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New York.

37,605.—Grinding Mill.—E. Brisson, Orleans, France: I claim, first, The mode of bushing or securing the spindle, D, in the eye, K, of the lower stone, I, to wit, by means of the cylindrical hub, C, provided with recesses, e, in its upper end, and having wooden blocks, d, and wedges or keyes fitted therein, the latter being adjusted by the screws, g, so as to press the blocks, d, against the spindle which passes through the hub, C, as set forth.

Second, The hanging or suspending of both stones, I M, on universal joints, one stone (the runner) being connected with the spindle, D, by means of the pin, l, passing through the latter and having the turning bar, P, fitted upon it, into or through which bar the spindle passes, and the other stone fitted on the pins, a a, of the hub, C, or equivalent bearings, through the medium of the thimble, J, and swinging socket, L, these latter-named parts, with the hub, C, being applied, if desired, to the outer surface or exterior of stone, I, and the parts in the eye, K, of the stone, I, fitted in the eye, O, of the stone, M, substantially as and for the purpose set forth.

[This invention consists in hanging both the runner and the station-

[This invention consists in hanging both the runner and the station stone of a pair of mill stones in such a manner that the parallelism of the two stones will always be preserved and the stones made to operate much more efficiently than hitherto, producing better work, the flour not being liable to be heated or "scratched," as it is technically termed, and the stones also prevented from being worn unevenly.]

37,606.—Lamp Burner.—Harvey Brown, New York City: I claim, first, The arrangement and construction of the spur wheel, A', in combination and connection by means of thelcog wheels, D D, or their equivalent, with the spur wheel, A, for the purpose of moving the wick, substantially as described.

Second, I claim the band, B, in combination with the perforated burner, B', substantially in the manner and for the purpose set forth.

forth.

Third, I claim the springs, C C, constructed, arranged and operated substantially in the manner and for the purposes set forth.
37,607.—Cartridge Box.—Francis Bush, Boston, Mass.:
I claim providing the outer metallic box or case with one or more partitions in such manner that they shall not interfere with the free working of the inner sliding box, for the purpose specified.

37,608.—Steam Boiler Furnace.—Horatio Clarke, Ded

37,608.—Steam Boiler Furnace.—Horatio Charke, Deuham, Mass.:

I claim the grate constructed in a curved form, and arranged concentrically, or about so, with the curved fire surface of the boiler, substantially as described.

I claim a curved grate in combination with a curved bridge, their upper surfaces being arranged substantially as described, with the fire surface of the boiler.

And I also claim the curved grate and the curved bridge, arranged with their upper surfaces concentric with the fire surface of the boiler, in combination with jambs arranged in the inclined manner with respect to them, substantially as described.

-Centrifugal Governor.-J. C. Cline, Philadelphia

Pa.:
I claim the combination of the ball arms composed of tubes, C. C. and bars, D. D., or their equivalents fitted together, as described, the spring, G, the rods, E. E, and slide, F, the whole arranged to operate substantially as and for the purpose herein specified.

37,616.—Fire-extinguisher.—Alanson Crane, Fortress Monroe, Va.:

1 claim the arrangement of the plug, E, to extend through the exterior wall of the building, in combination with the locking cover or plate, E, and with the arrangement to diffuse water through the building, as herein shown and described.

[The object of this invention is to get up a simple, cheap and relia ble device for extinguishing fires in buildings, arranged so that the same can either be operated from the exterior or from the interior of the building, and particularly so that the magistrate or fire department have charge of the connections of said device outside the building.]

Boston, Mass.:

I claim attaching the fagots or broom material obliquely to the axis, when the same is accomplished by means of and in combination with the depressions running obliquely across the arms, R, and the concave caps, b, secured by screws, which confine the said fagots or broom material, as and for the purpose herein described.

37,612.—Car Coupling.—George Collyer, Philadelphia

Pa.:
I claim, first, The combination of the tumbler, C, springs, D, and grooves, a, substantially as described, whereby operators are enabled to uncouple the cars withrout moving the train backward or forward, no matter how closely the tumbler and the detent of the coupling bar may be pressed together.

Second, The employment of coupling bars such as shown in Fig. 9, having expansions, b, near the ends of the bars, which expansions, of themselves, uncouple the cars, in case the latter get off the track. Third, The employment of coupling bars, such as shown in Fig. 10, having expansions, b, near the ends of the bars, with less lateral breadth than the detent, so that although one or more cars of the train may get off the track, the cars shall not be thereby uncoupled. 37.713. -Mode of Obstructing Rivers.-Aaron B. Cooley

Philadelphia, Pa.:
I claim obstructing rivers, harbors, inlets, &c., by a series of angular frames or blocks. constructed, chained to each other and anchored, substantially as set forth.

37,614.—Clarifying Saccharine Juices.—E. T. and E. O. De Gemini, Paris, France:

We claim the method of clarifying saccharine julces herein shown and described, which consists in subjecting them to the simultaneous action of molecular agitation, under steam, animal charcoal and fuller's earth, substantially in the manner set forth.

We also claim the employment of the apparatus herein shown and described, for the purpose set forth.

This invention consists in the treatment of saccharine juices with fuller's earth or clay and powdered bone-black, by introducing the said substance to juices and subjecting them to agitation, produced either by means of stirrers or mechanical agitation, or by the intro n of jets of steam, or by both of these means comi

37,615.—Grain-conveyer.—Oren C. Dodge, New York

City:
I claim, first, Delivering the grain at any desired point along the line of a traveling belt, by bending said beltsubstantially as specified, for the introduction of a hopper or chute.

F.Second, I claim a traveling belt for conveying grain, provided with vertical or nearly vertical edges, forming a trough, substantially as set forth.

Third, I claim the elastic edges, 3, 3, of the belt, f. sustained by the

rd. I claim the elasticedges, 3, 3, of the belt, f, sustained by the llic strips, 4, 4, substantially as specified.

37,616.—Grinding Edge Tools.—G. C. Eaton, Lockport, N. Y.:

N. 1.:
I claim the adjusting slot, B B', in the part, A, the hinged arm, E, evers, G and I, connecting rod, J, stay, L, seat, K, and slide, N, arranged and operated as and for the purpose set forth.

37,617.—Sewing Machine.—G. L. Dulaney, Mount Jack-

37,617.—Sewing [Machine.—G. L. Dulaney, Mount Jackson, Va.: I claim, first, The vertically-acting needle arm, composed of one piece of metal, as indicated atw x.y.z, and Figs. 1 and 2, which performs the several different offices or mechanical functions, as herein set forth and described.

Second, I claim the special construction of the intermittent acting shuttle, carrier device, 12 k2 p2, r2, Fig. 4, together with the gravitating self-acting shuttle adjusting device, s2 t2 u2, Fig. 4, as shown and described.

ting self-acting shuttie adjusting device, \$2 t2 u2, Fig. 4, as shown and described.

Third, I claim the gravitating self-adjusting feed device, o3 o3, p3, q4, Fig. 3, constructed and operated in the manner described.

Fourth, I claim the self-acting gravitating pad, v2 v3 w2 w3, as constructed and combined with the self-acting gravitating feed device, o3 o3 p3 q4, the lever device, v2 'v2, and the curved bar or tension device, v2 'v2, with the small dependent flexible, fork-like device, v2, Figs. 1, 2, 3, substantially as set forth, shown and described.

Fifth, I claim constructing the shuttle, o2 o2, with the bottom slot or depression, o4, Fig. 4, and the combination therewith of the gravitating, self-acting shuttle-adjusting device, s2, t2, w2, Fig. 4, substantially as set forth, shown and described.

Sixth, I claim the vibrating lever, or slack-threadadjuster, £2 f12 g2, Fig. 1, as constructed, operated and combined with the needle bar or arm, w x y z, and Figs. 1 and 2, substantially as set forth and described.

arm, w xy z, and Figs. 1 and 2, substantially as set forth and described.

Seventh, I claim the curved bar or tension device, y2 y2 z2, Figs. 1, 2 and 3, singly or in combination with the vibrating lever or slack take-up device, f2 f2 g2 b2, so as to produce the desired effect, in the manner as set forth, shown and described.

Eighth, I claim the flexible, rotating, radial division device, a3 b3 c3 d3, Figs. 1 and 2, as constructed, set forth and described.

37,618.—Moth Trap.—John Frew, Meadville, Pa.: I claim a bee-moth trap consisting of an external case, A, cover, B, porch, C, inner removable close box, D, provided with comb frame, H, the whole being constructed, combined and arranged in the manner and for the purpose herein specified.

[The subject of this invention is a suitably-constructed box which peing supplied with old or inferior comb and placed near the inhabited hives, will be used in preference to the latter, by the moth, for depositing its eggs, and will thus enable the apiarist to destroy the larva without injury to the bees.]

37,619.—Doweling Machine for the use of Coopers.—
John German, Oriskany Falls, N. Y.:
I claim, first, The three grooved pulleys, CFF, having the belt, G, passing around them, in combination with the slides, DD, having norizontal tubes or bearings, n, at their upper ends, in which the arbors, E, of the bits are secured, the whole being arranged and applied to the frame, B, as and for the purpose herein set forth.

Second, The feed table, H, provided with the cleats, tt' t', and bars, u, having inclined upper surfaces, when said feed table is used in combination with the pulleys, CFF, belt, G, slides, DD, and bit arbors, E, as and for the purpose specified.

320.—Construction of Ships-of-war and other Bat-teries for Defense against Projectiles.—J. S. Gibbons, New York City:

New York City:

I claim the use of wedge-shaped timbers in connection with iron plates, for the purpose of resisting projectiles, substantially as specified; and in combination therewith I claimles arranging the plates in one series that they cross those of another, substantially in the manner and for the purposes set forth.

-Fishing Lantern.-Joseph Goodrich, Muscoda,

Wis.:

I claim the arrangement of the adjustable reflector, A, and the shert, K, when used in connection with the box or frame of a lander, and constructed and operating substantially as and for the purpose specified and delineated.

Second, I claim the index spring, T T, when used for the purpose of adjusting the reflector, A, substantially as set forth.

37,622.—Beehive.—J. H. Graves, Rochester, N. Y.: of 1,022.—Deciliwe.—J. H. Glaves, houndard, Ar. I. I. claim the combination of the removable perforated bottom. B, coving the entire space of the hive, with the auxiliary bottom, D, separately removable and adjustable to, or from, said bottom B, arranged and operating substantially as and for the purpose herein set forth. I also claim the combination of the cut-off slide, H, ske leton frame, G, provided with the center piece, r, having the passages, h, and ppen-bottomed sections, L L, arranged substantially as herein set

ppen-bottomed sections, and an arrangement of the forth.

I also claim the perforated alighting platform, C, in combination with the perforated bottom, B, substantially in the manner and for the purpose set forth.

the purpose set forth.

37,623.—Washing Machine.—Jacob Hilborn (assignor to Harrison Haight), San Francisco, Cal.:

I claim making the stationary corrugated concave or washboard of a washing machine adjustable, substantially in the manner herein described, so as to adapt the machine to operate on a large or small quantity of clothes.

I also claim, in combination of the stationary washboard, B, the vertical reciprocating side washboards, E, and pendulum dashers, D, substantially in the manner and for the purposes herein described. I also claim the combination of the stationary washboard, B, the vertical reciprocating side washboards, E, and pendulum dashers, D, substantially in the manner and for the purpose set forth.

37,624.—Sewing Machine.—J. G. Hollowell, Canandaigua, N. Y.:
Lialm, first, So constructing the needle cam, I', and shuttle cam, L', and so combining them with each other and with the rockshaft for operating the needle and shuttle, that they will operate in proper relating the needle and shuttle, that they will operate in proper relating the first of the sewing, in which ever direction the cherch a pecific of driving wheel or pulley rotates, substantially as the control of the teed cam, J, and presser cam, K compiled with each

cam shaft, B, or driving wheel or pulsey rules co, subsequently, wherein specified.
Second, The feed cam, J, and presser cam, K, combined with each other and with the presser, H, to operate upon the latter and produce the feed movement in one direction or the other, according to the direction of the revolution of the main shaft, driving wheel or driving pulley, substantially as herein specified.

pulley, substantially as herein specified.

37,625.—Shutter Fastening.—Ambrose Hyde, Lima, N. Y. I claim the double-acting detent, K, in combination with the catch E, and base, I, when so arranged as to either lock the said catch in a rigid position to hold the shutter in place, or to retain it disengaged while the shutter is removed, and operating substantially as hereif specified.

specified.

37,626.—Plow.—Robert Jones, Waynesburg, Ohio:
First, I claim the particular combination of the curved inner end, c, of the beam, A, the curved shoulder, b, of the shank, B, the bolts of the theory constructed and arranged in the manner and for the purposes herein specified.

Second, I also claim the particular construction of the flange, g, with the arm, h, and ears, l, and l', permanently attached to a standard, B, having a curved shoulder, b, when used in the described combination with the landside, C, mold-board, D, and share, E; all arranged and connected in the manner and for the purposes set forth.

[This invention relates to a new and improved plow of that class which are provided with mold-boards for turning a furrow slice The invention consists in having the mold-board and share in the form of a section of a screw-thread, whereby several advantages are obtained over the ordinary forms hitherto used. The invention also consists in a novel and improved manner of attaching certain parts of the plow together; to-wit, the mold-board to the shank, and the eam to the shank, whereby the mold-board may be readily detached when necessary, and either a cast-iron or steel mold-board used on one and the same plow, and the beam rendered capable of being adjnsted so that its front end may be more or less elevated in a vertical plane, and also capable of being adjusted laterally or in a horizontal

planefor the purpose of regulating the direction of the draught and

37,627.—Lubricator,—Arthur J. Judge, Baltimore, Md.: J. 1941.—LIURICATOF.—ATTINUT J. JUDGE, Baltimore, Md.: I claim, first, The construction of a chamber or reservoir to hold the oil with an opening in the lower part, so small that atmospheric pressure prevents its escape, until expanded by the increased temperature of the journal.

Second, The combination of the three parts, viz.; the reservoir or cup, the tube, and the socket in the manner and for the purposes herein specified.

37,628.—Trip Hammer.—Lyman Kingsley, Cambridge-port, Mass.: I claim the anvil-block, Q, arranged substantially as shown on a plate, R, to admit of the advisor claim the anvil-block, Q, arranged substantially as shown on a e, R, to admit of the adjustment of the anvil, P, as described.

[For an illustration and description of this invention, see page 376, Vol. VII. (new series) of the SCIENTIFIC AMERICAN.]

37,629.—Forming Locks in Tin-plate.—Emmons Manley, Marion, N. Y.:

First, Providing the folding bar, F, with a semi-circular hub, d, grooved to receive a semi-circular bearing, f, and all arranged substantially as shown to admit of an open space at one end of the bar, F, to allow the plate to be adjusted laterally between it and the jaw, D, as herein set forth.

Second, The movable or adjustable jaws, C D, arranged in connection with the lever, E, as shown, to operate as and for the purpose specified.

Third, The combination of the folding bar, F, jaws, C D, and lever.

E, all arranged for ioint operation as and for F, jaws, C D, and lever.

specined.

Third, The combination of the folding bar, F, jaws, C D, and lever, E, all arranged for joint operation as and for the purpose herein set forth.

37,630.—Harvester.—James S. Marsh, Lewisburgh, Pa.: I claim, first, The linking devices described or their equivalents applied to the arms of the raking apparatus substantially as described. Second, The adaptation of a raking and reeling apparatus combined, which revolves entirely around a vertical centre, for application to the inner side of the drait frame of a harvester at a point below the top of the drive wheel substantially as and for the purpose set forth.

the top of the drive wheel substantially as and for the purpose set forth.

Third, The use of the inner bearing of the drive wheel as the support of the centre on which the combined rake and reel revolves substantially as described.

Fourth. The construction of the shaft or centre, P, of the rake and reel, and the inner segment of the drive wheel in one piece, in the manner described.

Fifth, The combination of the cam, R, hinged rake and reel bars and adjustable links, so as to keep the rake and reel bars firmly in control with the grain in the field and on the platform substantially as set forth.

as set forth.

Sixth, The arrangement of the sliding and turning spring pin, p, incline, p2, loose bevel pinion, Q, and the raking and reeling apparatus, substantially as described.

Seventh, The adjustable grain guard, K, constructed substantially as described, and applied to the inner front corner of the draft frame, for the purpose set forth.

as described, and applied to the inner front corner of the draft frame, for the purpose set forth.

37,631.—Harvester.—James S. Marsh, E. & C. C. Sharkley & Peter Beaver, Lewisburgh, Pa.:
I claim, first, The joint of the pitman and sickle constructed as described, in combination with the guide, 10, or its equivalent for the purpose set forth.

Second, The combination of the grain guide or guard, K, and the standards of the reel and the reel, substantially in the manner and for the purpose described.

Third. The combination of the seat base, C2, arranged over the drive wheel, with the inner grain guard or guide, K, whereby the drive wheel, with the inner grain guard or guide, K, whereby the Fourth, The arrangement and combination of the hollow bevel wheel, v, internally toothed ratchet, x, and spring, w, with the pinion shaft, V, and lever, F; the whole constructed as described and for the purpose set forth.

Fifth, The combination of the adjustable platform, L M, bolt, t, adjusting aperture, t', and guide slot, s, and the adjustable back beam, Q, arranged on springs, substantially as and for the purpose set forth, Sixth, The springs, F P, or their equivalents, applied substantially as described and for the purposes sherein set forth.

as described and for the purposes herein set forth.

37,632.—Apparatus for Drying Grain, &c.—Sylvester Marsh, Chicago, Ill.:

I claim the method herein described of drying grain, malt, hope, and other similar substances, by the employment in combination with an artificial blast of air over an anthractic coal or coke fire, as set sequivalent and when arranged for operation substantially in the maner and for the purposes hereinbefore specified.

27, 232. Defensive Awron for Shing and other Betteries.

37,633.—Defensive Armon for Ships and other Batteries.—
Richard Montgomery, New York City:
I claim, first, The imbricated plates, E, and corrugated iron, D, in combination with the columns or cylinders of vulcanized rubber, B, substantially as described.

Second, Fastening together the imbricated plate, E, and corrugated iron, D, by means of the rod, F, as set forth passing through the corrugated iron, D, by means of the rod, F, as set forth passing through the corrugated iron, D, constructed and fastened substantially as set forth.

37,634.—Cog Wheel.—F. A. Morley, Sodus Point, N. Y.:
I claim the insulating of the periphery or parts containing the cogs by means of a stratum of a non-conductor of sound placed between said periphery and the central parts of the cog wheel; substantially in the manner and for the purpose set forth,
37,635.—Ship's Water 'Closet.—Peter W. Neefins New

37,635.—Ship's Water 'Closet.—Peter W., Neefus, New

York City:

I claim combining with the shafts, journals, and valves of ship's water-closets, substantially as described, stuffing boxes and faced valves, so as to make them air and water-tight as herein set forth.

valves, so as to make them air and water-tight as herein set forth.

37,636.—Attaching Shafts or Poles to Carriages.—James
Northrup, Zachariah Loomis & Giles W. Clark,
Homer, N. Y.;

We claim the arrangement and combination of the double and
single clip bars, c and dd, with the corresponding depressions in
each and when the single bar is made whole and connected with the
double clip and with the T-beaded thill or pole-iron fitting and working in said depression as and for the purpose above described.

37,637.—Artificial Leg.—Dubois D. Parmelee, New York

City: I claim, first, Fastening the bucket, A, of an artificial limb to the tump, by means of atmospheric pressure, substantially in the man-

stump, by means of atmospheric pressure, substantially in the manner specified.

Second, The knee joint, C, constructed of two cylinders, de, clasps, f double concave sector, g, and elastic band, h, all arranged and operating substantially in the manner and; for the purpose herein shown and described.

Third, Dividing the toe-piece, G, in two or more distinct parts, substantially as and for the purpose set forth.

Fourth, The arrangement of the stems or tails, m*, projecting from the under side of the toe-pieces, mm' m'', in combination with the bands, n, of leather or other suitable material, and with the elastic bands, o, adjustable by a metal clasp, p, or its equivalent, all constructed and operating substantially in the manner and for the purpose described.

pose described.

37,635.—Pump.—A. N. Parkhurst, Peoria, Ill.:
I claim a pump constructed of wood and baked clay having a
metal flange, D. attached to it as shown, and the part, E, wh
formed of the baked clay attached to the wooden part, A, and
upper section, 1, of the piping by the bolts, in, and the differen
tions of the piping secured together by means of the clamps,
herein set forth.

[This invention relates to an improved pump of that class in which take invention relates to an improved pump of that cases in which the piping is composed of wood and the cylinder of baked clay. The object of the invention is to obtain a more durable pump of the kind specified, than any hitherto used, and without any more expense in the construction or manufacture of the same.]

37,639.—Composition for Slate Surface, Blackboards, &c.—Isaac Newton Peirce, Darby, Pa.:

I claim the combination of the ingredients and proportions, substantially as set forth, constituting the composition and its application in the manner and for the purpose specified.

37,640.—Making Horse-shoe and other Nails.—Benjamin W. Peirce, New Bedford, Mass.:

I claim the combination of the rotary cam, D, its sliding shaft, B

and treadle lever, C, with a series of hammers or dies, G G' H H', a nail-discharging mechanism, and a mechanism for severing or cutting the nail from its rod, the whole being substantially as herein before

nail from its rod, the whole being accommended, and in combination therewith, I claim the gage, L, arranged and rating substantially as specified.

also claim the combination of each pair of the dies with the er pair thereof, by means of the levers, K K, constructed and arged as described and the spring, I, applied to the dies in manner is as to cause the dies of either pair of them to recede from one other while those of the other pair may be in the act of approachone another.

37,641.—Device for Closing Mail Bags.—George M. Rhoades, East Hamilton, N. Y.: I claim the mode substantially as described of constructing a flexible fastening to a mail bag and for the purposes set forth.

137,642.—Bridge.—Isaiah Rogers, Washington, D. C.:
I claim, first, The combination of the hollow flanged tubes, A a, and connecting plates, B, attached together by screw bolts, C, or other suitable means for the formation of arches, in manner substantially as herein shown and described.

Second, In combination with a bridge constructed substantially ashove described, I claim the inverted arch, L, employed in the manner explained to form an abutment between two adjacent arches.

(The subject of this proportion is a bridge compared of a resulting

[The subject of this invention is a bridge composed of a peculiar nbination of tubes and plates so disposed and connected a part great strength and rigidity, reduce the weight and cost of the structure and render it much more easy of erection.]

7,643.—Pawl for Hay Presses.—Lorenzo D. Rundell, South Westerlo, N. Y.:
I claim the compound pawl formed by the lever, g, and body part, d, olinted together at h, and acting in the manner and for the purposes pecified.

37,644.—Valve for Steam Engines.—Peter Shearer, Read

ing, Pa.:

I claim the slide valve, E, open at the top with the valves, n n', or their equivalent, in combination with the cover, F, applied to each other and operating substantially as herein set forth.

37,645.—Tompion for Fire-arms.—R.*G. Shurtleff, Spring-field, Mass.:
I claim the tompion, A, with its slits, D, and cylindrical interior, E, having lateral openings, e, in combination with the valve, I, and spring, K.

37,646.—Door Bolt.—H. S. Smith, Brooklyn, N. Y.:
I claim the notch, coin the bolt, B, in combination with the spring,
E, fitted on the knob-spindle or rod, C, the above parts being used in
connection with the plate, a' a'' A, and all arranged to operate as
and for the purpose set forth. This invention consists in providing the bolt with a shoulder near

its back end, and having a spring applied to the spindle of the knot of the bolt in such a manner that when the bolt is shoved forward to its fullest extent, the spring will force the shoulder of the bolt back ward beyond the edge of the hole or bearing in which the shouldered end of the bolt works, and thereby cause the bolt to be detained in forward position, forming a lock or fastening for the bolt; the bolt being disengaged or freed from the bearing aforesaid, by drawing outward the knob previous to shoving it back.]

37,647.—Preserve Jar.—Charles F. Spencer, Rochester, N. Y.:

N. Y.:

I claim the combined arrangement and construction of the double flanged cover, B, packing ring, b, and jar-neck seat, a, one flange, fo the cover compressing and tightening the packing ring, and the other flange, g, nearly filting and closing the circle within the seat substantially as and for the purposes herein specified.

37,648.—Stencil Plate,—Samuel C. Sumner, Boston, Mass. I claim the holder, A, with its holes, C, silts, d, and bars, c, in combination with the letter plates, g, for the purpose described.

37,649.—Car Coupling.—Nathaniel A. Tucker, Burlington

Vt.: I claim confining a coupling link in a recess located below two matching curved surfaces one of which is stationary, and the othe movable, substantially as and for the purposes described.

movable, substantially as and for the purposes described.

37,650—Apparatus for obtaining Profiles of Submarine Beds.—C. Van Horn, Springfield, Mass.:

I claim the employment or use of a tracing rod, G, fitted within a tube, E, or as equivalent guide, and arranged with a sliding frame, B, slide, D, tracing board, C, and a framing, A, substantially as shown, so that a series of profiles may be obtained of the surface of the bed, F, of a river or stream for the purpose of constructing a platform of a configuration corresponding to the bed to rest on the same and receive or support the caissons or foundations of piers, bridges, &c.

[The object of this invention is to obtain an apparatus or device by which a correct measurement or draughts may be obtained of the prominences and depressions of rocky or other hard sub-marine bed, ot be driven forthe construction of piers, bridge &c., and by which measurement on draughts a platform may constructed so as to conform or fit snugly to the bed to support the caissons of piers, bridges, &c., &c.]

37,651.—Connecting Shafts or Thills to Sleighs.—Jacob C. Walter, Leonardsville, N. Y.:

In combination with the mechanism or its equivalent for changing the relative position of the shafts or thills, laterally; I claim the devices or their equivalents for changing or setting the thills forward or back substantially as described.

37,652.—Rock Drill.—J. B. Wayne and Wm. Evered, De-

troit, Mich:

We claim the manner of tripping the stem by means of the notched or double cams, 0, thereby allowing the lever or pincher to drop, while the fulcrum-sleeve is supported and gradually allowed to descend on the cam, substantially as set forth.

scend on the cam, substantially as set forth.

37,653.—Spring for Carriages.—William Wharton, Birmingham, England:
I claim a combination of spring plates secured together or embedded with each other by the peculiar form or forms of the edges thereof, such plates not being dependent on slots and plus or studs to secure them in position laterally, essentially as hereinbefore described.

37,654.—Track and Switch for Street Railways.—William Wharton, Jr., Philadelphia, Pa.:
I claim the combination and arrangement, substantially as described, of the tracks, A A', B B', switch, x, tracks, E B' and F F', for the purpose specified.

37,655.—Suspended.

37,656.—Mowing Machine.—John D. Wilber, Poughkeepsie, N.Y.:

I claim, first, The main frame, C. constructed and fitted on the axle, A, as shown, in combination with the semi-circular bar, G, also fitted on the axle, A, and having the suspension chains, ee, attached to it at some distance on each side of the draft pole, F, so as to bring the said chains as nearly vertical as possible, all as herein set forth.

Second The combination of the draft pole, F, attached controlly to

forth.

Second, The combination of the draft pole, F, attached centrally it the main frame; the cutting apparatus, D E, placed centrally in from of and driven by both the wheels, B B, and a double-tree, R, of such length and so placed as to separate the single-trees, S S, to a distance greater than the length of the cutting apparatus, all as herein shown and described, and for the purpose set forth.

The object of this invention is to obtain a mowing machine in which all sidedraught will be avoided, and one which will leave the cut grass in a loose, light state, be of easy draught, and capable of cutting directly back and forth, so as to avoid the trouble and incor

37,657.—Grinding Die for Nail Machines.—G. B. Wiggin and J. W. Hoard, Providence, R. I.:

I claim the combination and arrangement of the two grinding I claim a separate or auxiliary refining pot or crucible, employed to

wheels, A and B, with the movable carriage, E, substantially as described, for the purposes specified.

scribed, for the purposes specified.

37,658.—Water Meter.—Henry Burt (assignor to himself, C. S. Titsworth and T. W. Loweree), Newark, N.J.: I claim, first, Effecting the movement of the valve by means of two pieces with V-shaped ends and a spring, combined with the piston, to operate substantially as hereia described.

Second, Combining the valve with the lever, G, or its equivalent, on which one of the V-shaped ends is formed, or to which it is attached, and which is subject to the direct action of the piston, by means of a lever, E, between which and the said lever, G, or its equivalent, lost motion is provided in order to effect the whole movement of the valve very quickly, substantially as herein described.

[This invention consists in a certain novel system of valve-operating mechanism, whereby a slide valve is moved very quickly to change

mechanism, whereby a slide valve is moved very quickly to change the openings of the ports after the stroke of the piston, in either direction, has terminated.]

37.659.—Mechanical Movement for Lamps

Si,009.—Mechanical Movement for Lamps.—F. B. De Keravenan (assignor to J. H. Bailey and G. A. Jones), New York City: I claim the general arrangement and combination of the mechan-ism, herein described, and its use and application for the purposes set forth.

37.660.—Suspended.

37,661.—Explosive Projectile for Ordnance.—L. D. Gerardin (assignor to himself and William Howeth), Jersey City, N. J.:
I claim having the outer wall of the shell composed of a series of rings placed one upon the other, and clamped together between the head and base plates, substantially as herein shown and described.

head and base plates, substantially as herein shown and described.

37,662.—Corn-sheller.—George Goewey (assignor to himself and William Bailey), Philadelphia, Pa.:

I claim the employment of two rollers, B B, both revolving in one direction and having two or more rows of teeth arranged spirally, for the purpose of revolving the ears of corn, said rollers being used in combination with a concave, E, having teeth thereon arranged spirally, the teeth on the concave and the teeth on the rollers operating conjointly to shell the corn from the cob, and pass the latter out at the tail of the machine.

tail of the machine.

37,663.—Packing for Piston and Other Rods.—John Johnson, Roxbury, Mass., assignor to himself and H. D. Ward, Cambridge, Mass.:

I claim the arrangement of the packing rings within the gland or stuffing-box cover, substantially as herein described, whereby the gland or cover is made to constitute a box or case to contain the said rings, and in which they can be applied and removed, and provision is made for the admission of the steam or other fluid that is to be confined to act upon the outer peripheries of the rings, substantially as and for the purpose herein specified.

37,664.—Butter-worker.—Marvin Sweet, Sidney, N. Y.: 37,664.—Butter-worker.—Marvin Sweet, Sidney, N. 1.:
I claim, first, The combination of the slowly-moving trough, A, with the revolving "ladle," N, formed of a smooth-piece of wood or other suitable material, without produberances, when the said parts are constructed and arranged to operate together in the manner and for the purposes herein specified.

Second, The combination of the screw wheel, S, double cog-wheel 8, and rack, 7, employed to communicate motion from the revolving "ladle," N, to the sliding trough, a, of a butter-working machine, as set forth.

37,665.—Device for Preventing Door Keys from being turned.—Amos Westcott, Syracuse, N. Y.:

I claim the combination with the curved, elastic, slotted, sliding plate, of the handle, k, pin, h, and hole, h', employed in the manner described, to secure the said sliding plate in the position for locking the key, but admit of its ready movement from within.

[This simple device is applied to the inner side of a door to prevent the possibility of turning the key from the outside by means of any instrument inserted into the keyhole. I

instrument inserted into the keyhole.

37,666.—Washing and Wringing Machine.—G. L. Witsel (assignor to himself and Clement Cresson), Philadelphia, Pa.:

Firstly, I claim the vibrating dasher, D. composed of the perforated boards, dand', and angular piece or partition, e, or its equivalent, when constructed, combined with and operating within a reservoir, substantially as and for the purpose described.

Secondly, The arms, H H, connected together by the cross-bar, I, arranged on and hung to the reservoir and connected to the sliding boxes, ii, of the roller, G, substantially as and for the purpose herein set forth.

37,667.—Balloon.—T. L. Shaw, Omaha City, N. T. I claim a balloon construction the manner described.

RE-ISSUES.

398.—Concentrating and Preserving Milk.—Gail Borden,
Jr., Amenia, N. Y. Patented Aug. 19, 1856. Reissued May 13, 1862:
I claim, first, The within-described processor. Issued May 13, 1862:

I claim, first, The within-described process, or method of operation for concentrating and preserving milk, by means of coagulating and rearranging the ab uninous particles, in combination with the evaporation of the fluid, 61 vacuo, substantially as set forth.

Second, The preparatory coagulating and re-arranging of the albumen, when this is done as a part of the operation of making concentrated or condensed milk.

1,399.—Elastic Door-guard.—W. N. Clark, Chester, Conn. Patented Nov. 17, 1857:

I claim the above-described india-rubber or elastic gum guard, when held in place by the escutcheon, or its equivalent, as herein described, for the purposelof protecting wall, doors, and furniture, substantially as set forth.

1,400.—Machine for Shaping Irregular Surfaces in Wood.
—Warren Hale, Allen Goodman, Lorenzo Hale and
J. W. Goodman, of North Dana, Mass., assignees of
said Warren Hale and Allen Goodman. Patented
July 22, 1845, and extended:
We claim the combination of the carriage, the pattern or patterns,
the tracine rollers the results said to pattern or patterns,

July 22, 1845, and extended:

We claim the combination of the carriage, the pattern or patterns, the tracing roller or rollers, the rotating cutting or planing cylinder, and the means for turning or holding the block of wood to be fashioned, as described, or the equivalents of them, or either of them; the said combination being so organized, substantially as described, that by its mode of operation the block of wood to be fashioned can be turned to present in succession each of its faces to the action of the cutter or planing cylinder, whose axis is at right angles, or nearly so, with the axis of the block of wood, so as to cut the wood longitudinally, while by a longitudinal movement the block of wood is gradually cut or planed from one end to the other on each face in succession, and by another movement at right angles thereto, or nearly so, the cutting action is caused to follow the irregular lines of the pattern, thereby producing a polygon of any desired number of sides of any desired configuration longitudinally and with all its sides of similar form.

[This invention pertains to that class of machinery which has for its object the reducting of plain or rough blocks of wood to any de-sired irregular form, but differs, it is believed, advantageously, both in its operation and results, from those which have heretofore been contrived.

contived.]

1,401.—Refining Iron by means of Blasts of Air.—Christian Shunk, Canton, Ohio. Patented May 17, 1859:

I claim, first, Blowing atmospheric air into and through a mass of molton crude iron from the ore, or from the remelted pig iron, to commingle the gases of the air with the partices of the fluid iron and its carbon, for the purpose of decarbonizing and converting the same into refined iron or steel, and malleable semi-steel without the use of fuel to keep up combustion, such conversion being effected by the gaseous matter of the atmosphere.

Second, Imparting a rotary or spiral motion to the molten iron, by or during the introduction of the air-blast, substantially as set forth. Thrd, I claim the applies tion of the flux or solvent in the manner and for the purpose herein described during the atmospheric refining process.

receive molten from a smelting orre-melting furnace, and decar bonize the same by the application of an air blast in any manner, sub-stantially as herein described, for the production of steel or refined

3.—Cupola and other Furnaces.—Addison Smith and J. M. Sayre, New York City, assignees of P. W. Mac-kenzie, of said New York City. Patented Aug. 25,

Kenzie, of Said New IOFR City. I attended Aug. 22, 1857:

I claim, first, A cupola of elongated form, in combination with extracted sides, substantially as described and for the purposes set forth. Second, The arrangement of a continuous air chamber, in combination with a cupola and opening for the introduction of a continuous sheet of air to the fuel, substantially as described and for the purposes set forth.

Third, in combination with a cupola provided with a continuous air chamber, substantially as described, enlarging that part below the tweer, whereby the capacity of the cupola is increased, and perfect circulation of air to the full obtained, substantially as described and succilied.

At A. J. and K. E. Storms, Nyack, N. Y., assignees of E. P. Torrey and W. B. Tilton, of New York City. Patented Sept. 8, 1857:
We claim, first, Placing the notched wheel, D, between the jaws, C, of the bracket, A, substantially as and for the purpose shown and

lescribed.

Second. Extending the square end of the torsional rod, F. clear Recond. Extending the brucket, A. as and for the purpose specified. Third, The arrangement of the pivoted stop plate, E. in combination with the notches, a. in the jaws of the bracket, and with the notched wheel, D. all constructed and operating substantially in the nanner and for the purpose set forth.

405.—Water Wheel.—John Temple, W. M. Mills and A. L. Stout (assignees of said John Temple), Middletown Ohio.—Patented Feb. 8, 1859:

1 claim the construction and use of the scroll sluice-gate, B. C. aped to operate with a water wheel, in the manner substantially as scribed.

plied to operate with a water wheel, in the manner substantiany as described. I also claim, in combination with the hinged sluice-gate, B C, the guard, A, as and for the purpose described.
I also claim the levers, K, and ring, J, centrally arranged above the sluice chest, for simultaneously operating a series of gates in combination with the gates, and actuated by mechanism substantially as described.

6.—Process of Manufacturing Water-proof Cement Pipes. Thurlow Weed, Albany, N. Y., and P. S. Shelton, Boston, Mass., assignees of A. F. Jaloureau, Paris, France. Patented May 24, 1859. Ante-dated

Paris, France. Patented May 24, 1859. Ante-dated Dec. 30, 1857:
I claim the process of forming pipes or tubes of rolls of paper, or other tissue, and bitumin ous mastic by drawing or passing the paper, or other tissue, through the liquid mastic, and rolling it up to the required thickness on a mandrel to cause the several windings and the interposed mastic to unite, substantially as described. And what is finally claimed is the forming of such pipes or tubes on a paper sleeve, or cylindrical tube fitted to the outer surface of the mandrel, substantially as described, by means of which the pipes or tubes when made can be readily slip ped off from the mandrel, as set forth.

forth.

1,407.—Water and Air-proof Pipes from Bituminous Cement.—Thurlow Weed, Albany, N.Y., and P.S. Sheltod, Boston, Mass., assignees of A. F. Jaloureau, Paris, France. Patented May 24, 1859. Ante-dated Dec. 30, 1857:

I claim the new manufacture of pipes or tubes composed of several thicknesses of paper, or other tissue, rolled up and the several thicknesses of windings united by interposed bituminous mastic, substantially as described.

D8.—Process of Manufacturing Water-proof Cement Pipes.—Thurlow Weed, Albany, N. Y., and P. S. Shelton, Boston, Mass., assignees of A. F. Jaloureau, Paris, France. Patented May 24, 1859. Ante-dated Dec. 30, 1857:

Dec. 30, 1331:

I claim, first. The mandrel on which the pipe is formed by winding, in combination with the kettle, or other vessel containing the liquid mastic or cement, and the cylinder on which the mandrel rolls, and which carries the paper, or other tissue, through the liquid mastic or cement and up to the mandrel, substantially as and for the purpose specified.

specified.
Second. The rotating mandrel, substantially as and for the purpose specified.
Second. The rotating mandrel and cylinder on which it rolls, in combination with the movable abeve put on the mandrel, substantially as and for the purpose of preventing the pipes, when formed, from adhering to the mandrel.

And, third, The combination of the rotating mandrel, the cylinder on which the mandrel rotate, the kettle or other vessel for containing the liquid mastic or cement, and the guide or equivalent means for guiding the sheet of paper or other tissue, substantially as described.

Camphene Lamp.—E. B. Horn, Boston, Mass. Patented Feb. 6, 1849:
I claim the manner in which I construct the fountain, in order to allow the rays of light proceeding from the wick of the burner to pass downwards through both the internal and external concentric sides or shells of the fountain, that is to say, I claim an internal ranslucent side or shell, in combination with an external concentric side or shell, whether the said two concentric translucent sides of the said fountain be connected together by a translucent or opaque bottom.

IMPORTANT TO INVENTORS.

PATENTS FOR SEVENTEEN YEARS.

MESSRS. MUNN & CO., PROPRIETORS OF THE SCIENTIFIC AMERICAN, continue to solicit patents in the United States and all foreign countries, on



the most reasonable terms. They also attend to various other depart ments of business pertaining to patents, such as Extensions, Appeals before the United States C Interferences, Opinions relative to Infringements, &c. The long experience Messrs. Munn & Co. have had in preparing Specifications and Drawings, has rendered them perfectly conversant with the mode of doing business at the

United States Patent Office, and with the greater part of theinventions which have been patented. Information concerning the patentability of inventions is freely given, without charge, on sending a model or drawing and description to this office.

THE EXAMINATION OF INVENTIONS.

Persons having conceived an idea which they think may be patentable, are advised to make a sketch or model of their invention, and submit it to us, with a full description, for advice. The points of nov-elty are carefully examined, and a written reply, corresponding with the facts, is promptly sent free of charge. Address MUNN & CO.,

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE. The service we render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon what knowledge we may acquire of a similar invention from the records in our Home Office. But for a fee of \$5, accompanied with a model or drawing and description, we have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a patent, &c., made up and mailed to the inventor, with a pamphlet, giving instructions for further proceedings. These preliminary examinations are made through our Branch Office, corner of I and Seventh streets, Washington, by experienced and competent persons. Many thousands such examinations have been made through this office. Address MUNN & CO., No. 37 Fark Row, New York.

HOW TO MAKE AN APPLICATION FOR A PATENT.

Every applicant for a patent must furnish a model of his invention if susceptible of one; or, if the invention is a chemical production is susceptione of one; of, in the invention is a treatment production, he must furnish samples of the ingredients of which his composition consists, for the Patent Office. These should be securely packed, the inventor's name marked on them and sent, with the Government fees, by express. The express charge should be pre-paid. Small models from a distance can often be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of MUNN & CO. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their New Yorkcor respondents; but, if not convenient to do so, there is but little risk in sending bank-bills by mail, having the letter registered by the postmaster. Address MUNN & CO., No. 37 Park Row, New York.

The revised Patent Laws, enacted by Congress on the 2d of March 1861, are now in full force, and prove to be of great benefit to all par

ties who are concerned in new inventions.

The duration of patents granted under the new act is prolonged to SEVENTEEN years, and the Government fee required on filing an application for a patent is reduced from \$30 down to \$15. Othercharges in the fees are also made as follows —

On filing each Caveat\$10	
On filing each application for a Patent, except for a design. \$15	
On issuing each original Patent\$20	
On appeal to Commissioner of Patents\$20	
On application for Re-issue	
On application for Extension of Patent	
On granting the Extension	
On filing a Disclaimer\$10	
On filing application for Design, three and a half years\$10	
On filing application for Design, seven years	
On filing application for design, fourteen years \$30	

The law abolishes discrimination in fees required of foreigners, ex cepting natives of such countries as discriminate against citizens o the United States—thus allowing Austrian, French, Belgian, English Russian, Spanish and all other foreigners except the Canadians, to enjoy all the privileges of our patent system (but in cases of designs) on the above terms. Foreigners cannot secure their in ventions by filing a caveat; to citizens only is this privilege accorded.

During the last seventeen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN; and as an evidence of the confidence reposed in our Agency by the inventors throughout the country, we would state that we have acted as agents for at least TWENTY THOUSAND inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of invenpaper have become intermined with the whole production of inventors for tors and patentees at home and abroad. Thousands of inventors for whom we have taken out patents have addressed to us most flattering testimonials for the services we have rendered them, and the wealth which has inured to the inventors whose patents were secured through this office, and afterward illustrated in the SCIEN-TIFIC AMERICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensive offices, and we are prepared to attend to patent business of all kinds in the quickest time and on the most liberal terms.

CAVEATS.

Persons desiring to file a caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention, the government fee for a caveat, under the new law, is \$10. A pamphlet of advice regarding applications for patents and caveats, printed in English and German, 1s furnished gratis on application by mail. Address MUNN & CO., No. 37 Park Row, New York.

ASSIGNMENTS OF PATENTS.

Assignments of patents, and agreements between patentees and manufacturers are carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American

Patent Agency, No. 37 Park Row, New York.

It would require many columns to detail all the ways in which inventors or patentees may be served at our offices. We cordially invite all who have anything to do with Patent property or inventions to call at our extensive offices, No. 37 Park Row, New York, where any questions regarding the rights of patentees will be cheerfully answered.

Communications and remittances by mail, and models by express (prepaid), should be addressed to MUNN & CO., No. 37 Park Row,

REJECTED APPLICATIONS.

We are prepared to undertake the investigation and prosecution of rejected cases on reasonable terms. The close proximity of our Washington Agency to the Patent Office affords us rare opportunities for the examination and comparison of references, models, drawings documents, &c. Our success in the prosecution of rejected cases has been very great. The principal portion of our charge is generally left dependent upon the final result.

All persons having rejected cases which they desire to have pr ecuted are invited to correspond with us on the subject, giving a brief story of the case, inclosing the official letters, &c.

FOREIGN PATENTS.

We are very extensively engaged in the preparation and securing patents in the various European countries. For the transaction of patents in the various European countries. For the transaction of this business we have offices at Nos. 66 Chancery lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. We think we can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through the Scientific American Patent Agency, No. 37 Park Row, New York.

Inventors will do well to bear in mind that the English law does not limit the issue of patents to inventors. Any one can take out a pat-

Circulars of information concerning the proper course to be pursued in obtaining patents in foreign countries through our Agency, the requirements of different Government Patent Offices, &c., may the requirements of uniteral coordinates are the requirements of uniteral behalf and gratis upon application at our principal office, No. 37 Park Row, New York, or any of our branch offices.



A. M. B., of Mich.—Many inquiries of a business nature are made of us, from time to time, which we do not consider our-selves called upon to undertake to answer, unless the correspondent remits an amount sufficient to pay us for our trouble to look up the information. You do not even inclose a postage stamp to pay for a reply to your inquiries; and it is unreasonable to expect us to advertise, through our column of "Notes and Queries," a dealer in oatmeal and barley mills, unless we are paid for it. Few newspaper publishers in the United States are more willing to accommodate their readers than ourselves, but there is such a thing as putting an unreasonable pressure upon us in this respect. We hope you find the Scientific American worth what it costs you.

M. S. O., of Mass.—You inquire how much power there is in a rectangular magnet three feet in diameter and four inches in thickness; and you also wish to know what weight it will draw on a carriage. A magnet of such a great size has never yet been made. The power of a magnet does not depend upon its mass, but resides on the surface, and no person can tell you the amount of attractive power in a magnet from its size. Two permanent magnets of the same size oftentimes differ greatly in power. A small magnet ex. hibits more attractive force, proportionately, than a large one. The strongest magnet described is one which was worn by Sir Isaac Newton in a finger-ring; it lifted 150 times its own weight A horse-shoe electro-magnet, one inch long (which is entirely different from a permanent magnet) has lifted 420 times its own weight.

E. K. B., of Va.—There are no recorded experiments published respecting the pressure exercised by the explosion of gases. Hydrogen gas charged with carbon and the gas derived from naphtha are the same in nature and substance. When hydrogen gas is mixed with three volumes of atmospheric air it explodes almost instantaneously when ignited; but one volume of pure oxygen mixed with two of hydrogen produces a more violent explosion. By assuming the expansion of combustibles to be 1,728 times that of their original bulk, the full pressure of exploded naphtha would be equal to 25,000 pounds on the square inch.

S. H., of Vt.—We have not received the paper containing a notice of the iron-ore bed to which you refer. The value of ore can only be ascertained by experiment conducted by a competent person. Good steel can be made from all our American magnetic iron ores.

F. J. C., of Philadelphia.—You will find a spray steam boiler, such as you suggest, described on page 185, Vol. VII (new series) of the Scientific American. Water exposed to an extensive heating surface evaporates into the atmosphere (if the latter is dry) at all temperatures, but the pressure is in proportion to its temperature. A low temperature of steam indicates low pressure.

S., of Pa.-We cannot guarantee to furnish back numbers at any time during the year. It frequently happens that we run out of certain numbers long before the close of the yeer. You had better make sure of the complete volume by subscribing now.

C. R. D., of Ill.—We do not see why your draught should be bad; the chimney is high enough certainly. You had better see if there is no defect in the setting of your boiler or some other local which affects the draught before you alter the chimney. cannot say positively whether the arrangement alluded to would be of any value until we know more about it. Our impression is that

S. W., of Pa.—Your communication is upon an interesting subject, but there are some parts of it so obscurely treated that we cannot understand your meaning, hence it cannot be published.

L. E. A., of S. C.—We are obliged for your good opinion and the information you send us, but it comes too late to be of ser vice. Be so kind as to forward any other details in reference to the engine in question that you possess

R. E. R., of Pa.—You will find a hot-air engine illustrated on page 97, present volume of the Scientific American, which we think very highly of. Wilcox's air engine is illustrated on page 161, Vol IV (new series), of the SCIENTIFIC AMERICAN.

L. C. R., of N. J.—The idea you suggest, in reference to

the cancelation of postage stamps, is to simply use the old stamp as now, except that you slide one end of it over the edge of the letter, so that it may be torn off at the Post-office. The plan will not work. on in a hundred would ever put stamps on in that way unless especially told to do it.

E. K. H., of N. Y .- The amount of pressure upon the surface of an exhausted receiver is 15 pounds on the square inch. This is called one atmosphere. A perfect vacuum cannot be ob tained either in a condenser or air pump, hence the interior pres sure is usually subtracted from the exterior pressure in speaking of the vacuum in the condenser of an engine.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, February 11, to Wednesday February 18, 1863:—

T. C. McK., of Tenn., \$46; B. R. A., of N.Y., \$40; S. B. C., of N.Y., \$10; J. W. C. H., of Denmark, \$20; W. P. W., of N.Y., \$20; C. O. F., of Maine, \$20; J. H., of Ohio, \$14; D. J. O., of Pa., \$15; P. D., of N. Y., \$30; L. B., of Wis., \$25; J. W. B., of Ind., \$25; W. D. G., of N. Y., \$50; L. B., of Iwa, \$15; J. A., of Ky., \$12; G. & V., of N. Y., \$16; H. B., of Iowa, \$15; J. A., of Ky., \$12; G. & V., of N. Y., \$16; Z. W., of Cal., \$150; W. H. H., of Cal., \$25; W. A. D., of Ohio \$20; I. L., of N. Y., \$20; J. L. A., of N. Y., \$45; I. S. S., of N. Y., \$22; A. F. N., of N. Y., \$10; J. M. A., of Mass., \$10; L. & D., of Ill., \$15; G. G. H., of Ill., \$15; B. L. W., of Mass., \$29; W. P., of Md., \$25; \$15; G. G. H., of Ill., \$15; B. L. W., of Mass., \$25; W. P., of Mal., \$25; J. C. H., of Mass., \$45; D. & T. W., of Cal., \$25; J. McL., of Ohio, \$12; T. D. R., of N. Y., \$10; T. C., of R. I., \$30; B. F. S., of Iowa, \$16; A. B., of N. J., \$15; J. W., of Iowa, \$45; J. N., of N. Y., \$20; W. S. T., of Iowa, \$20; G. T. L., of Pa., \$56; J. H. B., of Mass., \$10; W. T. R., of N. S., \$25; M. D. H., of N. Y., \$16; T. K., of Ill., \$15; J. F. J., of N. Y., \$16; G. H., of R. I., \$15; M. V. D., of N. J., \$10;

J. K., of Conn., \$56; A. A. G., of N. Y., \$16; A. W., of Ill., \$15; W J. K., of C¹111., \$50; A. A. G., of N. Y., \$16; A. W., of Ill., \$15; W D. S., of N.Y., \$25; S.T., of Mass., \$16; H. B., of England, \$19; W. F., of Mass., \$32; P. J. C., of Conn., \$16; L. A., of Wis., \$15: J. H., of N. Y., \$32; G. G., of Ill., \$10; S. C. K. of Mass., \$15; F. W. G., of N. Y., \$36; L. W., of N. Y., \$26; T. B. V., of N. Y., \$26; B. F. H., of N. Y., \$16; J. Van D., of N. Y., \$15; T. R. C., of Mo., \$15; R. S. C., of Iowa, \$16; D. C. S., of Conn., \$25; J. C. H., of Mass., \$30; E. J. W., of N. Y., \$26; J. T., of N. Y., \$26; J. B. W., of R. I., \$16; D. D. C., of Mass., \$16; H. B. M. & Son, of Mich., \$15; J. H. F., of Mass. \$15; J. W., Jr., of Ky., \$20; J. D., of Ill., \$26.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, and in form us the amount, and how it was sent, whether by mail or ex

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Paten Office from Wednesday, February 11, to Wednesday, February 18

B. R. A., of N. Y., (2 cases); J. C. H., of Mass.; W. D. S., of N.Y.; E. J. W., of N. Y.; T. K., of Ill.; J. D., of Ill.; T. B. V., of N. Y.; I. S. S., of N. Y.; D. C. S., of Conn.; L. B., of Wis.; B. L. W., of Mass.; L. R., of N. Y.; F. W. G., of N. Y.; L. W., of N. Y.; G. G., of Ill.; T. D. R., of N. Y.; J. K., of Conn., (2 cases); W. P., of Md.; W. T. R., of N. S.; J. T., of N. Y.

RATES OF ADVERTISING.

Twenty-five Cents per line for each and every insertion, pay ble in advance. To enable all to understand how to compute the all they must send in when they wish advertisements inserted, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may deem objectionable

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