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28,642.-T. J. Alexander, of Westerville, Ohio, for an Improvement in Mechanism for Starting Sewing Machines:

Machines: I claim, first, So constructing and hanging or ar anging the lever or its equivalent, which serves for the knee or knees of the operator, to set in motion mechanism for starting the treadle-driven shaft in a forward or given direction, as that said lever requires the lateral action of the knee or knees to actuate it, essentially as set forth. Second, The employment, in combination with a treadle, and for starting the treadle-driven shaft, in a forward or given direction, of a friction gid or where iset in motion against a band or other wheel, connected with said shaft, and actuating the same substantially in the manner described.

connected with said shaft, and actuating the same substantially in the manner described. Third, Sohanging and operating the friction pad or wheel which is employed to start the treadle-driven shaft in a forward or given di-rection, as that the same movement on part of the operator, which serves to rotate or communicate driving motion to the friction pad or wheel, firstly brings said friction pad in close rubbing contact with the wheel it operates, and whereby the friction pad or wheel is made self-freeing, after having started the wheel or shaft, it is employed to direct the movement of, and give starting impetusto, substantially as specified.

28,643.—Wm. A. Akins and Darius Babcock, of Dry-den, N. Y., for an Improvement in Machines for Cleaning Grain when fed to the Mill, and Cooling

Millstones: We claim, first, The tube, Q, arms, c, and inclines, a, in combina-on with the hopper, X, and the upper surface of the revolving cone , and the pin, P, when used for feeding grain from a hopper, as de-

N, and the pin, P, when used for feeding grain from a hopper, as de-scribed. Becond. We claim the cone, N, and tube, R, in combination with the fan, L, when the fan L, surrounds the cone, N, and tube, R, the cone distributing the grain radially from its upper surfaces, its curved sidesguiding the blast of air so as to most effectually dislodge all impurities. Third, We claim the air passage between the upper surfaces of the stone, B, and the curb, U, formed by closing the opening, XX, and inserting the holes, V V, for the admission of air at the outer edge and upper surface of stone, B, for the combined purpose of cooling the stone in its passage over it, from its periphery to its center or eye, and supplying the fam with air to clean the grain. Fourth, We claim the meaner of raversing the wings of the fan, I, by hanging them upon the pin, O, so list, thy may be sufficient for the pine, P2.

to the position shown by the red lines, No. 2, and interest over the pine, P3. Fight, We claim running the fan, L, directly from the bail, E (or from the driver, D, which would be equivalent thereto), at the same speed of the stone, thereby avoiding the use of gear, band or belt. 28,644.-N. S. Bean, of Manchester, N. H., for an Im-

provement in Pumps: I claim the concentric arrangement and combination of the pump cylinder, suction and discharge passaxe, caps, and valve plates, with valves located in opposite sides thereof, all operating substantially as described.

28,645.-G. H. Beard, of Cincinnati, Ohio, for an Im

28, 645. — G. H. Beard, of Cincinnati, Ohio, for an proved Claw Bar: I claim the instrument for drawing spikes and similar purp constructed as described, comprising the three following and see features, viz., the U-shaped space, E. receding towards the he allow the necessary traverse to the spike in the process of drawing heel, C, and the recess formed by the inclined surfaces a a, to rec the head of the spike, all substantially as described.

28.646.-N. W. Brewer, of Williamsport, Pa., for an

Improvement in Self-loading Fire-arms: I chaim, first, The arrangement of the cylinder, A, with the spiral late, S, and cap, L. Second, The cup-box, T, and manner of capping described.

 28,647.—John Butler, of Brooklyn, N. Y., for an Improvement in Flexible Gas Tubes:
 1 claim, as an improved article of manufacture, a flexible gas conductor, composed of a flexible leaden tube covered with braid or other witable pliable non-metallic covering, substantially as shown and decribed. This invention consists in the employment of a tube or lead pipe Possessing the desired flexibility or pliability, and which at the same

**Present** the desired flexibility or plability, and which at the same tike will keep perfectly air-tight; and incovering this pipe with any suable material, either braiding or the ordinary india-rubber tub-ing,which shall be of a suitable thickness to prevent any liability of the ead pipe collapsing, either by weights which may be put upon it, orly coiling it up, or bending it in short curves for establishing the stod upon the table, or from becoming injured in any way from many of the stode o usage

28,64 Inproved Steam Stuffing-box for Revolving Rolls: I claimhe arrangement of pipe, n, within pipe, d, as described, i combinally with the stuffing box, b, and its appendages, and roll, a for the pueses and operating substantially in the manner fully se forth. -Hugh Campbell, of Newtown, Conn., for an

28,649.— D. Chism, of Albany, N. Y., for an Improvement in Shingle Machines: I claim the rosebar, I, as attached to the rack feed bar, J, in connection with th recease or chamber, N, in the oscillating feed head, G, all in the manerand for thepurpose specified; and these parts or means I only tim when they are connected with the adjust ble lover feed bar, with the lateral adjustable screw, W, and feed paw attached to undle. U, regulated by the spiral spring, as represented, all for theurose and in the maner specified.

28,650.--Frang Cist, Wm. K. Kossak, and Wm. H.

Godfrey, oSt. Louis, Mo., for an Improved Tool for Laying 4 Stretching Carpets: We claim the combed a rangement of the wedge, With each other and with the pilers or neers, all constructed and operating substan-tially in the manner al for the purpose described.

28,651.—James Crk. of Newark, N. J.. for an Im-provement in th Manufacture of Prussian Blue: I chim applying anterprise are provided in tans in manuim suppleted atmender for artificial means in manu-ing Prussian blue, the manner and for the purposes specified. 28,652.-Joseph Clarke, of Syracuse, N. Y., for an Improvement in Vapor Lamps: I claim the construction of the conducting tubes, II and G, in one olid piece of metal, E, substantially in the manner and for the pur-

28,653.—Wm. A. Clark, of Bethany, Conn., for an Im-proved Tenoning Auger: I claim an adjustable hollow auger having the longitudinal lines of the periphery of the inner surfaces of the bar el at all times parallel to each other, within the entire limit of the adjustability of the in-strument, constructed substantially as described.

28,654.—M. C. Cogswell and John McKiernan, of Buffalo, N. Y., for an Improved Bolting Chest: We claim, first, The hollow shaft, A, for the purposes and substan-tially as described. Second, We claim the perforated cylinder, D, in combination with the hollow shaft, A, for the purposes and substantially as set forth. Third, We claim the combination and arrangement of the rotating reel head, S, with the stationary cylin-der. R, for the purposes and substantially as set forth. Fourth, We claim the relative arrangement of the cant boards, G, cylinder, H, brosh, I, bridge, K, and openings, T T, for the purposes as set forth.

28.655. -Leonard Coleman, of New Orleans, La.. for

an Improvement in Mills: I claim the metal frame, A, and hoop, B, of the mill in one piece constructed as described and in combination with the parts above claimed, I claim the feed-pipe, R, supporting the hopper, and adjust ed by a screw, substantially as described.

cu by a screw, substantially as described.
28,656.—T. M. Coleman, of Philadelphia, Pa,, for an Improvement in Horse-shoes:
I claim the horse-shoe composed of the two plates, A and B, permanently secured together with an intervening strip, c, of gum elastic or other equivalent material, when the latter as well as the plate, B, has recessed or elds, b, arranged in respect to the nail holes of the plate, A, in the manner set forth, so that the onitre shoe can be secured rigidly to the hoof by simply driving the nails and without separating the plates.

28,657.-J. S. Colvin, of Pittsburgh, Pa., for an Improved Steam Boiler:

proved Steam Boiler: I claim, first, The combination and arrangement before described of the small air-tight furnace, supplied with a blast of air, with a heating cylinder inside of a steam boiler in the manner substan-tially as before described, for the purpose of securing the more uni-form distribution of the heat of the furnace than is practicable when the bottom of the boiler is exposed to the direct action of the fire, so that the greatest degree of heat shall be applied near to the surface of the water in the boiler. Second, Placing the escape flue forthe air and products of combus-tion of the furnace in the position in relation to the furnace and boiler, substantially as described, so that the air and products of com-bustion gradually descend as they part with their heat until they find their exit at the lowest point, thus preventing the escape of the pro-ducts of combustion, until they have parted with us much as practi-ing a great saving of fuel. Third, Connecting the surface of the boiler with a heating chamber ineide the boiler; by means of the confined throat of the fire-cham-ined the boiler; by means of the confined throat of the fire-cham-ined the boiler; by means of the surface of securing the encarts heat near to the surface of the water, for the purpose of securing the more rapid generation of steam.

28,658,...H. J. Crandall, of New Bedford, Mass., for an Improved Marine Dry Dock: Iclaim combining with a cradle or carringe. D. the supporting and guiding columns, C C C, when the same are in any suitable manner jointed or binged to the cradle, so as to allow of its being raised or de-pressed at the same time keeping the carriage horizontal and serving as supporting columns, when the carriage is at its highest point, es-sentially in the manner and upon the principles set forth.

28,659.—J. W. Crane, Jr., of Freeport, Ill., for an Improved Washing Machine: I claim the arrangement of the hinged concave frame, C, in com-bination with the frame, D, the vertically-acting spring. E, adjusting connecting rod, c, pendant, H, rod, G, and the barizotally-acting spring, I, all as and for the purpose shown and described.

[This invention relates to an improvement in that class of clothes-washing machines in which a corrugated or fluted cylinder is employed in connection with an apron or concave made of rollers. The boject of the investion is to give the operator complete control over the pressure to which the clothes are subjected, so that the clothes will not be unduly acted upon and injured by excessive friction, and still be sufficiently acted upon to be perfectly cleansed.]

28,660.—Wm. W. Culpepper, of Augusta, Ga., for an Improvement in Car Couplings:
 I claim the peculiar form of the throat. H, combined with the sliding plate, C, spring, O, stop bolt, a, bumper rods, r, and kers, t, arranged and operating with bumper, A, and link, S, as and for the purpose set forth.

28,661.—Isaac Edge, of Jersey City, N. J., for an Im-proved Torch for Night Processions: I claim a procession forch made or arranged in the manner set

10710. 28,662.—Philip Estes, of Leavenworth, K. T., for an Improvement in Quartz-crushers: I claim, first, Combining a friction lifter, m, pair of anti-friction rollers, n, tooth, S, and tongue, r. with a pestle rod, a, and a double cam, p, in the manner and for the pu poses set forth. Second, Combining the screw-threuded end, c, of a pestle rod, a, with a ferrule screw, i', in a ratchet plate, i, in the manner and for the purposes specified.

28,663.—Samuel Frazer, of Galena, Ill., for an Improvement in the Distillation of Oil from Resin: I claim the mode of obtaining oils from resin by distillation, as set orth, by the distillation of resin at the temperatures and in the man-er set forth.

28,664.-G. E. Frew, of Brooklyn, N. Y., for a Pen and Pencil Case:

I claim the arrangement of the endless chains, D H, tubes, B C C' E F G J, pen slide, I, and pencil tube, A, substantially as and for the purpose set forth.

The object of this invention is to obtain a pen and pencil case that may be folded within a small space and admit of being extended suf-ficiently to be of convenient length, when used either with the pen or pencil : also, to have the case constructed in such a way that it may be very readily manipulated.]

28, 665.—A. T. Gove, of San Francisco, Cal., for an Improved Wrench:
I claim, first, In combination with the rack or racks on the shank of the movable jaw, the lever and pin or stop connected to the handle for the rurpose of holding and releasing the movable jaw, substantially as described.
Becond, In combination with the rack on the movable jaw, and the stop and lever on the handle, the coiled spring, s, for throwing out the in-wable jaw when the lever is compressed or the stop raised out of the nuck, substantially as described and for the uses and purposes set forth.

28,666.-E. J. Hale, of Foxcroft, Maine, for an Im-

provement in Lamps: claim the arrangement and application of the stationary spring hor wick-retainer. C, relatively to the lamp can A, and the wick , B, made adjustable vertically by means substantially as de-

scribed. And I also claim the combination of the rack plate, g, with the adjustable wick tube. B, and the spring outch, U—the same being for the purpose as specified.

28,667.—A. B. Hawkins and John Puntenney, of Can-ton, Ill., for an Improvement in Moles for Drain

Plows: We claim, as a new article of manufacture, a mole for draining mach nes constructed in the form and in the manner as above set

28,668.—G. E. Hays, of Buffalo, N. Y., for an Im-provement in Apparatuses for Vulcanizing Rubber: I claim, first, A spring clamp constructed and operating for the purposes and substantially as Gescribed. Second, Constructing the flask with a recess, I, for the purposes and substantially as set forth. Third, The circular embose, g', in combination with the corres-ponding depression, j3, for the purposes substantially as described.

28,669.-J. R. Henshaw, of Middletown, Conn., for an

Improved Self-mousing Hook: claim as an improved article of manufacture, a mousing hook ing a slotted bur, g, arranged to open outward, as shown, so that mot become entangled in the rigging when otherwise made, as esented and described. I cla

[This invention is an improvement on the self-mousing hook patstrad of inwards, as in the aforesaid patent, and allow the hook stard of inwards as in the aforesaid patent, and allow the hook to pass through the thimble or other object to which it is to be connected without stopped by the bar; said bar is then thrown back to its place and held there by a spring, cap and tenon, so as to be fully pro-tected from accidental displacement and injury by the article through which the hook passes, and which is retained on the hook by such a pring bar.]

apring bar.j
28,670.—Nehemiah Hodge, of North Adams, Mass., for an Improvement in Railroad Brakes:
I claim, first, The flexible air-chamber, D, constructed substan-tially as described, whereby, in combination with the air pump, I employ common stmospherical pressure as the force to operate the brake machinery and brakes of railway carriages as herein set forth.
Second, The combination of the pump, A, chamber, B, cock, C, and flexible air-chamber, C, arranged, combined and operating as and for the purpose above named.
28, 671.
20, 671.
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20, 671.
20, 671.

28,671.-J. C. Huntley, of Philadelphia, Pa., for a

So, orn. - J. C. Huntley, of Philadelphia, Pa., for a Burglar's Alarm: I claim the arrangement of the shaft, i, with its projection, m, and boss, j, in connection with the hook, n, on the inner plate, l, of the alarm, the arm, g, with its opening, h, on the pallet shaft. e, and the damp, B, attached to the shaft, i, substantially as and for the purpose set forth.

[This invention relates to that class of burglar's alarms which are portable and are designed to be readily detached from and applied to doors and windows. The object of the invention is to obtain a simple device that will be capable of very general application, and one that may be conveniently carried in a value or trunk by travelers who may apply it, on retiring, to a door or window in a moment of time.]

28,672.—H. W. Jelliff, of Appleton, Ohio, for an Improvement in Dovetailing Machines: I claim, first, The arrangement of the obliquely-cutting chisels, a a, in combination with the two carriages, j and g, and the adjustable rate. B.

a, incombination with the two carriages, j and g, and the adjustable gate, B. Second, I do not claim the cutter, m, in Fig. 2, except when ar-ranged and operated substantially as shown and set forth.

28,673.—S. S. Jewett, of Buffalo, N. Y., for an Improvement in Cooking Stoves: I claim the inner brick oven constructed as described, in combination with the outer walls of brick, D D2, for the purposes and substantially as set forth.

28,674.—Alfred Johnson, of Philadelphia, Pa., for an Improvement in Hydrants: I claim the diaphragm, E, when arranged in the described connec-tion for the purposes set forth.

28,675.-H. L. Justice, of Nashville, Tenn., for an Im-

proved Apparatus for Regulating the Draft and Pre-venting the Explosion of Steam Boilers: I claim connecting the piston rod, C, of the piston head, B, with the damper, Q, and the flue dors, u u, by means of the bent lever, G, and the rods, L L and P P (or their equivalents), when the said riston rod. C, is acted upon by the spring, F, and when it is made to act upon the safety valve, K, by means of the bent lever, H-all ar-ranged and operating substantially in the manuer set forth.

28.676. -John Lee, of Bolivar, Ohio, for an Improved

28,676.—John Lee, of Bohvar, Ohio, for an Improved Machine for Forming Cornices of Sheet Metal: I chaim, first, The use of the wedge or key, D', in the roller or cylinder, D, operating as described and for the purposes set forth. Second, The arrangement of the adjustable braces, B and B', in combination with the sliding braces, A', as set forth. Third, The arrangement of the slide, E, brakes, H and H', or rol-ler, D, operating as set forthand for the purposes described.

28.677 .- James Lord, of Minersville, Pa., for an Im-

20,011.—James Lord, of Minersville, Pa., for an Im-provement in Fire-arms: I claim the combination of the parts described for exploding a sap, pellet or pill within the barrel of a gun of cannon, without the use of a vent hole substantially in the manner and for the purposes set forth.

28.678 .- Paul Marcelin and Ernest Eude, of New Or-

20,010.—raul Marcelin and Ernest Eude, of New Or-leans, La., for an Improvement in the Manufacture of Sulphurous Acid: We claim the above-described process of making sulphurous acid gas by the use of steam heat, substantially as described for the pur-poses set forth.

28,679.—W. F. McGahey, of McGaheysville, Va., and H. C. Foote, of Fredericktown, Ohio, for an Im-provement in Grain Separators: We claim, first, A conducting board, d, with sieve, b, in combina-tion with a partially-performed screen, i h, and apron.), epoint, e f, and angular directors, c, substantially as and for the purposes set forth.

and adgular directors, C, substantially as and for the purposes ex-forth. Second, An inclined plate or board, h i, which presents a screening and blasting surface on the same plane, in combination with the in-clined conducting board, d, and inclined tailing discharge board, j, substantially as and for the purposes set forth. Third, An apron, m, having spouts, n, in combination with a con-ducting acreen, p, substantially as and for the purposes set forth. Fourth, A shoe, a t, containing a conducting board, d, partislix-perforated screen, it, spout, f, apron, pierces, t, conducting screen, p, and apron, m, having spouts, n, in combination with a single revolving screen, r q, substantially as and for the purposes set fortb.

28,680.-Marvin Mead, of Bedford, Mich., for an Im

proved Tweer: claim the arrangem proved 1 weer: I claim the arrangement with the case, A, of the water passages. C, the air passage, D, and the disk, B, as constructed—the water ing made to pass on two sides of the air pasage and entirely ound the case, as represented—the several parts being connected, nstructed and used substantially as and for the purpose specified,

28,681.—Samuel Moore, of Wellsburgh, Va., for an

Losor.—Gamuer Moore, of Wellsburgh, Va., for an Improvement in Grinding Mills: I claim the employment of the horned bail, F, in combination with the notched driver, E, rod, e, spindle, C, and stones, A B, in the manner shown and described, so that the bearing point of the support-ing rod, e, upon the spindle will be in a horizontal line or plane with the connecting points between the driver, E, and ball, F-all as set forth.

The object of this invention is to avoid the lateral and wabbling movement which is frequently given the runners or upper sto millatones, in consequence of the way in which the runners are hung the usual curved bail or balance-iron being peculiarly favorable to production of such result, and preventing a very rapid move it being given to the runners. The invention has for its object the ment being given to the runners. The invention has for its object a novel ventilating device by which the meal may be kept in a cool state and the runner driven with a great speed, without heating and deteriorating the meal.]

28,682.—Albert Morehouse, of Farmer, N. Y., for an Improved Water Wheel: I claim the combination with the bucket, 5 (which may be either straight or curved), so inclined as to deflect the water towards the center of the wheel, with the sheeting, 6, set away from the point of the bucket, to allow a portion of the water to pass between it and the point of the bucket, and so curved as to deflect the water against the next bucket substantially as and for the purposes set forth.

28,683.-Charles Miller, of St. Louis, Mo., for an Im-

28,684.—D. C. Myers, of Richmondale, Ohio, for an Improvement in Corn Planters:
<sup>1</sup> Zelalm the arrangement of the hopper, 4, dipping cups, 5, 5, hopper, 6, foot valve, 9, connecting rods and cramk by which it is connected to the trip shaft, 29, tripping ping, 28, and connecting rods, 16 and 17, operating the dripping cups—the whole being constructed and operating substantially as described for the purposes set forth.

28,685.—Ephraim Pierce, of Cincinnati, Ohio, for an Jmprovement in Feed-water Apparatuses for Steam Boilers:

bine to the discharge and of a feed-water pipe traversing the apace of a steam boiler, substantially as and for the purpose

-A. P. Pitkin, of Hartford, Conn., for an Im-28.686.-

provement in Steam Radiators: I claim making a perpendicular radiator, a, with the inside connec-ons, f, and contracted at the bottom, forming the steam, water and ir passages at right angles with the sides, substantially as and, for he purpose described. air passage the purpos

28,687.-H. A. G. Pomeroy, of Providence, R. I., and R. F. Hudson, of Hartford, Conn., for an Improve-

ment in Plows: We claim the combined arrangement of the rotary screw-shape ows, C, on shafts, H H H, arranged parallel with each other an it it line path of motions of the machine with the oscillation frame, when the whole is constructed and operates as described for the prose-set forth.

28,688 .- D. D. Porter, of the United States Navy, for

an Improved Marine Propeller: I claim my improved propeller as constructed with the new ar-rangement of wings and flanches, substantially as above described and as represented in the accompanying drawings.

28,689.--Jacob Post, of Newark, N. J., for an Improved

Door Spring: I claim the combination with the sliding spring ro, D, and lever, of the steeped or inclined rack, H, projection, e, arm, J, and seg-ent, H, in the manner and for the purpose shown and described.

[The object of this invention is to produce a door spring which will operate with its greatest force when the door is closed, and when the door s opened the spring w ll act with only sufficient force to close it again. The present devices applied to doors for keeping them in a closed st te, are very inefficient both in respect to this intention of them and their durability, for however well they may at first oper-ate, they will soon cease to close the door and deep it closed. Tbls inon and improvement in springs for doors, shutters, gates and venti the like, consists in combining with a helical spring acting upon a bar having on its enda peculiar shaped rack or lever, furnished on one end with tack teeth, and a lever arm having a friction roller on its end, which arm is acted upon by the spring when the door is in a nearly-closed state, with a force sufficient to keep the door tightly

-John C. Rankin, of Mt. Vernon, N. Y., for 28,690.

an Improved Apparatus for Measuring Liquids: I claim the arrangement in combination with the gage, G, and ase, A, pipe, E, and two way cocks, F, of the safety air pipe, J, as and for the purpose shown and described.

(This invention consists in attaching to the top of a two-way cock a vessel composed of metal and having a glass face, or a glass cylin-der may be used, with suitable marks on its face for indicating the several quantities of liquid to be measured therefrom. This device when properly constructed and graduated, constitutes the gage when property constructed and graduated, constructs the gage which is attached with the cock to the bottom of the reservoir containing the liquid, through which pipe the liquid passes to the gage, to be measured; the top of said gage communicates with the space above the liquid in the barrel, for permitting the air from said gage to es-cape above the liquid in the barrel as the liquid flows into the gage. thus keeping the parts tight and, at the same time, permitting the liquid to flow into and from the gage freely.]

28, 691.—C. W. Richter, of Madison, Ga., for an Im-provement in Vapor Lamps: I claim, first, The arrangement of the air pipes, a a D, and draft cube, C, as and for the purpose shown and described. Second, The employment of the cork layer, F, in combination with the cylinders, E C, and tubes, a a D, as shown, for the purpose spe-lifthed. The lining of earch h or other suitable non conducting sub-

fied. "Third, The lining of cork, h, or other suitable non-conducting sub-ance, placed in the upper part of the wick tube, G, in connection ith the cork or other non-conducting substance, k, attached to the der side of the button, j, of tube, 1; k and i being arranged rela-rely with the top of the wick, H, to operate as and for the purpose windod stance, with th

(The object of this invention is to obtain a lamp for burning the rades of coal oil with a good illuminating fiame. The Inven-ists in a novel means employed for adjusting or raising and heavier gra lowering the wick within the wick tube, so that the wick is allowed to remain loose and free from pressure within the tube, thereby favor ing the capillary ascent of the visid oil, and insuring a proper sup ply of the same to the fiame.] ply of the

28,692.-Eben Seavey, of Boston, Mass., for an Improved Fire-brick

I claim my improved fire-brick lining, as made with ribs and air claanels or ducts combined or arranged relatively to each other sub-stantially as specified.

28,693.-D. H. Shirley, of Boston, Mass., for an Improved Table Plate: I claim a plate formed with one or more depressions or receptacles in its rim for the purpose specified.

28,694.-George Smith, of Macon, Ga., for an Improved

Hose Pipe: kim the hose pipe described, when made in such a way that ral nozzles or short sections of pipe are made to be coupled to-er and secured by means substantially as set forth, for the pur-I ch her and sec describe

28,695.-Oliver Snow and H. S. Snow, of West Meri-

den, Conn., for an Improvement in Lamps: We claim the method of securing the chimney in its position for use, by means of springs attached to the deflector operating on the inside of the chimney so that no outside circle points on other holders are needed, when the whole is constructed and fitted for use sub-stantially as described.

28,696.-O. W. Stanford, of Cincinnati, Ohio, for an Improved Churn: In I clair of the

Improved Churn: I claim the described combination with a vertical, circular tub, of thereciprocating rod, C, spherical or spheroidal dasher, D, and sp wings, d, fitting the interior of the tub\_the said parts being c structed and arranged in the manner and for the purposes set for 28,697.-Alfred Stauch, of Philadelphia, Pa., for an

Improvement in Apparatuses for Inoculating: laim the combination and arrangement of the chamber, p. spiral spring, h. circular hair brush, k. and ring, c. w. a. spring, d. and needles, n. in the manner and for the p field. I clai tube, a, sp specified,

28,698.-W. H. Stevens, of Syracuse, N. Y., for a Toy Guna

I claim, first, Constructing the metallic wire bow, A, with nore coils, D, substantial y in the manner and for the p

more cons, D, substantial y in the manner and for the purpose stated. Second, Providing bows with metallic wire springs, C, when the same are made with joints, E, for the purpose stated. Third, Connecting the arrow or projecting rod, N, with the bow-string substantially as stated. Fourth, The loading chamber, wh en so arranged with respect to the muzzle as to operate substantiall y in the manner set forth. Fifth, The attachment to the muzzle of the gun of a yielding or elastic material (as the springs, P, or equivalent device), when the same operates to hold the bail substantially in the manner set forth. Sixth, The arrangement of the several parts, or their equivalent, substantially as described, and operating as a whole, substantially in the manner and for the purpose stated.

28,699.-I. C. Tate, of New London, Conn., for an Im-

5,000.-1. O. Late, of New London, Conn., for an Improvement in Faucets: I claim the arrangement and combination of the india-rubberdia-bragm. C. valve. E. heavy spring, G. light spring, H. and knuckle, ; constructed and operating substantially in the manner and for the urpose stated.

(This invention consists in arranging a heavy spring in combina-tion with avalve closing down on a rubber disphragm, in such a man-for that, on releasing the handle of the faucet, by the action of and spring, the valve is forced down on the diaphragm, and the faucet is closed; it also consists in combining with said india-rubber diaphragm, two prongs, one for the purpose of depressing the dia-phragm and to shut the faucet, and the other to force the diaphragm up when the faucet is to be opened; also in the arragement of a knuckle in combination with the valve and diaphragm and with tw springs, for the purpose of raising the valve and opening the faucet.]

28,700.—J. S. Topham, of Washington, D. C., for an Improved Hame Tug and Buckle: I claim the arrangement of the tug, A, the clip, D, and the pin, B; the clip being in two parts and screwed to the tug, and the pin being provided with a head on one end and a screw near the other, when the same are used substant ally as and for the purpose spec fied.

28,701.-Wm. Trapp, of Elmira, N. Y., for an Im-

proved Stave Machine: I claim, first, The annular cutter stock, H, as constructed, for ena-ling the staves to pass close to the path of the outer revolving cut-ers, in the manner substantially as described. Second, So arranging and operatin the two sets of revolving cut-ers, K and K', that they will act simultaneously but in opposite di-cetious, in the manner substantially as and for the purposes set ters, K a

rections, in the manner substantially as and for the purposes set forth. Third, The manner of adjusting the two sets of revolving cutters, K and K', so as to dress properly staves of various thicknesses, by raising or depres ing the disk, L, of the inner cutters, K', in the manner substantially as specified. Fourth, The arrangement, in relation to each other, of the two beds, M and M', as constructed, for the purposes set forth. Fifth, In combination with the stave-dressing machine, N, I claim the rocking plane, Q, as constructed and arranged, for the purposes

described. Sixth, The adjustable spring lever, U U', as arranged, for regula-ting the pressure of the feeding rollers, in the manner substantially shart forth

et forth. venth. In combination with the feed box, N. I claim the sliding g carriage, X. as constructed and arranged, for the purposes set

28,702.-Joseph Villet-Collignon and Louis George, of Paris, France, for an Improvement in Typograp We claim the combined types described, composed each of tw hore single types united by suitable solder or cement.

28,703.—Richard Vosc, of New York City, for an Improvement in Car Springs: 1 claim the arrangement and combination of the india-rubberdisks, c c, with the concavo-convex metallic springs, e e, in my improved car spring, substantially in the manner and for the purpose set forth.

28,704.—Edward Wade, of Norwich, Conn., for an Im-

provement in Pumps: I claim the arrangement and combination of the horizontally rota-ing can disk, A, rains and fulling yoke, F, and series of lazy-tongs, A, constructed and operating substantially in the manner and for urpose specified. [This invention consists in the arrangement of a horizontally ro-

tating cam disk, in combination with a rising and falling yoke and with a series of lazy-tongs, in such a mauner that, by rotating the disk, a rapid reciprocating motion is imparted to a pump other part of a machine attached to the extreme end of the lazy tongs.1

28,705 -Wm. Watson, of Lowell, Ill., for an Improved Neck Stock: I claim a stock of hard vulcan zed gum as a new article of manu

28,706.-Wm. H. Wiley, of Lockport, N. Y., for an 28, (00. — will. R. whey, of Lowport, M. 2., to an Improved Butter-worker: I claim the arrangement of the revolving table, F, npon the plat-form, A, the head or worker, E, the standard, D which is adjustable laterally and horizontally, the lever, G, and 6:13 slide, G, when the same are used substantially as and for the purpose specified.

28,707.-Richard Williams and Samuel Wilson, of Buffalo, N. Y., for an Improved Feathering Paddle

Duffaio, N. 1., 101 an improved 1 constraints 2 address Wheel: We claim the stationary cam\_grooved core, A, in combination with the crankshaft of the paddle and revolving cylindrical drum, H H1 H2, for the purpose substantially ns described. We also claim, in combination with the above, the arrangement of the stationary shaft, B, revolving shaft, J, and drum heads or hubs, H1 H2, substantially as set forth.

28,708.—S. E. Woodworth and J. S. Wethered, of San Francisco, Cal., for an Improvement in Gas-burners:

We claim the introduction of atmospheric air into the center of the gas fisme, in the manner substantially as described and for the uses and purposes set forth.

28,707.-Wendell Wright, of New York, for an Improvement in Gas-burners: I claim the partition plate, A, in combination with the piston, C, and alve, B, as describe, and for the purposes set forth.

28,710.-Linus Yale, Jr., of Philadelphia, Pa., for an

Improvement in Locks: I claim the pieces M and F, when used in the manner (or an equiv-lent manner) and for the purpose substantially as described.

28,711.-M. R. Clapp (assignor to Silsby, Mynderse & Co.), of Seneca Falls, N. Y., for an Improvement

in Steam Boilers: I claim the arrangement of the inner tubes, G G, loosely within the outer one, with the lower ends below the fire and both their up-per ends below the water level, substantially as specified.

28,712.-G. W. Banker, of Medford, Mass., assignor to himself and G. O. Carpenter, of South Reading, Mass., for an Improved Method of Securing Heads in Barrels: I claim securing the heads of barrels or kcgs, when composed of s

claim securing the heads of barrels or kcgs, when composed of a ics of staves, by means of a screw, as set forth, for the purpose cified.

28,713.--Wm. E. Durkee (asssignor to himself, A.

Williams and J. H. Hopkins), of Fort Edward, N. Y., for an Improvement in Hay Elevators: I claim the supporting frame, A, the inclined plane, C, jointed to he same, and the several parts combined therewith, as described, or the purposes set forth. the same, and for the purpos

(The object of this invention is toafford a simple and cheap mean whereby wagons or carts loaded with hay may be more easily and rapidly discharged, either into cocks or into barn windows.]

28,714.—E. A. Godfrey (assignor to Rogers, Smith & Co.), of Hartford, Conn., for an Improvement in Soldering Handles of Cutlery:

I claim the rods, A A, attached at one end to the cap, B, and hav-ing a plate, D, springs, F F, and nuts, E E, fitted on them, substan-tially as and for the purpose set forth.

[The object of this invention is to avoid the necessity of wiring the handle on the tang, as hitherto, in order to solder the handle to the tang, and thereby effect a considerable saving in time and greatly fa sang and thereby encode considerable saving in time and greatly is cilitate the work. The invention is applicable to metal handles, such as are most generally plated and formed of metal shells, swaged or struck-up in proper form, and connected together by solder.1

28,715.—E. A. Godfrey (assignor to Rogers, Smith & Co.), of Hartford, Conn., for an Improvement in Soldering Handles of Cutlery:

I claim the swivel plate, D, with the adjustable plate, H, and roda, F, attached; the whole being arranged to form a clamp, substan-illy as and for the purposes set forth. (The object of this invention is to facilitate the securing together

of the two longitudinal parts of metal handles for cutlery, so that said parts may be readily clamped, and, at the same time, held to gether for the purpose of being united by soldering.]

28,716 - A. I. Gove (assignor to himself and Withered

25, 715.—A. 1. Gove (assignor to nimself and withered & Tiffany), of San Francisco, Cal., for an Improved Ships' Windlass: I claim the arrangement of the gearing as represented by G and I , with the crank plates or arms, If H, combined with the connecting rods, S S, the levers, KK, and pawls, P P, working the windlass, C, substantially as d scribed and for the purposes set forth.

.-J. C. Jennison and Augustus Hale (assignors E. J. Hale and Augustus Hale), of Foxcroft, 28.717.to Maine, for an Improvement in Lamps:

We claim the arrangement and application of the spring clasp and its angular notches to the chimney carrier, so as to enable the clap to be turned upward from, and to operate with, the notches and ca-fine the chimney in place in the carrier, substantially as described We also claim the improved chimney carrier, as made to embrce, and close down upon and connect to, the lamp cap, and be sepatie from the deflector, and to have a shell or flanch for supportin the chimney arranged upon it, essentially as specified.

28,718,-E. M. Lewis (assignor to himself and Gorge Williams), of Philadelphia, Pa., for an Ingrove-ment in Slide Valves for Steam Engines:

I claim the combination of the valve, B, euter box or cas's, D, its ollers, d d, springs, f f, or their equivalents, and the former, C; he whole being constructed and arranged substantially / and for rollers, d d, springs, t the whole being const the purpose set forth.

28,719.-Thomas Morrison (assignor to C. P Safford), of Kingston, N. Y., for an Improved Cronometer

of Kingston, N. Y., tor an Improved Gronometer Escapement: I claim the arm, B (Fig. 1), of the depting bar, the 3rm and pecu-liarposition of the feather spring, D, acting in competion with, and and attached to, the depting bar, A, as a lever. 1 pin. C. in the arm of the depting bar, the notches, F and G, in y friction roller (Fig. 2) attached to the balance wheel, and the robinstation of the parts (as shown in Fig. 3) substantially as set fortynd described.

28,720.—Levi Short (assignor to hinelf and C. S. Pierce), of Buffalo, N. Y., for an mprovement in Apparatuses for the Manufactur of Illuminating Gase Gas:

Uas: Leaim, first, A gas furbace, D, constructered operated substan-tially as described, in combination with thretort C, and retort house, B, for the purposer set forth. Second, I claim the relative arrangement of the oll reservoir, A, retort house, B (including the retort and arrange hordfor, L, and gasometer, N, substantially as described, *fthe* purposes set forth.

28,721.-I. N. Whitaker (assignor to himself, J. H.

28, 721.—I. N. Whitaker (assignor to himself, J. H. Frees and M. Hellar), of Foreston, Ill., for an Im-proved Apparatus for Heating Wagon Tires: I claim the combination with the outer periphery of the tire box, B, of the furnace, D, and smake box, C, when the said tire box is ar-ranged to stand vertically, as shown, and Is provided in its upper part with rollers, J J, by which the tires are suspended and rotated; all as set for the nad represented, for the purpose specified. [This invention consists in heating tires for wheels of any descrip-tion by confining them within a suitable furnace and giving a revol-ving motion to the tire or tires by any suitable means of hanging

ving motion to the tire or tires by any suitable means of hanging them on, or by any proper prime-mover, so as to submit them uni-formly to the direct heat from the fire. The apparatus is so con-structed that it will be easy of manipulation, and so that it may be

structed that it will be easy of manipulation, and so that it may be used equally as well within the workshop as out of it.]
28,722.—S. II. Whitaker (assignor to himself and Wm. L. Thomas), of Cincinnati, Ohio, for an Improvement in Gas Regulators:
I claim, first. In the described connection with receiving and discharging chambers, A and B, and a stationary seat. F, supported on a stem which passes through the disphysim, the valved disphysics by the unequal pressures, on its opposite sides, of the entering and escaping gas, substantially as set forth.

posite sides, of the ensering and compare gamma, forth, forth, Third, The nut, H, rod, G, and seat, F, in the described combina-tion with the valve, F, for the purpose of adjusting the capacity of the apparatus from the exterior.

RE-ISSUES. Wm. S. Carr, of New York City, for an Improvement in Water-closet. Patented Aug. 5, 1856: Iclaim, first, A cylindrical plunger or plug, 3, substantially as specified, acting to close the water passage, 2, at the time the water-closet set is depressed irrespective of the weight on the seat, as di-tinguished from a valve which requires compre sion to a given point before closing, a set forth. Second, I claim the valve, g, cylinder, 3, and openings, I, in com-bination with the seat, v, and acting in the manner and for the pur-pose set forth. Thu'd, I claim, in a valve for water-closets, a cup leather for con-closing against the containing cylinder in the other direction, and the leather, as set forth. Fourth, I claim the lever, p, acted on by the seat and simultane-ously controlling the movements of the pan, r, and valve or cock for admitting water, as specified.

volut, A value are averaged by the paner, and value or cock for admitting water, as specified. Firth, I claim the combination of the lever, p, latch, t, and value spindle, g h as described, for regulating the movements of the pan, r, as set forth, Sixth, I claim the value for admitting water to the closet, in com-bination with the trunk or hopper, when said value is connected di-rectly to the said hopper, for the purposes and as set forth. Seventh, I claim, u a water-closet in which the cock is attached to the hopper, a hollow arm, a or opening into said hopper, substantially as specified, for conveying leakage from said cock into the hopper,

as specified, for conveying leakage from said cock into the hopper, as set forth. J. P. Collins, of Troy, N. Y., for an Improved Water Wheel. Patented Dec. 6, 1859: I claim, first, The arrangement of the lighter plate, L, in the par-ticular manner specified, and for the purpose set forth. Second, The arrangement, in the particular manner specified, of the packing ring, 1, for the purpose set forth. Third, The arrangement, in the particular manner specified, of the packing piece, e, of the buckets, for the purpose set forth. Fourth, The arrangement, in the particular manner specified, of the packing piece, e, of the buckets, tor the purpose set forth. Fourth, The arrangement, in the particular manner specified, of the regulating plate, J, in combination with the peculiar specified drvice for operating vit. for the purpose set forth. Sith, The instantially as and for the purpose set forth. Sith, The filling of the lower part of the box, G, over the annular found, o, of the wileel, as shown, or in an equivalent way, so as to form a joint as nearly water-tight as may be in connection with the sides of the openings, as and for the purpose set forth. So venth, The entyloyment, for united use in one wheel, of the lighter plate, J, and annuer drividing plate, A, who hole being con-structed, arranged and operating in the manner and for the purpose set forth. Nathaniel Drake, of Newton N. J for an Improvement

Nathaniel Drake, of Newton, N. J., for an Improvement

Nathaniel Drake, of Newton, N. J., for an Improvement in Corn-shellers. Patented April 3, 1860:
 Iclaim, first, The combination of a plate, E, which presses directly upon the car, while the corn is being shelled therefrom, with a spring, F, arranged and operating as and for the purposes set forth.
 Second, I claim the combination of the adjustable guard chain, j, with the plate, E, and spring, F, whereby the plate aprevented from fulling against the shelling wheels, although free to adapt itself to different sized ears, and whereby the plate, E, and spring, F, can be raised by an attendant while the machine is in operation, substan-tially as described.

Traised by an attendant while the machine is in operation, substitu-tially as described. Third, I claim the combination of the plate, E, spring, F, with the wheels. B and D, constructed and arranged to operate in relation to each other, as and for the purposes set for th. Fourth, I claim the combination of the adjustable shaft, e, with the plate, E, substantially as set for th. Fifth, I claim the arrangement and combination of the obliquely-acting adjustable spring, F, set screw, k, plate, E, and adjustable guard chain,  $\lambda$  as and for the purpose shown and described. m the arrangement and combination of the obh quely-ble spring, F, set screw, k, plate, E, and adjustable h as and for the purpose shown and described. G. Gardiner, of New York City, for an Improve

ment in Springs for Railroad Cars and Carriages.

ment in Springs for Railroad Cars and Carriages. Patented April 26, 1859: I claim primarily the combining and arranging two blades, bent elliptically, with an intermediate plate curved or corrugated, so as that the intermediate plate acts only by tension or strain spart from end to end, in the manner and for the purpose described. I also claim the manner described of securing together the ellipti-cal blades and tension barat the endswithout rivets, pins, bolts, hinges or screws.

or screws.
 William Godsoe, of Manchester, Mass., assignor to him-self and Isaac Ayers, for an Improved Steering Ap-paratus. Patented June 7, 1859:
 I claim the described steering apparatus, consisting essentially of the toothed segment. M, traversing on the curved way, P, and oper-ating substantially as described.

John Wyberd, of New York City, for an Improve Night-light Reflector. Patented April 10, 1860: I claim the arrangement of a series of reflecting surfaces in a arch or dome form, over gas burgers, so as to permit a carrent of a through the reflector and strongly illuminate objects below the light light

urrougn the remetor and strongly illuminate objects below the light. Turner Williams and David Heaton, of Providence, R. I., assignees of said Turner Williams, for an Im-proved Window Stop. Patented Oct. 26, 1858: I claim the described window stop, consisting of the roller, C, the shank, m, spring, E, and lever, K, or their equivalents, in combina-tion with the inclined surface, d, and operating substantially as set forth.

forth. ADDITIONAL IMPROVEMENT. J. C. Dickey, of Saratoga Springs, N. Y., for an Im-provement in Machinery for Crushing Quartz. Pat-ented May 16, 1860: I claim a stamper or stampers working in a mortar made on the top of a stationary cone by a hollow-revolving cone working on and projecting above the top of the said stationary cone, with the pulver-zing surfaces made by the said cones coming in contact with each sther, in combination with the projections, 11, made on the base of the said revolving cone. working in and on the side of one or more channels made on the base of the said staticnary cone, for the purpose offcrushing, grading and pulverizing quartized contain-ing gold, and forcing the said pulverized rock and earth into the

bottoms of the said channels, in contact with quicksilver, for the pur-pose of securing the gold.

Dote of securing the gold.
EXTENSION.
R. D. Granger, of Albany, N. Y., for an Improvement in Cooking Stoves. Patented June 13, 1846:
I claim locating the pipe communicating from the body of the stove to the elevated oven between the two back boilers, so that its front lower edge shall be contiguous to the fire, in combination with the dampers, j, arrunged and operating as described and shown, viz, so as to form one center flue bee each the connecting pipe, k, which fine may be closed at picesure by the damper, j, in order to three the rearboiler before it escapes into the connecting pipe, k.
I further claim forming the connecting pipe of the horizontal section is form aid escribed; that is to say, leaving the pipe made broad on its form side next the fire for the purpose of obtaining a large capacity of pipe, and also to bring the boilers in the rear.
DESIGNS.

DESIGNS. A. C. Barstow, of Providence, R. I., for a Design for a Cooking Range.

Gardiner Chilson, of Boston, Mass., for a Design for a Cook's Range

S. G. Smith, of New York City, for a Design for a Nutcracker.

W. Volk, of Chicago, Ill., for a Design for a Bust of Abraham Lincoln.

W. Gibbs, of Albany W. Gibbs, of Albany, N. Y., assignor to North, Chase & North, of Philadelphia, Pa., for a Design for a Stove.

J. Jones (assignor to himself and A. McDowell), of Slatington, Pa., for a Design for an Ornamental Ridge for Roofs.

J. Ney, of Lowell, Mass, assignor to the Lowell Manufacturing. Company, for a Design for Carpets. E.

J. Ney, of Lowell, Mass., assignor to the Lowell Manufacturing Company, for a Design for Carpet E. Patterns.

S. Vedder, of Troy, N. Y., assignor to T McCoun, for a Design for a Cook's Stove. N. S to Tibbets &



J. M., of Ohio.-The practice of betting, even on questions of science, is a most unscientific way of making money, which we emphatically condemn. Abjure it forever, and you will become a richer if not a better man. In answer to your question, however, we will state that your friend is right, and you have lost yourwager, inasmuch as a gambler gazing upon a table could easily count the number of cards or coins spread upon another table in an acjointing room separated by a brick wall. For the philoso-phy of this paradox we refer you to page 325 of the present volume of the SCIENTIFIC AMERICAN.

D. S., of Ill.-We do not know where Dr. Maynard's rifles are manufactured. We believe he resides in Wa hington, D. C., and he can give you all the information you request conning that

J. W. W., of Iowa.-A cubic foot of hydrogen gas will raise about half an onnce at the surface of the earth. Oiled silk will expand and contract, and answer your purpose for a ballo

J. L. L., of Iowa.-We do not recollect having received your former letter. Steam may be carried down to a depth of 200 feet in a mine with well-covered copper pipes, and its pressure maintained at nearly the same rate at the bottom as in the boile.

J. C. R., of Mich .- Not a single fact has yet been adce of men

duced worthy of notice in proof of a pre-Adamite ra-ridiculous attempts made by quasi-scientific men, , to do this from en china-ware dug up in Egypt and old flint arrows ext in France, are not worthy of attention from men of sound judg-

MeA. & Bros., of Ind.-Molds for wax figures are made of plaster, and are not oiled, but are first steeped in hot water for about half an hour, and then dried thoroughly. You state that your wax figures have adhered to both iron and plaster molds, and add 700 used "almond oil" in them. This explains the cause of failure. When you pour the wax into the plaster mold, allow it to become dry, then place the mold in water, after which the cast will be casily re

G. M. Jr., of Ill.-Two lightning-rods on a buildingone at each end-are frequently connected together by a horizontal red of the same size. In the absence of such a horizontal red, com-mon wires may be usefully applied to effect the same object. It is very dangerous, as you state, for persons to seek shelter under trees during a thunderstorm, because lightning alwaystakes the nearest and best conductor to the carth, hence it passes in preference from the cloud by the tree.

D. H. Jr., of N. Y.-The aluminum bronze has been patented in England, and its mere application to any purpose, ex-cepting as new articles of manufacture, is not patentable.

G. R., of Vt.-Your idea in regard to obtaining butter from milk is to apply an air-pump to the churn and exhaust all the air from the cream, by which operation you expect the cream to swell, and the butter globules to bur t from it, and float on the top in golden-colored balloons. You ask our advice about trying th experiment. We exhort you to use your own judgment in the which is carried out in what are called atmospheric churns. In these air is forced in to s ell the globules, not exhausted, as you

O. P. P., of Ind.-Rough sea shells can be polished smoothly by first rubbing them down with a file, then with emery paper, and finishing off with rottenstone or tripoli. Someshels, when polished, havea very beautiful appearance, but those which possess the most variagated hues and glossy surface are found so in their natural state. H. A. B., of N. Y .- We do not know what you mean by inquiring, "Does the velocity of water give the overshot an ad-vantage over the breast whee?" Venice turpentine is extracted from the larch pine, and contains succiinc acid. It came from Venice first to England, hence its name. We have not space to give you a treatise on dialling. Any old encyclopædia will furnish ith the information

C. F. R. of N. Y.—The constant operations of a sinhon depends upon the pressure of the atmosphere on the cutside, and a perfect freedom from gas or air inside. If carbonic acid or sulphurous gas in the watergets into the siphon, it offers resistance to the outside pressure, and as a consequence, the flow of water is impaired. You will always find it difficult to keep a siphon free from air and gas; make up your mind to irregularities in its operations.

## MONEY RECEIVED

At the Scientific American Office on account of Patent

At the Science of the week ending Saturday, June 16, 1860:--J. M., of N. Y., \$30; J. S., of N. Y., \$30; W. J. C., of Pa., \$250; H. N., of N. Y., \$30; C. J. S., of N. Y., \$55; W. D. M., of Ya., \$55; J. C. A., of Texas, \$30; E. M. J., of N. Y., \$25; J. W. T., of Ya., \$25; W. S. H., of Miss., \$25; N. A. P., of Jenn., \$10; M. F. J., of Tenn., \$22; J. B. F., of Ohio, \$25; J. R. L., of Mass., \$30; W. of Tenn., \$23; J. B. F., of Ohio, \$55; J. R. L., of Mass., \$25; W. M., of Mass., \$25; R. M. G., of N. Y., \$30; H. B., of N. Y., \$20; D. C. T., of Wis., \$30; L. & L., of N. Y., \$30; J. W. D., of Tenn., \$30; H. Y. W., of Pa., \$30; J. B. S., of Mich., \$33; J. I. B. R., of N. Y., \$30; A. J., of N. H., \$25; P. & O., of N. Y., \$25; J. H. H. B., of N. Y., \$10; J. S. G., of Mich., \$5; C. & M., of Teras, \$5; G. C., of N. Y., \$25; S. A., of N. Y., \$30; E. S. C., of Mass., \$225; E. & W., of Ga., \$5; C. E., of La., \$50; E. C., of La., \$25; J. C. C., of Conn., \$1,550; A. H., of Iowa, \$10; A. A., of N. Y., \$30; G. W. L. of N. Y. \$20; J. I. B. of N. Y. \$30; L. S. & J. E. of N. Y. b) Cohn, \$1,500; A. 11, of 1000, \$10; A. A., of N. 1., \$50; C. W. L. of N. Y., \$30; J. L. B., of N. Y., \$30; L. S. &J. E., of N. Y., \$30; S. U. C., of Md., \$100; J. E., of Tenn., \$25; A. J. V., of Mo., J. B. W., of Pa., \$30; J. M. 11., of Cal., \$10; C. M. Y., of N. Y., \$25; J. F. K., of N. Y., \$30; 11. L., of Ind., \$25; C. H. B., of R. I., \$30; J. 11. H., of Ga., \$30; W. H., of Ill., \$30; S. S., of Mass., \$30; of  $I^{a}_{a}$ , \$25; J. E. L., of N. Y., \$55; C. G. G., of Ala, \$55; J. J., of Maine, \$30; W. H. G., of N. Y., \$50; W. H., of Ohio, \$30; I. G. M., of N. Y., \$50; W. F., of Mass., \$60; W. W., Jr., of Pa., \$250; E. S. B., of N. Y., \$30; Z. D., of Ga., \$25; E. H. B., of Mich., \$55; J. C. of S. C., \$50; W. J. S., of N. J., \$30; C. & L., of N. Y., \$25; F. N., of N. Y., \$25; W. H. D., of N. Y., \$25; A. S., of N. Y., \$25; E. W., of N. J., \$25; 11. L. N., of N. Y., \$25; C. P., of N. Y., \$76.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, June 16, 1860:-

Dimee during the week chains Saturday, June 10, 1600:-N. A. P., of Tenn.; J. B. F., of Ohio; E. M. J., of Conn.; W. S. H., of Miss; J. W. T., of Vt.; R. S. W., of Ga; K. & H., of N. Y.; A. L., of Mich.; F. A. G., of III.; D. W. M. L., of Iowa; G. V. C., of N. J.; N. Q. M., of Wis.; O. & L., of N. Y.; G. A. L., of III.; F. N., of N. Y.; J. C. C., of Mass.; W. H. D., of N. Y.; A. S., of N. Y.; H. L., of Md.; O. H. W., of Miss.; E. B., of Mich... J. H. B. B., of N. Y.; A. M. W., of Miss.; E. S., of Mass.; H. B., of Ohio; C. C., of N. Y.; J. H. B., of N. Y.; B & T., of Ohio; A. J., of N. H.; J. W. D., of Mass.; W. M., of Mass.; H. L. N., of N. Y.; E. M., of N. P. J. S. G., of Mich.; T. E., of Ten.; E. C., of La; A. J. V., of N. P.; C. M. Y., of N. Y.; M. D., of Minn.; J. O. C., of Conn.

## INVENTORS, MACHINISTS, MILLWRIGHTS, AND MANUFACTURERS.

On the 1st of Julynext, the THIRD VOLUME of the "NEW BERIES" of the SCHENTIFIC AMERICAN will be commenced. In announcing the above fact, the publishers embrace the oppor-

tunity to thank their old patrons and subscribers for the very liberal support they have hitherto extended to this journal; placing it, as they have, far beyond that of any other publication of the kind in the world, in point of circulation.

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