

RECENT AMERICAN INVENTIONS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week. The claims may be found in the official list on another page:—

Reciprocating Pump.—This invention consists in the employment of a compound piston or one provided with two valves opening in opposite directions in a right line and used in connection with a water-tight partition or abutment placed within the pump cylinder, and in such relation with the two piston valves, the suction or discharge opening, and a water passage communicating with the pump cylinder, that by a simple reciprocating movement of the piston, each valve will alternately propel the stream in the same direction through the pump. Each valve, during its reverse movement, allows the streams to pass freely through it, thereby operating with a moderate expenditure of power, admitting of a rapid movement with but little wear and tear of the working parts, and raising and forcing a large volume of water in a given time. The inventor is Wm. D. Andrews, of New York city.

Feed Regulator for Steam Boilers.—This invention relates to that class of boiler feed regulators which effect the movement necessary to set the feed pump in operation or produce the suspension of its operation by means of the expansion and contraction of a pipe, which is arranged at the intended water level of the boiler. This pipe receives from the boiler either steam or water, according as the water therein is above or below a certain level. It consists, first, in a novel system of levers for connecting the said expanding and contracting pipe with the belt shipper or other device for bringing the feed pump into or out of operation, whereby a small movement of the pipe is made to produce a considerable movement of one of the levers, and the necessity for making the expanding and contracting pipe of great length is obviated. It also consists in a novel contrivance for producing a copious flow of cool water into the expanding and contracting pipe, when the water in the boiler rises to a certain level, and so providing for the rapid contraction of the said pipe and stoppage of the operation of the feed pump. The inventor is Charles H. Brown, of Fitchburg, Mass.

Revolving Firearm.—This invention relates to cylinder revolvers having their cylinder frames made in two pieces to open at the lower front corner by a movement on a hinge joint at the upper rear corner, for the purpose of introducing the cartridges into the chambers from the rear of the cylinder, and it consists in a downward continuation of the upper part of such frame to pass over the rear of the cylinder at the point where the hammer strikes the cartridge, in such a manner as to form a recoil shield which is nearly or wholly independent of the breech piece or usual recoil plate, and of the lower part of the cylinder frame, thereby relieving the said piece or plate and the hinge joint of the strain of the recoil. The inventor is L. W. Pond, of Worcester, Mass.

Revolving Firearm.—This invention consists in the employment, in a revolving firearm, of a continuous frame rigidly attached to the barrel, including the cylinder lengthwise, and pivoted to the stock in such manner as to enable the rear part to fold into the breech piece and to form a recoil plate independent of the breech piece, for relieving the breech piece of the strain of the recoil. This frame allows the cylinder and breech piece to be separated for the introduction of the cartridges into the chambers at the rear thereof. It further consists in so applying the cylinder axis pin, in combination with such continuous frame, that it passes through the said frame and cylinder, from front to rear thereof, and enters a hole in the breech piece in such a manner as to secure or assist in securing the said frame in proper connection with the breech piece. The inventor is J. H. Vickers, of Worcester, Mass.

Railroad Car Brake.—This invention relates to an improved car brake by which the brakes of a series of connected cars may be simultaneously operated from the locomotive, either by steam or by friction, from one of the driving wheels thereof, or each individual car be operated by a brakeman, as in the ordinary brakes in common use. Its object is to obtain a simple and efficient brake capable of being operated as specified, and one which will admit of all the

wheels of a series of cars comprising a train, being subjected to a uniform pressure so as to prevent any of the working parts of the brake being subjected to any undue strain, torsion or pressure and breakage and all unnecessary wear and tear consequently avoided. A. J. Ambler, of Milwaukee, Wis., is the inventor.

Surgical Splint.—This invention is chiefly designed for the treatment of fractures and other diseases of the long bone of the thigh and leg, and in certain cases of the arm also. Its principal peculiarity consists in applying the permanent dressing to the sound instead of to the diseased limb, and making the counter extension upon the splint instead of by direct contact with the body. The diseased limb can thus be examined at any time by removing the bandages without disturbing the splint. The extension bandage is applied to the foot independently of the foot-board. A register is employed to indicate the degree of extending force applied, and to show if any change occur in the resistance of the limb. The invention also affords an accurate means of ascertaining the relative length of a healed and an uninjured limb, effectually preventing fraud by voluntary contraction by the patient. This apparatus is the invention of Dr. M. M. Latta, of Goshen, Indiana.

Weaving Shuttlles.—It is well known that the shuttles of common construction are liable to be rendered entirely useless by a lateral blow upon the metal tip splitting the end of the wood. This invention consists in applying an annular ferrule beneath the surface of the wood in such a manner as to effectually prevent the splitting of the shuttle while in use or with any violence to which it is subject and this is accomplished without impairing the smooth surface necessary toward the point. The invention is likewise applicable to the repair of shuttles of common construction which may have been split, so that shuttles otherwise entirely useless may be made as good as if no accident had occurred. C. L. Frink, of Rockville, Conn., is the inventor of this invention.

Attachment to Lamp Chimneys.—This invention consists in the arrangement of a receiver in combination with the chimney of a kerosene or other flame, in such a manner that water or other liquid poured into said receiver can be heated by the action of the flame in an easy and convenient manner; it consists further in the arrangement of a window in the lower part of the metal chimney, in such a manner that the flame can be observed from the outside, and that sufficient light is allowed to pass out into the room to render this device available for a nurse lamp. W. L. Fish, of Newark, N. J., is the patentee of this invention.

Stump Extractor.—The object of this invention is to obtain a stump extractor of simple construction which may be readily drawn from place to place where required for use, and be capable of being operated by one or two horses, as circumstances may require. To this end the invention consists in applying to a shaft, on which the lifting chain is wound, a wheel toothed at its inner periphery to receive, at opposite points, the pinions of two drum shafts on which ropes are wound in the same directions, the horses being attached to said ropes, and all arranged in such a manner as to effect the desired end. The inventor is Charles W. Rawson, Little Prairie Ronde, Mich.

PATENT SERMON EXTINGUISHER.—A sufferer from long sermons suggests to the *London Times* that after half an hour's preaching the bottom of the pulpit should be contrived to come out, on the principle of an *oubliette*, and project the clerical transgressor into the gulf below. Another proposes that a sounding board or cover, in the shape of an extinguisher made exactly to fit the pulpit, be suspended above it, and that at the expiration of twenty-five minutes from the delivery of the text it should begin to descend so as exactly at the half hour to "shut up" the lengthy preacher.

UTAH COTTON.—The *Deseret News* states that a cotton mill has been built at Parowan, in that Territory, and some of the machinery has been put in and is now running. A considerable quantity of cotton is raised in southern Utah, and it is for its manufacture into cloth that this new factory has been constructed.

An extensive new lode of cinnabar has lately been discovered in the Nevada Territory. Specimens of the ore contain about sixty per cent of quicksilver.



ISSUED FROM THE UNITED STATES PATENT OFFICE.

FOR THE WEEK ENDING JUNE 17, 1862.

Reported Officially for the Scientific American.

* * Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

35,576.—W. V. Adams, of New York City, for Improvement in Shackles or Hand Cuffs:

I claim the combination of the hasp, B, with the sections, A and B, for the purpose of allowing to each one of a pair of shackles a motion independent of the other when in use, as described.

35,577.—W. D. Andrews, of New York City, for Improved Reciprocating Pump:

I claim the compound piston, or one formed of two parts, D, D', each provided with a valve, E, in combination with the partition or abutment, B, in the pump cylinder, A, the water passage, F, and the induction and eduction openings, H G, when arranged to operate as and for the purpose set forth.

35,578.—S. L. Avery, of Norwich, N. Y., for Improvement in Water Elevators:

I claim the annular outer flange, a, and the interior ratchet wheel, b, which respectively project from the outer face of the metallic head, E, of the windlass shaft, when the said parts have substantially the proportions, and are used in the manner and for the purpose set forth. I also claim the joining of the branched crank lever, F, with the movable head, D, when the said head is combined with the rigidly secured head, E, of the windlass shaft, in such a manner that the ratchet tooth, c, on the branch arm, k, of said crank lever, can be made to operate in conjunction either with the ratchet wheel, b, or the annular flange, a, of the aforesaid head, in the manner set forth.

I also claim the arrangement of the forked holder, g, the spring, h, and the branch arm, j, of the jointed crank lever, F, with each other, and the annular ratchet wheel, b, and the annular groove near the end of the windlass shaft, substantially in the manner and for the purpose set forth.

I also claim the arrangement of the hook headed pall, n, with the metallic head, D, when the said head is joined to the branched crank lever, F, and when these said parts are combined with the head, E, of the windlass shaft, substantially in the manner set forth.

35,579.—Henry Behn, of New York City, for Improvement in Coal-Oil Lamp:

I claim the arrangement of the gas chamber, d, between the upper and lower wick tubes, n and b, in combination with the tubes or pipes, m, m, in the manner and for the purpose substantially as described. Secondly, I claim the construction of the upper end of the gas chamber, d, forming the upper wick tube, n, provided with a wedge, p, or its equivalent, in the manner and for the purpose specified.

35,580.—Ebenezer Bickford, of Ogden, N. Y., for Improvement in Apparatus in Smoking Meats:

I claim, in combination with the smoke house, A, the conducting and distributing pipe, L, provided with an opening, d, or its equivalent, extending along its whole length, when the same is used to convey and distribute the smoke from an outer stove or generator, substantially as described.

35,581.—Jacob Bickhart, of Harlan, Ind., for Improvement in Portable Fences:

I claim the arrangement of the wedge, d, gib, e, and hooked cross brace, D, in combination with the braces, C C', and notches, a, a', in the upper ends of posts, B B', all constructed and operated substantially in the manner and for the purpose shown and described.

[This invention consists in the arrangement of braces with shaped edges, catching into corresponding notches in the edges of the posts near to those upper ends, in combination with a crossbrace, the ends of which form hooks and catch over the lower edges of said cross-braces, and with a wedge and semicircular gib, in such a manner that by the action of the crossbrace or the lower ends of the braces the upper ends of the posts are held together, and by the action of the semicircular gib and wedge, which forces the crossbrace down, the lower ends of the posts are prevented spreading.]

35,582.—S. J. Reeves, of Philadelphia, Pa., for Improvement in the Construction of Columns, Shafts, Braces, &c.:

I claim uniting together, three or more pieces of wrought iron made with flanges at their length, so that they shall form a column or shaft to be used as posts and also as braces or compression chords, in the construction of buildings, bridges, piers or other structures.

35,583.—Henry Bogel, of Watertown, Wis., for Improvement in Velocipede Vehicle:

I claim, first, The arrangement and combination of the treadles, N, N, levers and handles, O O Q, and crank axles, A B, in connection with the semicircular rack bar, F, and wheel, G, all arranged for joint operation as and for the purpose set forth.

Second, The clamps or levers, S S, and spring, T, in connection with the bar, R, on the shaft, H, arranged substantially as shown, to prevent the casual turning of the front axle, A, as specified.

Third, The hollow, B, provided with the whistle, V, when used in combination with the treadles, N N, and levers, Q Q, and operated by the crank axle, B, substantially as and for the purpose set forth.

35,584.—C. H. Brown, of Fitchburg, Mass., for Improvement in Feed Regulators for Steam Boilers:

I claim, first, Having both of the levers, E F, joined separately to the expanding pipe, A, said joints being arranged upon opposite sides of said pipes, in combination with the fulcrum, D, and the link, G, as and for the purpose shown and described.

Second, The employment of the cold water reservoir, I, in combination with the expanding pipe, A, and lever, F, substantially as and for the purpose shown and described.

35,585.—A. Buckwalter, H. Buckwalter and J. H. Buckwalter, of Kimberton, Pa., for Improvement in Brick Machines:

We claim, first, The feeding bar, G, provided with the rack, i, and having the weight, M, attached, in combination with the pinion, H and toggle, K, all arranged as and for the purpose specified. Second, The drops, V, arranged as shown, to yield or give to obstructions in the molds as the latter are forced out from underneath the box or hopper, as described.

Third, The reciprocating platen, Z, provided with the adjustable plates or scrapers, b' b', to operate as set forth.

Fourth, In combination with the plates, b' b', the cleaners, A' A', arranged as shown to operate as and for the purpose specified.

Fifth, The water tank, E', and trough, H', the former being connected with the latter by an elastic tube, G', and the trough, H', provided with pipes, K', all arranged as shown, to operate in connection with the reciprocating platen, Z, for the purpose set forth.

[This invention seemingly possesses many advantages over the ordinary brick machines in use. It operates rapidly and performs its work in the most efficient manner.]

35,586.—C. B. Cogswell, of Essex, Mass., for Improvement in Horse Rakes:

I claim the arrangement and combination of the journal slides, C C,

the intermediate hangers, E E, and the lever, F, and its catching mechanism, G, with the carriage and the revolving rake, the whole being so as to enable the rake head to operate substantially as specified.

35,587.—A. B. Cooley, of Philadelphia, Pa., for Improvement in Mode of Discharging Projectiles :

I claim the solid cylinder, b, adapted to fit into the shot or shell, A, and combined with the shield, d, substantially as and for the purpose set forth.

35,588.—John Copeland and G. P. Martin, of Quasqueton, Iowa, for Improvement in Churns :

We claim, first, The arrangement of oblique scoops, G, on the inner surfaces of the sides of a prismatic rotary tub, A, constructed and operating substantially as and for the purposes described.
Second, The T-shaped air tube, H, passing through one of the trunnions, C, of the rotary tub, A, in combination with the spring, c, and packing ring, d, constructed and operating substantially as and for the purpose specified.

[This invention consists in the arrangement of inclosed scoops on the inner surfaces of the sides of a rotary polygonal tub, in such a manner, that by the action of said scoops the cream is carried up and thrown alternately against the leads or ends of the tub, whereby butter is made in a short time, and with comparatively little labor.]

35,589.—J. M. Dillon, of Wheeling, Va., for Improved Centrifugal Governor :

I claim the governor composed of the revolving chambers, B D D, connected by hollow arms, C C, and the diaphragm, E, or its equivalent, the whole combined and applied in connection with the regulating valve, substantially as specified.

[This governor is composed of a central chamber secured to, and surrounding a concentric vertical rotating shaft, deriving motion from the engine or other motor, and having attached to it by hollow arms other chambers arranged at convenient and suitable distances from the said shaft, such chambers containing mercury which is caused by the centrifugal force developed in the chambers by their revolution with the shaft, to be driven in greater or less quantity from the central into the other chambers according to the velocity of their revolution, and the said central chamber having arranged within it, above the mercury, a float or flexible diaphragm which is caused to fall and rise with the mercury in the said chamber, and so, by means of suitable connections, to operate upon the regulating valve of the engine or motor, in such a manner, as to give it a less or greater opening, according as more or less mercury is expelled from the said chamber by the less or greater centrifugal force due to a greater or less velocity of revolution, and so to regulate the speed of the engine.]

35,590.—W. W. Dingee and A. B. Farquhar, of York, Pa., for Improvement in Grain Separators :

We claim securing the drum of the fan in its proper position by grooves, C C, cast in perforated side plates, A.

We also claim connecting the movable plates, E, by the rod, G, on the outside of the fan.

We also claim the combination of the trough, O, screen, N, and trunk, S, with the revolving block strap, R, when made and operated as set forth.

We also claim bag holder, L, when made as described.

35,591.—William Donnan, of Burgettstown, Pa., for Improvement in Stock Gates for Water Courses :

I claim the arrangement of a raked-shaped gate, with its head piece close to the bottom of the brook and operated on by means of the lever, e, and spring, m, or weight, w, inside of the metal box, f, or wooden box, b, substantially as and for the purposes set forth.

35,592.—Andrew Dougherty, of Brooklyn, N. Y., for Paper Cutting Machine :

I claim the combination of the mechanism for cutting the paper, with the feed rollers (for delivering it to be cut), by means of cam-formed cog wheels, substantially as set forth.

I also claim the combination of the mechanism for cutting the paper, the feed rollers, the cam formed cog wheels, and an intermittent clamp, substantially as set forth.

I also claim the combination of the knives of a paper cutting machine, with a bellows for producing a blast of air to detach the paper from the knives, substantially as set forth.

35,593.—J. J. Dresbach, of Circleville, Ohio, for Improvement in the Exploding device of Shells :

I claim in combination with an exploding projectile, a plunger tube, E, having a tapered portion, E', and a conical spring plunger, H, working therein, substantially in the manner and for the purpose set forth.

35,594.—Lemuel Ensign, of Millburn, N. Y., for Improvement in Fanning Mills :

I claim the arrangement and combination of the riddle, R''', plate, P, and spring hammer, s, substantially as and for the purposes set forth.

35,595.—J. A. Fanshawe and J. A. Jaques, of Tottenham, England, for Improved Steam Generator. Patented in England, October 31, 1861 :

We claim the constructing of steam boilers with a series of distinct narrow water spaces or compartments, combined together side by side, and having provided between them convolute, curved or serpentine flues or fire and gas passages, substantially as specified.

[This invention, the nature of which is explained by the claim, makes a boiler which seems to be well adapted for the rapid generation of steam, and to economize fuel.]

35,596.—G. P. Farmer, of Philadelphia, Pa., for Improvement in Envelopes for Sewing Needles :

I claim the holder, B, and wrapper, A, when constructed and arranged for holding the needles, and folding over and inclosing the same, substantially as and for the purpose set forth.

35,597.—Lyman Fay, of Fall River, Mass., for Improvement in Mode of Securing Railroad Joints :

I claim the method substantially as above described, of securing the fish pieces, A, B, which overlap and confine the joint, a, of two railroad rails, viz., the box, F, and follower, G, with the elastic packing, H, and the bolts, E, passing through them.

35,598.—W. L. Fish, of Newark, N. J., for Improved Attachment to Lamp Chimneys :

I claim, first, A lamp chimney, A, provided with a receiver, B, substantially as and for the purpose shown and described.
Second, The arrangement of the window, e, in the metal bulb, a, of a chimney, A, as and for the purpose set forth.

35,599.—Oscar Falke, of New York City, for Improved Hard Rubber Compound :

I claim the above described improved hard vulcanite as a new article of manufacture when the same is made, substantially in the manner and for the purposes set forth.

35,600.—C. M. French and W. H. Fanher, of Waterloo, N. Y., for Improvement in Combined Plow and Gun :

We claim the combined implement described, consisting of the hollow or tubular ordnance beam, D, combined with the parts, B C and A, of a plow, substantially as and for the two-fold purposes set forth.

35,601.—Daniel Fobes, of Boston, and H. M. Hartshorn, of Mass., for Improvement in Fire Ladder Apparatus :

We claim the combination of mechanism employed in elevating the ladder sections, the same consisting of the endless chain or band, F, the lifter tooth, L, the pawl, p, the tooth shoulder, k2, and the pawl notch, q, or mechanical equivalent, applied to the main ladder and each section, and operating therewith, substantially as specified.

We also claim the combination of the movable hooked window breaker, L, and its operating lines or chains with the extension ladder, the same being in operation in manner and for the purpose with respect to such ladder, as specified.

35,602.—C. L. Frink, of Rockville, Conn., for Improvement in Weavers' Shuttles :

I claim as a new article of manufacture, a shuttle provided at its

ends with shanked metal tips, B, and metallic ferrules, D, the latter fitting within annular cavities, C, beneath the surface of the wood, and all constructed, combined and arranged in the manner and for the objects set forth.

35,603.—M. A. Genung, of Granville, Ohio, for Improved Door Bell and Burglar's Alarm :

First, I claim the combination of the said attachment on the jam of the door and the pin, connected with the alarm of the bell, substantially as and for the purposes specified.

Second, I claim the arrangement of the springs, B C, in connection with lever, A, and shaft, C, by which the lever, D, and lever, E, are caused to operate on the shaft, F, in such a manner as to cause the hammer, I, to operate on the bell, J, substantially as specified.

Third, I also claim the bridge hinge, Q, by which the bell is supported and opened to wind up the alarm, substantially as specified.

Fourth, I claim the perforated band, Y, encircling the base and bell rim as a protection, as specified.

35,604.—W. H. Guild, of Brooklyn, N. Y., for Improvement in Rotary Pumps :

I claim the wheel, G, composed of a series of spiral arms or flanges, g, connected with a rim, f, in combination with the cylindrical case, A, having two different diameters to form a shoulder or bearing, h, for the wheel which, with its shaft, E, is fitted within said case, substantially as and for the purpose set forth.

[This invention consists in the employment or use of a wheel provider, with spiral flanges or arms, and fitted on a horizontal shaft which is placed within a cylindrical case, and, with the wheel, arranged in such a manner that both will have a proper bearing and suitable provision allowed for wear, so that the wheel will rotate without any loss from back action or leakage, and a very efficient, simple and economical pump obtained, one capable of lifting and forcing the water, and operating without the liability of becoming choked or clogged by substances which may be held in suspension in the water, or drawn up with it.]

35,605.—C. C. Harrison and Jos. Schnitzer, of New York City, for Lens for Photographic Cameras :

We claim the combination of two sets of cemented lenses, as represented in the accompanying drawings, the exterior surfaces of which shall form part of the same sphere, the axes of which shall be coincident, and the outer curves of which shall be so proportioned to the focal distance of the combination, and to the refractive and dispersive powers of the glass used in their construction, that the image found at the focus shall be achromatic, and that said image shall be upon or almost exactly upon a plane without distortion of form, and including a larger visual angle, substantially as before described and represented.

[This invention consists in combining two sets of lenses of such a form, and in such a manner, that both combined constitute a portion of a perfect sphere whereby a lens is obtained of a short focus which will admit of rays at an angle of 90 degrees or nearly so, and which will produce a more distinct picture than lenses of the ordinary construction.]

35,606.—W. E. Hatfield, of Newark, N. J., for Improvement in Odor Traps for Sinks, &c. :

I claim the odor trap having a valve at such an acute angle as to require but slight pressure to close or open it, when constructed substantially in the manner and for the purpose specified.

35,607.—R. T. Hathaway, of New Bedford, Mass., for Improvement in Raising and Transporting Stone :

I claim the combination of the bent wheel arms or axles, n, n, and bars, r, r, with the side pieces, m, m, struts, k, k, plates, s, s, and clips, D, D, in the manner and for the purpose shown and described.
And I claim the method of raising the stone, consisting in the use of wheels, in the center of the framing, f, f, w, w, k, k, as shown and described, so that the gearing and the weight to be lifted will always be evenly balanced upon the wheels, as set forth.

[The object of this invention is to obtain a machine by which stones may be raised from the earth and transported from place to place with great facility, and at the same time be perfectly strong and durable so as to resist the great strain to which it may be subjected in raising the stones, and to sustain them when raised.]

35,608.—Samuel Haller, of New York City, for Improvement in Attaching Straps to Pantaloon :

I claim the described mode of constructing and attaching pantaloon and trousers, the same consisting in the employment of the parts, B C and D E, or their respective equivalents, arranged to operate together in the manner set forth.

35,609.—Remi Henry, of Morrisania, N. Y., for Improvement in Pumps :

I claim the arrangement of the partitions, e, e, with the cylinder, B, pipes, a, b, and the shell, A, in the manner shown and described.

[This invention consists in constructing the pump, in such a manner, that the cylinder and shell may be cast in one piece, and the cylinder be so exposed that it may be bored with facility, and made perfectly true to receive the piston, and at the same time have such a position in the shell, and be so connected therewith, that water passages will be obtained encompassing the cylinder of sufficient capacity to amply supply the same when the piston is operated at a very quick speed.]

35,610.—L. L. Hill, of Hudson, N. Y., for Improvement in Making Illuminating Gas :

I claim the combination of wood gas, the hydrogen of water, and the gas of paraffine oil, or the same combination with any other oil gas, or the gas obtained from bituminous coal, when effected in the manner substantially as described.

And I claim the methods described for producing and uniting the same with a view to convenience, efficiency and economy.

35,611.—B. B. Hotchkiss, of Sharon, Conn., for Improvement in Concussion Fuse for Explosive Shells :

I claim the plug, E, and wire, J, or their respective equivalents, arranged to operate in the percussive mechanism of explosive projectiles, substantially as set forth.

35,612.—J. B. Johnson, of Lynn, Mass., for Improvement in Warming Passenger Cars :

I claim the arrangement of a stove or heating apparatus within the doorway of a carriage, as described.

I also claim the construction of the heating apparatus with the tongue and groove, or their mechanical equivalent, arranged on opposite sides or edges of it, and so as to enter the door frame and receive the door of the carriage, when such heating apparatus is arranged within the doorway of such carriage, as set forth.

I also claim the arrangement of the auxiliary pipe, I, relatively to the driver's platform or in the projecting roof thereof, as explained, when the heating apparatus is arranged in the doorway, as set forth.

35,613.—G. A. Keene, of Newburyport, Mass., for Improvement in Pendant Measuring Funnels :

I claim attaching a pendant tunnel measure to a cask faucet by means of a rubber or other flexible tube, D, substantially as described and for the objects specified.

35,614.—M. M. Latta, of Goshen, Ind., for Improvement in Surgical Splints :

I claim, first, Applying the counter extension to the splint instead of to the person, substantially as set forth.

Second, Applying the principal dressing to the sound limb, substantially as set forth.

Third, The use of a spring and index, or equivalent devices, substantially as described, to show the amount of extending force applied.

Fourth, Attaching the cross bar, D, to the long splint, A, by springs, B, B, which permit the descent of the cross bar, retain the splint in correct position, and equalize the tension upon both ends of the bar, so as to cause it to slide freely on the shaft, F.

Fifth, Supporting the cross bar, D, upon a truck frame, substantially as described, to adapt it to move without obstruction.

Sixth, The combination of the graduated crutch, F, extension devices, L N O, spring, J, and index, I, for the purpose of measuring the relative length of a healed and an unhealed limb, as explained.

Seventh, In combination with a foot board, M, rigidly secured to the cross bar, D, I claim the application of the extension to the foot independently of the said foot board, substantially as and for the purposes described.

35,615.—W. A. Lighthall, of New York City, for Improved Circulator for Steam Engines :

I claim the combination of the propeller or vane wheel, F, with the refrigerator or condenser, A, supply pipe, B, and delivery pipe, C, arranged and operated as and for the purpose set forth.

35,616.—G. McKown, of Altona, Ill., for Improvement in Machines for Upsetting Tires :

I claim, first, The taper keys, J M, when fitted in taper oblique slots, I L, for the purpose of enabling them to sink into the tire under the action of the slide, G, as described.

Second, The loop, O, and bar, P, constructed and arranged as shown, for the purpose of forming a bearing or support for the heated portion of the tire, as specified.

Third, The combination of the toggle, D, with slide, G, attached, the stationary bar, K, jaws, H N, the oblique slots, I L, keys, J M, and the bearing or support formed of the loop, O, and bar, P, all arranged for joint operation, as and for the purposes set forth.

35,617.—Porches Miles, of Hartford, Conn., for Improvement in Sash Locks :

I claim the swinging lever, B, in combination with the cam, D, with its arm, D', and the spring, d, or its equivalent, and the key, E, the whole constructed and operating as described, for the purpose set forth.

I also claim forming on the pivot end of the arm, B, an eccentric hub, i, in combination with the arm, D', of the spring cam, D, for retaining the vibrating arm within the case, A, as described.

I also claim the combination of an eccentric clamping dog or double cam piece, c, or its equivalent, with the vibrating spring actuated lever or arm, B, substantially as and for the purpose set forth.

35,618.—John Mix, of West Cheshire, Conn., for Improvement in Securing Bits in Braces :

I claim the cylindrical shank, D, provided with plane surfaces, a, e, as shown, in connection with the stop or bearing, E, and the set screw, F, all arranged substantially as and for the purpose set forth.

[The object of this invention is to secure bits with cylindrical shanks, braces or mandrels, in such a manner that they will be firmly secured therein, and still be capable of being very readily adjusted in the braces or mandrels, and very readily detached therefrom, and thereby not only effect a great saving in the manufacture of the bits, but also insure a more perfect or truer adjustment of the bit in the brace or mandrel.]

35,619.—Charles Morrill, of New York City, for Improvement in Breech-Loading Ordnance :

I claim, first, The combination of the eccentric, E, the sliding box, C, and the breech-pin, B, or their equivalents, operating substantially as and for the purposes described.

Second, The arrangement of the inclined flanges, N N, and the corresponding grooves, O, substantially as and for the purposes described.

35,620.—A. P. Myers, Isaac Searles and G. W. Spencer, of Prattville, N. Y., for Improvement in Churns :

We claim the combination of the air cells, l, and valves, i, with the dasher, J, and bottom, a, as shown and described.

The arrangement of the movable water receptacle, c, air pipe, D, bellows, E, and pipe, f, with each other and with the chamber, B, and churn, A, in the manner shown and described.

35,621.—S. R. Parkhurst, of New York City, for Improvement in Machinery for Cleaning Wool, Cotton, &c. :

I claim, the arrangement of the cylinders, d and e, feed rollers, b and c, and beater, f, substantially as and for the purposes specified.

I also claim the cylinder, h, and beater, i, when combined with the cylinder, d, and beater, f, whereby the cotton, wool or other fiber is exposed on both sides of the bat to the operation of the beaters, as and for the purposes set forth.

35,622.—Chas. H. Platt, of New York City, for Improved Bush for the Sheaves of Tackle Blocks :

I claim a metallic bush, B, for wooden sheaves, A, formed of a square or polygonal part, a, provided with a flanch, b, of circular or other form to admit of the bolts, c, passing through it, substantially as and for the purpose set forth.

[This invention consists in having the greater portion of the bush which is fitted in the wooden sheave, made of square or polygonal form, so as to effectually prevent the turning of the bush within the sheave, without depending on the bolts which bear through the latter to effect that result.]

35,623.—L. W. Pond, of Worcester, Mass., for Improvement in Revolving Firearms :

I claim the combination of a cylinder frame, made in two pieces hinged together at the upper rear end, of a downward extension, G, of the upper part of the frame below the hinge joint, substantially as and for the purpose specified.

35,624.—George Pratt, of West Roxbury, Mass., for Improvement in Coal Sifters :

I claim, first, The arrangement of the swivel plate, f, projecting from the side of the sieve, D, in combination with the disk or ring, A, and arm, c, constructed and operating as and for the purpose specified.

Second, The arrangement of the ring, A, with flanges, a, b, and open space, k, in combination with the handle, E, circular slide, l, supports, n, sieve, D, cover, C, and barrel, B, all constructed and operating as and for the purpose shown and described.

[This invention consists of an oval ring made of cast iron or other suitable material, and provided with a flange projecting on the under side to fit over a barrel, and with another flange on the top, and fitted with a socket on one side to receive a swivel that projects from the under surface of a plate secured to the sieve; the opposite side of the disk being arranged to allow a cast-iron handle secured to the sieve, to move horizontally, said handle being made of such a width, that when it rests on the ring, it will keep in its proper horizontal position the sieve, to which it is fastened.]

35,625.—Samuel Richardson, of Rochester, N. Y., for Improvement in Corn Shellers :

I claim the employment, in corn shellers, of a series of annular sections or divisions, B, which form the outer cylinder, in combination with the primary or inner cylinder, D, they being arranged and operating substantially in the manner specified.

35,626.—E. C. Roberts, of Salem, Mich., for Improved Mode of Preserving Fruit and Vegetables :

I claim the preservation of fruit and vegetables, by the combined action of snow and ice, when placed around the boxes containing the fruit or vegetables, as set forth.

35,627.—H. C. Rogers, of Scranton, Pa., for Improvement in Hoes :

I claim as a new article of manufacture a hoe, A, composed of two plates, a, b, one of iron and the other of steel, so united by welding them together that the two metals form the cutting edge, for the purpose set forth.

[This invention consists of a hoe composed of a plate of iron, and plate of steel welded together, in such a manner, that its two metals form a self-cutting edge.]

35,628.—Timothy Rose, of Cortlandville, N. Y., for Improvement in Churns :

I claim the peculiar form and construction of the outer bars or slats of a vertical churn dash, in combination with the middle bars, substantially as described, with the object and for the purpose set forth.

35,629.—Simon Rosenheimer, of New York City, for Improvement in Boots and Shoes :

I claim the combination of the sole of a shoe or boot with a small ridge or partition, substantially in the manner and for the purpose as described.

35,630.—William Rumbold, of St. Louis, Mo., for Improvement in Domes :

I claim a metal dome constructed substantially as described, for the purpose set forth.

35,631.—A. F. Saunders, of Chelsea, Mass., for Improved Clothes Wringer :

I claim the described clothes wringing machine, consisting essen-

tially of the rolls, B D, the standards, A A', with their movable jaws, F, the spring, H, and regulating screw, G, arranged and operating substantially as described.

[This stove is applicable to all varieties of heating purposes. Its advantages are economy of fuel, large area of heating surface, and protection of the parts from too severe action of the fire.]

35,632.—S. B. Sexton, of Baltimore, Md., for Improvement in Heaters :

I claim, first, The air heating chamber, F, located above the fire pot between the chambers, G G', communicating in front with the interior of the room and at the back with a chamber, I, from which heated air is conducted to apartments above the said parts being arranged to operate in the manner and for the purposes specified.

Second, The employment of the air-heating chamber, F, located as set forth and open both at front and back, as a means of producing a free circulation of air in contact with the top of a covered fuel supply chamber, E, of any suitable construction.

Third, The combination of the chamber, F, stoppered aperture, N, flue, D, and covered opening, e, of the fuel supply chamber, all arranged in the manner and for the purposes specified.

35,633.—Pierpont Seymour, of East Bloomfield, N. Y., for Improvement in Seeding Machines :

I claim the arrangement and combination of the fixed, attaching jaw, B, movable, adjusting jaw, C, and adjustable supporting guide bars, D D D, substantially in the manner and for the purpose specified.

35,634.—Jonathan Smith, of Tiffin, Ohio, for Improvement in Grain Drills :

I claim, first, In combination with the spring, f, and curved neck, S, of the wheel, the equivalent of the blade, H, placed between the bars, forming drag bar, a, and provided with two or more holes, for the purpose of adjusting the position of drill tooth or boot, b, as and for the purpose set forth.

Second, I claim, in combination with a seed drill boot, held in position or operated by a spring, providing said boot with suitable projections, and means for adjusting the position of the boot to retain the boot in position when in use in case said spring should by any means be rendered inoperative, as and for the purposes set forth.

37,635.—William Southworth, of Newcastle, Maine, for Multiplying Camera :

I claim, first, The device for moving the lenses, as described, namely, the raising or lowering the lenses by means of the holder, B, and catches, F.

Second, Moving the lenses from one side for the camera, C, to the other, to stops, s s, by means of the slide, A.

Third, The manner of excluding the light from the sensitive plate by the use of the partitioned box or diaphragm, D.

Fourth, The manner of constructing the same, so that it can be partially drawn out or slid back at pleasure.

35,636.—J. H. Thomas and P. P. Mast, of Springfield, Ohio, for Improvement in Seed Drills :

I claim the plate, B, provided with the projections, c, and loops, g, the whole being cast in one piece, in the manner and for the purpose set forth.

35,637.—W. B. Treadwell, of Albany, N. Y., for Improvement in Breech-Loading Ordnance :

I claim the employment of the gun with concave breech in connection with the convex breech piece, the ball, D, and the projecting pieces, C C, the several parts being constructed and operating in the manner and for the purpose set forth.

35,638.—C. D. Van Allen, of Syracuse, N. Y., for Improvement in Churns :

I claim the combination and arrangement of the floats, B B, the partitions, F F, the regulating slide, C, and the butter tray, H, when used for the purposes specified.

35,639.—G. Frink, of New York City, and L. Heitkamp, of Brooklyn, N. Y., for Machine for Cutting Books in the Round :

We claim a machine for cutting the fronts of books in the round, consisting of a rocking knife suitable for cutting the round or concave of the front edge of the book in combination with a press suitable for holding the book and presenting it to the action of the knife, substantially as described.

Second, We claim, in combination with a press suitable for holding the book, a convex polishing device, substantially as described for the purpose of polishing the front of books in the round, as set forth.

Third, We claim, in combination with a press suitable for holding a book, and presenting the front edge to be cut a knife edge moving in the desired curve of the round, having combined with it a polishing surface, substantially as described.

Fourth, We claim, in combination with a press suitable for holding and presenting the front edge of the book to be cut, the advance motion of the knife and polishing device, when combined together, or separate from each other, as described, when constructed and arranged to move in the curve necessary to cut and finish the front of the book in the round, substantially as described.

Fifth, We claim, in combination with a press suitable for holding the book, a knife, the cutting edge of which travels in the desired curve of the round, substantially as described.

Sixth, We claim, in combination with a press suitable for holding a book and presenting it to be cut, and a knife having a cutting edge moving in the desired curve of the round, a cutting board, or other suitable surface, for the knife to cut against, substantially as described.

35,640.—W. W. Virdin, of Baltimore, Md., for Improved Rotary Engine :

I claim the chambers, D, when formed partly in the cylindrical case and partly in the drum, and when operating in the manner, substantially as described.

I also claim the peculiar arrangement of the steam passages, a, with respect to the annular or ring steam chest, C, and pistons or pistons, l and m, substantially as specified.

I also claim the grooved annular packing ring, f, as and for the purpose set forth.

I also claim the wheel, J, when constructed and operating, substantially as specified.

35,641.—William Vogt, of Louisville, Ky., for Mode of fastening Shirt Studs :

I claim the application of the spring and lever to shirt buttons, composed of two parts, thereby preventing them from getting lost, and facilitating the fixing of them.

35,642.—W. B. Wadman, of Boston, Mass., for Improvement in Coal Sifters :

I claim the arrangement of the square projection, b, on one, and the pivot, a, on the other side of the handle, E, in combination with the square socket, c, in the center of the sieve, F, and with the bridge, D, in the bottom of the barrel, A, as and for the purpose specified.

I also claim the conical cap, d, over the socket in the center of the sieve, E, as and for the purpose described.

35,643.—Sylvanus Walker, of Boston, Mass., for Improved Clothes Wringer :

I claim the frame, A, constructed of two forked side pieces, and provided with curved flanges or guards, d, d, and ears or lugs, g, g, in combination with the screws, E E, passing through the ears or lugs, f, f, of the sockets or bearings, D D, of the upper roller, C, through the ears or lugs, g, g, of the frame, A, and through the springs, F F, underneath the ears or lugs, g, g, all arranged as and for the purpose specified.

35,644.—Job T. Williams, of Philadelphia, Pa., for Improvement in Lamp Reflectors :

I claim, the reflector, composed of the outer concave rim, a, and central convex projection, b, and having radial ribs or corrugations, the whole being constructed and arranged, as and for the purpose set forth.

35,645.—John E. Wilson, of Baltimore, Md., for Improvement in Apparatus for Defecating Liquids :

I claim, the combination of the reservoir, A, receiver, B, and filter, C, with the suction and discharge pipes, g, h, force pump and conducting faucet, i, all arranged and operating in the manner explained, to defecate or cleanse hot or cold liquids, by forcing them in a continuous circuit without contact with the external air.

[This invention consists in a certain construction of apparatus, in which is combined a pump, whereby the liquid may be impelled or forced through any suitable filtering medium in a continuous circuit, without coming in contact with the external air, thus greatly facilitating the operation of defecating or cleansing.]

35,646.—John Zimmerman, of Bloomfield, Pa., for Improvement in Lifting Jacks :

I claim, the two racks, b and c, in combination with the two dogs, g and n, being arranged on each side of the standard, A, and operating, substantially as described.

I also claim the combination of the two racks, b and c, the two dogs, g and n, the connecting rod, F, and the operating rod, D, as and for the purpose set forth.

35,647.—A. I. Ambler, (assignor to himself, R. N. Ambler and W. Martin), of Milwaukee, Wis., for Improvement in Railroad Car Brakes :

I claim, first, The employment or use of a steam cylinder, applied to a locomotive, and connected with a revolving shaft, M, substantially as shown, when said steam cylinder is used in combination with revolving brake rods, Q, attached to the cars on the trucks thereof, for the purpose set forth.

Second, The employment of bent or angle levers, with friction rollers, to obtain perfect uniformity of pressure, in combination with rods and chains, to connect the braking bars and each other when operated by a tumbling or revolving rod, substantially as shown, and for the purpose set forth.

Third, Actuating the brakes from the rotating rod, Q, through the medium of a crank, V, and spring, m, arranged with a lever, Z, or applied directly to the brakes, so as to operate, substantially as and for the purpose set forth.

Fourth, The jointed shaft, H', provided with the screw, J', sliding spring rod, I', lever, K', or its equivalent, and the worm wheel, P, on the chain shaft, P', all arranged as shown, for the purpose specified.

35,648.—E. G. Dyer (assignor to Owens, Lane, Dyer & Co.), of Hamilton, Ohio, for Improvement in Thrashing Machines :

I claim the application to the grain delivery of a thrashing machine, of the winnowing suction spout, E, in combination with the shoe fan; the whole being constructed, adapted and regulated, substantially as set forth.

35,649.—Merwin Fowler (assignor to Edward Miller), of Meriden, Conn., for Improved Spring Catch for Lamp Chimneys :

I claim, the combination of the hook, C, and spring, d, applied to the lamp top, or burner, substantially as and for the purpose set forth.

[This invention consists in securing the chimney to the lamp top by means of a hook, which is attached to the lamp top, and has a spring connected to it and all arranged in such a manner that the hook will, under the action of the spring, press down upon the flanch of the chimney, and firmly secure the latter to the cone of the burner.]

35,650.—Charles Heath, of Malden, and Joseph Wilson, of Boston, Administrators of J. B. Wilson, deceased, late of Malden, Mass., for Improvement in Machinery for Pressing Brick :

We claim the combination of the cranked lever or shaft, K, and the two connecting rods, I I, with the two sectoral toggles, L M, and the crossbar, G, the whole being applied so as to operate with the follower and the discharger of a brick press, substantially as specified.

We also claim, the combination of the spring, H, with the bar, G, the rods, I I, the cranked shaft, K, and the sectoral toggles, L M, when applied for operating the follower or platen of a brick press, as specified.

35,651.—E. C. Hussey (assignor to himself and John Devlin), of Brooklyn, N. Y., for Improvement in Machines for Making Elongated Bullets :

I claim, first, The combination of a straight groove, e, in a stationary flat table or bed, and a corresponding groove in a straight reciprocating bar or slide, such groove having a suitable form, and operating to roll the blanks of lead into shape, by a movement about their own axes, substantially as specified.

Second, The combination with the grooved reciprocating bar or slide, C, and the grooved stationary table or bed, A, of a cutter, c, applied and operating in connection with the grooves of the bar and slide, and table or bed, substantially as set forth.

Third, The combination with a bar or slide, C, a table or bed, A, and cutter, c, operating as described, of a feed bar, E, and an elastic lever, D, applied and operating, substantially as and for the purpose specified.

Fourth, The combination with the grooved table or bed, A, and the grooved bar or slide, C, of one or more pairs of holding dies, and a corresponding number of drills, applied to receive the rolled bullets from the said grooves, and drill the cavities in their bases, substantially as specified.

Fifth, The dies, F G, constructed, combined, applied and operated, substantially as and for the purpose specified.

Sixth, Combining the die carriages, H H, with the reciprocating feed bar, E, by means of grooves, q, q, and switches, J J, substantially as and for the purpose set forth.

[This invention consists in a machine of novel character, in which cylindrical blanks are cut from rods of lead, then brought to the desired external form for the bullets by a rolling process, and afterward drilled to produce the cavities in their bases.]

35,652.—I. S. and J. W. Hyatt, Jr., of Chicago, Ill., assignors to said I. S. Hyatt and Oliver Bascom, of Whitehall, N. Y., for Improvement in Knife and Scissors Sharpeners :

We claim, first, The combination and arrangement of the double rest, d, d', and grinding wheel, C, substantially as and for the purpose specified.

Second, We claim the combination of the scissors rest, D, either double or single, with the twin grinding wheels, C C', kept in contact by a spring or its equivalent, the whole forming a machine for sharpening both scissors and knives, substantially as described.

35,653.—J. H. Mears (assignor to himself and Alfred Ward), of Oshkosh, Wis., for Improvement in Rakes for Harvesters :

I claim, first, The wheel, H, constructed with an upright rim, having slots, substantially as and for the purposes set forth, in combination with wheels, C, c, sleeve, D, spindle, V, caps B and R, posts or springs, U and W, and rake N, all constructed and arranged, substantially as set forth.

Second, I claim the caps, B and R, or their mechanical equivalent, attached to the sleeve wheel, C, turning in a contrary direction from wheel, H, constructed and operating in combination with rake, N, substantially as and for the purposes set forth.

Third, I claim the mechanical arrangement of rake N, with its ring or short sleeve, L, with gear wheels, H and C, and their attachments, whereby one wheel causes the rake to move toward the reel in an elevated state, and the other in a contrary direction, causing it to sweep in close contact with the platform, substantially as set forth.

35,654.—J. E. Seavey (assignor to himself and Matthew E. Bochner), of Kennebunkport, Me., for Improved Sail Link to Mast Hoop :

I claim the mast hoop and sail connection, consisting of the shackle, the bolt, and the clamp, constructed, arranged and combined together, substantially in manner, and so as to operate as specified.

35,655.—Charles C. Stansell, of Middleboro', Mass., assignor to himself and A. W. Rockwood, of Newton, Mass., for Improvement in Lamps :

I claim combining and arranging with the wick tube, B, and the flame adjuster, H, of a lamp, in manner substantially as described, a vapor interceptor, F, and conduit or passage, G, the same being substantially as and for the purpose above explained.

I also claim combining an arrangement with the flame adjuster and the vapor interceptor and conduit, as described, a heat insulator or insulating vapor reservoir, I, made of a material and so as to operate in manner, and for the purpose, substantially as specified.

35,656.—J. C. Tobias, of Middleport, Ill., assignor to himself and Henry C. Kirk, of White County, Ind., for Improvement in Harness Saddles :

I claim, as an improved article of manufacture, a harness saddle or pad-tree, composed of plates, A B, pad C, and cover, f, made and united in the manner shown and described.

[The object of this invention is to obtain a saddle or pad-tree for harnesses that will be extremely simple in construction, and still be capable of yielding or giving to the movement of the animal, as well as adjusting itself to the shape or form of the same.]

35,657.—John H. Vickers (assignor to Lucius W. Pond,) of Worcester, Mass., for Improvement in Revolving Fire Arms :

I claim the continuous cylinder frame, A, rigidly attached to the barrel, and combined with the breech piece, D, to fold into a groove, provided therein for its reception, substantially as and for the purpose specified.

I also claim bringing the lower front angle of said continuous frame, A, to a portion, C, of the stock frame which projects forward from the bottom of the breech piece, D, substantially as specified.

And I further claim the insertion of the cylinder axis pin, in a forward direction, through the cylinder frame and cylinder, and into a hole in the center of the breech piece, substantially as and for the purpose specified.

35,658.—S. R. Going (assignor to D. S. Quimby and D. S. Quimby, Jr.), of Brooklyn, N. Y., for Improvement in Stoves :

I claim, first, The manner of equalizing the heat of the fire in and around the oven, by means of a damper, as set forth.

Second, Placing the damper, B, in the flue in the position shown.

35,659.—Alfred Berney, of Jersey City, N. J., for Improved Composition for filling Shrapnel and othersimilar projectiles :

I claim asphaltum for the purpose of filling shells, substantially as set forth and described.

RE-ISSUES.

1,317.—G. G. Lobdell, of Wilmington, Del., for Improvement in Cast Metal Car Wheels. Patented April 15, 1862 :

I claim, first, A hollow cast metal tire, or hollow rim, B, provided internally with radial braces, f, connected at their ends respectively with the inner and outer peripheries of the tire, and without being in contact with its sides, substantially as and for the purpose set forth.

Second, Securing the tire or rim, B, to the rim, c, of the wheel, A, by means of the bolts, g, passing through the rim, c, and the inner periphery of the tire or rim, B, and having holes, j, made in the sides of the tire or rim, B, to turn the nuts, i, as set forth.

Third, Counterbalancing the wheel by pouring melted lead or other suitable metal into the chamber, e, when said metal counterbalance is used or employed with the braces, f, arranged as set forth.

Fourth, The combination of the hollow wheel, A, and the hollow tire, B, when both are constructed, arranged and secured together, as and for the purpose set forth.

[A notice of this invention appeared in Volume VI No. 12, of the SCIENTIFIC AMERICAN, New Series.]

1,318.—Henry A. Burr, of New York City, assignee through Mesne Assignments of H. A. Wells, deceased, for Improvement in Manufacturing Hat Bodies. Patented April 25, 1846. Re-issued October 7, 1856. Extended, and again Re-issued April 25, 1860.

I claim, first, In depositing fur in a conical hat of the described varying thickness.

Second, In holding the hat by pressure, so as to preserve the disposition of the fur and permit the percolation of water, and

Third, In saturating the hat with water while the disposition of the fibers is preserved. These three steps being performed in the order, and substantially in the manner specified.

DESIGNS.

1,605.—W. L. McDowell, of Philadelphia, Pa., for Design for a Stove.

1,606.—W. L. McDowell, of Philadelphia, Pa., for Design for a Stove.

1,607.—John Martino and James Horton, of Philadelphia, Pa., assignors to Stuart and Peterson, for Design for a Cook's Stove.

1,608.—G. B. Owen, of New York City, for Design for a Clock Case.

1,609.—J. F. Rathbone, of Albany, N. Y., for Design for a Cook's Stove.

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