

RECENT AMERICAN PATENTS.

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:—

Machine for Cutting Sheet Metal.—This invention consists in the use of two pairs of shears adjustable for any desired bevel and length, and applied in combination with a treadle or other suitable mechanism, in such a manner that the bevel end from curved pieces of sheet metal can be cut with little loss of time and with perfect accuracy; it consists, further, in the application of adjustable gages in combination with the adjustable shears, in such a manner that the apparatus can be readily set for pieces of sheet metal of any desired width; it consists, finally, in providing the shears with crooks in the cutting edges, fitting one another in such position that by their action the pieces of sheet metal are notched at the same time the bevel ends are cut off, and each piece, when taken from the shears, is ready for soldering without requiring any further proposition. Hosea Low, of Waukon, Iowa, is the inventor.

Combined Hydraulic and Pneumatic Pump.—This invention relates to a pump for raising water from deep wells or reservoirs, and is more especially designed for oil wells, mining purposes, etc. The invention consists in the use of an air pump in connection with a water receiver arranged in connection with valves and pipes in such a manner that water and other fluids may be raised from great depths by means more simple and less expensive than the force pumps now used for such purposes. G. M. Woodward, of New York city, is the inventor.

Steam Boiler.—This invention consists of certain improvements in the construction of vertical steam boilers, wherein a combustion chamber is employed, and the flues, both downward and upward, are made to pass through the water space, and wherein the upper parts of the apparatus are so arranged that the products of combustion and heated gases are made to superheat the steam in the steam space of the boiler. Thomas Main, of Green Point, N. Y., is the inventor.

Operating Slide Valves.—This invention consists in a novel mode of operating slide valves of steam engines, so that they may be made to cut off steam at any desired part of the stroke, and be also moved with a quick stroke, one of the features of the invention being the communication of the motion of the valve stem to the valve through a vibrating lever whose upper end, which is free, is made the fulcrum of the said lever. John B. Cochrane, of Brooklyn, N. Y., is the inventor.

MARKET FOR THE MONTH.

During the month of May the price of gold fell from 150 to 130, and recovered to 137, most other values, of course, going down and up with it. The following are the comparative rates at the beginning and close of the month:—

	Price April 26.	Price May 31.
Coal (Anth.) 2,000 lb.....	\$11 00	\$9 00
Coffee (Java) 100 lb.....	33 @ 35	33 @ 36
Copper (Am. Ingot) 100 lb.....	34 @ 36	30
Cotton (middling) 100 lb.....	50 @ 51	51
Flour (State) 48 bbl.....	\$7 00 @ 7 90	\$5 85 @ 6 95
Wheat 100 bush.....	2 20 @ 2 50	1 90 @ 2 20
Hay 100 lb.....	1 32	1 00
Hemp (Am. drs'd) 100 lb.....	275 00 @ 350 00	260 00 @ 270 00
Hides (city slaughter) 100 lb.....	8 @ 9 1/2	8 @ 9 1/2
India-rubber 100 lb.....	51 @ 90	46 @ 75
Lead (Am.) 100 lb.....	9 75 @ 9 87	8 25 @ 8 50
Nails 100 lb.....	7 00	5 50 @ 5 75
Petroleum (crude) 100 gal.....	37 @ 37 1/2	35 1/2 @ 36
Beef (mess) 100 lb.....	\$12 00 @ 20 00	10 00 @ 18 00
Salt-peter 100 lb.....	28	25
Steel (Am. cast) 100 lb.....	14 @ 22	21 @ 22
Sugar (brown) 100 lb.....	10 1/2 @ 15	9 1/2 @ 15
Wool (American Saxony fleece) 100 lb.....	75 @ 85	75 @ 77
Zinc 100 lb.....	13 1/2 @ 14	12 @ 12 1/2
Gold.....	1 51 1/2	1 37
Interest.....		6 @ 7

MISCELLANEOUS SUMMARY.

COUNTRY readers, fond of toilette fineries, can perfume the water in which they wash by throwing violets into the pitcher, and letting them remain for some hours.

THERE is a paper collar manufactory in Springfield, Massachusetts, that turns out ten thousand dollars worth a day.

To SOFTEN IVORY.—In three ounces of spirits of niter and fifteen of spring water, mixed together, put your ivory a soaking. In three or four days it will be soft so as to obey your fingers.

To dye ivory thus softened dissolve in spirits of wine such colors as you want to dye your ivory with. And when the spirit of wine shall be sufficiently tinged with the color you have put in, plunge your ivory in it, and leave it there till it is sufficiently penetrated with it, and dyed inwardly. Then give that ivory what form you please.

To harden it afterwards, wrap it up in a sheet of white paper, and cover it with decrepitated common salt, crumbled by heat, and the driest you can make it to be; in which situation you shall leave it only twenty-four hours.—*Ancient Work.*

QUALITY OF MILK.—It is sometimes forgotten that the last gill of milk drawn from the cow's udder is the best part of every milking. Careful experiments made in England, (according to a report lately published), prove that the quality of cream obtained from the last cup taken from most cows exceed that of the first in proportion of twelve to one. The difference in the quantity also is considerable. Hence, a person who carelessly leaves one pint unskimmed loses in reality as much cream as would be afforded by six or eight pints at the beginning, and loses, too, that part of the cream which gives the richness and flavor to the butter.

A NEW company for the manufacture of pocket cutlery has been formed at Rochester, Pa., under the title of the "Pittsburgh Cutlery Company." The men comprising it are all practical English workmen. They will employ from forty to fifty hands, beside using all the most improved machinery.

If you have a lathe job to do, clean your lathe first, keep it clean while you are at work, and clean it when you get done. The lathe will last longer, the work will be better, and you will get a reputation for neatness.

THE owner of the McRae farm, 160 acres, lying east of the Coquette well has been offered and refused \$900,000 for it.



ISSUED FROM THE UNITED STATES PATENT-OFFICE FOR THE WEEK ENDING MAY 30, 1865. Reported Officially for the Scientific American.

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

47,911.—Waxed-thread Sewing Machine.—Hosea P. Aldrich, Spencer, Mass., assignor to himself and George Jenks :

I claim, First, Heating the pressure pad and cloth plate of a sewing machine, or either of them separately, by steam or otherwise, for the purpose of preventing waxed thread from sticking thereto while passing through the machine, substantially as and for the purpose specified.

Second, Inclosing the tension wheel, or other tension device of a sewing machine, over which the waxed thread passes in a heated chamber or casing, for the purpose of preventing waxed thread which passes around it from sticking thereto, substantially as herein described.

Third, Combining with the steam chest of the wax receptacle, D, the casing which contains the tension wheels, substantially in the manner and for the purposes specified.

Fourth, The combination with the wax receptacle D, and its steam chest, A, the pipes, G O K, hollow pressure pad, B, and hollow cloth plate, C, substantially as and for the purposes specified.

47,912.—Thread-waxing device for Sewing Machine.—Hosea P. Aldrich, Spencer, Mass., assignor to himself and George Jenks :

I claim, First, The combination of the wax-receptacle, A, with the water tank, D, water jacket, E, and chimney, C, substantially as and for the purposes described.

Second, Attaching the wax receptacle to the sewing machine by passing a rod through the hollow tube, I, which tube performs the function of a thread guide for immersing the thread under the surface of the wax, substantially as herein described.

Third, The combination of the tube, L, india-rubber plug, O, and screw, M, substantially as and for the purposes described.

Fourth, Making the india-rubber plug, O, convex at both its ends, in combination with socket of tube, L, and that on screw, M, substantially as and for the purposes described.

Fifth, The application to thread-waxing devices of the tube, L, when constructed as and for the purposes described.

47,913.—Shade Holder for Lamps.—Lewis J. Atwood, Waterbury, Conn. :

I claim, First, The combination of mortises and rivets or eyelets, with the springs for securing the latter to the ring, as set forth.

Second, In combination with the springs for holding the lamp shade upon the chimney, I claim the ring formed of thin sheet metal, stiffened by corrugations running around it, for the purposes and as specified.

Third, I claim securing the exterior ring by projections from the springs, in the manner set forth.

47,914.—Compound for Removing Scale from Boilers.—Albert B. Aner, Babcock's Grove, Ill. Antedated April 27, 1865 :

First, I claim the compound herein described composed of gum catechu, salt and saltpeter, substantially as and for the purposes specified.

Second, I claim, in combination with a compound for removing boiler incrustations, the employment of flaxseed, as and for the purposes herein described.

47,915.—Desk.—Frederick Baltz, New York City :

I claim the arrangement and combination of the levers, B C and D, with the desk and cover of the desk or table, and with the furniture, in such a manner that the opening or shutting of the cover or door will pull the desk outwards or inwards, substantially in the manner and for the purpose described.

47,916.—Potato Digger and Separator.—John M. Bartlett, Harmer, Ohio :

I claim, First, The combination of the iron frame, A2, scraper, E, endless apron or chain, F, main shafts, G, spur wheel, H, with gearing, as stated, or their equivalent, by means of which the machine is made to dig and automatically separate potatoes, as set forth.

Second, The platform, X, in combination with the chute, Y, and sacking device, Z, in the manner and for the purpose set forth.

47,917.—Apparatus for Applying Paint to Stencil Plates.—Caleb Bates, Kingston, Mass. :

First, I claim the apparatus herein set forth for applying paint or ink to stencils, constructed and operated substantially as above described.

Second, I claim the plate, I, for compressing the brush at the time it receives paint or ink from the hopper, substantially as above described.

(This invention consists in an apparatus for applying paint or ink to stencil plates by means of a revolving brush, to whose surface the paint is applied from a hopper, the brush and hopper being carried upon a truck, which is made to travel over the stencil plates, and the brush being revolved by means of gearing which is connected to one of the shafts of the truck.)

47,918.—Coupling Conducting Wires.—G. W. Beardslee, College Point, Long Island, N. Y. :

I claim for effecting the insulating coupling or union of electric conductors, the combination of the metallic disks, or the equivalents thereof, on the conductors, the coupling tube and nut, or its equivalent, and the elastic plug interposed between the metallic discs and the coupling tube and nut, substantially as and for the purpose specified.

47,919.—Hay Spreader.—Horace Beers, Brookfield, Conn., assignor to Smith & Burham :

I claim the employment of the revolving head piece, D, provided with spirally-arranged teeth, in combination with the supporting pieces, E E', and with the movable journal box, J, all arranged in the manner and for the purposes substantially as herein described and set forth.

I also claim the arrangement and combination of the coil springs, L, platform, M, and lever, K, in the manner and for the purposes substantially as herein described and set forth.

47,920.—Bridge.—John Boles, Jr., Boston, Mass. :

I claim the combination as well as the arrangement of the lacing, b, with the truss composed of the posts, top and bottom chords, braces and vertical tie rods, as specified.

I claim the construction of the truss with the arrangement of the several curved braces, and the several curved counter braces diverging with respect to each other, as described, whereby the crossings thereof are increased from the top to the bottom chord, as specified, and in combination therewith I claim the two tension wires or cables, c, c, arranged as specified.

47,921.—Sorghum Evaporator.—Jesse Brockway, Oswego, Ill. :

I claim, First, In combination with an evaporator, the heater, B, constructed and operated as and for the purposes specified, substantially as described.

Second, In combination with an evaporator, the damper, E, constructed and operated as and for the purpose specified, substantially as set forth.

Third, In combination with an evaporator having various compartments, the conductor, C, when used as and for the purpose specified, substantially as set forth.

Fourth, In combination with an evaporator having various compartments, the gates, D, constructed and operated as and for the purpose described.

Fifth, An evaporator, or having sides that overlap the furnace upon which it rests, and extending down the outside thereof, for the purposes specified, substantially as set forth.

47,922.—Piano-forte Action.—Stephen P. Brooks, Somerville, Mass. Antedated May 21, 1865 :

I claim the combination of the hammer arm, D, with the standard, C, and fly lifter, F, in connection with the escapement on the rail, G, substantially as and for the purpose specified.

I also claim extending the hammer arm through and in the rear of the standard, in connection with the back catch, H, for the purpose of holding the hammer after the blow is struck, as set forth.

I also claim placing the back catch, H, in the rear of the hammer arm, substantially in the manner and for the purpose specified.

I also claim the combination of the standard, C, upon the key lever, B, the hammer arm, D, the fly lifter, F, with the button and spring, the escapement, g, and the back catch, H, substantially as shown and described.

47,923.—Damper for Stovepipes.—H. C. Brown, Buffalo, N. Y. :

I claim the combination and arrangement of the annular disk, C, and hollow perforated cones, D D', with the pipe, A, substantially as and for the purposes herein specified.

47,924.—Washing Machine.—Hiram Brown, Burton, Ohio :

First, I claim the beaters, H, when constructed and arranged as herein specified, in combination with the ribs, F, for the purpose set forth.

Second, I claim the slotted arm, H', in combination with the arm, p, plate, n, lip, p', and key, l, when constructed and arranged in the manner, substantially as and for the purpose set forth.

47,925.—Blasting Rock.—George C. Bunsen, Belleville, Ill. :

I claim the application for blasting purposes of a disk, a, when used either with a cylinder, d, or support, c, or in combination with both cylinder and support, substantially in the manner and for the purposes specified.

47,926.—Harvester.—Wm. H. Burkhart, Bucyrus, Ohio :

First, I claim arranging the spring, l, so that it is pendant from near the reel shaft, upon the reel post, and so that it supports the pulley, 5, 5, near the lower end of the reel post, in the manner and for the purpose described.

Second, The arrangement of the pendant spring, l, swivelling pulleys, 5, 5, reel shaft, 3, pulley, 4, and driving chain or cord of the reel, in the manner and for the purpose described.

47,927.—White wash Brush and Handle Attachment.—W. B. Burtriet, New York City, and J. P. McIntosh, Brooklyn, N. Y. :

First, We claim securing a handle to a brush by means of a screw fastening, which is applied to the rounded portion, D, constructed substantially as described.

Second, The adjustable section, C, having a screw formed on it, in combination with a hemispherical slotted speed, D, and ferrule, E, substantially as described.

47,928.—Die for Spike Machine.—Samuel Cameron, Pittsburgh, Pa. Antedated May 17, 1865 :

I claim the use of dies for spike machines made to overlap each other, each having two convex operative faces at right angles to each other, one such face being horizontal and the other perpendicular, for the purpose of making spikes with fluted shanks, substantially as described.

I also the use of a removable clip for forming the point of the spike, so constructed as hereinbefore described, as that its operative

C, C, in a frame, B, in connection with the lever, F, attached to the knife and frame, all arranged to operate substantially as and for the purposes set forth.

Second, The slide, K, arranged in connection with the knife, D, lever, J, pawl, I, and rack, E, on carriage, G, to operate substantially in the manner, as and for the purpose herein set forth.

48,015.—Manufacture of Water Proof Fabrics.—Thomas Crossly, Bridgeport, Conn., (Assignor to American Water Proof Cloth Company, Brooklyn, N. Y.):

I claim as a new manufacture, a fabric formed by the combination of a coarse, textile material for a base, with a finer textile material or with fibrous material in the form of a bat or felt, a face, united by a coating or sheet of india rubber or other gum, or compounds thereof, in the manner and with the result, and for the purposes set forth.

I also claim as a new manufacture the fabric having a back or base of flax, cotton, jute, wool or other textile material, coated or covered with a sheet of india rubber or other vulcanizable gums, or the vulcanizable compounds thereof, and having a face of fibrous substances in the form of a bat or felt, or of other textile material, combined and united by pressure and by the vulcanization of the gums, and dyed and printed, or dyed and printed, or colored, or stamped, or embossed, for the purposes and in the manner described and set forth.

48,016.—Paper Collar.—William L. Duff, Quincy, Ill., (Assignor to Henry C. Banks):

I claim a collar having its lower part slitted, so that portions at the back will pass outside of the cravat in the manner and for the purpose substantially as set forth.

48,017.—Pipe Tongs.—Samuel F. Gamage, (Assignor to himself and N. M. Dow), Boston, Mass.

I claim the solid screw and fulcrum, designated respectively by the letters, f, g, h, i, as operated by the milled nut, E, applied and arranged in the opening and slot in the stationary jaw lever, substantially in the manner and for the purposes above specified.

48,018.—Self-Centering Punches, Antedated May 16, 1865.—Samuel Z. Hall, Camden, N. J., (Assignor to himself and George Mott), Hoboken, N. J.:

I claim, First, The arrangement of the guide socket, F, which contains the center punch within a hinged frame, applied in combination with the box, or its equivalent, which contains the centering clamp, substantially as and for the purpose herein set forth.

Second, The arrangement of the guide socket within the said hinged frame to provide for its adjustment substantially as herein described to suit the thickness or depth of the head of a bolt or other headed article.

48,019.—Globe Stove.—George W. Herrick, Stuyvesant, N. Y., (Assignor to Samuel W. Gibbs), Albany, N. Y.:

I claim the drop-door, C, in combination with a foot-rest, B, when applied to a globe stove, in the manner substantially as and for the purpose herein set forth.

[This invention consists in combining a drop-door with a foot-rest, in such a manner that the foot-rest will serve as a support for the door when the latter is open, and prevent the breaking of the hinges of the door when the latter is opened or allowed to drop.]

48,020.—Coal-Hod, Ash-Sifter, and Slop-Pail combined.—Charles Jones, (Assignor to himself and Charles Hodges), Brooklyn, N. Y.:

I claim the pail, A, provided with the cover, C, in combination with the sifter, D, constructed substantially as shown and connected when in use, to the cover, C, by an upright passing through the cover, or an equivalent means,—all being constructed of sheet metal and arranged to form a combined coal-hod, slop-pail and ash sifter, as described.

48,021.—Copying Press.—Phineas Lawrence and George Jeffereys, (Assignors to themselves and Benjamin Lawrence), New York City:

We claim a copying press formed with a cam lever to act upon the follower in combination with the ratchet and pawl for the purposes and as specified.

48,022.—Casting Shot and Shell.—Thomas J. Lovegrove, (Assignor to himself and Henry Baldwin, Jr.), Philadelphia, Pa.:

I claim casting shot and shell in a spherical mold, and afterwards rotating said mold on a concave or spheroidal surface, substantially in the manner described, for the purpose set forth.

I also claim the combination of a rotating concave table having a raised central center with a spherical mold rolling freely thereon as described.

48,023.—Rose for Door-Knob.—Milton V. Nobles, Rochester, N. Y., (Assignor to himself and John C. Nobles), Rushford, N. Y.:

I claim in combination with the screw sleeve and hub, the pin, g, h, or key, e, for holding the two firmly together when adjusted, substantially as described.

48,024.—Fastening Door-Knobs to their Shanks.—Milton V. Nobles, Rochester, N. Y., (Assignor to himself and John C. Nobles), Rushford, N. Y.:

I claim as a fastening for door-knobs and shanks, the combined use of the turning sleeve, catch, and check-pin, with the hub and shank of the knob, substantially as and for the purpose described.

48,025.—Fastening Door-Knobs to their Shanks.—Milton V. Nobles, Rochester, N. Y., (Assignor to himself and John C. Nobles), Rushford, N. Y.:

I claim as a means of fastening a door-knob to its shank, the combined use of a split sleeve, and a ring, or ordinary rose plate, with the hub and shank, substantially as herein described and represented.

48,026.—Drill for Oil and other Wells.—William G. Oliver, (Assignor to himself, Samuel O. Bigelow, George H. Rendel, and David P. Benson), Buffalo, N. Y.:

I claim an expansion drill, consisting mainly of the drill stock, A, hinged drill pick, D, and connecting bar, B, and operated by a vertical up and down motion thereof for the purposes, and substantially as herein described.

I also claim the bottom section, E, in combination with the drill stock, A, for the purposes and substantially as described.

48,027.—Tool.—A. W. Park, (Assignor to himself and C. J. Winters), Norwich, Conn.:

I claim the implement above shown, comprising combined hammer claw, monkey-wrench, socket-wrench, and screw-driver substantially as described.

[This invention consists in a combination in a peculiar manner of several different tools so as to join in the same implement a hammer, a claw, a screw-driver, a socket-wrench and a monkey wrench, the whole implement consisting of only two pieces and a nut by which said pieces are connected to and adjusted with each other.]

48,028.—Stave-Cutting Machine, Antedated May 26, 1865.—M. Randolph, St. Louis, Mo., (Assignor to himself, J. Paddock, and Prescott and Burnett), St. Louis, Mo.:

I claim, First, The employment of the plungers, d, d, racks, d, d, and gear-wheels, f, f, or their substantial equivalents, in combination with the cutter frame, D, for the purpose of removing the cut staves and depositing them under the jointers substantially as herein specified and represented.

Second, I claim the arrangement and combination of a double-jointer, g, g, when constructed and adjusted to operate in such manner as to complete the jointing of both edges of the stave, at the same time, substantially as herein set forth and described.

Third, I claim operating the jointer, g, g, in harmony and conjunction with the cutter-frame, D, so that the staves may be cut and jointed without removal from the machine, substantially in the manner herein set forth and specified.

Fourth, The combination of the cutter heads, m, m, with the conveyors, n, n, constructed and arranged to operate as and for the purposes set forth.

And Fifth, The combination and relative arrangement of the cutter-frame, D, jointer, g, g, cutter heads, m, m, and conveyors, n, n, all being constructed and adjusted to operate conjointly substantially as and for the purposes herein set forth and specified.

48,029.—Horse Ray Fork.—Rensselaer Reynolds and Charles Young (Assignors to Rensselaer Reynolds), Stockport, N. Y.:

I claim, First, The trigger, D, provided with a lip, e, and applied in combination with the toggle arms, B, B', and two hinged gripping jaws, A, A', in the manner and for the purpose herein shown and described.

Second, The hand-lever, C, attached to the arm, B', and applied in combination with the jaws, A, A', and toggle arms, B, B' in the manner and for the purpose set forth.

[This invention relates to certain improvements in that class of hay-forks which operate with two hinged jaws in combination with toggle arms, in such a manner that, when the toggle arms are straightened out the jaws are firmly closed, and a load of hay taken up by them can be hoisted up to any desired height, and, by a slight pull on one of the toggle arms, they are thrown out of line, the jaws open, and the hay is dumped.]

48,030.—Amal amator.—H. H. Scoville (Assignor to himself and E. C. Preble), Chicago, Ill.:

I claim, First, Projecting each bucket on a scroll, from the discharging eye or hub of the axial shaft, substantially in the manner and for the purpose described.

Second, The arrangement of the chamber, f, and screw, d, or their equivalents, at the discharge of the scroll chamber, substantially in the manner and for the purpose described.

Third, The cylinder, f, and screw, d, constructed and working together, substantially in the manner and for the purpose described.

Fourth, The mode of attaching the screw to the machine for submerging the quartz, substantially as herein described.

Fifth, A machine which discharges the quartz from its scroll submerging chamber directly into its screw conveying chamber, substantially as and for the purposes herein described.

48,031.—Manufacture of Boxes.—William T. Slocum (Assignor to James S. Mason & Co.), Philadelphia, Pa.:

I claim connecting the two ends of the strap, A, by forming on one end of the same the lips, a, and in the other end the slots, b, through which the said lips may be passed, and then bent down to one side or the other, substantially as described.

48,032.—Cotton Gin.—John Stevens (Assignor to himself and Theodore Bowne), New York City:

I claim the combination of the large cylinder, B, small roller, D, reciprocating plate, G, feed board, I, d, offer plate, J, and pressure roller F, all arranged and operating substantially as and for the purposes set forth.

48,033.—Means of Closing Ship's Deck and Side Lights.—Edmund B. Vannevar (Assignor to E. B. Vannevar & Co.), Boston, Mass.:

I claim the hinged staple, G, provided with an adjusting screw, H, constructed substantially as described, and used for the opening and closing of deck and side lights for vessels.

48,034.—Safety Tackle.—Pierre Joseph Jamet, Paris, France.

I claim, First, The construction, substantially as herein described, of a safety tackle for the purpose of holding or maintaining weights in suspension during the intervals of pull.

Second, I claim the oscillating frame or block under the arrangement described, so that the pulley or sheaves, together with the rope or cord, perform the function of brake in connection with the cross-head of the hook, substantially in the manner hereinbefore set forth.

Third, The movable cam lever or catch, whether operated by the rope or otherwise, under the arrangement described, so as to prevent brake action, in the manner and for the purpose set forth.

48,035.—Photo-electrotype.—Wm. A. Leggo and Geo. E. Desbarats, Quebec, Canada:

We claim the within described process of producing upon the surface of any transparent picture, drawing, or manuscript, by the action of light, a mold capable of yielding a cast in plaster or other suitable material, substantially in the manner and for the purposes herein set forth.

REISSUES.

1,976.—Base Burning Stove.—Dennis G. Littlefield, Albany, N. Y. Patented January 24, 1854. Reissued Nov. 19, 1861; again, August 26, 1862; again, March 3, 1863; again, Nov. 8, 1864; again, Feb. 23, 1865:

I claim the combination of a reserve fuel supplying cylinder, a separate fire pot, a chamber to receive the products of combustion, and a exhausting exit flue, substantially as and for the purposes described.

1,977.—Straw Cutter.—Warren Gale and B. B. Belcher, Chicopee Falls, Mass., assignee of Warren Gale. Patented, Dec. 18, 1860:

I claim, First, The arrangement of the knife pivot upon a steppor carrier, so as to produce angular and distance adjustments of the knife to the cutting edges of the stationary blade, or mouth piece, whether the carrier is in one piece with, or attached immediately to the mouth piece, or is separate therefrom.

Second, I claim also the combination and arrangement of the carrier, C, and flanch of the pivot, G, provided respectively with the longitudinal slot, and with the bolt hole, b, and transverse slot, c, for producing the adjustments desired, substantially as herein specified.

1,978.—Horse Rake.—Ariel B. Sprout, Hughesville, Pa. Patented November 25, 1862:

I claim sustaining the weight of the gang of curved metallic teeth, which are united to a common rake head arranged behind the axle upon such a point of their length that they shall be balanced or nearly so upon a bar which is free to rotate with them, and which is independent of the draught devices, substantially as described.

DESIGNS.

2,072.—Boiler Lid.—John L. Hadden, Philadelphia, Pa.

2,073.—2,077.—Carpet Pattern.—Fleming J. Ney (assignor to the Lowell Manufacturing Company), Lowell, Mass.

2,078.—Lemon Press.—Isaac Townsend, Philadelphia, Pa.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and enclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

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MODELS are required to accompany applications for Patents under the new law, the same as formerly, except design patents, when two good drawings are all that are required. The petition, specification and oath, except the Government fee.



PATENTS

GRANTED

FOR SEVENTEEN YEARS.

MUNN & COMPANY,

In connection with the publication of the SCIENTIFIC AMERICAN, have acted as Solicitors and Attorneys for procuring "Letters Patent" for new inventions in the United States and in all foreign countries during the past seventeen years. Statistics show that nearly ONE-THIRD of all the applications made for patents in the United States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in foreign countries are procured through the same source. It is almost needless to add that, after seventeen years' experience in preparing specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office; but they take pleasure in presenting the annexed testimonials from the three last ex-Commissioners of Patents.

MESSRS. MUNN & CO.—I take pleasure in stating that, while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE CAME THROUGH YOUR HANDS. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with the office, a marked degree of promptness, skill, and fidelity to the interests of your employers. Yours very truly, CHAS. MASON.

Judge Mason was succeeded by that eminent patriot and statesman, Hon. Joseph Holt, whose administration of the Patent Office was so distinguished that, upon the death of Gov. Brown, he was appointed to the office of Postmaster-General of the United States. Soon after entering upon his new duties, in March, 1859, he addressed to us the following very gratifying letter.

MESSRS. MUNN & CO.—It affords me much pleasure to bear testimony to the able and efficient manner in which you discharged your duties as Solicitors of Patents, while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and I doubt not justly deserved) the reputation of energy, marked ability, and uncompromising fidelity in performing your professional engagements. Very respectfully, your obedient servant, J. HOLT.

Hon. Wm. D. Bishop, late Member of Congress from Connecticut, succeeded Mr. Holt as Commissioner of Patents. Upon resigning the office he wrote to us as follows:

MESSRS. MUNN & CO.—It gives me much pleasure to say that, during the time of my holding the office of Commissioner of Patents, a very large proportion of the business of inventors before the Patent Office was transacted through your agency; and that I have ever found you faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Attorneys with skill and accuracy. Very respectfully, your obedient servant, WM. D. BISHOP.

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 novelty are carefully examined, and a written reply, corresponding with the facts, is promptly sent, free of charge. Address MUNN & CO., No. 37 Park Row, New York.

As an evidence of the confidence reposed in their Agency by inventors throughout the country, Messrs. MUNN & CO. would state that they have acted as agents for more than TWENTY THOUSAND inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of inventors and patentees, at home and abroad. Thousands of inventors for whom they have taken out patents have addressed to them most flattering testimonials for the services rendered them; and the wealth which has inured to the individual uses whose patents were secured through this office, and afterwards illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! Messrs. MUNN & CO. would state that they never had a more efficient corps of Draughtsmen and Specification Writers than those employed at present in their extensive offices, and that they are prepared to attend to patent business of all kinds in the quickest time and on the most liberal terms.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE.

The service which Messrs. MUNN & CO. 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 they may acquire of a similar invention from the records in their Home Office. But for a fee of \$5, accompanied with a model, or drawing and description, they 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 the Branch Office of Messrs. MUNN & CO., corner of F and Seventh streets, Washington, by experienced and competent persons. Many thousands of such examinations have been made through this office, and it is a very wise course for every inventor to pursue Address MUNN & CO., No. 37 Park Row, New York.

THE VALIDITY OF PATENTS.

Persons who are about purchasing patent property, or patentees who are about erecting extensive works for manufacturing under their patents, should have their claims examined carefully by competent attorneys, to see if they are not likely to infringe some existing patent, before making large investments. Written opinions on the validity of patents, after careful examination into the facts, can be had for a reasonable remuneration. The price for such services is always settled upon in advance, after knowing the nature of the invention and being informed of the points on which an opinion is solicited. For further particulars address MUNN & CO., No. 37 Park Row, New York.

The 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 parties who are concerned in new inventions.

The law abolishes discrimination in fees required of foreigners, excepting natives of such countries as discriminate against citizens of 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 (except in cases of designs) on the above terms. Foreigners cannot secure their inventions by filing a caveat; to citizens only is this privilege accorded.

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 is \$10. A pamphlet of advice re-