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25,476.—Lemuel Allen, of Pekin, Ill., for an Improved

Planetarium:

I claim the representation of the planets and their orbits susended on a diametric rod, and capable of rotating on said rod, witha broad belt which represents the zodiac, substantially as set forth.

I also claim the arrangement of devices by which the Earth may
e adjusted to represent its relative position to the Sun, and to the
lane of its orbit, at any point thereof, in the manner and for the
urpose set forth.

25,477.—Astley C. Ancona, of Reading, Pa., for an Improvement in Slide Valves for Steam-engines:

I claim the corrugated valve seat in combination with the cavities, ccc, in the face of the valve, substantially the same as and for the surpose set forth.

25,478.—P. J. Ankney and Daniel McGreevy, of New Lexington, Ohio, for an Improvement in Grain Se-

parators:

We claim, first, the oscillating hopper or trough, b, as constructed, in combination with the revolving screen, e, constructed and operating jointly as described and for the purpose set forth.

Seond, We claim the combination of the screen, e, and trough and hopper, b, with the adjustable hopper or trough, h, and the spout, i, with gaze, j', cut-off, k, and valve, k', the whole operating as described and for the purpose set forth.

25,479.—W. R. Axe, of Beloit, Wis., for an Improve-

ment in Mortising-machines:
I claim the gage-plate, R', and slides, x x, in combination with the esprecating table, W, and adjustable table, W', arranged in the nature and for the purpose set forth.

[This invention consists in the employment of a reciprocating table which is to be operated by a treadle, so as to bring the materials to be mortised or tenoned up to the chisel; said table being provided with a feed-roller actuated by a pawl and ratchet during the movement of the tablefrom the chisel so as to feed the stile along the table as the mortising proceeds; and in conjunction with this reciprocating table is an adjustable bed-plate foradjusting the work to the chisel.

25,480.—Horace Bertholet, of Reading, Pa., for an Improvement in Steam-engines:

I claim the peculiar arrangement of the bar, I I, in the slotted valve stem, and the connection of the arms, R R, with the cylinder-cocks, C C.

25,481.—Jonathan Bigelow, of Brighton, Mass., for an Improved Changeable Stencil:

I claim the character-plate formed at its ends as described, for the purpose specified, whether the same be swaged at one edge or not.

Also the stencil formed by the combination of said character-plates and a frame or frames, or clamps, as described.

25,482.—Peter S. Bishop, of Smithfield, R. I., for an Improvement in the Manufacture of Thimbles:
I claim the new article of manufacture described, namely, a thimble made from plated or overlaid metal, either in the common form with fitted sides, or with sides in the form of a regular geometrical figure, the whole article being substantially such as specified.

25,483.—Alpheus Bissell, of Berlin, Wis., for an Improved Washing-machine:
I claim the arrangement of the false bottom, C, cords, a a, pulleys, x x, platform, D, and cam cluck, E, with the frame, F, provided with corrugated rubbers, H H. with rollers, m m, and with levers, I I, said frame being operated by means of cranks, J J, the whole being combined and operating substantially as and for the purposes set forth.

25,484.—J. L. Booth, of Cuyahoga Falls, Ohio, for an Improvement in Grain Separators:

I claim the inclined zigzag screens and boxes, B, C, and troughs, E, having a shake motion given them, and used in connection with the revolving fan, C, and spout, H; the parts being arranged relatively with each other to operate as and for the purpose set forth.

25,485.—J. H. Boyd, of Baltimore, Md., for an Improvement in Saddle-trees:

I claim the employment of the double head or gullet plates, C and D, when the front head or gullet, D, is connected to the body of the tree by means of springs, E E, in such manner that when the straining web is attached to said head and to the back of the tree, a spring seat will be formed, substantially as set forth.

25,486.—Samuel W. Brown, of Lowell, Mass., for an Improved Steam-pressure Indicator or Alarm:
I claim the arrangement and combination of cylinder, A, rod, F, and c, tube, G, and valve, H, with each other, in the manner described, for indicating or giving the alarm with steam from the same or contiguous chamber, essentially in the manner and for the purposes fully set forth.

25,487.—Morgan Chittenden, of Danbury, Conn., for an Improved Sash-fastener:

I claim the combination of a T-shaped wedge, C, with a bolt case, B, having an opening corresponding thereto, whereby the two sashes are uniformly and closely secured together, substantially in the manner and for the jurpose set forth.

25,488.-M. H. Clark, of Danville, Va., for an Im

25,488.—M. H. Clark, of Danville, Va., for an Improvement in Hydraulic Presses:

I claim, first, the arrangement of the water reservoir, D', force, pump or pumps, E, main supply-pipe, F, branches, G G, stop-cocks, H, and a series of hydraulic presses, A B C, for united operation, substantially as and for the purpose set forth.

Second, Arranging a leather packing-ring on a disk which is divided radially into a series of parts, and fitted loosely on a conical extension of the piston, and held in contact with said extension by means of an undivided disk which is suspended loosely so as to have vertical play on a screw or head pin of the piston, substantially as and for the purposes set forth.

25,489.—Richardson T. Clark, of Johnstown, N. Y., for an Improved Apple-parer:
I claim the combination and arrangement of the paring-knife, A, lever, g N M, spring, R, cord, L, clutch drum, K, and spring, U, with shaft, band, s, and pulleys, H and J, and wheels, D and E, and apple fork, B, substantially as and for the purposes described.

25,490.-V. P. Corbett, of Washington, D. C., for an

Improvement in Stoppers for Preserve Cans:
I claim the arrangement of the plate, m, screw, p, conical nut, b, and disk, A, composed of two or more sections, a, when the same are used in connection with an elastic band or rim, h, when the whole is adapted to be used as a stopper for preserve cans, substantially as specified.

25, 491.—George B. Cornish, of New York City, for an Improved Apparatus for Reefing Sails:

I ctaim constructing the slip bands, G G, in one piece with four flanges, a a a' a', the spaces between a a, and a' a' serving as aligh bands, and the central space between flanges, a a', serving as a band on which the reef pennant, J, is wound, said flanges serving to prevent any lateral movement of the yard, and also to prevent the reef pennant from coming into contact with and being injured by the quarter bands, H, all as shown and described.

quarter bands, H, all as shown and described.

25,492.—Riley Doty, of Cardington, Ohio, for an Improved Device for Steadying Logs in Sawmills:

I claim the employment of the adjustable frames, F?, provided with journal bearings, n n, and with rollers, a a, the same being operated in one direction by means of the head and tail blocks, and in the other direction by means of a cord and weight, one of said frames being stationed as described by a spring, H, provided with a shoulder, q and an inclined plane, x, the whole being arranged substantially as and for the purpose specified.

25,493.-John L. Drake, of Cincinnati, Ohio, for an

Improvement in Lamps: claim the employment or use of the disk, E, applied to the wick e, B, and used in connection with the cap, C, and arranged rela-ely with it, for the purpose set forth

25,484.—Eugene Duchamp, of St. Martinsville, La., for an Improvement in Derricks:
I claim the combination of the toggles and right and left screw boom, H, when the latter has its fulcrum movable, as above shown, with the pulleys, J J L N and P, when the same are arranged essentially in the manner and forthe purposes described.

25, 495.—Oliver T. Eddy, of Philadelphia, Pa., for an Improvement in Coffee-pots:
I claim the annular cone-shaped deflecting plate, E, resting on the bottom of the pot, and arranged in respect to the tube, F, and perforated plate, G, substantially as set forth.

25,496.—Moses G. Farmer, of Salem, Mass., for an Improved Electro-magnetic Steam-boiler Gage: I claim the combination of an indicator, an electric circuit or circuits, one or more circuit-breakers, with a float, in any manner substantially as described.

stantially as described.
25,497.—L. R. Faught, of Atlanta, Ga., for an Improvement in Horse-power Machines:
I claim the arrangement and combination of a stationary geared rim, A, movable rim, E, supporting-bar, D, fitted in the pinions, C C, the shaft, G G, provided with pinions, F F, and wheels, H H, and the shaft, F', substantially as set forth.

the shart, Y, substantially as set forth.

25,498.—George Finn, of Oxwego, N. Y., for an Improved Method of Operating Crozing Knives:

I claim arranging the cam, c, that works the cutter on the bevelwheel, O, so that it will not occupy more space on the arm that carries them than that occupied by said bevel-wheel, nor the purpose of eighlying the mechanism and economizing space on said arm, which is necessarily limited in length, as represented and shown.

necessarily limited in length, as represented and shown.

25,499.—Eli Wheeler, of Elmira, N. Y., for an Improvement in Railroad Car-seats:
I claim, first, the arrangement of box-formed supports, c. c. cushions, (2) C3, and cushioned seat-backs, D D, of a pair of car-seats; in the manner specified, whereby when the bottoms of the seats are turned over, to fill up the space between the seats, the boa-clothing contained in the box will be exposed so as to be readily removed, and then, when the backs are turned down to fill the place occupied by the bottoms of the seats are turned over to seat a continuous bed formed from one back edge to the other of the seat, as and for the purpose set forth.

Second, The short open stationary partitions, B B, in combination with sliding-panels, b b, which, when elevated, serve as head and foot boards, and allow ventilation under and above the berth during night time, and when lowered during the day time, affordmer croom to the upper portion of the body of passengers, as they pass through the sisle of the car, substantially as set forth.

Third, The short-sliding-closed blinds, C C, arranged to operate as described, and serve as foot and head boards and allowing ventilation above and below the upper berth, in combination with the upper berths, E, and partitions, c c, substantially as set forth.

[This invention is a facile method of converting car-seats into comfortable couches while the cars are in motion, one side of the seats

fortable couches while the cars are in motion, one side of the seats and backs being suitably upholstered for seats and the other for couches. In this process of conversion, the box under the seat for containing the necessary bed-clothing is first opened and then closed in making the change. Between each pair of seats there is a skelein making internalse. Between each part of seaso sites is a sacre-tion partition for sustaining the upper berths, which can be closed at night by suitable blinds or shutters, thus dividing the ear at night into state rooms, each containing four passengers. Cars constructed upon this plan have already been in use several months on the New York & Erie Railroad, and also other railroads, and they are said to good satisfaction.]

25,500.-John Fretz, of Angel, Cal., for an Improved

25,500.—John Fretz, of Angel, Cal., for an Improved Furnace and Apparatus for Treating Pyritous Ores: I claim, first, The hollow stationary cylinder, F, Its revolving worm, and its openings, for the admission of the pyrites, and the introduction of air and discharge of the fumes of sulphur, in combination with the rotating cylinder, C, and its internal ribs, the said stationary and rotating cylinders communicating with each other through a pipe, k, the whole being arranged in respect to the furnace, A, substantially as and tor the purpose set forth.

Second, The system of vertical boxes or chambers, J K and L, communicating with each other, with the steam pipes k, the rotating cylinder, C, and the exit pipe, M, and arranged substantially as set for thand for the purpose specified.

25,501.—Richard Garsed and Clayton Denn, of Philadelphia, Pa., for an Improvement in Machinery for

delphia, Pa., for an improvement.

Warping Yarn:

We claim, first, The form of the drop-wires as in Fig. 4, arranged in the manner and for the purpose specified.

Second, The cylinder, 20, for the purpose of marking the cuts, operated substantially as above described.

Third, The employment of a register, constructed substantially as above specified, for the purpose of registering the number of cuts while the machine is in motion.

Fourth, The employment of the bar, A, for the purpose of taking the leas, constructed with fingers either on one or both sides, as above described.

Fourth, The emptoyment of least, constructed with fingers either on one or both stuce, at the least, constructed with fingers either on one or both stuce, at the secribed.

Fifth, The combination of the vibrating tube, V, the stationary ook, 52, the movable hook, 55, and the pin, 57, for the purpose of orming the yarn into links, constructed and operated in the manner ubstantially as above described.

25,502.—Samuel Gissinger, of Alleghany, Pa., for an

Improved Churn:
I claim the arrangement in the movable frame, e, of the oscillating churns, i, furnished with dashers, m, and wings h, in combination with the revolving shaft, f, armed with wings, g, the whole being arranged and combined as described and represented and for the purpose set forth.

25,503.—Eugene Grenet, Jr., of Paris, France, for an Improved Galvanic Battery:
 I claim, first, The method of a gitating the exciting liquid of a gal-

vanic battery by forcing a current of air through itin the manner and or the purposes substantially as set forth.

vanic battery by forcing a current of air through it in the manner and for the purposes substantially as set forth. Second, Arranging and constructing the zinc and charcoal elements, in combination with the exciting fluid, substantially in the manner described, whereby they may be operated, the one by the other, substantially as set forth. Third, Forming the charcoal elements by pressing into or on to the surface of plates of lead, when yet in a semi-liquid state, small pieces of charcoal, in the manner substantially as described,

25,504.--C. W. Griffith, of Dayton, Ohio, for an Improved Gage and Box for Casting Journals in Soft Metals:

Metals:
In combination with a hollow box, I claim a loose removable gage or centering plate, fitted and fastened to, or held against the box, s as to hold the shaft in its proper position in the box, and at the sam time retain or prevent the melted metal that is poured into the hol low box, to form a box around the shaft, from running out.

low box, to form a box around the shaft, from running out.

25,505.—Valentine Hall, of New York City, for an Improvement in Apparatus for Cooling Liquids:

I claim the employmentor use of one of more receivers, A B, placed within a tank, F, and connected with the barrel, or cask, H, by means of a siphon I, and with a pump E, within or at the outer side of the tank, for the purpose set forth.

I further claim combining a pump, E, with one or more receivers, A B, connected together and made to communicate with each other, by siphons, C D, when said parts are submerged within a tank, F, and made to communicate with a cask or barrel, H, by means of a siphon, I extending over the top of the tank, substantially as and for the purpose set forth.

(This invention consists in placing one or more receivers and a

(This invention consists in placing one or more receivers and a pump within a tank supplied with ice-water, and connecting said receiver or receivers and pump by means of a siphon or siphons, and also connecting the receiver or receivers by means of a siphon with the cask or barrel in the cellar below the tank, the whole being so arranged that the liquor may be drawn in a cool state, and the refrigerating device readily cleaned when necessary, all the parts being rendered very accessible.]

25,506.—Halvor Halvorson, of Cambridge, Mass., for

25,506.—Haivor Haivorson, of Cambridge, Mass., if an Improvement in Lamps:

I claim, first, The employment or use of the valve C, in connition with the wick-tubes, B B, for the purpose of regulating the style of a to the interior of or between two planes of the wicks, g g. Second, The arrangement of the shaft, e f, and their wheels, e', that the wheels, e', on one shaft, may gear into those out he off or the purpose of raising and lowering the wicks simultaneously the turning of one shaft, f.

25,507.—Riley Haskell, of Painesville, Ohio, for Im-

25,507.—Riley Haskell, of Painesville, Unio, for Improved Trolling-bait for Catching Fish:

I claim, first, Constructing the body of an artificial representation of a natural fish, in two detached parts, to be used in combination—one portion thereof revolving, and the other remaining fixed or stationary, both portions being on one shaft, as particularly described and for the purpose set forth.

Second, I claim, in connection with my first claim, filling the upper part of said fixed portion with a light substance, and weighting the lower part thereof, for the purpose of keeping the said fixed portion vertical in the water, as described.

25,508.-Rochus Heinsich, of Newark, N.J., for an Im-

provement in Tailors' Shears:
I claim constructing the lower bow, with its upper portion widened, and with the projection, p, thereon, so as to form a bearing for the fore-finger within the bow, substantially as and for the purpose set forth.

25,509.—W. M. Hurlbert, of Northfield, Vt., for an Improved Variable Exhaust for Steam-engines: I claim applying the slides to operate in elbows or inverted L-shaped nozzles, arranged substantially as described, [This invention consists in making the upper ends or nozzles of the

blast pipes each in the form of an elbow or the inverted letter L, and fitting the regulating slides to the horizontal portions of the elbows, so that both can be adjusted simulta eously by right and left-handed screws on the same shaft, thereby providing very conveniently for the variation of the area of the openings.]

25,510.—E. T. Jenkins and F. B. Polley, of Williams-burgh, N. Y., for an Improved Steam Trap: We claim the round pipe, B, in combination with the valve seat, J, valve, a, ring, c, opening, K, and float, D, when arranged in the manner described and for the purpose specified.

25,511.—Christian Kieffer, of Lancaster, Pa., for an Improvement in Boilers:

Improvement in honers:
I claim the construct on of the extension and perforated stcamipe, C, with the extension hot air flue, B, with the pan, H, with pipes I, and perforated pipe, K, arranged and combined substantially as escribed and for the purposes set forth.

25,512.—Josiah Kirby, of Cincinnati, Ohio, for an Improved Bung-hole Borer and Reamer:

I claim the conical-shaped stock when made with a throat, cut through from the edge of the bit, on one side, to the opposite side of the stock, so that the shavings are made to pass through the stock and out on the opposite side, substantially as described.

I also claim the combination of the auger-bit, C, with reamer, when made in the manner and for the purpose substantially as described.

25,513.—Levi L. Lancaster, of Rocky Mount, N. C., for an Improvement in Seed-planters:
I claim the frame, e, wheels, c c, hopper, m, cylinder, b, pockets or depressions, r, carrying tube, D, furrow-opener, F u, coulter, Z, leveler, H, and bottom, I I, the whole being arranged for operation conjointly as and for the pur pose described.

25,514.—Lewis W. Leeds and Calvert Vaux, of New York City, for an Improved Thermometric Regulator

York City, for an Improved Thermometric Regulator for Heating-apparatus:

We claim so applying the vessel, which we have termed the secondary heater, containing the fluid to act upon the piston, or its equivalent, in combination with the primary heater, and so applying the piston, or its equivalent, in combination with said secondary heater and with the regulating valve, as described, that the secondary heater is exposed at the same time to the heating influence of the primary heater and the cooling influence of the incoming cold air, made to control the admission of the steam or other heating agent, and cause the supply of such agent to the heater to vary inversely with variations in the atmospheric temperature, as set forth.

25,515.—Julius S. Lloyd, of Philadelphia, Pa., for an Improved Approach Opening Gate:
I claim operating the angular bar, D, by means of the carriage, I, with its pulleys, J and J', and guard, L, in combination with the projecting arm, f', of the rod, F, and the cranked and weighted rods, N and N', and their respective cords or chains, the whole being arranged for joint action as and for the purpose set forth.

ranged for joint action as and for the purpose set forth.

25,516,—Geo. Lutz, of Logan, Ohio, for an Improved Water-indicator for Steam Boilers:

I claim, first, Operating auricular and visual alarms, either severally or conjointly, at will, by mechanism such as is described, for the purpose set forth.

Second, The combined index and tripping levers, e e', arranged substantially in the manner and for the purpose set forth.

Third, The combination of the tripping levers, e e', balance lever, K, and bifurcated rocking-lever, J, substantially as and for the purpose described.

Fourth, The combination of the catch, d, and dogs, j', when arranged and operated substantially as and for the purpose set forth.

Fifth, The combination of the bent lever, D, thumb-screw, d', and slotted bracket, L, substantially as and for the purpose described.

25,517.—Augustus Miller, of Grafton, Ohio, for an Improved Method of Making Soap:
I claim soap manufactured from the herein-named ingredients and chemicals, when the same are compounded substantially in the manner and for the purpose specified.

25,518.-G. I. Mix, of Wallingford, Conn., for an Im-

25,518.—G. I. MIX, Of waningford, conn., for an improved Manufacture of Iron Spoons:

I claim, first, The method, substantially as described, of making the handles of iron spoons.

Second, Forming a tongue, D', upon the bowl blank, and a corresponding recess or miet, D, upon the handle, or vice versa, substantially as and for the purposes set forth.

25,519.—Geo. G. Noyes, of Worcester, Mass., for an Improved Carpet-fastener:

I claim the bar, A, provided with the hooks, B, knife-edge, a, and spurs, d, substantially as shown, so that it may be readily secured to and detached from the base-bard and floor, for the purpose set forth.

(T is invention consists in having a hook at the outer end of a small metal bar, the opposite or inner end being provided with a knife-edge and the bottom of the bar nearits inner end provided with a spurs, whereby the bar may be readily and securely adjusted to the spurs, whereby the bar may be readily and securely adjusted to the floor without a permanentattachment, and consequently quickly de-

25,520.-W. A. Nugent, of Susquehanna Depot, Pa.,

for an Improvement in Railroad Chairs: I claim the shell or body, a, with the cam jars, b b, and the chair substantially as arranged and for the purpose specified.

25,521.—John K. O'Neil, of Kingston, N. Y., for an Improved Horizontal Water-wheel:
I claim the arrangement of the guide partitions, b b g g, cylinders, B E, wheels, C D, and wheel or buckets, f f, in the manner and for the purposes substantially as specified.

25,522.—Thos. S. Page, of Milan, Ohio, for an Improvement in Composition for Tanning:
I claim a liquor composed of terra japonica, sulphate of alumina and potassa, muriate of soda, nitrate of potash and sulphate of soda, when combined in the proportions and for the purpose described.

25,523.—Collin G. Pollock, of Cincinnati, Ohio, for an Improved Boring and Mortising-machine: I claim the arrangement and combination of the bar, o, on the arbor, F, projection, p, on the upright, A, lever, K, connected with the arbor, F, by the knuckie joint, M, and the bevel gear, G II, for joint operation, substantially as set forth.

[This invention consists in a peculiar arrangement and combined tion of parts, whereby a very portable, simple and efficient machine is obtained for boring and mortising. The object of the invention is to perform the work both of boring and mortising with a single shaft or arbor, so arranged with certain necessary parts as to be capable of operating up and down in a vertical direction as the arbor of an ordinary mortising-machine, and also capable of being secured and prevented from moving in said direction and have a rotary motion imparted to it when used for boring.]

25,524.—Chas. Potter, Jr., and C. B. Cottrell, of Wes-

25,524.—Chas. Potter, Jr., and C. B. Cottrell, of Westerly, R. I., for an Improvement in Feeding Paper to and from Printing-presses:

We claim the securing of the registering points, I, firmly to a fixed portion of the machine, and releasing the paper therefrom at the proper time by elevating the adjacent surface, JJ, as set forth.

We also claim depositing each sheet face upwards on the pile, by carrying it between a vibrating series of tapes, R(S, operated substantially in the manner set forth.

We likewise also claim the arrangement of the cylinders, n n' p p', and the series of tapes, R S, or their respective equivalents, in the vibrating frame, P, which vibrates on the shaft, F, na center, and receives its proper vibratory motion from the book, w, or its equivalent, whereby the frame, P, may be readily unbooked and swung out of the way to allow access to the bed of the press without deranging or disturbing any of the mechanism.

25,525.—Wm. H. Racey, of New York City, for an Improvement in Burners for Vapor Lamps:

I claim the burner, F, and curved rods, G G, one or more in combination with one or more deflecting-caps, D E; and draught tube, C arranged for joint operation, substantially as and for the purpose set forth.

25, 526.—Peter Reynard, of New York City, and Victor Yarin, of Brooklyn, N. Y., for an Improved Insect

Varil, of Diouxiu, 11. 1., total improves an approved the Powder-blower:

We claim the divisions, c.c., in the powder-chamber, to insure the powder being in a position to be acted on by the air blown through the perforated diaphragm, d, as and for the purposes set forth. And in combination with said powder-chamber, constructed as aforesaid, we claim the india-rubber perforated ball, fitted and acting as specified, to give the blast of air.

-Joshua Rollman, of Sinking Springs, Pa., for

an Improvement in Threshing-machines:

I claim the application to a threshing machine of one or more independent fan-blowers, which are attached outside of the machine, and in such position as to prevent any dust, which g from the operation of threshing, from reaching the attendant on the machine, when arranged and operated substantially in the manner described.

22,528.--Gelston Sanford, of Poughkeepsie, N. Y., for

an Improvement in Horse-power Machines:
I claim, first, The combination of the internal toothed wheels, C and F, and their connected pinions, with the hollow standard, B, when arranged in the manner and for the purpose set forth Second, The combination of the hollow standard, B, with the shaft, K, and its connected goaring, I and J, in the manner and for the purpose described.

pose described.

Third, The combination of the adjustable bearing or frame, M. with the hollow standard, B, and shaft, K, as and for the purpose set forth.

25,529.—Nathan Sargent, of Charlestown, Mass., for Improved Tops for Tables:
I claim, as an improved article of manufacture, a panoramic table or table-top, the same being constructed and operated in the manner and for the purpose set forth.
I also claim the peculiar mechanism described, whereby the canvas or panoramic cloth is maintained with proper tension upon each of the rollers, however such clothmay varyin thickness or in number of folds upon such rollers.

-Casper Schultze and J. Frederick Schroeder, of Covington, Ky., for an Improvement in Straw

Weclaim a cutting box, constructed as shown and specified, that is with adjustable compound lanife-wheel, H, in combination with feeding chute, C, when these several parts are constructed and arranged for operation conjointly as and for the purposes described.

25,531.—Wm. W. Shipman, of New Haven, Conn., for an Improvement in Machines for Making Sewingmachine Needles:
I claim the feeding plier formed by the lever, F, and block, D, in combination with the punching die, P3, and die, P3 and 91 31, F2, 8, the cutter, N, and clamp formed by J J and I I, the whole in combination as set forth, and operated in the manner and for the purposes specified.

25,532.—Geo. B. Simpson, of Washington, D. C., for an Improved Electrical Heating-apparatus:

I claim the insulation of the metallic coil or helical electrode, which I call an electro-heater, and the successful generation of heat by passing currents of electricity over a coll or coils of platina, or other metallic wire, resting on and supported by a non-conducting electrical base, or encased in metallic tubes, or open vessels insulated with any of well-known substances non-conducting of electricity, as described.

25,533.—John Joseph Charles Smith, of Covington, Ky., for an Improved Mode of Constructing Ma

trices, &c.:

I claim the discovery of rendering a composition or alloy of copper and tin pliable and in such a state as to admit of an easy impression of any figure or design on or in metal, whether engraved or produced by means of electrotyping, as a copy of any figure, design or object, thus yielding a perfect matrix or mould, and this process I further claim, as my invention, in connection with the manufacturing of types of the alloy of copper and tin, as already described, and which will and shall produce the intended effect.

25,534.—Charles Stearns, of Lowell, Mass., for an Im-

provement in Making Lightning-conductors:

I claim the twisting rollers, constructed as described, in combination with the corrugating rollers, for producing the corrugated twisted copper rod.

25,535.—Theodore J. Steffe, of Lancaster, Pa., for an

Incoore J. Steffe, of Lancaster, Pa., for an Improvement in Horse-rakes: Iclaim the arrangement and combination of the teeth-heads, E, y, N, spiral spring attachment, F, lifters, B B, lever, G H, cleaners, the machine, and parts have their center of motion on the axle the machine, also claim, in combination with the above, the foot-breec, K L, aged at II, slide, M, and slot, O, substantially as and for the purse specified.

25,536.—Geo. Strause, of Boonsboro, Md., for an Im-

provement in Hominy Mills:

I claim giving to the shaft, D, substantially the shape represent the said shaft is armed with toothed segments, and is als ated within a tube which is also armed with counteracting seg substantially in the manner set forth.

25,537.—David H. Van Duzer, of Sugar Loaf, N. Y.,

for an Improvement in Bridges:
I claim in combination with the blocks, E F G II I, rods, B B.
blocks, C C', and bolts, D D', arranged as shown, the arrangement of
the plates, L, all substantially as and for the purposes shown and de-

[The nature of this invention consists in the employment of iron gripes, so arranged that each stone or boulder will be firmly griped or bound to its adjacent stone and the whole arch sustained and

25,538.—Samuel Walker, of Roxbury, Mass., for an Improvement in the Take-up for Trimming-looms:

I claim giving to the take-up roll of a trimming-loom a reciprocating motion longitudinally on its axis, for the purpose specified.

25,539.—Suspended.

25,540.—Charles Fontayne, of Cincinnati, Ohio, for a Photographic Printing-machine:

I claim, first. The described machine for printing or multiplying photographic pictures. Second, The described art of multiplying positive photographic pictures or expressions from the same negative upon the same sheet

Second. The described art of management upon the same sneet of sensitive paper or other material.

Third, Causing the sensitive material used for the reception of photographic impressions, latent or otherwise, made by the agency of solar or other light, passing through a negative, to traverse the aperture or negative employed.

Fourth, The traversing bed, whether cylindrical or plane, confined within a dark chamber, whose surface may be moved by ratchets, screws, cranks, or their equivalents, for the purpose of carrying the sensitive material when the same is used in connection with a negative, from which it receive positive impressions substantially as described.

sensitive material when the same is used in connection with a negative, from which it receive positive impressions substantially as described.

Fifth, The employment of continuous sliding or revolving disks, with springs and spring-stops, or their equivalents, to give them a uniform motion and overcome the momentum or rebound, for admitting and shutting off light uniformly to and from all parts of the surface to be acted upon in printing positive photographic pictures from a negative, substantially as described.

Sixth, The application of a lens or lenses for the purpose of condensing light, when used in combination with negative, 23, the sensitive material, and slide or cut-off, for admitting or shutting off light, for the purpose of photographic-printing substantially as described.

Eighth, The combination of condensing-lens, 33, negative, 34, adaguerreotype-tube, 75, with its lenses, 76, the sensitive material and slide or cut-off for photographic-printing substantially as described.

Eighth, The combination of the sensitive material, negative, 28 (as distinguished from negative, 34), and slide or cut-off, for the purpose of photographic-printing.

Ninth, The method of raising the glass negative or other matrix, 28, from the sensitive material, to permit the motion of the latter, and the method of lowering again, substantially as described.

Tenth, The use of the glass negative (when negative, 28, substantially as described or the use of a skeleton frame, for the purpose of pressing the sensitive material smoothly and evenly on roller, 5, or traversing bed while the photographic impression is being made.

Tweith, The alternate admission and exclusion of light passing through a negative, to act upon a traversing sensitive material, confined in a portable dark chamber, substantially as described.

Thirteenth, The rod, 8, working through hollow, slotted shaft, 6, and affixed to roller, 5, by plate, 9, for the purpose described.

Thirteenth, The combination of the lever, 12, with its spring-catch, 13, with the r

35,541.—Henry Whittington, of Philadelphia, Pa., for an Improvement in Cut-off Gear for Steam-engines:

I claim the inclined spiral edges, x x, on the revolving and leeve, B, when the latter is applied to operate the cut-off vare descent of which is caused by the pressure of steam abralve, and when the inclined edges serve to retard the descen alve, as set forth.

vaive, as set forth.

25,542.—Asbury Wilkinson, of Madison, Ind., for an Improved Washing-machine:
I claim the combination of circular boards, B and C, suspended from a frame above by springs, b b b and c, with a rotary corrugated roller, working between them, all constructed and operated substantially as set forth.

tially as set forth.

25,543.—Jeptha Avery Wilkinson, of Brooklyn, N. Y., for an Improved Registering-apparatus:
Iclaim a series of counting-disks standing at right angles, or nearly so, to each other, and each formed with a thread or worm around its periphery, taking teeth on the next counting-disk in the manner and for the purpose specified.

I also claim the arrangement of the counting-disk, q9 and q10, in the manner specified, whereby they can be disconnected and set to commence counting when required, as and for the purpose de cribed and show the standard shows.

25.544.—John F. Cook, of Baltimore, Md. (assignor to

25,544.—John F. Cook, of Baltimore, Md. (assignor to himself and George F. Page, of same place), for an Improved Try-cock for Steam-boilers:
I claim combining with the barrel of a try-cock, a two-armed lever, one provided with springs or weights, and the other with a rubber (or of her equivalent disk), so that the weighted-arm shall hold the valved or disk arm against the bore of the barrel of the cock substantially as described and represented.

25,545.—Henry W. Gray, of Cleveland, Ohio (assignor to himself and W. H. Alvord, of Homer, N. Y.), for an Improvement in Railroad Chairs:

I claim the forming the railroad chair in two sections, having the outer surfaces, F, convex, as described, in combination with the grupe, G, and beam, D, the several parts being arranged in the manner and for the purpose set forth.

25,546.—Horatio Francis Hicks, of Grand View, Ind. (assignor to Hicks Brothers, of same place), for an Improvement in Presses:

I claim the described combination of stepped-bearings, G and I, with rollers, K', adapted to operate in connection therewith, without endwise pressure or tendency to displacement, in the manner and for the purpose set forth.

25.547.—George W. McCord, of Centralia, Ill. (assignor to himself, J. F. Lobdell, of Centralia, Ill., and P. V. N. Davis, of Rush, N. Y.), for an Improved Deep Sea Sounding-apparatus:

I claim the arrangement of the cylinder, a, piston, p, graduated scale, f, cap, i, and vernier or register, k, constructed and operating substantially as described, forthe registration of marine-soundings upon the principle of hydraulic pressure.

25,548.—G. H. Sanborn, of Boston, Mass., and John E. Coffin, of Portland, Maine (assignors to G. H. Sanborn, aforesaid), for a Machine for Shaping and

Finishing the Backs of Books:
We claim, first, The employment, for shaping or finishing the backs of books, of a divided roll or pair of segments, C C, operating across the backs from the center to both sides thereof, substantially as de-

the backs from the center to both sides thereof, substantially as described.

Second, The combination of the cam, T, slide, R, toggle, P P, spring, Q, link, y, lever, Q, link, u, and toggles, F F, with the book-holder, for the purpose of raising the bolder and causing it to close upon the book before each operation of the divided roll or pair of segments, substantially as described.

Third, Attaching the segment-levers, G G', or their equivalents, to levers, H II, operated substantially as described, by cams, N N, on the constantly-revolving main-shaft for the purpose of throwing the segments out of the way of the holder, at the proper stage of the operation of the machine, to permit the removal and introduction of the books.

49.—Thomas Shaw, of Philadelphia, Pa. (assignor to himself and J. C. Bailey, of same place), for an 25.549.-

to himself and J. C. Bailey, of same place), for an Improvement in Stoves:

I claim, firstly, The adjustable legs, a, when combined with the casing, A, and its gage-cylinder, and arranged as set forth, so as to serve the double purpose of tilting the stove more or less on one side, and regulating the admission of air into the casing.

Secondly, Operating the valve, D, for regulating the flow of gas into the easing, by means of the object to be heated by the fiame, in conjunction with the devices set fort, or their equivalents.

25,550.—A. T. Underhill, of New York City (assignor to C. R. Underhill, of New Castle, N. Y.), for an Improvement in Converting Reciprocating into Rotary Motion:

I claim the arrangement and combination of the frame, I, guard S S'S'', and ratchet-wheels, J J' J'' J''', substantially as show and described, so that the rotation of the shaft, H, may be reverse as set forth.

25,551.—Wm. F. Warburton and Wm. B. Atkin, of Philadelphia, Pa. (assignors to Wm. F. Warburton, aforesaid), for an Improvement in Machinery for Perforating Hat Bodies:

We claim, firstly, The system of pointed pins, m, hung independent of each other to the cross-head, J, furnished each with a separate spring, and arranged and operated substantially as set forth, in combination with the hat block attached to the face plate, F, on the spindle, E, for the purpose specified.

Secondly, The ratchet-wheel, G, of the same form, or thereabouts, as that presented by a transverse section of the hat to be perforated, in combination with the face plate, F, and its hat block, the said wheel being operated by the pawl, f, and the appliances connected therewith, or their equivalents, in the manner and for the purpose set forth.

25,552.—Morris L. Keen, of Roger's Ford, Pa., for an Improved Mode of Distilling Liquids from Coal

Tar:
I claim the application of additional heat at or near the surface of the coal tar, or other similar hydro-carbon, when used in combination with pressure in the boiler, for the purpose of preventing the tarry from from rising and over-running the still, and thus endangering the operator as well as the premises, as described.

RE-ISSUES.

James Perkins and William H. Burnet, of Newark, N. J., for an Improved Machine for Bending Metal Pipe. Patented October 14th, 1856; re-issued

September 20th, 1859:
We claim the mandrel, d, substantial y as described, and therewith aversing-roller, b, or the quivalent, for bending calls of metal pipe, add, in combination therewith, the furnace, in the manner and for the urposes set forth.

David B. Rogers, of Pittsburgh, Pa., for an Improve-ment in Cultivator Teeth. Patented November 1st, 1845; re-issued September 20th, 1859:

I claim making the shank or upper part of cultivator teeth of thin plate-steel, U-shaped or curved round in front, substantially as described, for the purpose of securing the necessary strength to permit the tooth to be made entire, shank and blade of a single piece of metal, and also of enabling the tooth to be secured in its place in the beam by means of a wedge driven into the cavity of the shank substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued Septem-

December 21st, 1858; and again re-issued September 20th, 1859:

I claim the arrangement, substantially as described, of a cutting apparatus and a reel, with respect to a driving-wheel and a grain wheel, or its equivalent, and a raker's seat, or its equivalent, so that the major part of the weight of the cutting-apparatus and reel shall be in advance of the axis of oscillation of the machine on the said wheels, while the raker's seat or stand shall be located behind that axis, and the machine, with the raker thereon, ne rly balanced on its axis of oscillation substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improve-

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued September 20th, 1859:

I claim the combination of a tongue, or its equivalent, to draw the machine by, a driving-wheel and gearing arranged at the side of the frame, a short platform, a reel to gather the grain to the platform, and a stand or seat for the raker, fixed upon the machine, so as to enable the raker conveniently to discharge the grain and lay itin gavels upon the ground at the side of the swath, and out of the return path of the horses, substantially as described.

Cyrus H. McCormick, of Chicago, Ill., or an Improve ment in Reaping-machines. Patented October 23d ment in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued September 20th, 1858:

claim a seat or stand on the reaping-machine for the support o the raker, laterally ard in front, substantially as described.

the raker, laterally ard in front, substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued September 20th, 1859:

I claim the combination of the reel, the divider, and the rakre's seat or stand, co-operating together in such manner that the grain deposited upon the platform by the reel and divider may readily be grasped and discharged from the machine by the raker at his seatesb-stantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1858; again re-issued December 21st, 1858; and again re-issued September 20th, 1859. ber 20th, 1859:

Der 20th, 1839:
I claim the combination, in a reaping-machine, of the following elements, namely, the draught and the gearing, arranged at the side of the machine; two compressors, one arranged at each end of the cutter; the short reel to sweep over the space between the compressors and the short platform, substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improve ment in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued Septem-ber 20th, 1859:

DET ZUIN, 1009; I claim the combination of the grain-guarded platform to recei andretain the cut grain, with the divider and the reel, the whole s ranged substantially in the manner and for the purposes described.

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued September 21st, 1858; and again re-issued September

I claim the combination of the reel support, at the rear part of the outer side of the platform, with the low hat frame and the divider, arranged substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improve ment in Reaping-machines. Patented October 23d ment in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued September 20th, 1859:

DET 2011, 1609:
I claim the arrangement of the frame, the finger-beam, and the platform, and the driving-wheel and gearing, relatively to each other, so as to secure an unobstructed gavelling-space, G, at the side of the platform, behind the finger-beam, substantially as described.

platform, behind the finger-beam, substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued September 20th, 1859:

I claim a reaping-machine frame, consisting, namely, of two principal beams, D D and M, crossing each other, and arranged relatively to the supporting-wheels, so as to give support to a platform not extending behind the gearing, and without interfering with the cutter on one side or the gavelling-space on the other, substantially as described.

Cyrus H. McCormick, of Chicago, Ill., for an Improvement in Reaping-machines. Patented October 23d, ment in Reaping-machines. Patented October 23d, 1847; re-issued May 24th, 1853; again re-issued December 21st, 1858; and again re-issued Septem-December 21st, 1858; and again re-issued Deptember 20th, 1859:
I claim, first, A dividing-board having a surface inclining towards the cutter and platform, and an outer dividing-line and an inner dividing-line, and acting substantially as described.
Second, I claim the combination of the inclined dividing-board with a guide-bar substantially as described.
Third, I claim the combination of a reel with the inclined dividing-board substantially as described.
Fourth, I also claim the combination of a reel with the dividing-board and guide-bar substantially as described.

Royal E. House, of Binghampton N. Y., for an Improvement in Magnetic Printing-telegraphs. Patented April 18th, 1848; re-issued September 20th,

provement in Magnetic Printing-telegraphs. Patented April 18th, 1848; re-issued September 20th, 1859:

I claim, first, A series of keys, each corresponding to a character, in combination with a revolving part of a circuit, so that the touching of one-of the former may cause the circuit to be broken or closed for the purpose of printing, substantially as specified, when the revolving part of the circuit is in a certain required angular position, properly corresponding to the key struck.

Second, I claim a series of keys, each corresponding to a character, in combination with a revolving portion of a circuit and a shaft provided with pins, arranged in a helix, all substantially such as specified, or the equivalents of the whole, acting to cause the circuit to be broken or closed when the revolving part is in a certain angular position, in proper correspondence with the key struck, for the purpose of printing a proper corresponding letter by means of any suifable machinery.

Third, I claim a key-board or series of keys, in combination with a rotating portion of a circuit, and a type-wheel, or its equivalent, so governed as to present a proper letter corresponding with a key touched to produce an impression, the combination being substantially such as set forth.

Fourth, I claim, in combination, a single circuit of conductors, a key-board or series of keys, a revolving portion of a circuit, and a type-wheel, substantially such as specified, and these also in combination with a spraintip-gress and with a key-shaft, or either of them, each part being substantially such as described.

Fifth, I claim a series of keys, each corresponding to a character, in combination with a single circuit of conductors and with a printing-press and with a key-shaft, or either of them.

Sixth, is claim actuating or driving a revolving portion of a circuit or a key-shaft, or both of them, by means of a prime-mover acting upon the m through a figle circuit of conductors and with a printing-press and printing-sparatus or either of them.

S

Ninth, I claim, in a printing-telegraph, moving the paper to the types to produce an impression on the former, substantially in the manner described, as distinguished from former modes of operation, by which the types were moved towards the paper.

Tenth, I claim in combination, a revolving type-wheel and a roller, or its equivalent, charged with coloring matter, so as to deposit such matter on the types as they, in succession, come in contact with the roller, the combination being substantially such as set forth; and this I claim also when the roller is grouved as described.

Fleventh, Being aware of the facts that type-wheels have been permitted to revolve, step by step, when controlled by escapements, and when such escapements have been actuated either by a primacutating an escapement which controls the motions of a type-wheel by a prime-mover, whose motions are regulated by the breaking and closing of a circuit, under a mode of operation substantially such as described, whereby a small force, derivable from magnetism, controls any necessary power of a prime-mover, there being a breaking and closing of circuit correspondent with each vibration of the escapement.

Tweltth, I claim a hydraulic regulator, substantially such as de-

Twelfth, I claim a hydraulic regulator, substantially such as described and forthe purposes set forth.

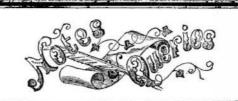
Thirteenth, I claim a hydraulic regular, in combination with a type-wheel and a printing-apparatus and a prime-mover, the combination being substantially as specified, and causes the press to print when the type-wheel causes to move for a longer time than usual. Fourteenth, In combination with a type-wheel and a printing-upers or apparatus, I claim apparatus, substantially such as specified, for making an alarm when that apparatus is permitted or caused toact by the breaking and closing of the same circuit of conductors, which, by its breaking and closing, permits the printing-apparatus to come into action.

DESIGNS.

Eliza A. Murdock, of Boston, Mass., for a Design for a Skating or Riding-cap for Ladies.

John Martino, of Philadelphia, Pa. (assignor to D. Stuart and J. R. Peterson, of same place), for a Design for a Cooking-stove.

John Martino and James Horton, of Philadelphia, Pa. (assignors to D. Stuart and J. R. Peterson, of same place), for a Design for Cylinder-stoves.



Q. & B., of N. H.—If an article precisely similar to yours was publicly known and used before you invented your device, then your patent is of no value, and the grant by the Patent Office was an error. The grant of a patent for a device which the Commissioner believed to be new, but which in reality was old, is an illegal grant, and therefore valueless, because the statute expressly provides that patents can only be issued for inventions "not known or used before his or their discovery." The issue of a patent is not or used bender most their discovery. The issue of a pittent is not a guaranty by the government that the invention is new; it is a certificate to the effect that the Commissioner believed it to be novel and useful. No money is refunded by government, even if the patent proves to be invalid. If the patent is valid, the government through its courts will defend you in the solvent, if you apply to them in due form. Unless your deeds of assignment expressly bind you to defend the patent, you are not compelled to do so. Under an ordinary assignment you would not be so bound.

S. A. S., of Vt.—A number of patents have been issued for fountain pens, but few however are in use, If you will send us a sketch and description of yours, we will give you our opinion of

H. S. T., of Vt.-We cannot furnish you with the back , ... - ... cannot turnish you with the back numbers you want of Vol. XIV. You can procure a bound volume complete for \$2.75.

S. G., of Texas.-Your alleged improvement in pumps closely resembles others that we have seen, and we are of the opinion that a patent cannot be procured upon the arrange-

W. P. H., of Va.—There would not be any difficulty in attaching a tube to a turbine wheel in such manner as to prevent the water from driving the wheel as fast as the "head alone would force it." A tube attached in almost any manner would have this

A. K. L., of Ala.—The best method of making a whitewash for outside exposure is to slack half a bushel of lime in a bar-rel, add one pound of common salt, half a pound of the sulphate of zinc, and a gallon of sweet milk.

J. Q. A., of Mass.—A strong solution of isinglass, to which is added a small quantity of alcoholic spirits, is very adhesive and dries quickly. Seed-lac varnish, made with alcohol as a solvent, dries rapidly, and may suit your purpose better than one

W. B. G., of N. Y.—The carbon cylinders for the Bunsen batteries are made with powdered hard charcoal molded into form with a paste of wheat or ryeflour. Mr. J.'s subscription to end of Vol. II. will be \$1.10. If you have constructed a magnetic engine surpassing the steam motor, you should exhibit it in public as soon as possible, in order to demonstrate its superiority to the satisfaction of the public. There is no other way of conquering public prejudice against it.

D. A. M., of Pa.—Condie's monster steam-hammers are manufactured in Glasgow, Scotland. This is all the information we can give you respecting them at present.

E. W. D., of Conn.—The self-operating mule was the

result of a series of English inventions. When they began to be made in this country, British mechanics made \$4 or \$5 perday in setting them up and starting them.

G. D. H., of Mass.-The reason why the bit of silver ingot which you send us is full of air-holes, or "blown," as the metalworkers call it, is this, the material of which your mold is made is not sufficiently pervious to the air.

G. N. H., of N. Y.—Brass castings are rendered bright by steeping them for a few seconds in dilute sulphuric or muriatic acid. They sometimes require to be scoured with sand, as well as steeped in the acid. They should be washed afterwards in warm water, then dried in warm sawdust, and finally treated with s thin coat of lac-varnish, colored yellow

H. C. B., of Tenn.-Iron rails frequently become magnetic from the vibrations of the trains in passing over them. A bur of hard steel placed in an inclined position and subjected to several sharp blows becomes magnetic. When a steel punch is driven hard into an iron bar, it is oftentimes rendered magnetic by a single

B. F. A., of Ky.—The best cement known to us for closing up the seams in your tile-roof is composed of equal parts of whiting and dry sand and 25 percent of litherge, made into the consistency of putty with linseed oil. It is not liable to crack when cold, nor melt, like coal-tar and asphalt, with the heat of the sun.

E. B. H. of Mass.—The tassel-tip which you have sent

us appears to be made of the ivory nut, not a composition of rice. We have exhibited it to two turners in ivory who examined it through a magnifying glass; one said it was porcelain, the other, ivory nut. Probably it is a composition of plaster of Paris and rice th, as you suggest. Porcelain buttons, we believe, are all inseed. They are struckout of porcelain clay in dies under great sure, then vitrified in kilns, like china and stoneware. starch, as you suggest.

H. K., of Wis.-A beautiful red ink may be made with carmine of cochineal, mixed with weak water of ammonia, to which a little gum arabic mucilage should be added. A strongdecoction of Brazil wood, to which is added a little alum water, ar mucilage, makes a cheap red ink, but it is not so beautiful

J. L., of Ga.—The fluid employed in batteries with negative plates of lead is dilute sulphuric acid. We preferplatina plates—the Smee battery.

G. O. K., of Vt.-It will take a little more than one horse power to raise 800 gallons of water 12 feet per minute, as this is equivalent to lifting 36,000 pounds one foot high in this space of time, A horse-power is equal to 33,000 pounds lifted one foot per minute. Communicate with Guild & Garrison, 74 Beekman-st., this city, about their steam-pump; it is a good or

Money Received

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, Sept. 24, 1859:-

Office business, for the week ending Saturday, Sept. 24, 1859:—

B. S. M., of Iowa, \$25; H. M., of N. Y., \$25; H. P., of Mass., \$60; J. G. K., of N. Y., \$30; W. S. M., of Conn., \$30; L. B., of Wis., \$10; T. M., of N. Y., \$15; J. W. D., of Mass., \$25; S. T. T., of Ill., \$25; G. P., of N. Y., \$30; Mrs. L. B., of N. Y., \$40; L. M., of Ga., \$50; R. C. D., of N. Y., \$30; C. D., of Conn., \$30; J. B., of N. Y., \$30; J. K. D., of N. Y., \$25; O. P., of N. Y., \$40; R. L. & C. S., of N. Y., \$25; S. W. S., of Wis., \$30; J. T. T., of Texas, \$30; S. T. P., of Ga., \$30; D. S. C., of N. Y., \$40; J. H. R., of N. Y., \$250; J. H. W., of Md., \$250; H. E. W., of Mass., \$30; B. R., of Mass., \$20; H. B. F., of N. Y., \$30; L. B., of Texas, \$30; J. K., of Mass., \$90; H. W., of My., \$60; H. H., of La., \$30; J. B. A., of N. Y., \$10; T. B. B., of Ill., \$25; S. A. S., of Mass., \$30; N. G. S., of N. Y., \$25; J. D., of Pa., \$30; N. H. C., of N. Y., \$15; N. B., of Ill., of \$30; W. D., Jr., of Pa., \$55; E. H. H., of Ga., \$25; R. S. S., of Ga., \$55; P. L., of N. Y., \$10; C. W. W., of N. Y., \$30; A. N. M., of Ill., \$30; D. E. H., of Mass., \$25; A. E., of Ohio, \$30; H. & F., of Pa., \$25; F. B. W., of Ill., \$32; S. & H., of N. Y., \$100; S. L., of Maine, \$56; J. W. F., of Pa., \$37; W. C. G., of Conn., \$55.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Sept. 24, 1859:--

Office during the week ending Saturday, Sept. 24, 1859:—
W. B., Sen., of N. Y.; A. M., of N. Y.; C. W. W., of N. Y.; N. H. C., of N. Y.; J. W. D., of Mass.; B. S. C., of N. Y.; D. & G., of N. Y.; W. C. G., of Conn.; E. II. H., of Ga.; J. W. C., of N. Y. (two cases); J. McN., of L. I.; R. E., of N. Y.; S. T. T., of Ill.; J. K. D., of N. Y.; S. W. S., c Wis.; E. C., of Vt.; B. S. M., of Iowa,; T. B. B., of Ill.; D. E., H., of Mass. R. L. & C. S., of N. Y.; J. W. F., of R. I. (two

Hints to our Patrons.

BACK NUMBERS. - We shall hereafter commence sending the SCENTIFIC AMERICAN to new subscribers from the time their subscriptions are received, unless otherwise directed; the back numbers can be supplied from the commencement of the volume to those who may order them. It is presumed most per-sons will desire the back numbers, and such as do will please to so state at the time of sending in their subscriptions; they can, however be supplied at any subsequent period.

INFALLIBLE RULE—It is an established rule of this office to stopsending the paper when the time for which it was prepaid has expired, and the publishers will not deviate from that standing rule in any instance.

INVENTORS SENDING MODELS to our address should always enclose the express receipt, showing that the transit expenses have been prepaid. By observing this rule we are able, in a great majority of cases, to prevent the collection of double charges. Express companies, either through carelessness or design, often ne-Express companies, eterer through carefessiness or design, other no-glect to mark their paid packages, and thus, without the receipt to confront them, they mulct their customers at each end of the route. Look out for them.

GIVE INTELLIGIBLE DIRECTIONS—We often receive letters with money inclosed, requesting the paper sent for the amount of the enclosure, but no name of State given, and often with the name of the post-office also emitted. Persons should be careful to write their names plainly when they address publishers, and to name the post-office at which they wish to receive their paper, and the State in which the post-office is located.

SUBSCRIBERS to the SCIENTIFIC AMERICAN who fail to get their papers regularly will oblige the publishers by stating their complaints in writing. Those who may have missed certain numbers can have them supplied by addressing a note to the office of publication.

Literary Notice.

THE KNICKERBOCKER, for October, John A. Gray, publisher, New York City. After an absence of many months, this magazine, twenty-six years old, appears upon our table, and right glad we welcomet back. One number contains more original wit, of a kind which no one but Clarke can perpetrate, than any other monthly published. We hope the work has a good circulation—it deserves it.