable yoke, F, cutting wheel, G, lever, H, scraper, I, suspended in the rear of said wheel, G, to the hinged pendant, g, and fender, K, arranged and operating as and for the purpose herein set forth.

65,842.—METHOD OF BOTTLING MINERAL WATERS.—Charles H. Thomas, Philadelphia, Pa.

1st, I claim bottling or drawing water from mineral wells or springs under pressure, substantially as described.

2d, I claim taking the water from a point in the well or spring below the point of discharge, substantially as described.

3d, I claim the use, in a universal well or spring, of the perforated diaphragm, a, as herein set forth.

4th, I claim the charging of mineral waters with an extra supply of gas, either in the well or in the tank, substantially as herein described.

65,843.—AWL.—S. E. Totten (assignor to himself and Cyrus L. Topliff), Brooklyn, N. Y.

I claim an awl, having a longitudinal groove, D, as herein set forth for the purpose specified.

65,844.—PRESERVING FRUIT.—W. H. TRISSLER, Cleveland, O.

I claim the pipe, D, and plate, B, as arranged in combination with the can, A, when used for the purpose and in the manner described.

65,845.—MODE OF DRESSING SIDE STRAPS FOR HARNESS.—James F. Valentine, Union County, Ohio.

I claim the combination and arrangement of the knives or bits, f f, with the box or trough, together with the levers, b b, the pin or bolt, c, and the widening or regulating screws, d d, substantially as set forth and for the purpose therein named.

65,846.—APPARATUS FOR BURNING PETROLEUM AND OTHER HYDRO-CARBONS.—Henry C. Van Tine, Pittsburgh, Pa.

I claim the use of a fire pan filled or partially filled with gravel or small stones and supplied with petroleum or other hydro-carbon fluid by a pipe or pipes, in combination with a perforated pipe or pipes for admitting jets of steam into the fire space above the surface of the gravel, substantially as and for the purposes hereinbefore described,

65,847.—COMBINED COTTON PLOW AND SCRAPER.—Thos. P. Warren (assignor to Warren & Woodhouse), Norfolk, Va.

1st, I claim the standard, B, having the broad flange, x, the slots, b b, and the arm, z, substantially as and for the purpose described.

2d, The combination of the standard, B, and the flanged supporting attachment, C, substantially as and for the purpose specified.

3d, The scraper guide, K, attached to the landside in the manner and for the purpose above shown.

65,848.—MANUFACTURE OF SORGHUM SUGAR.—Rufus Watson and Thomas Spencer, Central College, Ohio.

1st, We claim the herein described process of granulating sirup; the said process consisting in having the sirup flow over a shelf or shelves, or their equivalent, of suitable length and inclination, so as to effect granulation, substantially as described.

2d, We claim the apparatus constructed substantially as herein deseribed, for the purpose set forth.

65,849.—TEA CANISTER.—Wm. Welbourne, Preston, Great Britain.

I claim a canister having partitions and doors arranged and operating substantially in the manner and for the purpose described.

65,850.—POT FOR LEAD BATH FOR TEMPERING STEEL, ETC.—Charles V. Wilson, Newark, N. J.

I claim the pot or bath made of wrought and cast iron combined substantially in the manner and for the purpose hereinabove specified.

65,851.—LAMP BURNER.—Moses B. Wright, Meriden, Conn.

I claim a lamp burner provided with two wick tubes, b e, one of which, e, is placed above and not surrounding the other, b, and which communicates with a closed chamber below, substantially in the manner and for the purpose set forth.

65,852.—MODE FOR FURLING AND REEFING SAILS.—William Wyatt, New Bedford, Mass.

I claim the combination and arrangement of the furling and reefing topgallant sails and royals by means of head lines and luff lines running through blocks on the upper and under sides and ends of the yard, and travelers affixed to the sail and running in grooved ways formed by securing metallic plates to the yard, as herein described, operated by raising and lowering the yard as set forth, for the purpose specified,

65,853.—MACHINE FOR MAKING MATCH SPLINTS.—Chas. L. Zeidler, Cincinnati, Ohio.

I claim the knife constructed in one piece, with punches, K K, and rearward prolongations, J J', all as herein described and for the purposes specified.

65,854.—HOOP SKIRT.—Ephraim Adams, Jr., Attleboro, Mass.

I claim the combination of the bustle springs, e, and the central tape, d, substantially as described for the purpose specified.

65,855.—METALLIC PAINT KEG.—James C. Adams, Philadelphia, Pa.

I claim a metallic paint keg having its top formed by turning over the edge thereof flat, twice, substantially as shown and described.

65,856.—MACHINE FOR FASTENING BALE TIES.—Joseph Adams, New Orleans, La.

1st, I claim the mortise, C, in the bed of the machine, to admit the tie buckle or fastening and to accomplish its adjustment to the hoop by the same motion which bends the hoop.

2d, The spring, G, as set forth above.

3d, The indentation or oval shape in the handle, at the point, I, and at the points, H H, to form the bend over and under the spring, G, substantially as described and represented.

65,857.—STOPPER FOR BOTTLES, JUGS, ETC.—J. B. Alexander, Washington, D. C.

I claim the bore, I, figs. 1 and 2, the plug, E, fig. 1, the plug, F, fig. 2, the screw, H, and auxiliary piece, G, fig 3, in combination with the rod, C, and the plates, B and D, and the body, A, substantially as described and for the purpose set forth.

65,858.—WASHING MACHINE.—George Arnold and Jacob Greve, Cleveland, Ohio.

1st, We claim the rubbing board, C, as arranged in combination with the board, D, provided with angular notches, a', arms, L, and springs, O, for the purpose and in the manner set forth.

2d, The rubbing-board, C, rollers, L L', as arranged in combination with the roller, J, springs, E, and box, A, as and for the purpose described.

65,859.—LAPPING-BRAID.—William Rhodes, Providence, R. I.

I claim 1st, the machinery for measuring and lapping braids, tapes, etc. having a shifting and positive stop motion, substantially as herein described.

2d, The sliding shaft, a, the spring, c, the pin, g, and the cam, b, on the gear wheel, C, combined and operating substantially as and for the purposes herein described.

65,860.—STREET LANTERNS.—J. P. Avery and W. L. Nichols, Norwich, Conn.

We claim, 1st, The combination with the lantern head or frame of air tubes, b, arranged for supply of air to the flame substantially as specified.

2d, The independent frames, D E, in combination with the rope or cord packing, d, arranged to fit a groove, c, in one frame and clamped or held together to hold the frame in between them essentially as herein set forth.

65,861.—FEED ROLLERS FOR LAMP WICKS.—Charles H. Bagley, Elgin, Ill.

I claim a tooth or pronged roller drum or cylinder, made from a strip or strips of sheet metal or other suitable material provided with teeth along one or both of its edges and spirally wound into the form of a cylinder or other equivalent shape, substantially as and for the purpose described,

65,862.—NON-FREEZING WATER GATES.—Alfred M. Bailey, Middlefield, Conn.

1st, I claim the within described method of protecting moving parts from freezing, the same consisting in enclosing the parts at or near the water level within the casings which contain a fluid supported by the water and not liable to congelation, while the water outside of said casing stands at or near the same level and is prevented by said casings from displacing the same, substantially as and for the purpose herein specified.

2d, I claim floating either form of the enclosed tube and connected parts of the above described apparatus so that it shall rise and sink with the water in which it is supported or with the ice which becomes attached thereto, substantially as herein specified.

65,863.—DEVICE FOR TAPPING CEMENT-LINED PIPES.—Geo. H. Bailey, Jersey City, N. J., assignor to the American Water and Gas Company.

1st, I claim the combination of the tap, D, bored through from end to end, with the combination iron and cement pipes, substantially in the manner and for the purpose described.

2d, The constructing the flange, a, upon the tube or nipple at an intermediate point between the ends thereof, as shown in Fig. 4 of the drawings, so that when the device is applied to a cement lined pipe the cement lining shall not be liable to break off in tapping, substantially as described.

65,864.—WOOD TURNING LATHES.—Frederick Baldwin, Brattleboro', Vt

1st, I claim the method as herein substantially described, of operating the cutters, on the rotating disk, A', by means of the dogs, h k, the spring, i, the toe, J, the collar, o', the pin or rod, p, and the arm, L, which are moved and operated by the the revolving pattern through the rod, m.

2d, I claim the clutch, V', which is placed between two bevel gears, for the purposes described and which is operated by a shifting lever and a sliding bar substantially as set forth.

65,865.—COTTON PRESSES.—W. C. Banks, Como Depot, Miss.

I claim in combination with a cotton press substantially such as described, the pivoting at one end of the beam that carries the screw plates and sweeps, and the curved guide, or frame, F, and windlass and cords, or their equivalents for moving said beam, substantially as, and for the purposes herein described and represented.

65,866.—HYDRO-CARBON FLUID FOR CARBURETING GAS.—John A. Bassett, Salem, Mass.

1st, I claim a hydro-carbon liquid used for the purpose above named, produced by the combination of the coal and petroleum hydro-carbons, as described and set forth.

2d, Adding to the photometric valve of gases by carbureting with the hydro-carbons produced by the combination of the light products of the distillation of coal and petroleum.

3d, The process substantially as set forth of manufacturing hydro-carbons for carbureting gases by combining the hydro-carbons of coal and petroleum in variable proportions as set forth.

65,867.—CORN HUSKER.—E. M. Bates, East Rochester, Ohio.

I claim a curved or scroll corn husker constructed in the manner and for the purpose described.

65,868—CORN SHELLER.—F. A. Bolles, Unadilla, N. Y.

I claim combining with a stationary concave a yielding shelling cylinder, by means of springs as shown and described, said springs may be made of rubber or steel or any other suitable materal, when constructed as and for the purpose as herein specified.

65,869.—METHOD OF SUPPLYING LOCOMOTVE TENDERS WITH WATER.—Walter J. Brassington, Brooklyn, and William Burtnett, New York City.

1st, I claim an air tight tender tank of a locomotive engine, provided with a pipe communicating with the locomotive boiler, also with devices for attaching a pipe which is designed to lead into a reservoir or well of water, for the purpose of supplying said tank with water, substantially as described.

2d, The combination of the secondary air tight water tank, E, and its spray pipe, f, with the primary tank, C, substantially in the manner and for the purposes described.

3d, The arrangement with an air tight tender tank, C, and pipes A and D, of reservoir, G, which is constructed to operate substantially as specified.

65,870.—WASHING-MACHINE.—Alex. Brooks, Waverly, N. Y.

1st, I claim The combination of the circular slats, or ribs, B, circular plates, C, and breast beams. D, with each other, and with the box, A, of the machine, substantially as herein shown and described and for the purpose set forth.

2d, The pivoted hammer E, and weight, H, constructed arranged and operated substantially as herein shown and described in combination with the box, A, as and for the purpose set forth.

65,871.—POCKET SUN SHADES.—James W. Browne, N. Y. City.

1st, I claim the annular folding sun shade constructed substantially as herein set forth and for the purpose specified.

2d, In combination with the annular folding sun shade, the elastic inner edge, substantially as herein set forth for the purpose specified.

65,872.—AIR PUMPS FOR MARINE ALARMS.—Samuel G. Cabell, Quincy, Ill.

I claim the double acting air pump constructed substantially as described and charged with a dense fluid packing in combination with the draft and blast whistles, G, I, substantially as and for the purpose set forth.

65,873.—COPYING PRESSES.—Samuel G. Cabell, Quincy, Ill.

I claim the slotted eccentric, E, and roller, a, combined and arranged with relation to the platen, G, and bridge, H al constructed and operating substantially as herein set forth.

65,874.—STEAM GENERATOR.—Thomas S. Clogston, Boston, Mass.

I claim a boiler or steam generator composed of one or more generators, A, in which the upright or circulating flues steam chamber or chambers and lower arched flue are arranged substantially in the manner herein specified.

I also claim the combination with the boiler or steam generator, of the tubular casing surrounding the fuel supply door, substantially as and for the purposes set forth.

65,875—CULTIVATOR.—B. C. Cochran T. W. Cochran, and J. M. Cochran, Pana, Ills.

1st, We claim the metallic frame, D, with seat, E, plates, a a, plow frames, G G, and plows, i i, all constructed, arranged and operating in the manner and for the purposes herein specified.

2d, The shovel frames, G G, arranged with rods, H H', and m, for shifting the loops. b b, and levers, F F, for elevating the shovels in the manner as set forth.

65,876.—CARRIAGE.—Caleb Conderman, Hornellsville, Ills.

I claim the springs, E, in combination with the body or frame, A, substantially as and for the purpose described.

65,877.—RICE CULTIVATOR.—George W. Cooper, Ogeechee, Ga., assignor to himself and James V. Jones, Herndon, Ga.

1st, I claim the combination and arrangement of the braces, A B B', and the braces, G G, substantially as and for the purpose described.

2d, The method above described of fastening the teeth, E E E, to the beams by two bolts, situated obliquely to the grain of the wood substantially as and for the purpose specified.

3d, The inclining and bending of the cultivator teeth, E E, outward and backward upon the point of attachment to the beam, A B B', substantially as and for the purpose described.

65,878.—MEAT MANGLE.—G. A. Cover, Macomb, Ills.

I claim a meat mangle, consisting of the corrugated roller, R, provided with the cogs, c, and the sliding plate, B, provided with the cogs, a, and having its surface roughened when arranged to operate as described.

65,879.—MANUFACTURE OF BELTING.—James B. Crane, Dalton, Mass.

I claim as a new article of manufacture a belt for machinery formed of paper with or without cloth substantially as herein shown and set forth.

2d, The use of paper for belt-lacing when formed substantially as herein described.

65,880.—PURIFICATION OF COAL GAS.—Alexander Angus Croll, London, England.

I claim the employment in the purification of coal gas of wood or vegetable matter when carbonized substantially as herein described.

I also claim the employment of sulphate of lime in combination with the said carbonized matter, substantially as and for the purpose described.

65,881.—CHEESE VAT.—J. H. Crumb and L. Sears, De Ruyter, N. Y.

We claim the employment of cast iron heaters, B, in combination with pipe, b, hot water jacket, c, and milk vat, C c, constructed substantially as and for the purpose set forth.

The float, f, in connection with supply pipe and valve, d, e, heaters, B, and milk vat, C, as and for the purpose herein described.

65,882.—CAR COUPLING.—Geo. E. Cuming, La Fayette, Ind.

I claim the combination in an automatic car coupling of the draw hsad, A, hinged piece, B, stirrup, C, and spring supporting the same with the shackle bar, D, said parts being respectively constructed and arranged substantially as set forth.

2d, The draw head, A, when constructed with an opening through its lower side at A2, for the escape of the shackle bar substantially as described.

3d, The hinged piece, B, when constructed and used in combination with a draw head and shackle bar substantially as described.

65,883.—COMPUTING MACHINES.—A. W. Davies, Cleveland, O.

1st, I claim the series of reciprocating cams, H, and pawls, G, in combination with the ratchet wheels, F, and pin, a, arranged and operating conjointly with the endless chains, J, substantially as and for the purpose set forth.

2d, The lever, M, and pawl, G, as arranged in relation to each other and the ratchet wheel in disengaging or breaking the connections of one chain from the other for the purpose set forth.

3d, The endless belt or chain composed of sections corresponding to the faces or sides of the master wheels and so arranged as to operate conjointly with the figure wheels substantially as and for the purpose specified.

65,884,—MODE OF CONDENSING NOXIOUS VAPORS FROM LARD RENDERING, &c.—Samuel Davis, New York City.

1st, I claim the arrangement of cistern, A, the coil, B, and the pipes, C E D, and F, in combination with a kettle or boiler for the purposes herein described.

2d, Discharging a stream of water into the discharge pipe of a boiler for the purpose of increasing the draft from the boiler substantially as described.

65,885.—STEAM ENGINE GOVERNORS.—Thomas S. Davis, Jersey City, N. J.

I claim the combination of the plate, G, having a scroll H, with the bar, I, pin, a, arranged to operate across or at right angles or nearly so to the same, substantially as and for the purpose described.

65,886.—INSULATORS FOR TELEGRAPH WIRES.—Alfred B. Day, Oak Creek, Wis.

I claim the lugs, B and F, made of glass or other suitable non-conducting material in combination with the wooden plug, C, on the inside of the cast iron cylinder, A, all made and operating substantially as herein shown and described.

2d, So constructing the shell, A, that the cap, G, can be held down by the cross head, I, when the insulator is attached to the same all as herein shown and described.

65,887.—TREADLE FOR SEWING MACHINES AND OTHER PURPOSES.—Noel B. Devol Marshall, Ill.

I claim the ratchet wheel, H, secured to the crank shaft, B, of a sewing machine arm, I, having spring pawl, 12, pitman rod, K, supplementary treadle, J, and spring, M, or its equivalent when all combined and arranged together so as to operate substantially as and for the purpose described.

65,888.—ROOF FOR RAILROAD CARS.—Charles Dummeldinger, Cleveland, Ohio.

I claim the stay bands, E, tubular ends, C, as arranged in combination with the sheath, F, and car roof, A, for the purpose and in the manner set forth.

65,889.—COMBINED SEWER, PLANTER AND CULTIVATOR.—Daniel Duncan and E. R. Ridgley, Olney, Ill.

We claim the shaft, G, having the fixed armature, H, working the secondary bottom of the seed box, D, and having the sliding armature, K, regulated by means of the lever and treadle, I, substantially as and for the purpose described.

2d, The ring, F, on the end of the roller, E, provided with projecting arms f f f f, substantially as described.

3d, The division of the shaft, M M', to which are attached the drill teeth, into two equal parts M and M,' independent of each other and regulated by means of their respective treadles, n, n', substantially as and for the purpose described.

4th, The combination and arrangement of the spring L, the secondary bottom of the seed box, the shaft, G, with its two armatures, K and H, and the roller, E, having the ring, F, with its arms, f f f, attached substantially as and for the purpose specified.

5th, The combination and arrangement of the drill teeth attached to the shafts, M M, the seed box, D, and the rollers, E E', substantially as and for the purpose specified.

65,890.—SASH SUPPORTER.—James H. Durham and Sanford Rising, Lafayette, Ind. Antedated December 18, 1866.

We claim a rubber cam having a V-shaped recess, wherein is placed the spring, E, as constructed with screw pivot, G, passing through the collar, C, with a wing, c, for spreading the spring, when arranged between the plates, A, in the manner and for the purpose set forth.

65,891.—WAGON-SPOKE MACHINE.—Chas. C. Dupue, Wayne, Mich.

I claim securing the spoke in position to be acted upon by means of the pivoted dog, R, substantially as herein shown and described.

65,892.—COMPOUND FOR TEMPERING STEEL.—William G. Esser, Milwaukee, Wis.

I claim a compound for tempering steel tools, composed of the above ingredients in about the proportions named.

65,893.—STRAW CUITER.—Willlam H. Evans, Richmond, Ind. Antedated June 10, 1867.

1st, I claim the rock shaft, E, slotted arm, F, pawls, 1 and 2, and spring, L, in combination with the eccentric wheel, D, and feed roller ratchets, J and K, arranged and operating substantially as set forth and described.

2d, The stop, G, arm or lever, H, and rack, I, in combination with the rock shaft, E, as and for the purpose set forth.

65,894.—FASTENING FOR PAPER COLLARS.—Charles R. Everson, Palmyra, N. Y.

I claim a fastener for collars composed of plate, B, having a clasp, D, hinged to it, and provided with a loop, G, substantially as described.

65,895.—BELTING.—C. J. Fay, Philadelphia, Pa.

I claim the use of and the manner of arranging paper for belts and straps, substantially as described.

65,896.—VEGETABLE LIFTER.—Christopher C. Fellows, Centre Sandwich, N. H.

I claim as my invention the new manufacture of egg or vegetable lifter, made as hereinbefore described, viz.: from one piece of wire bent at its middle, and also bent at or near its two ends in conical spirals or helices, as set forth.

65,897.—DEVICE FOR MEASURING LIQUIDS.—Albert Fickett and Justin C. Ware, Titusville, Pa.

1st, We claim the arrangement of the vessel, B, secured within the tank, A, and used in connection with a valve and stop cock, substantially in the manner and for the purpose specified.

2d, In combination with the above an indicator, arranged as and for the purposes specified.

65,898.—VISE.—Orlando V. Flora (assignor to himself and William A. Collins), Madison, Ind.

1st, I claim the rear jaw, D, constructed substantially as herein described, in combination with the support, B, and sliding bar, C, as and for the purpose set forth.

2d, The front jaw, G, pivoted at its lower end to the lower end of the vertical pin, bearing the nut, F, and fitting in the vertical hole of the sliding bar, C, as herein set forth for the purpose specified.

3d The combination and arrangement of the front jaw, G, short screw, H

nut, F, and sliding bar, C, with each other, substantially as herein shown and described and for the purpose set forth.

4th, The combination of the key, J, with the end of the sliding bar, C, and with the pivoting pin of the nut, F, substantially as herein shown and described and for the purpose set forth.

5th, The combination of the support, B, sliding bar, C, and jaws, D and G, with each other, substantially as herein shown and described and for the purpose set forth.

65,899.—CHURN.—Conrad George, Ligonier, Pa.

1st, I claim the combination of the double alternating levers, J K L, and the partitioned churn box, A, all arranged substantially as and for the purpose set forth.

2d, I claim arranging the levers J K L, in a diagonal position as shown for the purpose of bringing the working ends of the levers, K L, over the centers of the churn divisions, A A', as and for the purpose set forth.

3d, I claim the combination of the perforated dashers provided with the valves, R R and S S, having the movements described, with the partition, B, furnished with the holes, b' b', and beveled slits, c' c', substantially as and for the purpose set forth.

65,900.—CALIPER RULES.—A. W. Goddard, Clinton, Mass.

1st, I claim the blades a a, when arranged as and for the purpose described.

2d, The combined caliper and slide gage rule, when arranged substantially as and for the purpose set forth.

65,901.—LIFE-PRESERVING MATTRESS.—John Golding, New York City.

I claim the life raft constructed as described, consisting of the cork mattresses or floats, secured together by means of the spring hooks a, and staples b, as herein set forth for the purpose specified.

65,902.—WINDOW SASH.—D. R. Gould, Chestertown, N. Y.

I claim the strips C C, secured upon the face of the sash by means of screws, in combination with the grooves d d, in the frame, as and for the purpose set forth.

65,903.—PESSARY.—W. G. Grant, Clyde, Ohio.

I claim a sponge pessary, made of conical shape A, outside, and provided with the hollow, B, substantially as described for the purpose specified.

65,904.—FLOOR CLOTH.—Thomas Griffin, Roxbury, Mass.

I claim a floor covering or imitation oilcloth, made substantially as herein described.

65,905.—CLOTHES DRYER.—R. Hamblin, Mishawaka, Ind.

I claim the combination of one or more sets or tiers of jointed radial arms D, and the supporting or connecting wires E and F, or their equivalent, with each other, and with the central shaft, A, substantially as herein shown and described and for the purpose set forth.

65,906.—CONVERTIBLE STOVE DOOR AND FENDER.—C. Harris and P. W. Zoiner, Cincinnati, Ohio.

1st, We claim the convertible stove door and fender, substantially as set forth.

2d, The arrangement of convertible door and fender A B F, and hearth depressions D and E, substantially as represented and described.

65,907.—COMBINED MILK RACK AND FRUIT DRYER.—C. B. and G. W. Hart, Victor, N. Y.

We claim the combined milk rack and fruit dryer, provided with loosely pivoted slats forming the shelves, capable of being opened or closed by the wedge bar beneath, the whole constructed and arranged as described, and operating in the manner set forth.

65,908.—ELEVATED RAILWAY.—Charles T. Harvey, Tarrytown, N. Y.

1st, I claim the combination of the rail plates or supports J J, with the rails I, and bars M, when constructed and arranged substantially in the manner and for the purpose herein set forth.

2d, I also claim the elastic plates or springs R, in combination with the rails, constructed and arranged substantially in the manner herein described.

3d, I also claim the platform frame E, with its upright ends or flanges O, in combination with the rails, constructed and arranged substantially as herein described.

65,909.—ELEVATED RAILWAY.—Charles T. Harvey, Tarrytown, N. Y.

1st, I claim the combination with the track of an elevated railroad of an open or transparent floor beneath the rails, so as to allow the transmission of light to the space beneath the railroad, substantially as set forth and described.

2d, I also claim the panels D, in the columns A, for the purpose of closing the openings in the lower part of the said columns, and also to strengthen the columns, substantially as set forth and described.

3d, I also claim the adjustable column A, made in the divisions a b, substantially as described.

4th, I also claim the wedge-shaped rings C, or their equivalents, in combination with the adjustable column A, substantially as described.

5th, I also claim the hollow supporting columns A, in combination with an elevated railroad, substantially as and for the purposes described.

6th, I also claim the pulleys, T, in combination with the supporting columns A, substantially as and for the purposes described.

7th, I also claim the combination of the stay rods V, with the elevated railroad, said stay rods connecting said railway to the buildings or other supports on the streets, and forming also awning frame supports, substantially as set forth.

8th, I also claim a filling of wood or equivalent material, in combination with said columns, substantially as and for the purposes described.

9th, I also claim the water trough along the track and its discharge pipe in combination with an elevated railway, substantially as and for the purposes described.

65,910.—CARRIAGE.—James Hatfield, Cleveland, Ohio

1st, I claim the centers, a', constructed with radial arms, b, in combination with the bands, B, spoke, d, and ke s, f, substantially as and for the purpose described,

2d, The wheel B, spindle C, as arranged in combination with the stays D, boxes E E', for the purpose and in the manner as set forth.

3d, The cross rail K, arm L, links L', and brackets M, in combination with the stay D, and screw G, as and for the purpose substantially as herein described.

4th, The stay D, screw pins, I G, in combination with the spindle C, axle tree A, substantially as and for the purpose set forth.

5th, The adjusting screw O', coupling O, and reach K', arranged substantially as and for the purpose set forth.

65,911.—STEAM PUMP.—William N. Henderson, Philadelphia, Pa.

1st, I claim the arrangement of the pump steam cylinder and housing as described.

2d, The arrangement of a vacuum chamber enveloping the pump canal, substantially in the manner and for the purposes represented.

Third, The arrangement of the cross head arm E, connecting rod, F, eccentric pin shaft K, and slot-headed valve stem J, when constructed and operating conjointly in the manner and for the purposes herein set forth.

65,912.—AMALGAMATOR.—R. W. Howard, Warwick, R. I.

1st, I claim the stationary or fixed pan A, having its bottom provided with radial grooves a, and an annular gutter or trough B, around its edge, in combination with the rotating pan E, fitted within A, and provided at its exterior with flanges I J, and holes h, in its upper part, and provided at its center with an upright hollow hub F, having holes g, in its lower part to admit the pulp down between the bottoms of the two pans, all arranged substantially as and for the purpose specified.

2d, The adjustable jacket G, on the hollow hub, F, operated by the screw H, in combination with the fixed plate K, in the pan E, substantially as and for the purpose set forth.

65,913.—BOLT TRIMMER.—Henry Howe, Oneonta, N. Y.

I claim the cam-shaped sharply-beveled knife C D, pivoted to and in combination with the bar A B, having a hole in B to receive the object to be trimmed by the knife C D.

65,914.—FURNACE FOR BURNING PYRITES FOR THE MANUFACTURE OF SULPHURIC ACID, AND FOR OTHER PURPOSES.—John Hughes, Edgewater, N. Y.

I claim constructing a furnace for burning pyrites or sulphurets of iron, copper, zinc, or other metals, without the aid of fuel, in the form of an inverted truncated cone, without grate bars, and provided with doors on the front side, ranged one above the other from top to bottom, substantially as and for the purpose set forth.

65,915.—CHURN.—Aaron Huyck, Ourtown, Wis.

1st, I claim the bridge D, stepped in loops C C, and provided with the box, F, secured by thumb screws L, all constructed and arranged as set forth.

2d, The bridge D, post N, shafts E I, pinions J G, driver B, and shaft N, constructed and arranged as set forth.

65,916.—EGG CUTTER.—Francis L. King, Worcester, Mass.

I claim the combination of two or more cutter shafts B, having cutters E, attached, with the gearing C D E, arranged and operating essentially as set forth.

65,917.—METHOD OF COVERING WHIPS.—Gamaliel King (assignor to himself and Charles C. Pratt), Westfield, Mass.

1st, I claim a water proof coating, consisting of the ingredients herein shown and described.

2d, The application of the dissolved caoutchouc, with or without the lead and oil, to a whip, substantially as and for the purpose shown.

65,918.—CULTIVATOR.—Joseph Koehn, Canton, Ohio.

I claim, 1st, The frame A, with diagonal bars A' A', for connecting the shovels D D, when constructed in the manner and used for the purpose set forth.

2d, The arrangement of the lever e, spring t, pin z, in combination with the axle b, rack s, for the purposes specified.

65,919.—MACHINE FOR DRESSING LEATHER.—Charles Korn, Wortsborough, Ind.

1st, I claim the sharpeners f and i, when arranged on a sliding block G, either separate or in combination with the cleaner e, all made and operating substantially as herein shown and described.

2d, The knife or knives E, when secured obliquely upon an endless apron, and when arranged in combination with the obliquely set frame F F', and grooved block G, in such a manner that the said block is moved by the knife, substantially as set forth.

3d, The up and down adjustable frame F F', in combination with the sliding block G, and knife or knives E, all made and operating substantially as herein shown and described.

4th, The block G, and knife or knives E, in combination with the spring m, and frame F F', all made and operating substantially as herein shown and described.

5th, The knife or knives E, when arranged on an endless apron A, in combination with the sliding block G, and sharpeners f and i, and cleaner e, all made and operating substantially as herein shown and described.

65,920.—FILING MACHINE.—Thomas H. Lindley, Taunton, Mass.

I claim the combination of the sliding carriages C C', supported in the adjustable bearings B B, and operated by the wheel i, and the adjustable table m, supported and applied substantially in manner and for the purpose as set forth.

65,921.—STEAM VALVE.—Thomas H. Lidford, North Adams, Mass.

I claim the arrangement of the wedge-shaped pieces D and E, with reference to the shaft G, and collars d and e, substantially as described.

65,922.—APPARATUS FOR FORMING MOLDS FOR THE PURPOSE OF CASTING METAL.—Albion H. Lowell, Manchester, N. H.

I claim, in combination with the pattern attached to the plunger, as set forth, the endless chains C, the plates s, the stops or bars t u, the tube or punch c', and the flask F, as above set forth and described and for the purpose of making molds for castings.

65,923—CENTRIFUGAL MACHINE FOR DRAINING SUGAR.—Alexander Mackey, New York City.

1st, I claim the combination with the centrifugal cylinder of a stationary distributer, arranged within the cylinder on one side of it, adjacent to the feed, and operating substantially as specified.

2d, The stationary distributer, C constructed essentially as shown and described, in combination with the centrifugal cylinder B, and arranged in relation thereto as herein set forth.

65,924.—MODE OF FORMING EMERY WHEELS—C. G. Marshall, Florence, Mass.

I claim the use of concrete lime or cement in the formation of emery wheels, substantially as and for the purpose herein set forth.

65,925.—CAR WHEEL.—G. B. Massey, New York City.

1st, I claim a car wheel composed of the disk A, having the solid hub A', with the disk B fitted to turn loosely on the hub and held thereon by the cap C, as set forth.

2d, The car wheel, consisting of the disk B, provided with the flange e, in combination with the disk A, having the solid hub A', said disks A and B, being held together by means of the cap C, substantially as described.

65,926.—MACHINE FOR COATING HATS.—Jules Francois Mathias and Desire Mathurin Legat, Paris, France.

1st, We claim a machine for felting hats, made and operating substantially as herein shown and described.

2d, The hollow shaft K, combined and connected with the shaft H, by means of springs R R, substantially as herein shown and described.

3d, The beating apparatus P, in combination with the spring Q, substantially as herein shown and described.

4th, The arrangement of the valve e, and passage or conduit f, in combination with the channel F and face B, all made and operating substantially as herein shown and described.

65,927,—MANUFACTURE OF ILLUMINATING GAS.—George A. McIlhenny, Washington, D. C.

1st, I claim the prevention of the deposit of carbon in gas retorts by the means described or by any equivalent means.

2d, I claim so arranging the pipes or tubes leading from the retort to the hydraulic main that the mouths of said pipes or tubes can be sealed or unsealed at pleasure.

3d, I claim providing the hydraulic main of a gas factory with two or more pipes for the escape of the coal tar, when said pipes are arranged at different heights and provided with cocks so that the liquid contents of the main may be made to occupy a higher or lower level therein, substantially as and for the purpose set forth.

65,928.—IDENTIFYING BOX.—Levi T. McNieley, Danville, Mo

I claim an identifying box constructed substantially in the form herein described, for the purpose of identifying and aiding in the securing of lost animals and goods.

65,929.—WEATHER STRIP.—Isaac H. McOmber, El Paso, Ill.

I claim the arrangement of the false rim C, with the grooved door cleats H H, and the strip D, substantially as and for the purpose set forth.

65,930.—METHOD OF ADJUSTING ROLLERS.—Samuel M. Metcutchen, Philadelphia, Pa.

I claim the arrangement, substantially as described, of the wedges, sliding bearing b, and set screw f, with a rolling mill, for the purpose specified.

65,931.—BRICK MACHINE.—Jonathan Mills, Des Moines, Iowa, assignor to himself, Lewis J. Brown, Charles S. Spofford, and Henry Van Lutheran.

1st, I claim the horizontal pug tub or mill, constructed and arranged substantially as described, in relation to the mold wheel and the other parts of the machine, substantially as herein shown and described.

2d, I claim dropping back the follower or relieving the brick of pressure, substantially as and for the purposes specified.

3d, I claim the arrangement, substantially as shown and described, by which the apron is operated, as and for the purpose set forth.

65,932.—STUD FASTENING.—Benjamin Moser and David Yellott, Brooklyn, N. Y.

We claim the fastening for buttons, etc., herein described, the same consisting of the arms D D2, and spring or other suitable catch, substantially as specified.

65,933.—LAMP BURNER.—George Neilson, Boston, Mass.

I claim the combination with the jacketed wick tube and rack for adjusting the wick of the cap or deck forming the base of the jacket above the apertures through which the rack pin passes, such deck being depressed so as to constitute a cup which gathers and holds the condensed vapor around and against the wick tube, as and for the purposes herein described.

65,934.—TANNING COMPOUND.—William H. Newby, Seymour, Ind.

I claim the tanning liquid composed of the ingredients in or about the proportions substantially as described.

65,935.—LAMP.—E. D. Norton, Bradford, Pa.

I claim a safety valve constructed and applied substantially as and for the purpose described.

65,936.—MELODEON, ETC.—Amos Nudd, Waupun, Wis.

I claim in combination with the keyboard of a melodeon, or similar reed instrument, the sounding box C, arranged as shown and described.

65,937.—ROCKING CHAIR AND TRUNK.—Thomas Nye, Westbrook, Me.

1st, I claim the movable back a, and folding arms, b, operating as described and for the purposes specified.

2d, The rockers s n, when constructed so as to fold up and also to fold into the recess, substantially as and for the purposes set forth.

3d, The drops e, to hold upright the part h, of the back in the manner and for the purposes set forth.

4th, The double cover m x, when applied to the trunk body to close the recess, substantially as and for the purposes described.

65,938.—CULTIVATOR.—Lorenzo D. Pelton and Joseph Barrow (assignors to themselves and Alexis Green), Harrison, Ohio.

1st, We claim a mode of construction whereby the wheels and secondary beam B, may be detached, and by means of auxiliary bolt holes c, in the handles C, and in the sheaths at c', the handles lowered to a convenient hight to be managed by an operator on foot.

2d, In combination with the elements of the clause immediately preceding, we claim the provision of the described mechanism for lifting the plows from the ground, either temporarily to pass an obstacle, J J', or more permanently to allow of moving the implement on a road or otherwise, F F' H h and I, and the position of the seat, which enables the driver to control these levers and manage the plow handle.

65,939.—MACHINE FOR PRODUCING BLAST IN GAS CARBURETERS AND OTHER APPARATUS.—E. A. Pond and M. S. Richardson, Rutland, Vt.

1st, We claim a vessel or case divided into two compartments, communicating with each other at or near the bottom of the vessel.

2d, A hollow shaft or arbor passing through the two compartments, having mounted upon the sides of the dividing partition a series of convolute tubes, and provided on the other side with one or more perforations, the said shaft being connected with suitable mechanism for rotating it.

3d, One or more suitable valves for the admission of air, and pipes for the discharge of the compressed air or gas.

65,940.—MACHINE FOR HEADING CARTRIDGE CASES.—Timothy I. Powers, (assignor to J. P. Fitch and J. R. Van Vechten), N. Y. City.

1st, I claim in cartridge heading machines the combination with the header J, and shell mandrel or series of shell mandrels, h, arranged and operating together substantially in the manner described, of the sectional or divided die, N, arranged to grip or close round the shells on the mandrel or mandrels before and whilst the shell is being upset and headed, and afterwards to open for release of the latter, essentially as specified.

2d, The combination with the shell mandrels and header of an automatic gage or shell adjuster, arranged so as to set the closed end of the shell to its proper position relatively to the upper or outer end of the mandrel in advance of the action of the header upon the shell, substantially as and for the purpose herein specified.

3d, In combination with a series of shell mandrels and suitable header, a shell take-off, K, constructed to operate essentially as described or in any other equivalent manner.

4th, The combination of the vertical slide, E, divided or sectional die, N N, and header, J, with the locking and unlocking devices operating upon the sectional die, all constructed and arranged substantially as and for the purpose herein set forth.

5th, The fixed way, M, in combination with the lever, q, for closing the sectional die by the movement of the slide, E, which carries the said die, substantially as described.

6th, The slide, L, and stop, o, in combination with each other, and with the lever, q, for opening the die and moving it out of the way of the header, essentially as herein set forth.

65,941.—FORGING APPARATUS.—John Price, N. Y. City.

1st, I claim the combination with the hammer head of a rack spring and sliding catch, substantially as and for the purpose set forth.

2d, Operating the sliding catch, J, by means of the lever, g, which connects and disconnects the power for driving the hammer, the said lever, g, being connected for that purpose to the sliding catch, J, by the arm, a, rock shaft, b, arm, e, and connecting rod or link, f, or by their equivalents in such a manner that the said sliding catch, J, will be thrown inward to catch the hammer when the power is disconnected and drawn out to release the hammer when the power is applied by the lever, g, substantially as and for the purpose set forth.

65,942.—MACHINE FOR GRINDING AND POLISHING.—Thomas Prosser, New York City.

1st, I claim the combination of the wheels, s s', pawls, u u', friction wheels, p h, and screw, I, with the reciprocating carriage for establishing an automatic feed motion, substantially as described.

2d, The reciprocating carriage, F, with its frame or vise, G, made adjustable thereon, parallel or angularly to the axis of the grinding wheel in the manner described.

3d, The friction gear wheels, h p, made adjustable as regards their binding action, one upon the other, substantially as and for the purpose set forth.

65,943.—BRICK KILN.—Stephen D. Rader, Williamsport, Pa.

I claim the peculiar construction and arrangement of furnaces, B B and C C, when used in connection with the kiln, A, as and for the purpose specified.

65,944.—ESCAPEMENT FOR TIME-PIECES.—Herman Reinecke, New York City. Antedated June 10, 1867.

I claim pallets, p p', mounted on the oscillating arbor, b, in combination with the lever, C, lifting spring, f, pins, d e g c, and balance, B, all constructed and operating substantially as and for the purpose described.

65,945.—SECTIONAL MOLDS FOR PUTTING UP BUILDINGS OF CONCRETE AND OTHER MATERIALS.—John R. Richards, Mount Joy, Pa., assignor to himself and Alfred L. Mennez, Cleveland, Ohio.

I claim a series of sectional molds, A B, for the outer face, and another series, H I, for the inner face of walls, in combination with the door, window boxing, M N, strips, K, dovetailed joists, J j, all arranged substantially as united by flanges, F, in the manner shown and described.

In combination with my sectional molds, I also claim the open interstices when made for the admission of carbonic acid gas for the purpose specified.

I also claim the proportions specified for making the composition when introduced between sectional molds, in the manner and for the purpose set forth.

65,946.—APPARATUS FOR TEMPERING STEEL PLATES.—Christopher Richardson, Newark, N. J.

I claim the combination of the plates, C and D, with the screw or screws, K, and the heated chamber, U, or their equivalents, when combined and operated substantially as and for the purpose described.

65,947.—HAND SAW FRAME.—Christopher Richardson, Newark, N. J.

I claim the improved method of holding saws in metallic saw frames, substantially as shown and described.

65,948.—MACHINE FOR COATING PAPER WITH MUCILAGE, ETC.—Henry E. Rile, (assignor to Asa L. Shipman), New York City.

I claim a machine for coating paper, etc., in which are combined a frame carrying a series of brushes whether one or more in number, a platform or table and a reservoir or receptacle for the liquid to be applied by the brushes when all are combined and arranged together so as to operate substantially as described.

65,949.—BURGLAR ALARM.—Henry R. Robbins, Baltimore, Md.

I claim the combination of the frame, A, spring piston hammers, B B, lever catch, E, hinged trigger, D d, and spring, g, constructed and operating substantially as described and represented.

65,950.—DOUBLE SEAMING MACHINE.—J. Rupp, (assignor to himself and Frederick Kieeser), New York City.

1st, I claim the movable slide, d, carrying the supporting plate, f, in combination with the disk, A, constructed, arranged and operating substantially as and for the purpose described.

2d, The arrangement of three or more cone rollers, i, in the annular rim, H, in combination with the rising and falling disk, A, constructed, arranged and operating substantially as and for the purpose set forth.

Third, The clamping roller, p, in combination with the burring roller, o, and disk, A, constructed, arranged and operating substantially as and for the purpose described.

65,951.—LOCOMOTIVE ENGINES.—S. Samuels, Mott Haven, N. Y., and W. J. Brassington, Brooklyn, N. Y., assignors to themselves, William Pitt, and W. B. Burtnett.

1st, We claim the combination with the tank of a locomotive engine tender of an air pump so arranged as to admit of being worked by the engine for the production of a vacuum in said tank, substantially as herein set forth.

2d, The combination with a locomotive engine and its tender of a pump so arranged as to serve either purpose at pleasure of exhausting air from the tank to facilitate the supply of water to the latter, or of forcing water from the tank into the boiler, substantially as herein set forth.

3d, In combination with the water supply pipe, B, and its stop cock, d, the air pipe, D, connected with the pipe, B, in front of the said cock, d, essentially as shown and described.

65,952.—CUTLERY.—William Sanderson, New York City.

I claim a handle formed of a metallic frame, cast with or rigidly united to the bolster, and scales or side pieces, substantially as described.

65,953.—APPARATUS FOR SUPPLYING AIR TO LIFE-BOATS.—Peter F. Schenck, Riceville, N. J.

I claim an apparatus consisting of tubes containing ball valves of different specific gravity, adapted to operate in combination with a closed life-boat, for the purpose of admitting fresh air therein and excluding water therefrom, substantially as described.

65,954.—WOOD PLANING MACHINE.—Frederick Schmidt, Cincinnati, Ohio.

I claim the elongated gains or depressions, e e, in the two parts of a divided cutter, to enable the said parts to be set out in opposite directions, substantially as and for the purposes set forth.

65,955.—MANUFACTURE OF ORNAMENTAL FEATHERS.—F. Emil Schmidt, Hoboken, N. J.

I claim ornamental feathers which have been colored in a printing press, and which are treated substantially as herein shown and described.

65,956.—COMPOSITION FOR ROOFING, PAVEMENTS, WALLS, DOCKS, AND OTHER STRUCTURES.—John See, Baltimore, Md.

1st, I claim the composition formed of the materials named, substantially as and for the purposes herein specified.

2d, Iron ore turnings, borings, or filings in combination with hydraulic cement for the formation of roofing, pavements, walls, docks, water bricks, pipes, and other structures, substantially as and for the purposes herein specified.

65,957.—INSTRUMENT FOR OPENING SHEET METAL CANS.—Frederick Seymour, Nashville, Tenn.

I claim the new article of manufacture, consisting of the guard, F, in the described combination with the shaft, A, handle, B, elbow, C, point, D, and cutter, F, whether stationary or adjustable.

65,958.—ICE PITCHER.—Michael Simons, Middletown, Ct.

I claim the inside bottom, P, and the outside bottom, G, with its devices H and L, when arranged and constructed as herein described and for the purpose set forth.

65,959.—FRUIT LADDER.—Daniel C. Smith, Adrian, Mich.

I claim a fruit ladder as shown and described with bars, H, braces, P, and handle, U, as set forth in the specification and drawings; and in combination,

I claim, secondly, the support, N, or any thing substantially its equivalent for the purposes set forth and described.

65,960.—WASHING MACHINE.—Abram C. Stannard, Rock County, Wis.

1st, I claim straight edged eccentrics, J and J, when made substantially as described and used to hold the working mechanism, I, P and K, of a washing machine to any desired altitude within the washing machine box, A, and the whole combined and operated substantially as and for the purposes described.

2d, The general arrangement of box, A, rollers, S, arranged in frame, R, wash-board, O, and operating frame work, M, P, J, K, and U, kept to any desired altitude by means of the straight-edged eccentrics, J and J, when the whole are constructed, arranged and operated substantially as and for the purposes described.

65,961.—CULTIVATOR.—U. T. Stewart, Fayette Co., Tenn.

I claim the arrangement of the spring sword, F, F, and the combination of ploughs and scrapers, B, B, two of the scrapers being chopping scrapers, B, B, so as to perform the work above specified.

65,962.—CYLINDER PRESS FOR EXTRACTING OIL FROM FISH.—J. G. Stoddard and B. F. Gallup, Groton, Conn.

We claim the arrangement and combination of the cylinders, C and D, the apron, B, the hopper, F, and the scraper or chute, G, substantially as described and for the purposes herein set forth.

2d, I claim the recesses, b, in combination with the cylinders, C and D, substantially as and for the purposes specified.

65,963.—SLEEPING CARS.—John Swan, Baltimore, Md.

I claim in a railway car of a series of state rooms, provided with side passage and independent ventilation, the combination and arrangement of reservoir pipes, H, H, and basins, G, in the state rooms, as and for the purpose specified.

65,964.—BED BOTTOM.—T. P. Thompson, Charlestown, Mass.

I claim the combination with the slotted cylindrical sockets and springs contained within the same, of slats having heads or knobs on their end, fitting into the side sockets under the arrangement described, so that while the said slats are capable of a free vertical play, their heads shall at all times be held within the said sockets as specified.

65,965.—TOOLS FOR JEWELING WATCHES.—D. B. Tiffany, Xenia, Ohio.

1st, I claim an adjustable arm through which the cutters work, secured to either side of the vise, substantially as and for purposes set forth and described.

2d, An adjustable arm, d, provided with a set screw, a, and secured to the side of the opposite to the former, substantially as and for the purposes set forth.

3d, The combination of the two adjustable arms with circular tap, e, and nut g, operating as and for the purposes specified.

65,966.—SORGHUM STRIPPER.—George Tollinger, Wrightsdale, Pa.

I claim the construction and arrangement of the ring-plate, C, and braces D, D, supporting the scraper blades, a, a, a, a, which are secured to the yielding spring braces, d, d, d, d, the whole being attached to the board or plank A, all in combination operating substantially in the manner herein described for the purposes set forth.

65,967.—FURNACES.—C. W. Trotter, (assignor Gommenginger & Trotter,) Rochester, N. Y.

1st, I claim the peculiar construction of the main body, A, in connection with the inner body, a, with triangular flues. n, n, n. n, n, all in the manner and for the purpose herein described.

2d, I claim a double radiator, C, connections, o, o, and double damper, k and l, with rod, m, also two tiers of smoke pipes, d, d, d, and e, e, e, all in the manner and for the purpose herein set forth.

65,968.—ROLLERS FOR ROLLING OLD RAILS.—J. P. Verree and W. A. Mitchell, Philadephia, Pa.

We claim in three high rolls series of grooves in each roll, shaped substantially as described.

We also claim grooves of the particular form represented by Figures 1 and 2, produced respectively by the conjunction of the groove of one roll with the groove of another.

65,969.—CHIMNEY COWL.—John A. Waggoner, Kilgore, O.

I claim the wings, A, plate, D, and sides, E, when constructed and arranged in combination with a chimney, as and for the purpose set forth.

65,970.—BEDSTEAD FASTENING.—J. B. Wardwell, Georgetown, D. C.

I claim the mortise plate constructed with a rotating side to close upon the neck of the dovetail tenon of the rail, and to open to permit the withdrawal of the tenon, substantially as described.

65,971.—RING SPINNING FRAME.—Joseph W. Wattles, Canton, Mass.

I claim as my improvement in the ring spinning frame, or machine, the application of the ring, B, to its support rail, A, in such manner that while the spinning of the yarn or thread and the winding of it upon the bobbin, may be in the act of taking place, the ring may be free to be moved and centralized with respect to the bobbin, by the draft of the yarn on the traveler.

I also claim the combination of the screws, g, and the slots, f, or their equivalent, with the ring and its rail and with the ring socket, so formed as to allow the ring to play diametrically as and for the purpose set forth, the purpose of such screws and slots being as herein before explained.

65,972.—HINGES FOR LAMP BURNERS.—Wm. Webb, (assignor to the Scoville Manufacturing Co.), Waterbury, Conn.

I claim the hinge, A, having one of its leaves provided with a projecting rest or stop-piece, D, and made substantially as herein described and for the purpose specified.

65,973.—PRINTER'S INK.—M. Weissberger, St. Paul, Minn.

I claim the printer's ink above described, compounded and used substantially as and for the purposes specified.

65,974.—GATE.—S. H. Wheeler, Dowagiac, Mich.

1st. I claim the frame, E, with its rocker, A, in combination with the revolving post, D, as and for the purpose herein specified.

2d, The combination of the frame, E, with the gate and its posts and the cleat, x. or its equivalent, as and for the purpose set forth.

65,975.—BED BOTTOM.—Chas. W. White, Cincinnati, Ohio.

I claim the combined arrangement of the two sets of transverse slats, A and C, the springs, B, siderails, D D', and screws, E, as and for the purposes set forth.

65,976.—SEED AND GUANO PLANTER.—Thomas W. White, Milledgeville, Ga.

I claim, 1st, the drum, G, having the internal movable disk, T, bearing the teeth, t' t', and adjusted by set screws or their equivalent, substantially as and for the purpose described.

2d, The saw, H, attached to the drum, G, substantially as and for the purpose described.

3d, The bottom plate, N, substantially as described.

4th, The hinged block, K, operated by the cam, L, substantially as and for the purpose specified.

5th. The combination and arrangement of the drum, G, the movable disk, T, the hinged block, K with the flexible bag attached to it, and the cam, L, substantially as and for the purpose described.

65,977.—MANUFACTURE OF HARVESTER GUARD FINGERS.—W. N. Whiteley, Jr., Jerome Fassler, and O. S. Kelly, Springfield, Ohio.

We claim, 1st, Guard fingers for harvesting machines made by the process and order of manufacture herein described.

2d, A harvester guard finger composed of a central portion or core of soft iron and its entire outer skin or surface of hardened steel, substantially as and for the purpose set forth.

65,978.—NIPPLE SHIELD.—C. H. and J. M. Wilder, New York City.

We claim, 1st, The arrangement of a screen, a, in combination with the nipple shield, A, substantially as and for the purpose described.

2d. The adjustable slide, C, in combination with the screen, a. and nipple shield, A, substantially as and for the purpose described.

65,979.—CLOTHES DRYER.—Hosea Willard, Vergennes, Vt.

I claim the securing of the clothes bars, B, in the stirrups, c, of the bracket by means of oblong staples, d, or their equivalents, to admit of the longitudinal adjustment of the bars in the stirrups, substantially as and for the purpose specified.

65,980.—SPRING HINGE.—Alvah Wiswall, New York City.

I claim the spring, D, combined with the bar, E, arm, C, provided with a friction roller, a, and the hinge, all arranged to operate in the manner substantially as show and described.

65,981.—MECHANICAL POWER.—A. B. Wood (assignor to himself, W. W. Wood, and W. H. Wood), Hamburg, Ark.

I claim the interposition of intermediate mechanical parts or gearing between the point of direct application of power and the point at which an increase of power is attained and applied for the purpose of increasing the capacity of power of any given motor, engine, or machine, when the same is effected substantially in the manner and by the means herein described.

65,982.—BRUSH.—E. J. Worcester (assignor to himself and Wm. S. Porter), Worcester, Mass.

I claim, 1st, The combination of handle, G, and back, B, with a removable metal connection piece or socket such as described, which can be readily applied to either end of the back of the brush without injuring or defacing the same, for the purposes stated.

2d, The combination of the back, B, and handle, C, with the bent metal socket or connection piece, E, and flanges, a a, substantially as and for the purposes set forth.

65,983.—WAGON BRAKE.—G. S. Ziegenfuss, Doylestown, Pa.

I claim, 1st, The brace, F, in combination with the lock bar, E, and bolts, f, or their respective equivalents, substantially as described.

2d, The pole, H, carrying the lever, K, and rack, h, in combination with the cord, K, pulleys, L l, and lock bar, E, or their respective equivalents, substantially as described.

3d, The combination of two or more independent brakes applied to a wagon or other vehicle, adjusted so as to be brought into play either separately or together, substantially as described.

65,984.—INKING APPARATUS FOR PRINTING PRESSES.—G. W. Wood, Richmond, Ind.

I claim, first, sector plates, E, E1, E2, adjustably arranged in sets for transferring the ink from the fountains and disposing the colors or bands upon the type rollers.

2d, The combination upon one shaft of the sector plates and cam wheels, C C'.

3d, The combination of the ink fountain rollers, a corresponding number of sector plates and a type inking or other receiving roller or rollers.

65,985.—WINDING WATCHES.—C. V. Woerd (assignor to the American Watch Company), Waltham, Mass.

I claim a key having a screw formed upon its shank to work into a screw thread formed in the watch pendant, or in a nut inserted in the pendant, substantially as shown and described.

I also claim forming a key to be directly connected with and disconnected from the pendants, with its means of attachment integral with or projecting from the shank, substantially as shown and described.

Also, the combination of the nut, r, and key, B, arranged substantially as set forth.

Also, making the block or nut, through which the key extends, movable vertically as and for the purpose substantially as described.

65,986.—HOOP SKIRT.—Abraham Trager, New York, N. Y.

I claim the use of ribbed or corrugated wires for hoop skirts, either with or without any kind of coating or covering, as herein described.

REISSUES.

2,647.—MACHINE FOR MAKING NAILS AND TACKS.—Orin L. Bassett, T. R. Bearse and W.B.Wilber. Taunton, Mass. Patented Oct, 9, 1866.

1st, We claim the combination of a carrier or bearer for the tack blank with any one of the cutters, be they more or less in number, used for cutting the tack blanks, when arranged so as to operate substantially in the manner and for the purpose specified.

2d, The carrier or bearer for conveying the tack blanks to the die to be headed, in combination with a forked or other suitable lever, arranged with regard to the said carrier and so as to operate upon it and with the cutter, substantially as and for the purpose described.

3d, The lever, S, pivoted to either a fixed or movable fulcrum, in combination with the carrier, Q, cam shaft, D, forked lever, Y, and cutter, substantially as described for the purpose specified.

2,650.—REVOLVING FIRE-ARM.—Wm. H. Elliot, Plattsburg, N. Y. Patented May 29, 1860.

1st, I claim a fire-arm with revolving barrels which are bored through and chambered so as to be charged at the breech and sustained by two supports, to wit, one point of support being at the center of the breech plate, or at the rear of the breech-loading chambers, and the other forward of said chambers, such construction of barrels and supports obviating the use of a pin passing through the cluster of barrels, of sufficient strength alone to support the same, substantially as set forth.

2d, The arrangement of support, n, in the rear of all the barrels, and support, n', in front of all the barrels, in combination with a series of revolving barrels which are bored through at their rear ends, for the purpose of being charged at the breech, substantially as set forth.

3d, The employment of a hammer arranged as specified in relation to the barrels, when used independent of a breech pin or nipple, and in combination with chambers bored through at their rear ends, and with a breech plate, substantially as specified.

4th, The combination of a wedge or cam, j, with a fly, f, for raising the hammer, substantially as specified.

2,651.—FAGOT FOR RAILROAD RAILS.—John Price and Wm. Lewis, Danville, Pa. Patented Oct. 28, 1862.

We claim a form or formed piece for a fagot to be rolled into a railroad rail with flanges forming part of the form piece, projecting downward from each side or edge thereof, and over both sides or edges of the layer or layers directly beneath it, said form piece being intended for the head or tread of the rail and the layer or layers specified to the body thereof, substantially as and for the purpose shown and described.

We also claim a railroad rail made from a fagot constructed substantially as above set forth.

2,652.—CLOTHES WRINGER.—Ann Jane Sargeant, administratrix of the estate of I. A. Sargeant, deceased, Dayton, Ohio, assignor to Sylvenus Walker, Newark, N. J. Patented July 27, 1858.

1st, I claim the yoke, B, provided with a suitable hitching arm, the said yoke being adapted to be temporarily attached to a wash tub or readily disconnected therefrom as explained, and employed as a bearing for a rotary clamp for wringing clothes.

2d, In the described connection with the yoke, B, the movable clamp, H I J K L, and pawl and dog, P Q, by means of which the said clamp is retained within the yoke, or may be readily removed therefrom at will, to be cleaned or dried.

3d, In the described connection with a rotary clamp for wringing clothes, the hinged and yielding hitching arm, E, for the purposes explained.

2,653.—CORSET SKIRT SUPPORTER.—J. H. Foy and L. H. Foy, Boston, Mass., assignees by mesne assignments of Livinia H. Foy. Patented Sept. 15, 1863. Division 1.

1st, We claim the binding cloth cut bias as described, in combination with the exterior or outer edge of the rim, L, to which the binding cloth is applied as specified, whereby all gathering is avoided, while a corded appearance and a case for the hoop, M, are produced, substantially as set forth.

2d, The combination of laced openings, K K, or either of them, with the front part of the body, I, of a corset open in front, substantially as set forth.

3d, The body, I, open in front and adjustable both in front and the back by means of laced openings, substantially as shown and described.

4th, Forming the curve for the hoop and corded edges, O and P, for the same piece of bias cut cloth, as shown and described.

2,654.—CORSET SKIRT SUPPORTER.—J. H. Foy and L. H. Foy, Boston, Mass., assignees by mesne assignments of Livinia H. Foy. Patented Sept. 15, 1863. Division 2.

1st, We claim protecting and securing the ends of the stiffeners, whalebones or springs, which are inserted in pockets in the body of corsets, by by means of caps, p, the body, flange, and spurs of each of which confine the stiffener or spring in position and prevent its wearing through the fabric, substantially as set forth.

2d, Protecting and securing the ends of the stiffeners, whalebones, or springs, which are inserted in pockets in the body of a corset by means of metal caps applied to the outside to prevent the said stiffeners from wearing through the fabric, substantially as described.

2,655.—SEWING MACHINE.—James E. A. Gibbs, Midway, Va. Patented Aug. 10, 1858.

I claim the general arrangement of a sewing machine comprising the parts whereby the sewing mechanism is brought into operative relation, substantially as herein shown and described, that is to say, combining with the vibrating needle arm a frame shaped substantially like the roman letter G, as herein shown and described and for the purposes set forth.

I also claim so constructing and combining or arranging and operating a revolving hook or looper with a reciprocating needle as that one loop shall be taken from the needle after the former loop shall have been drawn up, on, along, or over the needle during its advance movement, in the manner and for the purpose substantially as described.

I also claim the conical sleeve or its equivalent, for holding the spool and for revolving therewith, in combination with the adjustable cones, F and G, or their equivalents, for producing the requisite degree of friction upon the conical sleeve spool holder, when constructed and arranged so as to operate substantially in the manner and for the purposes herein set forth.

2,656.—WEAVING CORDED FABRICS.—Wm. Smith, New York City. Patened April 5, 1853. Extended seven years.

I claim the process herein specified of weaving, consisting in the use of stationary warps in combination with the moving warps and filling that form a fabric on each side of such stationary warps, substantially as set forth.

DESIGNS.

2,674.—PLOW CLEVIS.—G. P. Darrow (assignor to James L. Haven & Co.), Cincinnati, Ohio.

2,675.—CLOCK CASE.—A. C. Felton, Boston, Mass.

2,676.—COMBINED HAMMER, TACK DRAWER, WRENCH, ETC.—Anthony Iske, Lancaster, Pa.

2,677.—SOLDIER'S MONUMENT.—Dayton Morgan, Chillicothe, Ohio.

2,678.—POST-OFFICE BALANCE.—W. W. Reynolds, Brandon, Vt., assignor to the Howe Scale Compmy.

2,679.—COUNTER SCALE.—W. W. Reynolds, Brandon, Vt., assignor to the Howe Scale Company.

2,680.—COOK'S STOVE.—Samuel Saylor, Philadelphia, Pa., assignor to Francis Buckwalter & Co., Royer's Ford, Pa. Antedated June 4, 1867.

2,681.—TEA OR COFFEE POT.—Geo. Jones, Saugerties, N. Y.