

Col. Haraszthy:—"Yes; we sell these in the San Francisco market at 25 cts. per lb; but these fine table grapes do not make good wine. I will remark that my land which is not suitable for vines I plant in almonds and olives. I have several thousand of these trees and they do very well. I have sent some almonds to the New York market. Almonds will grow wherever peaches will; you might raise them here."

THE WHISKEY CONTROVERSY.

This potent article is exciting an unusual degree of attention just now. The subject of increasing the tax on the article is now before Congress. It is proposed to tax the stock on hand; and this has, of course, brought out all the strength of the "holders." It is reported that \$5,000,000 worth of the "sweet creature" will be affected by the tax; hence the strong opposition to the measure. It costs to make whiskey, about 25 cents a gallon; the present tax of 20 cents made it sell, tax paid, at 45 to 50 cents a gallon. Last fall, shrewd operators, knowing that the tax would have to be increased, commenced to buy up all the whiskey in store and pay the tax where it had not been already paid. The next move was to have the Commissioner of Internal Revenue recommend a large tax. This was done, and the official announcement was made after the stock had gone into the hands of speculators. Whiskey went up to 75 and 80 cents. When the report came into Congress, and others found it out, it advanced to one dollar a gallon. The Ways and Means Committee recommended a tax of 60 cents a gallon. This, added to the first cost, would make about 90 cents, but the house voted, by nearly a two-thirds vote, that all whiskey would be taxed, whether in store or in the hands of distillers. This has thrown the operators into tribulation. If whiskey in store must pay revenue to the Government, then their stock is only worth about 45 or 50 cents a gallon, for the additional 40 cents goes either to speculators or to the United States Treasury. It will make a difference of from \$2,000,000 to \$3,000,000 on the stock on hand. The latest phase of the question looks very much in favor of the speculators. Some members of Congress don't appear able to stand the "whiskey strain." It overpowers them.



ISSUED FROM THE UNITED STATES PATENT-OFFICE FOR THE WEEK ENDING FEBRUARY 9, 1864. 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.

- 41,467.—Heater.—Orrin Abbott, New York City: I claim first, The combination of the water drip compartment, j, hot-air conducting pipe, o, and foul-air pipe, E, with one or more stoves or heaters arranged substantially as shown, in connection with the apartment to be heated, so that the foul air will be drawn from the compartment by the rarifying of the air in E, or the chamber with which it communicates, and a circulation of pure warm air be kept up in the compartments.
- Third, Regulating the supply of water to the compartment, i, by means of the hinged disk or reservoir, n, arranged substantially as described.
- Fourth, The indicator formed of the cloth, p, attached to a frame, L, inclosed within a box, K, and suspended from a scale beam, M, in connection with the water supply apparatus composed of the rotatory buckets, s, working within the reservoir, F, substantially as set forth.
- Fifth, The box, G, provided with the damper, H, and communicating with the foul-air pipe, E, and arranged relatively with the feet opening, f, in the stove or heater, for the purpose specified.
- 41,468.—Track-clearer for Railroads.—M. J. Adams, Bedford, Pa.: I claim the application of this combined snow plow and excavator to snow obstructions on railroads for their removal, using for that purpose the aforesaid combined snow plow and excavator, or any other substantially the same, and which will produce the same effect.
- 41,469.—Revolving Rake.—S. E. Ament, Oswego, Ill.: I claim, first, The cast bearing-box, D, with stops thereon and arranged relatively to one or more stops, I, J, and to the operative parts of a revolving rake, substantially in the manner and for the purpose herein set forth.
- Second, I claim, in revolving rakes, the duplicate sliding bolts, I and J, arranged relatively to one or more pairs of reversed stops, W, Y, and to the eccentric sectional flanges, 1 and 2, substantially in the manner and for the purpose herein set forth.
- Third, I claim the cast bush, F, formed with side cheeks, F' F'', and with notches or holes, F' F'', arranged to serve in connection with the handle, E, and with sliding stops, T, J, substantially in the manner and for the purpose herein set forth.

- Fourth, I claim raising the entire series of teeth by the employment of the series of braces, P, P, arranged to form an additional direct connection from the rigid shaft, A, to the teeth, a, substantially in the manner and for the purpose herein set forth.
- 41,470.—Machine for making Soap.—Avery Babbett, Auburn, N. Y.: I claim the dies, F' and G', and the punches, I' and J', in combination with the slides, E' and A', levers, Y' and D', and cams, W' and B', or their equivalents, when used in the manner and for the purpose above specified.
- 41,471.—Relief Valve for Water Cylinders.—T. H. Bailey, Troy, N. Y.: I claim the combination of the valve, C, stem, d, spring, E, adjustable cap, D, and pin-hole, G', whereby the valve may be either held upon its seat with a variable yielding pressure, or may be elevated therefrom or held immovably thereon as an ordinary screw plug. [This invention is more especially intended for application to steam fire-engines. The cylinders of these machines are generally fitted with connections for throwing two or more streams, and it is often necessary or desirable to shut off one or more of the streams, and this throws an extra pressure upon the pump and hose which is liable to cause the bursting of the hose. The only means heretofore adopted to prevent this has been to apply an escape valve which has been opened when necessary by the hand of the engineer in charge. This invention consists in a valve of novel construction, controlled by a spring in such a manner that it shall open automatically to relieve the cylinder and hose, or other pipes, of extra pressure whenever necessary.]
- 41,472.—Trigger Cover for Firearms.—John Birkenhead, Ilion, N. Y.: I claim a trigger cover guard, applied substantially as shown and described.
- 41,473.—Lamp Chimney.—E. S. Blake, Pittsburgh, Pa.: I claim, in a lamp chimney composed in part of plates of flat glass, the erection of any two or more of said plates in the same plane, to form a part of the shaft of the chimney, as and for the purpose set forth.
- 41,474.—Grain Drill.—James Bucknell, Decorah, Iowa: I claim the particular construction of conducting tubes, H, adapted to replace the scatterers, G, covering the apertures, d, and employed in combination with the seed-box, D, slide, J, shaft, E, and scoop disks, F, to convert the machine from a broad-cast sower to a drill.
- 41,475.—Gridiron.—E. C. Brewster, Bristol, Conn.: I claim, as an improved article of manufacture the gridiron constructed substantially as described.
- 41,476.—Wheel Vehicle.—Lorenzo D. Brown, Lafayette, Ind.: I claim, first, The stirrups, D, hinged to the bolster, E, in combination with the axles, C', of the front wheels, B', and with the draught pole, F, all constructed and operating in the manner and for the purpose substantially as shown and described.
- Second, The spliced bolster, K, to operate in combination with the axles, C, and with the reach, G, substantially in the manner and for the purpose set forth.
- 41,477.—Harvester.—R. D. Brown, Covington, Ind.: I claim, first, The mode substantially as described, of connecting the platform to the main frame by the swiveled coupling-rod, E, sleeves, e, e', and shafts, J and J', whereby motion can be communicated to the rake on a perfectly floating platform without affecting the continuity of the rocking motion or straining the parts.
- Second, In the described combination with a floating platform, endless rake and swiveled coupling, I claim the chain, H, and pulleys, O and S, or equivalent flexible device for transmitting motion to the raking mechanism, as set forth.
- Third, In the described combination with a swiveled coupling, E e' J J', I claim the device for varying the pitch of the cutting apparatus, provided with a cutter, D, and incorporated into it, with or without the segment rod, C, and guard or gate, E, to form a new and useful tool for the purpose specified.
- Fourth, I claim the arrangement of the outer and forward endless rake-pulley, u, within a lever, d, in the rear edge of the finger bar so as to bring the front edge of the endless rake within working distance of the sickle.
- Fifth, The arrangement of shafts, K and J, gear wheels, M and N, sliding pulley, O, clutch, F, and treadles, Q, Q', as and for the purpose specified.
- 41,478.—Tool for Turning Lathes.—Amos A. Burr, Rockdale, N. Y.: I claim the two yielding jaws, A, A, provided with recesses, a, a, having screw threads, b, formed or cut on them, one of said jaws being provided with a cutter, D, and used either with or without the segment rod, C, and guard or gate, E, to form a new and useful tool for the purpose specified. [This invention relates to a new and useful tool for cutting spiral beads, on wooden articles, such as furniture, cogs, &c., turned in a lathe, and while being centered and rotated in the same.]
- 41,479.—Harrow.—S. P. Campbell, Rochester, Minn.: I claim, first, A sectional harrow provided with a universal-joint coupling composed of a hook, B, on one side, and a swivel, B', on the other, or their equivalents, substantially as described.
- Second, In combination with a harrow, constructed and united as described, I claim the tongue, D, when the whole is arranged in the manner and for the purpose set forth.
- Third, I claim a sectional harrow, the sections of which are united by means of a universal joint, and each section being drawn from its own center, substantially as and for the purpose set forth.
- 41,480.—Water Indicator for Steam Boilers.—Charles H. Carey, Detroit, Mich.: I claim the combination of the double lever, J I M, float, A, rack, B, piston, D, index, C, and whistle, K, L, constructed and arranged and operating substantially in the manner and for the purposes set forth.
- 41,481.—Implement for cleaning the Bores of Gun-barrels.—P. F. Carr, Wyalusing, Pa.: I claim a device for cleaning and polishing the bores of fire-arms, composed of a plunger-like body, A, of india-rubber or other elastic material, coated with or having incorporated into it emery or other scouring or polishing material, a screw, B, nut, C, and socket, D, the whole combined substantially as herein specified.
- 41,482.—Elevator for loading Cars.—R. D. Chatterton, Bath, England: I claim, first, The rising and falling platform, B, formed of two separate parts, 1 and 2, in connection with the pulley, D, provided with a groove, I', having cuts or recesses, j, j, made in it, the platform being connected to the pulley, D, by ropes, C, C, C', and all arranged to operate either with or without the tray, F, in the manners substantially as and for the purpose herein set forth.
- Second, The division or partition board, H, suspended and counterpoised, substantially as shown, when used in connection with the tray, F, for the purpose specified.
- Third, The swinging door or side, G, in combination with the catch, H', arranged to operate in connection with the platform, B, substantially as and for the purpose set forth.
- 41,483.—Buffer for Railroad Cars.—R. D. Chatterton, Bath, England: I claim the employment or use, in a buffer for railroad cars, of springs, G, levers, F, and wedge-shaped projections, E, on a sliding coupling bar, D, arranged to operate in the manner substantially as and for the purpose herein set forth.
- I further claim, in combination with the levers, F, the supplemental springs, H, and springs, I, arranged to operate in connection with the coupling bar, D, substantially as and for the purpose specified.
- 41,484.—Horse Hay-fork.—D. B. Clement, Brooklyn, N. Y.: I claim the bent rod or bar, D, provided with an elastic part, e, and attached to the head, A, of the fork, in combination with the ball, C, and rod, E, all arranged to operate substantially as and for the purpose set forth. [This invention relates to an improved means employed for discharging the load from the fork and in an improved manner of attaching the tines to the fork head and also in an improved way of suspending the fork in its bail, whereby it is believed that several advantages are obtained over the forks hitherto used.]

- 41,485.—Revolving Vegetable-steamer.—Selah B. Collins, Lyndon, Mich. Ante-dated, Jan. 27, 1864: I claim the wings or elevating bars, W, which are made adjustable and detachable, substantially in the manner and for the purposes specified, in combination with the rotary steaming box, C, as set forth.
- 41,486.—Bath-tub.—E. F. Cook, Omaha, Nebraska Territory: I claim a bath-tub having its back constructed with double walls to form a hot-water chamber, substantially as and for the purpose set forth.
- 41,487.—Cotton Gin.—T. C. Craven, Greenbush, N. Y. Ante-dated Jan. 27, 1864: I claim, first, a series of teeth connected at one end to a cylinder, within and eccentric to an outer cylinder, so that said teeth will be alternately projected and retracted in the revolution of such cylinder, when said cylinders are connected together, substantially as described, so that they revolve in unison upon a non-revolving shaft, without strain or friction on the teeth, as and for the purpose set forth.
- Second, I claim the plates, 12, constructed and adjusted as specified in combination with the cylinders, e and f, and teeth, 8, whereby the teeth can be adjusted and projected more or less, as specified.
- Third, I claim constructing the teeth of the cotton-ginning cylinder of pointed wires having L-shaped bends, by means of which they are secured to the cylinder, e, by bands, 9, as set forth.
- Fourth, I claim rotating the cylinder, f, in unison with the cylinder, e, by means of the pins, 11, entering into the openings in the plates, 12, at the end of the cylinder, f, as specified.
- Fifth, I claim the sheet-metal guards, g, and braces, 14, in combination with the cylinder, f, and teeth, 8, as specified, whereby the said teeth, 8, do not require to be as long as heretofore, for reaching the cotton, as set forth.
- Six, I claim conveying the cotton from the ginning cylinder up the incline, l, to the condensing cylinder by a current of air, induced by the suction blower, o, entering the opening, 19, as specified.
- Seventh, I claim the arrangement of the roller, t, brush, v, and adjustable guard, w, whereby the action of said brush in separating the notes can be regulated, as specified.
- Eighth, I claim the condensing cylinder, m, supported and driven by the rollers, t and v, as specified, whereby the said condensing cylinder can be formed without any central axis and with its ends open for the air to be exhausted, as specified.
- Ninth, I claim the exhausted condensing cylinder, o, fitted and acting as specified, in combination with the rollers, y and z, for removing the cotton from such cylinder, as specified.
- 41,488.—Spring Bed-bottom.—A. C. Crondal, New York City: I claim the sleeves, c, and hooks, j, applied to the ends of the egg-shaped slats, C, and operating in combination with the end rails, A, and stop-rails, f, of the bedstead, in the manner substantially as herein shown and described.
- 41,489.—Gas-check for Breech-loading Fire-arms.—Frederick Curtis, Newtown Lower Falls, Mass. Ante-dated January 29, 1864: I claim the combination and arrangement of the gas check with the barrel, as above described, with said gas check bearing within the chamber of the barrel on its outer periphery, only at its front end, and with the chamber of the barrel made of the form and extending beyond the gas check, essentially in the manner and for the purposes as above described.
- 41,490.—Stump-extractor.—D. A. Danforth, of Elkhart, Ind.: First, I claim the combination of the lever, A and F, hook, c, pulley block, U, and stirrup, B, for the purpose and in the manner described.
- Second, The combination of the saddle, J, chain, W, and lever, F, in the manner and for the purpose herein described.
- Third, The combination of the hook or guide, O, and brace, N, with a flange on its inner side of ratchet, K, and lever, F, for the purpose herein described.
- Fourth, The combination of the flange, Q, Q, and ribs, R, S, in combination with the axle, M, and lever, F, for the purpose herein described.
- 41,491.—Gang Plow.—F. S. Davenport, Jerseyville, Ill.: I claim, first, The hinged or swinging axle-tree, D, atached to the frame, A, as shown, in connection with the adjustable stops, e, e, as and for the purpose herein set forth.
- Second, The castor wheel, H, attached to the shaft, G, which is connected to the sliding bar, F, having a lever, J, attached, when said parts are used in combination with the swinging axle-tree, D, as and for the purposes specified.
- [This invention consists in a novel and improved means for gaging the depth of the penetration of the plows into the earth and for raising them out of the earth when designed to be inoperative. The invention also consists in a novel and improved means for guiding the machine and turning it at the ends of the furrows.]
- 41,492.—Tea-kettle.—William C. Davis, Cincinnati, Ohio: First, I claim the provision of a straight edge or bearing, A', at the bottom of the breast, as and for the purposes explained.
- Second, The combination of the straight edge or bearing, A', with a body, A, of elliptical form, substantially as described.
- Third, The combination of the elliptical body, A, longitudinal ball, C, and side-hinged cover, D, all as herein shown and described.
- 41,493.—Horse-power.—A. J. Detrick, Dryden, N. Y.: I claim, in constructing a horse-power equalizer, the chain, c, and pulley, e, when placed directly upon the equalizing circuit, i, and connected with the rings, l, and g, and stoppers, d and f, as described and arranged for the purposes specified.
- 41,494.—Fishing-line Reel.—Andrew Dougherty, Brooklyn, N. Y.: I claim the combination and arrangement of the spool for the fishing line with a winding mechanism at one end of it, and with a friction brake at the other end of it, and opposite the winding mechanism, the whole operating substantially as set forth.
- I also claim the combination of the friction brake that controls the unwinding of the line with a thumb-plate or lever handle placed between the heads of the reel frame, substantially as set forth.
- I also claim the combination of the lever handle that operates the controlling mechanism of the spool, with one of the cross-bars of the frame, substantially as set forth.
- I also claim a double-headed frame for an angler's reel, constructed substantially as set forth.
- 41,495.—Penman's Assistant.—H. G. Eastman, Poughkeepsie, N. Y.: I claim the combination of the fountain pen or pen-holder case, B, with the palm or hand support, A, whether made of metal, hard rubber, or other substance, for the purposes hereinbefore set forth.
- 41,496.—Petroleum Stove.—W. T. Eddy, West Hoboken, N. J.: I claim, as a new article of manufacture, the petroleum stove constructed as above described, with a bottom plate, B (adapted to receive one or more lamp burners), a top plate, C, chimney, D, and deflector, G. [An engraving and full description of this invention was published on page 233, Vol. IX, SCIENTIFIC AMERICAN.]
- 41,497.—Horse Collar.—Chas. J. Fisher, Waukon, Iowa: First, I claim dividing the side pieces, A, of the collar transverse into two parts and connecting said parts by a hinge or joint, b, in connection with the plates, B, and screw, c, or an equivalent fastening, all arranged substantially as and for the purpose herein set forth.
- Second, The combination of the pivoted hames, C, C, plate, D, and strap, E, arranged and applied substantially in the manner as and for the purpose herein set forth.
- [This invention relates to certain improvements in a horse collar for which Letters Patent were granted to this inventor bearing date July 17, 1860.]
- 41,498.—Chimney-flue.—W. J. Fryer, Jr., Albany, N. Y. Ante-dated Feb. 3, 1864. I claim the employment and use in chimney flues, &c., of the tubes, B, made of clay or other suitable material with lips and projections, b, at the supporting points on the upper ends thereof, in combination with the crock, c, all made and applied in the manner and for the purpose as herein described. [This invention consists in the use of cylindrical, polygonal or oval tubes of clay, plaste of paris and lime and water, fir-clay, or any

other suitable material, which tubes are built up in the square holes formed in the chimney in the ordinary manner and size. These tubes are provided with lips or projections at the top ends, so that each length is independently supported and held firm in its place. The stovepipe hole is formed by a large hollow, clay-brick or crock made in halves and built in the chimney breast, so that the connection is not only complete but renders the use of flue collars unnecessary and altogether it is a decided improvement over everything in the way of stovepipe entrances ever before made.]

41,499.—Horse Hay-fork.—John S. Gage, Dowagiac, Mich.:

First, I claim the attaching of the ball, C, directly to the tines, A, of the fork in connection with cross-bars, B B', one or more, for securing the tines in proper position, substantially in the manner as and for the purpose herein set forth.

Second, The spring-rod, F, connected to the ball, C, and provided at its lower end with a recess, I, in connection with the rod, m, in the arm, E, provided with the spur, q, and the lever, G, all arranged as and for the purpose specified.

[This invention relates, first, to a novel and improved mode of constructing the fork, whereby the ordinary head for the tines is avoided and the ball connected directly to the tines, and a very durable and desirable fork obtained. The invention relates, second, to a novel and improved means for holding the fork in a proper position while being elevated with its load and for tripping the fork, so that it may discharge its load.]

41,500.—Air-gun.—Paul Gifford, Paris, France:

I claim the construction of air-guns in which all the compressed air is utilized; and the action thereof on the projectile rendered instantaneous, and with the air reservoir and air-pump arranged substantially as hereinbefore described.

41,501.—Lock-joint for Street Railways.—Wm. C. Gould, New York City:

I claim the method of connecting the ends of rails for city railroads so as to secure a continuous track, by causing one rail to lap upon and enter within another, substantially as described.

I also claim the use and application of the key, E, in combination with such laps, substantially as and for the purpose set forth.

41,502.—Car Coupling.—James M. Gow, Rock Island, Ill.:

I claim the combination of the draw-pin, B, when slotted and otherwise constructed, as herein shown and described, with the slotted draw-head, A, all the parts operating together, as set forth.

[This invention consists in a slotted draw-pin supported by a pivot in the upper part of the draw-head and projecting through a slot in the under side of the same, in combination with the ordinary coupling link, in such a manner that the link, on entering the draw-head will push back the draw-pin and allow it to catch between said link and shoulder in the under side of said draw-head, and in uncoupling two cars nothing is required but to raise the draw-pin in its slot high enough to release the link.]

41,503.—Construction of Hoes, Rakes, &c.—John S. Hall, West Manchester, Pa.:

I claim fastening a hoe or rake to a socket or pang by means of the collars and groove on the latter, and an oval or oblong opening in the former in connection with a key to hold them together, substantially in the manner herein described and represented.

41,504.—Boiler Feeder.—A. Hammond, Jacksonville, Ill.:

I claim the arrangement of the reservoir, B, and pipes, a, b, with the boiler, A, cock, c, float and rod, f, g, all in the manner herein shown and described.

[This boiler-feeder consists of a steam-tight water reservoir or tank arranged above the boiler, and having its top and bottom connected therewith by two suitable pipes, in which there are stop-cocks, which are connected with a float in the boiler in such a manner that, when the water in the boiler gets below a certain level, the weight of the said float opens both cocks, and so places the water in equilibrium, and allows it to descend by gravitation into the boiler. As the water in the boiler rises, it raises the float, and gradually closes the cocks, shutting off the water when the boiler has been supplied to a proper level.]

41,505.—Postage or Revenue Stamp.—Emanuel Harmon, Washington, D. C.:

I claim, first, The employment of the same ink to cancel a letter or revenue stamp, which has been previously used to impress lines, a, upon the face of the stamp, substantially as and for the purpose described.

Second, In canceling a letter or revenue stamp, I claim the use of the same ink or coloring matter as that employed in printing the same or any essential part thereof, in the manner and for the purpose above described.

41,506.—Machine for cutting Bunges or Corks.—Peter Hayden, Pittsburgh, Pa.:

I claim, first, The combination of the two cutters, C, bent bars, H H, groove, e, head, I, and yoke or cross-bar, M, with the hollow mandrel, F, slide, J, L, and spring, K, arranged and operating substantially as and for the purposes specified.

Second, The plate, U, with adjustable sockets, y, and clamp bar, V, attached in connection with the stop, X, arranged substantially as and for the purpose set forth.

Third, The bolt-sustaining plate, Z, when used in connection with the plate, U, clamp bar, V, and stop, X, as and for the purpose specified.

Fourth, The combination of the rotary cutters, G G', plate, U, with the socket, Y, and clamp bar, V, attached, the stop, X, cam, R, and slide, T, all arranged substantially as and for the purpose herein set forth.

[The object of this invention is to obtain a machine for cutting bunges for barrels and corks for bottles, which will be automatic in its operation throughout, no manipulation being required on the part of the attendant, except the applying of the bolts to the machine.]

41,507.—Self-rocking Cradle.—C. H. Helmkamp, Reading, Ohio:

I claim the combination of the spring box, A, gearing, a B C D, crank, L, pitman, E, rocking beam, G G', and rods, H H', constructed, arranged and operating substantially as and for the purposes set forth.

41,508.—Water Wheel.—Birdsill Holly, Lockport, N. Y.:

I claim the reservoir, c, bearing, d f, and conduit, g, in connection with the induction, B, beneath, substantially as and for the purpose herein set forth.

41,509.—Screw Tap.—James Howell and David Birdsall, Jersey City, N. Y.:

I claim, first, A screw tap having two heads, one or both of which are adjustable lengthwise of the shaft, to bring the two at any required distance apart to tap simultaneously two opposite holes in two tube sheets or other pieces at any distance apart, true to a common axis, substantially as herein specified.

Second, Making such a double-headed tap with two squares or flattened portions for the reception of wrenches, one of said portions being upon the shaft, and the other upon the more distant movable head, substantially as herein described to prevent the torsion of the shaft.

41,510.—Adjustable Hammer for Many-barrelled Fire-arms.—R. J. Howland and W. H. Elliot, Hion, N. Y.:

I claim, first, The employment of a movable piece, b, for giving motion to one or more revolving firing points, when said movable piece and points are attached to and swing back and forth with the hammer, and operating in the manner herein described.

Second, The employment of two revolving firing points, for firing a series of barrels arranged around a common center, as herein described.

41,511.—Window Guard.—James Hunnewell, Charlestown, Mass.:

I claim the combination of the two vertical strips placed on opposite sides of the window, with the cap and sill; the four pieces being arranged with reference to each other, in the manner and for the purpose herein described.

41,512.—Machine for finishing the Heels of Boots and Shoes.—Joseph L. Joyce, New Haven, Conn.:

I claim, first, The combination of the cutter-head, F, and revolving adjustable guide, I, substantially as and for the purpose specified.

Second, The combination of the cutter-head, F, former, d, and adjustable guide, I, in the manner and for the purpose described.

Third, The combination of the yoke, H, with the cutter-head, F, and adjustable revolving guide, I, substantially as set forth.

Fourth, The combination of the yoke, H, cutter-head, F, former, d, and adjustable guide, I, substantially as specified.

Fifth, The combination of the polisher, P, with revolving guide, I, in the manner and for the purpose specified.

Sixth, The combination of the polisher, P, former, d, and adjustable guide, I, for the purpose and in the manner described.

Seventh, The combination of the yoke, H, polisher, P, and adjustable revolving guide, I, in the manner and for the purpose set forth.

Eighth, The combination of the yoke, H, polisher, P, former, d, and adjustable guide, I, in the manner and for the purpose substantially as herein specified.

41,513.—Beehive.—Leonard Kennedy, Hartford, Conn.:

I claim the arrangement of the adjusting screws, g, upon the sides of the comb frames, as herein shown and described, so as to regulate the space between the frames at pleasure.

I also claim the arrangement of the entrance strips, F, with the hive, in the manner herein shown and described.

[This invention relates to a peculiar arrangement of the comb frames of the hive, whereby the least possible surface of said frames are brought in contact with the hive or box in which they may be placed, and the frames rendered capable of being removed from the hive when necessary without annoying or exasperating the bees; the frames being also easily adjusted at a greater or less distance apart, as occasion may require, and with the greatest facility, and the frames at the same time, when adjusted in the desired position, held therein in a secure manner, so as to effectually avoid casual displacement.]

41,514.—Cider Mill.—Tobias J. Kindleberger, Springfield, Ohio:

I claim, first, The manner of arranging the bearings, B, of the roller, E, to wit, by having the same in slides, S, fitted in boxes, T, adjusted through the medium of screws, V, and retained in position by set screws, a', all arranged substantially as set forth.

Second, The screw, J, provided with the nut, L, having the wheel, M, attached in combination with the pinion, I, on the crank shaft, N, and the anti-friction balls, all arranged to operate substantially as and for the purpose specified.

[This invention consists in the employment of three rollers and an adjustable pressure-plate, constructed and arranged in such a manner as to operate very efficiently in crushing the apples and reducing the crushed parts sufficiently fine to favor the rapid and complete expression of the juice from them. The invention also consists in a novel and improved means for expressing the juice from the ground apples.]

41,515.—Process for finishing Woolen Fabrics.—Peter and George King, Greenfield, Mass.:

We claim the within-described combined process for finishing goods which consists in successively fulling and scouring the piece, then rolling and stretching the same, then subjecting it to a single gigning operation to raise the nap, then steaming, then scouring, then rolling, shearing, brushing and pressing, all substantially as herein set forth.

[This invention relates to the process of finishing what are termed "faced-goods," made of wool or a mixture of wool and cotton, and it not only saves time and labor, and consequently reduce the cost of manufacture in that way and obtain an increase in the length of the finished piece with a superior luster, a better and fuller nap, and a softer and more silky fabric, and prevents what is technically termed "grayness."]

41,516.—Machine for drilling Iron.—Isaac S. Lauback, New York City:

First, I claim the combination of the drill spindle, E, screw, C, socket, d, adjustable head, A, and set screws, f, f', or their equivalents, all arranged and operating substantially as described.

Second, I claim the combination of the adjustable arm, D, with the adjustable head, A, and set screws, f, f', substantially as described.

41,517.—Auger for boring Wood.—G. W. Low, Chillicothe, Ohio:

I claim the combination of the cutters, D, rectangular projecting arms, c, and grooves, h, in the head, A, when the said parts are constructed and arranged as herein specified, so that the action of boring will press the arms, c, into their grooves and thus retain the cutters securely in position without the aid of screws or keys.

[This invention consists in providing the bit or auger with knives or cutters constructed and applied in such a manner that they may be readily attached when necessary for the purpose of sharpening the same and putting them in cutting order.]

41,518.—Lock.—F. McCollum, Rockville, Conn.:

I claim, first, The arrangement and combination of the tumblers, N, provided with the pins, p, plates, m, m', perforated and provided with the pins, p', annular plates, k, provided with the studs, l, and the collars, l', having perforations, j', made in them and fitted with in the tumblers, N, all arranged in connection with the shaft, L', and perforated wheels, O, provided with the pin, w, to operate as and for the purpose specified.

Second, The sliding arbor, I, having a plate, K, attached to it provided with projections, h, h', in connection with the disk, L, provided with recesses, g, and having the wheel, P, attached to it, all arranged as shown in connection with the wheel, O, for communicating motion to the tumblers, N, and plates, m, m'.

Third, The bar, C, provided with the pendent projections, v v v, and attached to the arm, E, on shaft, F, in connection with the spring, G, and plate, K, on the arbor, I, provided with the beveled edge, e', substantially as and for the purpose specified.

Fourth, The bar, H, provided with the projection, e, and fitted on the pin or stud, d', and connected with the bolt, B, as shown, in combination with the perforated plate, K, on the sliding arbor, I, all arranged as shown, for admitting of the arbor being connected with and disconnected from the bolt, as set forth.

[This invention relates to a new and improved burglar-proof lock of that class in which the tumblers are adjusted in proper position to admit of the moving of the bolt through the medium of letters, figures, or other marks on the outer side of the lock case, to serve as guides or indices. The object of the invention is to obtain a burglar-proof lock which will admit of the tumblers being adjusted in different positions to effect "changes," as it is commonly termed, so as not to admit of the lock being opened at all times by one and the same movement and adjustment of the bolt arbor, and at the same time obtain a simple and efficient means for effecting this result.]

41,519.—Grain-cleaner.—Emanuel Mantz, Frederick, Md.:

First, In combination with the fan, C, I claim the box, E, provided with the door, U, chamber, S, trough, O, and Q, and sliding table, G, and air pass, G', all constructed and arranged in the manner described, to separate the loose refuse from the grain previous to being submitted to the action of the rubbers.

Second, I claim in combination with the above parts, the rubbing apparatus, H H' I I', constructed and operated as described and employed in connection with the perforated plates, K and m, and passage, O, in the dust as fast as it is rubbed from the grain.

Third, I claim, in a machine constructed as specified, the mouth-piece, L, arranged as described, for limiting the discharge of grain from the rubbers, I, and causing it to enter the passage way, O, in a quantity equally distributed therein.

Fourth, I claim the combination of the eccentric, c, arm, F, lever,

F', and spring, g', all arranged as described, to operate the screen, G, as set forth.

[This invention consists in a novel construction of rubbing apparatus and in a peculiar manner of applying a fan clast, whereby the grain may be thoroughly cleaned of adhering dust and all the useless refuse carried off in a body.]

41,520.—Wagon Spring.—Charles S. Martin, Mackford, Wis.:

I claim, first, The combination of the spring, A, bolts, B B, clasp or hanger, C, cup, D, and washer, E, in the manner and for the purpose herein described.

Second, In combination with the foregoing I claim the coupling, H and G, in the manner and for the purpose herein described.

41,521.—Fire-proof Safes, &c.—Walter K. Marvin, New York City:

First, I claim as a new composition of matter for the fire-proof lining or filling of safes and other like fire-proof structures, alum, gypsum and clay, combined in the manner hereinbefore set forth.

Second, I claim the coating of lumps of alum with calcined and powdered gypsum, as described, in combination with incorporating such coated lumps in dry or calcined clay, substantially in the manner and for the purpose set forth.

Third, As a new article of manufacture I claim safes or other fire-proof safes, under the arrangement or combination hereinbefore set forth.

41,522.—Raking Attachment for Harvesters.—Albert E. McGaughey, Red Wing, Minn.:

I claim the means employed for moving the rake in the arc of a circle forward and back over the platform and rotating the rake during said movement, to wit, the rock shaft, H, provided with a toothed segment, I, the rack, M, on the platform, wheel, J, on shaft, with the pinion, N, bosses, c, c', on rake head, L, slide rods, d, d', and notched plates, f, f', all arranged to operate substantially as and for the purpose specified.

[This invention consists in applying or arranging an automatic rake for harvesters in such a manner that the former will, at the commencement of its working or raking movement set in or commence at the side of the platform which is next to or adjoins the standing grain and sweep over the platform in the path of a circle and discharge the grain in a gavel at the rear of the platform, and then in moving back to its original or standing position, revolving so as to clear the cut grain as it falls upon the platform, and adjust itself in a proper working position as it reaches the point where its working movement commences.]

41,523.—Cultivator.—Patrick McGlew, Des Moines, Iowa:

I claim, first, The two plow standards, H, H', fitted in the metal plates G, and connected to the front part of the frame, A, by bars, K, in connection with the handle, I, attached to the bars M, J, which are fitted to the standards H, as shown to operate as described.

Second, The plow standards L, L', connected to the front part of the frame A, by the bars N, and fitted between the guides s, and secured between them by the plates u, and bars v, t, in connection with the bar o, attached to the bars N, by the rods u, and connected to the levers, by the rod, R, all arranged to operate as set forth.

[This invention relates to a new and improved cultivator of that class designed for plowing crops at each side of a row simultaneously. The invention consists in a novel and improved means employed for elevating the front part of the machine, and the manner of arranging the plows and scrapers, whereby the several parts are put entirely under the control of the operator, and a very efficient device for the purpose obtained.]

41,524.—Thill Fastening.—Samuel S. Meiley, Lebanon, Pa.:

I claim, first, The application of a looped fastening, D, to the removable coupling bolt C, substantially as described.

Second, A pivoted spring looped fastening D, constructed with a forked end, in combination with a bolt C, constructed with an enlarged shoulder on one end, adapted to enter eye a' and a tenon d, on the opposite end adapted to receive and to form a lateral support for the forked end of the loop, substantially as described.

Third, The combination of clip eyes a, a', bolt C, thill eye b, and loop fastening D, constructed and operating substantially as described.

41,525.—Churn.—S. H. Merredith, Oxford, Ohio:

I claim the shaft, K, the circular dasher, M, and the bed piece, N, the whole constructed and arranged in the manner and for the purpose substantially as herein set forth.

41,526.—Invalid Bedstead.—Daniel Merrill, Worcester, Mass.:

I claim, first, The combination for regulating the upper or head section of the jointed frame, the same consisting in one or more struts, b, the belt or cord, x, and windlax with pulley, p, arranged and combined with the bedstead and jointed frame in manner specified.

Second, I claim the combination by which the simultaneous elevation and depression of the two lower sections of the jointed frame is effected, the same consisting in the windlax and pulleys p, the two cords or belts y, and z, and the struts l, arranged and applied at the lower or knee joint of the jointed frame substantially as specified.

Third, I also claim the combination for distending tacking or its equivalent, the same consisting in the struts l, which act as levers, the fulcrum bars, and the rod r, provided with nuts and screws v, the whole being arranged and combined to operate in the manner set forth.

41,527.—Sewing Machine.—Warren Millar, Chicago, Ills. Ante-dated Feb. 3, 1864.:

I claim, first, Turning the heel of the bobbin away from the rotating hook, and supporting it on the slide ring in the manner and for the purpose substantially as described.

Second, In combination with an eye-pointed needle, and the rotating-hook of a sewing machine, the strap a, and the bobbin m, or its equivalent, when made to check or control the loop of thread, in the manner substantially as described.

41,528.—Means for attaching Hooks to Furniture.—Agatha Montieart, Mildmay Park, and Wm. Tent, London, England. Patented in England, July 16, 1863.:

We claim the combination of a hook a, or eye d, with the spring fastening b, c, c', as and for the purpose herein set forth.

41,529.—Shaft Coupling for Carriages.—Francis B. Morse, New Haven, Connecticut.:

I claim a coupling for carriage shafts, in which the movable part of the joint has the eyes forged thereon, and cavity in its rear end to receive an elastic presser, to prevent rattling as herein described.

Second, I claim the combination of the head, or movable part of the joint, as described, with the stationary jack and elastic presser, substantially as herein described.

41,530.—Means for the Protection of the Anchor Cables of Iron-clad Vessels.—Isaac Newton, New York, N. Y.:

I claim, first, Constructing or arranging the hawse-hole of an iron-clad vessel, within the hawse-hole or behind the armor, and within the water line substantially as herein specified.

Second, The iron hood F, for protecting the cable where it passes over the deck between the upper end of the hawse-hole, the place where it passes through the deck, to and from a hoisting apparatus below the deck, substantially as herein specified.

41,531.—Lubricator.—Edward Painter, East Hampton, Mass.:

I claim an oil can provided at its upper part with a chamber, D, perforated at its top and bottom with holes, a, b, substantially as and for the purpose herein set forth.

41,532.—Fruit Jar.—Samuel J. Parker, Ithaca, N. Y.:

I claim, first, So shaping the neck of the jar, by a construction above the ring, that the stopper shall snap or automatically close, and be retained by the construction, as the jar is closed as described.

Second, I claim the special device of a capsule of vulcanized rubber cloth clamped over the cork core, substantially as described.

Third, I claim corrugating or otherwise roughening the inside surface of the jar cover cap, and also of the outside of the neck of the jar, so the corrugations shall retain the cover in place as described, and the same mutual corrugation of the same relative surfaces in all sorts of jars, as described.

Fourth, I claim the flat cam inclination, *jj a*, of the lower surface of the stopper, as described.

41,533.—Spring-bed Bottom.—Lyman E. Payne, Disco, Mich.

I claim the employment or use of straps, *E*, in combination with the springs, *C*, slats, *D*, and bedstead, *A*, all constructed and operating in the manner and for the purpose substantially as shown and described.

[This invention consists in combining a series of elastic slats and rubber springs with separate cross pieces detached from the head and footrests of the bedstead in such a manner that said head and post rails are prevented being sprung out of shape by persons laying on the bed.]

41,534.—Fountain Pen.—Joseph Reid, Fort Wayne, Ind.

I claim the arrangement of the ring valve, *e*, with the capillary tube, *b*, the pen, *B*, and fountain, *A*, in the manner herein shown and described.

[This invention relates to a new and improved fountain pen, those which are provided with an ink reservoir within a case and arranged in such a manner as to be self-feeding or self-supplying. The invention consists in the application to the ink fountain of a capillary tube provided with a valve and ink-conductor, and placed in such relation with the pen as to form a simple, efficient and economical article of the kind specified.]

41,535.—Artificial Leg.—H. D. Reinhardt, Baltimore, Md.

I claim, first, the peculiar shape of the hinge Fig. 6, with a thread cut on the pin projecting from the upper part of the hinge, and a nut to suit the thread, also a bolt or screw, Fig. 11, cut to suit the thread in the flange, for the use and purpose of connecting the foot and leg together.

Second, I claim the arrangement of india-rubber, *C*, under the projection letter, *G*, Fig. 7, *n*, a recess cut out for the purpose in the line of the metatarsal joints, and to act as a spring to keep the toes in their proper place and give to them their natural motion.

Third, I claim the arrangement of the blocks of india-rubber, *A* and *B*, as seen in Fig. 1, side sectional elevation, and used as springs to give the ankle joint a natural motion in combination with the peculiar shape hinge Fig. 6, and fitted in a recess above and near the ankle joint, resting below on the flange of the hinge, one block on each side as seen in Fig. 1, side sectional elevation in the cavity of the foot, constructed, arranged, and operated substantially as herein set forth.

41,536.—Puzzle for Children.—W. B. Rice, Feltonville, Mass.

I claim the employment or use of a series of blocks, *A*, marked on one side with a series of letters or figures, and on the opposite side with parts of a picture; said letters to form the key for the picture, substantially as and for the purpose shown and described.

A so as a new article of manufacture, the alphabet blocks, puzzle, and cottage, combined as herein specified.

[This invention consists in the employment or use of a series of blocks marked on one side with parts of a certain picture such as the doors and windows of a cottage, and on the other side with a consecutive series of letters or figures, such as the consecutive letters of the alphabet in such a manner that the letters or figures on one side form the key for the picture on the opposite side, and by following said key the blocks can be readily arranged or put up in the proper order so as to exhibit the picture.]

41,537.—Oil Can.—Eliphalet S. Scripture, Brooklyn, N. Y.

I claim the use or employment of the screw seat cup, *B*, in combination with the body, *A*, and spout, *C*, constructed as shown for the purposes fully set forth.

41,538.—Disintegrating and separating Vegetable Fibers.—George Escol Sellers, Sellers Landing, Ill.

I claim, first, the maceration of green vegetable substances under pressure from heat, combined with the incidental volatilization, to prepare them for the separation of the fibers from each other and from the non-fibrous portions of the plant.

Second, The loosening or disintegration by mechanical pressure, of the fibers and of the non-fibrous matter, so that by washing a complete separation may be effected, and both the fibrous and the non-fibrous portions may be preserved in their greatest integrity.

Third, The arundine or lignin, when separated from the cellulose, without other chemical agencies than heat and moisture, as a new article of commerce.

41,539.—Gig Saw.—Henry F. Shaw, West Roxbury, Mass.

I claim, first, revolving the saw or gate, by which the saw is strained and carried up and down, on a fixed axis around the saw, so that the stock, however long, may be turned, substantially as described.

Second, In combination with said revolving gate, or saw, the employment of a spring, *N*, substantially as set forth and for the purpose described.

41,540.—Knitting Machine.—Edward Shore, Conshohocken, Pa.

I claim the block, *D*, with its projecting ledge, *b*, or their equivalents, when arranged in respect to the needles and lifting wheel of a rotary knitting machine, substantially as and for the purpose herein set forth.

41,541.—Fence Post.—Charles R. Smith, Haverhill, N. H.

I claim, first, The foundation, *E*, formed of slabs, *e*, of tiles, facious stone, or any baked earthy cement, placed together in *V*-form, substantially as shown and described.

Second, The combination of the foundation, *E*, with the posts, *A*, braces, *D*, bars, *C*, and the wires, *d*, or their equivalents as and for the purpose herein specified.

41,542.—Drain.—George W. Smith, Springfield, N. J.

I claim a new article of manufacture the combination of the ootom drain plates or slabs, *A*, with the grooves, *C*, and the two inclined plates or slabs, *B*, *D*, constructed and put together substantially as described.

41,543.—Pump Valve.—Nathan Stedman, Aurora, Ind.

I claim the arrangement of the hollow piston, *E*, having the side perforation, *G*, and double-acting disk valve, *I*, seating alternately on apertures, *F* and *F'*, at the top and bottom of the piston, and confined to a motion in the line of its axis by a stationary rod, *J*.

41,544.—Method of hanging Saws.—R. L. Stewart, Owasso, Mich.

I claim the pitman, *I*, and pitman, *G*, when constructed to operate together in relation to the saw in combination with the cam, *J*, projection, *e*, convex plates, *g* and *h*, and cross bar, *f*, substantially as described and for the purposes set forth.

41,545.—Surface Condenser.—Alban C. Stimers, New York City.

I claim making the tube plate of a surface condenser so thick that a water-tight slip joint can be made around the tubes by a simple parallel expansion of them in the plate, and without the aid of stuffing boxes or other similar devices, substantially as described.

41,546.—Drill.—Wm. Stivers, New York City.

I claim a new article of manufacture the hand drilling machine constructed substantially as hereinbefore described.

[The object of this invention is an improvement on that class of boring or drilling machines, which are provided with a vertically adjusted carriage, furnished with arms to form the bearings for the bore spindle, and with an adjustable table, and which are particularly intended to drill holes of various depths, by hand, in wood or metal.]

41,547.—Reflector for Gas Lights, Lamps, &c.—James Stratton, Brooklyn, N. Y.

I claim as an improved article of manufacture a reflector for gas

lights, lamps, &c., having a body of cast or wrought metal with an enameled inner or reflecting surface, substantially as herein set forth.

[The object of this invention is to obtain a reflector for gas lights, lamps, &c., which will have a durable reflecting surface, one not capable of becoming tarnished and which may be kept in a clean state without any difficulty whatever.]

41,548.—Machine for treating Curved Spines.—Charles F. Taylor, New York City. Ante-dated Feb. 3, 1864.

I claim the two bars, *C*, *I*, connected together by the bars, *G*, *H*, so as to form a joint the bar, *C*, being fitted in a plate, *H*, or arranged in any other suitable manner so as to be adjustable, and the bar, *I*, provided with an adjustable plate, *J*, having the padded projection, *L*, and the adjustable padded slide, *K*, fitted to it, the above parts being used in connection with the cord, *M*, and the arm, *D*, and counterpoise, *E*, all arranged substantially as and for the purpose set forth.

[The object of this invention is to obtain a machine of simple construction which will operate in the most efficient manner for exercising certain muscles of the back in order to correct lateral curvature of the spinal column. To this end the invention consists in the employment or use of two oscillating or vibrating bars, one of which is adjustable and the other provided with an adjustable plate, having adjustable pads attached to it; the two bars aforesaid being connected by a jointed frame and the lower bar connected by a hinge or joint to the base of the machine, an arm and counterpoise; all being arranged in connection with a cord and pulley, to operate in a perfect manner.]

41,549.—Barometer.—John Thomson, Wayne, Ill.

I claim the application of a small globe of mercury, to form a movable stopper or partition within a tube of small bore, and therein acting as a barometer either by itself, or in combination with the well known mercurial barometer, and thereby forming a weather glass.

41,550.—Cultivator.—P. W. Thomson, Truro, Ill.

I claim the combination and arrangement of the plow beams, *E*, *E'*, pivoted at *x*, the standards, *N*, *N'*, the cross bar, *F*, provided with the bands, *a*, *a'*, and the lever, *L*, all constructed and operating substantially as and in the manner set forth.

41,551.—Connecting Tin Tubing.—A. R. Treadway & S. R. Warner, New Haven, Conn.

We claim the application of tin tubing to the purpose of heating by steam, when the different sections of the same are united by soldering to the parts of the couplings, substantially as herein specified.

41,552.—Shingle Sawing Machine.—William H. Walker, Fond du Lac, Wis.

I claim first, The arrangement of a circular saw, in horizontal position between two stationary bolt holders, or rectangular frames *R*, *R'*, between which it is driven to and fro in the sliding frame *F*, to cut a shingle at each revolution in the manner herein explained.

Second, The wheels *C*, *C'*, provided with friction rollers, *h*, in combination with the plate *L*, and operating in the concaves *G*, *G'*, when arranged substantially as and for the purpose set forth.

Third, The bars *h*, provided with the triangular cams *Q* and arranged substantially as shown, in relation with the shafts *c*, *c'*, for the purpose of raising and lowering the same to render the frame *F*, automatically operative, as may be desired.

Fourth, The tilting frames *M*, arranged as shown on the frame *F*, and provided with the plates *N*, having pawls *O*, attached in connection with the bars *h*, provided with the triangular cams *Q* and ratchets *K* all arranged to operate, as shown, for the purpose of inclining the bolts, so that the shingles may be sawed in taper form, and drop from their place.

Fifth, The arms *T*, attached to the sliding frame *F*, in combination with the weight *U*, or its equivalent for the purpose of operating the sliding dogs *S*, when used in connection with a circular saw mounted in a receding carriage, as set forth.

Sixth, The double wedge *A'*, placed on the upper part of the framing *A*, and arranged to operate by the movement of the saw frame *F*, substantially as and for the purpose specified.

[This invention relates to a new and improved shingle machine of that class in which saws are employed for cutting the shingles from the bolt. The invention consists in a novel means employed for feeding the bolt to the saw, and also in a novel means for adjusting the bolts whereby the same may be presented to the saw so that the shingles will be cut in taper form and the feeding device be capable of being operated either automatically or by hand as may be desired.]

41,553.—Washing Soap.—Henry Warren, Goshen, Ind.

I claim the new article of manufacture, a soap made of the ingredients as described, in the manner and in the proportions substantially as set forth.

41,554.—Wrench.—William Webster, Morrisania, N. Y.

I claim a combination of an ordinary wrench with an aperture in the movable jaw thereon, in combination with a distinct and separate bit for cutting or clamping, which may be adjusted to said jaw and charged at pleasure by means of said aperture, substantially as described.

Second, The manufacture and use of the clasp *C*, and the cutter *B*, when constructed as described.

Third, The use of the cutter *B*, or clasp *C*, when made separate from the wrench and combined therewith substantially as set forth.

Fourth, I claim in combination with a wrench constructed substantially as described, a clasp, knife, or cutter upon the face of a movable jaw thereof, whether said clasp, knife or cutter be in one piece with, or made separate from, saw jaw, for the purpose set forth.

41,555.—Cultivator.—Samuel G. Welch, Athens, Ill.

I claim the bar *F*, having the draft pole *G*, attached, supported by the castor wheels *I*, *I'*, and connected to the frame *A*, by levers *D*, *D'*, the back ends of which are connected to the bar *E*, having a lever *H*, secured at its ends and all arranged so as to admit of the raising and lowering of the plows and the lateral adjustment of the draught pole relatively with the body or main portion of the machine as set forth.

41,556.—Harvesting Machine.—Cyrenus Wheeler, Jr., Poplar Ridge, N. Y.

I claim the gear block, carrying a gear wheel, constructed in the form and operating in the manner substantially as described.

I also claim making the main frame when constructed in one piece with three bearings for the main axle, substantially as and for the purpose described.

I also claim the combination of the sleeves of the gear block with the journal axes of the main frame when the gear block and sleeves are constructed in one piece, substantially as described.

I also claim the segment rib on the sleeve of the gear block in combination with the lip on the main frame, for preventing lateral play to the gear block, substantially as described.

I also claim connecting the tongue to the gear block constructed in one piece by a recess formed in the gear block on its under side, for the purpose of lowering the draught, substantially as described.

I also claim the combination of the standard and brace-rod for additional support to the main frame, substantially as described.

I also claim the two ears on the lower side of the rear corners of the main frame, in combination with the long bolt, for the purpose of connecting the hinge piece, and as an additional support to the rear part of the main frame, substantially as described.

I also claim the combination of the lifting devices mounted on the standard of the gear block and the standard of the main frame, united by a flexible connection, substantially as described.

I also claim the combination of the weighted dog with the lifting device, so as to hold the lifting device in a fixed position when the main frame is raised, and so that the operator can with his foot release the dog from the lifting device at pleasure for the purpose of lowering the main frame, substantially as described.

I also claim mounting two driving wheels on the main gear wheel, and the bevel wheel on the main axle, substantially as described.

I also claim mounting the main gear wheel, bevel wheel and pinion locking with it, on the main axle, substantially as described.

I also claim communicating motion from the main gear wheel to the bevel wheel on the main axle, by a shaft mounted in bearings on the gear block carrying a pinion gearing with the main gear wheel, and a spur wheel gearing with the pinion on the main axle, substantially as described.

I also claim the combination of gearing, whereby the bevel wheel and its pinion mounted on the same axle with the main gear wheel

shall revolve in the same direction as the main gear wheel, substantially as described.

I also claim mounting the bevel wheel having a sleeve provided with a clutch, and the pinion having a sleeve and clutch both on the main axle, and so arranging and combining them with the main frame and gear block, as that the pinion may be moved longitudinally on the main axle for the purpose of clutching the pinion with, and unclutching it from the bevel wheel, substantially as described.

I also claim mounting the bevel wheel on a sleeve on the main axle, in combination with the main frame vibrating independently of the gear block and carrying a counter shaft having a pinion gearing with said bevel wheel, substantially as described.

I also claim the arrangement of the lever, slide and spring, by which the clutching and unclutching of the pinion with the bevel wheel is performed, substantially as described.

I also claim in combination with a main frame vibrating independently of the gear block, mounting the foot-board and seat on the gear block, and fastening the tongue to the under side thereof, substantially as described.

I also claim the longitudinal lever fastened to the gear block in combination with the transverse lever pivoted to the shoe for the purpose of raising the outer end of the cutting apparatus, substantially as described.

I also claim the combination and arrangement of the longitudinal and transverse lever with the gear block, main frame, and cutting apparatus, so that the cutting apparatus can be folded up and fastened, without detaching any part of the machine, substantially as described.

I also claim the combination and arrangement of the lifting devices with the gear block and main frame, and the longitudinal and transverse levers with the cutting apparatus, so that the cutting apparatus may be raised from the ground at pleasure by the operator from his seat, substantially as described.

41,557.—Harvesting Machine.—Cyrenus Wheeler, Jr., Poplar Ridge, N. Y.

I claim the combination of the triangular frame with the main frame substantially as set forth, with a seat and lifting device mounted thereon, so that by the arrangement of the transverse lever with the triangular frame and cutting apparatus, the driver can when in his seat raise the cutting apparatus from the ground at pleasure, substantially as described.

I also claim the combination and arrangement of the triangular frame, with the main frame, transverse lever, and cutting apparatus, so that the cutting apparatus when divested of the reel and platform, may be folded up and fastened without removing any part of the machine, substantially as described.

I also claim the combination and arrangement of the two seats, and the two lifting devices, with the other parts of the mechanism, with which they act, so that the operator can when occupying either seat on the machine raise the cutting apparatus at pleasure, substantially as described.

I also claim the triangular frame carrying the seat and lifting devices so arranged and connected to the main frame that it with the seat and lifting devices mounted thereon can be detached from the main frame at pleasure without interfering with the organization of the machine, or its effectiveness as a mower, substantially as described.

41,558.—Harvesting Machine.—Cyrenus Wheeler, Jr., Poplar Ridge, N. Y.

I claim the construction of the outside shoe with a flange for connection of the supporting bar, in combination with an ear or flange for connecting the other end of the bar firmly to the inner shoe, substantially as described.

I also claim driving a reel that has its support on a hinged cutting apparatus or table, by an endless band passing from the driving pulley over the sheaves or pulleys arranged near the foot of the inner reel support, so that the rotation of the reel pulley relative to the driving pulley, caused by the varying positions of the cutting apparatus and platform in passing over uneven ground, shall not change the tightness of the band, or cause it to be thrown from the driving or driven pulley, substantially as described.

I also claim the arrangement of the cutting apparatus and platform in combination with the reel band arranged over the pulleys at the foot of the inner reel support so that the cutting apparatus, applied to the main frame can be rotated on its axis at the pleasure of the operator without changing the length of the band or interfering with the operations of the reel supported on the cutting apparatus, substantially as described.

I also claim the arrangement of the reel band, the pulleys, and the reel, having its support on the hinged cutting apparatus in relation to the driving pulley and the main frame, so that the cutting apparatus can be raised for cutting any desired height, and the points of the cutters elevated or depressed at pleasure without varying the tightness of the band or interfering with the motions of the reel, substantially as described.

I also claim sustaining the inside reel support by both the table bar and the shoe, substantially as described.

I also claim supporting the reel shaft by three bearings, said reel shaft and bearings being all arranged on the hinged portion of the machine, substantially as described.

I also claim making the outer bearing on the outer reel post, and the outer reel post itself, for supporting the reel shaft, self-adjusting in relation to the other reel shaft supports, substantially as described and represented.

41,559.—Harvesting Machine.—Cyrenus Wheeler, Jr., Poplar Ridge, N. Y.

I claim in combination with the track-board, the standard on the tongue, as a fastener for the cutting apparatus when folded up, substantially as described.

I also claim in combination with a shoe which has support for the grass or grain both above and below the cutter, the ledger plate connected with it and held firmly in place by the finger bar, substantially as described.

I also claim in combination with a guard finger having a support for the grass or grain both above and below the cutter, the ledger plate locking with it as described (said ledger plate having a shank so arranged that it will lock under the edge of the finger bar, when the guard finger is in place, and the bolt fastening it to the finger bar holds both the guard and the ledger plate in position), a cutter, the bar of which is on the under side, and is placed over the finger bar, substantially as described.

I also claim in combination with the cutting apparatus the arrangement of the several parts composing the swivel connections of the pitman and crank, for operating said cutting apparatus, substantially as described.

41,560.—Folding Saw-horse.—Enoch Whittemore, North Paris, Maine.

I claim the portable folding saw-horse as made of the two jaw frames, *A*, *B*, and the brace frame, *D*, arranged and combined together in manner and so as to operate substantially as specified.

I also claim the improved folding saw-horse, as made not only of the two jaw frames, *A*, *B*, and the brace frame, *D*, but with the folding platform, *F*, the whole being substantially as specified.

I also claim the portable folding saw-horse as made not only of the two jaw frames, *A*, *B*, the brace frame, *D*, and a folding platform, *F*, but as having a spring, *g*, or its equivalent applied to the platform and so as to operate one of the jaw frames in manner as specified.

41,561.—Box or Case for Oil-stones.—G. O. Wichers, Lawrence, Mass.

I claim a box or case for oil-stones composed of two cast-metal parts, *A*, *B*, one of which, *A*, is provided internally with projections, *a*, *b*, and a set screw, *C*, or its equivalent for holding the stone in position and admitting of an oil passage all around it, and the other, *B*, made to serve as a cover, substantially as set forth.

I further claim the knife-edged projections, *c*, *d*, when used in combination with and formed on or cast with the parts, *A*, *B*, for the purpose specified.

41,562.—Cultivator.—Joseph Wilhelm, Muscatine, Iowa.

I claim having the arms, *a*, *a'*, jointed at the center, and combined with the clevis, *c*, in the manner and for the purpose herein shown and described.

I also claim the arrangement of the spring latch, *g*, with the beam, *A*, and arms, *D*, *D'*, in the manner and for the purpose herein shown and described.

[This invention relates to an improvement in that class of cultivators which are constructed with two wings hinged together and arranged so that they straddle one row and that they can be expanded or contracted at pleasure, according to the width of the furrows through which the cultivator is intended to pass.]

41,563.—Bearing for Car Axles and Shafting.—Christopher Williams, Adrian, Mich.

I claim a bearing for car axles, and the shafting of machinery generally, composed of two parts, *A*, *C*, one of which is provided with a projection, *B*, in the form of a section of a sphere, and the other provided with a corresponding recess, *D*, to receive the projection, *B*, substantially as add for the purpose herein set forth.

[This invention consists in constructing the bearing of two parts

one of which is provided with a projection in the form of a portion of a sphere, and the other part provided with a corresponding cavity to receive said projection, whereby the bearing is made or allowed to adjust itself to the shaft, in case the latter assumes an inclined or an oblique position. The invention is especially applicable to railroad car trucks, which in consequence of being frequently strained, leave their axles more or less inclined, which contingency with the ordinary bearings cause the journals to heat. The bearings of any shafting frequently wear unevenly in which case the journals are sure to heat with the ordinary bearings, a difficulty which is fully obviated by my invention.]

41,561.—Mode of discharging Vessels.—Garret E. Wintens, New York City:
I claim the raised platform, f, extending over the space occupied by the ear or cart, in combination with the hinged plank, g, extending to the vessel containing the earth, manure, or similar material, for the purpose and as specified.

41,565.—Separating and collecting Gold and Silver Amalgams.—S. W. Wood, Cornwall, N. Y.:
I claim separating the amalgam from the pulverized rock by centrifugal force imparted to the vessel in which it is contained, the same acting in conjunction with gravity to gather and collect in a mass, the amalgam at the periphery of the vessel, substantially as herein specified.

I also claim introducing the material through the spout, D, or its equivalent, so as to bring it to the bottom of the vessel before being subjected to the centrifugal action thereof.

I also claim discharging the refuse rock and the water by overflowing at the upper edge of the vessel, the said overflowing being produced by the centrifugal force acting against that of gravity, substantially as herein set forth.

I also claim the annular troughs, ledges, or plates, on the inner periphery of the revolving vessel, substantially as and for the purpose herein set forth.

41,566.—Harvester.—Alden B. Briggs (assignor to himself and Dexter Childs), South Deerfield, Mass.:
I claim in a harvesting machine having two driving wheels, a compound frame consisting of an outside frame and an inside frame, and both frames connected to the axle of the driving wheels, the finger bar being attached to the outside frame, and located forward of the driving wheels, and the draft pole being attached to the inside frame so that when the finger bar is folded, it will cross the draft pole, and hold the two frames together as set forth.

41,567.—Water Wheel.—Roswell R. Brooks (assignor to himself and G. H. Horton), Weedsport, N. Y.:
I claim the combination of the gate, E, with the extremity of the partition plate, C, in the manner herein shown and described, so that when said gate is open it will form a continuation of the plate, C, and will at other times simultaneously regulate the flow of the water through both of the compartments, c, c', all as set forth.

[This invention relates to a new and improved water-wheel of that class in which the wheel is placed on a vertical shaft, enclosed within a scroll and the water discharged at the outer part of the wheel instead of at the center.]

41,568.—Neck Scarf and Collar Supporter.—James A. Bushee (assignor to himself and George R. Eager), East Boston, Mass.:
I claim a collar and scarf supporter made substantially as described and combined with a collar and scarf, in manner and for the purpose as explained.

41,569.—Cultivator.—Arlon M. Cook (assignor to himself, Artemas B. Vant & Horace Cook), Chicago, Ill.:
I claim, first, The combination and arrangement of the evener, B, the bent levers, a, a, and the draught rods, c, c, with draught pole, A, and axle, H, all arranged and operating substantially as and for the purposes herein delineated and set forth.

Second, I claim the combination and arrangement of the U-shaped strap, d, the screw, f, the roller, e, e, with the adjustable bars, F, and the levers, I, constructed with curved ends, substantially as and for the purposes herein shown and specified.

41,570.—Spring Rocking-horse.—Jesse A. Crandall (assignor to Mary Crandall), New York City:
I claim mounting the horse or equivalent riding frame on a rocking shaft mounted substantially as herein described, in combination with the springs placed in front and behind the rocking shaft, substantially as herein described, the spring or springs on one side of the rocking-shaft yielding to and resisting the impulse given in one direction, and the spring or springs on the opposite side yielding to and resisting the impulse given in the opposite direction, substantially as specified.

And I also claim connecting the horse or equivalent rocking frame, with the arms of the rock-shaft or equivalent thereof, at one end, by a hinged or turning joint, and by a notched sector, or equivalent thereof, substantially as described, by means of which the inclination of the horse or riding frame relatively to the base frame, can be readily increased or decreased, as set forth.

41,571.—Box Plane or Scraper.—A. F. Cushman, Hartford, Conn., assignor to Horace B. Langdon, New York City, and Rollin J. Ives, Bristol, Conn.:
I claim a box plane or scraper constructed with a cast-iron stock, A, adjustable knife, D, and screw clamp, E, all as herein shown and described.

[This invention consists in a box plane or scraper with a cast-iron curved stock and slotted grooved head, to which the knife is secured by a screw clamp in such a manner that the same can be adjusted to take fine or coarse chips, and that it can readily be taken out and sharpened or replaced by another. Said knife is made with four cutting edges, each of which can be brought in a working position. For information in regard to this invention address H. B. Langdon, 13 Park Place, New York City, or R. J. Ives, Bristol, Conn.]

41,572.—Sewing Machine.—Albert Eames & Clark Marsh, Bridgeport, Conn., assignors to the Wheeler & Wilson Manufacturing Company:
We claim the combination of an eye-pointed needle, and a bobbin with a rotating hook so shaped substantially as described, a to have the mode of operation substantially as herein set forth, whereby a pad is dispensed with in making a lock or shuttle stitch.

41,573.—Lock.—Henry H. Elwell, South Norwalk, Conn., assignor to the Norwalk Lock Company:
I claim the peculiarly-shaped lever, E, pivoted to the lock case as described, in combination with the hub, B, spring, F, and latch-bolt, C.

[This invention relates to an improvement in the means employed for actuating the latch-bolt, whereby a better leverage power is obtained than by the old plan or arrangement and a more uniform spring allowed to be used and a very desirable lock obtained.]

41,574.—Hand-car Crank.—Phillip Groel, Meadville, Pa., assignor to L. E. Holden, Cleveland, Ohio:
I claim, first, The reversible ratchet, B, made in the manner and for the purpose substantially as specified.

Second, The piston, C, made in the manner and for the purpose substantially as specified.

Third, A reversible hand-car crank composed of the following devices, the notched ratchet, A, the reversible ratchet, B, the piston, C, in combination with a spring either elastic or metallic, a lever arm or common crank connected with a shaft to which power is to be communicated, substantially as specified.

41,575.—Fruit Jar.—Elbridge Harris, Boston, Mass., assignor by mesne assignments to Wm. W. Lyman, West Meriden, Conn.:
I claim, first, Forming a groove or depression in or around the neck of a vessel, for the retention of an elastic ring or band (impervious to air), substantially as and for the purpose described.

Second, I claim the employment of an elastic ring or band, when used between the rim of a cover and the neck of a vessel, substantially as and for the purpose described.

Third, I claim as a new article of manufacture, fruit jars composed of the rim cap, G, G', elastic ring or band, B, and jar or vessel, D, substantially as and for the purpose described.

41,576.—Composition for Gunpowder, &c.—Edward Harrison (assignor to R. W. W. Simpson), New York City:
I claim the gunpowder or explosive compound herein described, composed of ordinary gunpowder and amorphous phosphorus.

[By this invention the strength of gunpowder is very much increased.]

41,577.—Inflammable Composition for filling Projectiles.—Edward Harrison (assignor to R. W. W. Simpson), New York City:
I claim the within-described inflammable or incendiary compound composed of gunpowder, amorphous phosphorus, and bi-sulphide of carbon.

[This compound is intended for incendiary shells. It can be made to burn more or less slowly by varying the proportions of its component parts.]

41,578.—Explosive Composition.—Edward Harrison (assignor to R. W. W. Simpson), New York City:
I claim an explosive compound composed of chlorate of potash, charcoal, prussiate of potash, and starch of flour, with or without cyanuret of zinc, substantially as herein specified.

[This compound is said to be much stronger than ordinary gunpowder, and owing to the absence of sulphur, the danger resulting from the use of chlorate of potash in gunpowder is obviated.]

41,579.—Cooking Stove.—Zebulon Hunt, Hudson, N. Y., assignor to himself and Wm. J. Miller, Greenpoint, N. Y.:
I claim in the back flues of elevated ovens, the trough-shaped flue-piece, A, combined with the projection, C, to complete the flue, and with the damper, B, situated at the bottom of the flue, as above described.

41,580.—Safety Valve Arrangement.—Wm. S. Huntington, Andrusville, N. Y., assignor to himself and James Robertson, Alexandria, Va.:
I claim, first, The combination of the levers, C, I, rods, E, L, M, spring pawl, K, and cam, N, operating in the described connection with the circular guide, H.

Second, I claim the combination with the spring-balance, D, of the lever, I, spring pawl, K, and notches, h, for the purpose explained.

41,581.—Machinery for finishing Cloth.—Henry James, Norwalk, Conn., assignor to himself, N. S. Seely, Stamford, Conn., and Wm. H. Seely, Brooklyn, N. Y.:
I claim the combination of the two brush cylinders, E, F, the system of guide-rollers, a, a, b, and the three interposed calendaring rollers, the whole arranged and operating substantially as herein specified.

[This invention consists in a novel arrangement and combination of brush cylinders, calendaring and embossing rollers, and guide rollers, constituting a very effective and simple machine for finishing, embossing, and refinishing cloth and other fabrics.]

41,582.—Yarn Guide for Spinning Machines.—Edmund Lord (assignor to himself and Sidney Buckley), Taunton, Mass.:
I claim the improved yarn-guide as made with or having combined with its eye, a notched projection, a, arranged relatively thereto, substantially in the manner and for the purpose herein specified.

And I also claim the guide as made with the notched projection, a, and with its eye-formed with the auxiliary bend, f, and in other respects substantially as represented in the accompanying drawings.

41,583.—Machine for splitting and stripping Leather.—Caleb S. Stearns (assignor to himself and Thomas Corey), Marlborough, Mass.:
I claim the combination and arrangement of the drum, B, and its grasping mechanism, the spring presser, D, and the splitting knife, C.

I also claim the combination and arrangement of the drum, B, and its grasping mechanism, the spring presser, D, the knife, C, the auxiliary knife or guide shear, G, the two rollers, E, F, and the series of knives, H, H, the whole being substantially as described.

I also claim the arrangement of the knives, H, H, with respect to the rollers, E, F, so as not only to extend between the rollers, but into grooves in each, in manner substantially as specified, whereby the knives, besides being supported by the rollers, have their cutting edges brought close up to the bite of the rollers.

41,584.—Lasting Tack.—Luther F. Thayer, Randolph, Mass., assignor to Wm. Faxon, North Bridgewater, Mass.:
I claim the improved lasting tack, as made with its head round or curved and having flat sides arranged with respect to the same in manner substantially as described.

41,585.—Rock-breaking Machine.—James B. Wayne (assignor to himself and Henry M. Robinson), Detroit, Mich.:
I claim, first, The use of a separate lowering-down cam, b, Fig. 1, substantially as described, for lowering down the clutch, C.

Second, I claim the link, d, Fig. 1, or its equivalent in connection with the sleeve, C, one end pressing against the die, h, in an upward direction and the other end fitted with a pin, d', resting on cushions, g', g', of india-rubber or their equivalent and pulling against the sleeve, C', thereby avoiding any outward or breaking strain on sleeve, C', but producing an inward pressure at each end of link, d, substantially as described.

Third, I claim the use of roller, E, Fig. 1, in connection with link, d', and lowering-down cam, b, thereby destroying the tendency to friction as is the case in working against a flat surface as in use now.

Fourth, I claim the use of an inclined guide, f, Fig. 5, thereby allowing the rod or stem, i, Fig. 1, to move on its axis at every upward motion of the assembly, and cam, a, as substantially as described.

Fifth, I claim the use of a corrugated die, h, Fig. 6, in connection with sleeve, C', and link, d, Fig. 1, substantially as described.

41,586.—Steam Engine.—Robert D. Wright (assignor to himself and L. B. Holland), St. Louis, Mo.:
I claim, first, The combination and arrangement of the cylinder, A, piston-head, b, pipes, g, g', h, h', and valve, e, all being constructed and adjusted to operate substantially as herein described for the purposes set forth.

Second, I claim operating pumps constructed as herein described, by means of reciprocating steam cylinders, having direct attachments to the water cylinders, and being thereby arranged to operate as and for the purposes set forth.

41,587.—Game Cards.—Cyrus W. Saladee, Paducah, Ky.:
I claim, first, The combination of a number or letter with an emblem of the designation of the various denominations of playing cards, substantially as herein specified.

Second, Placing the device for designating the card in a corner or margin of the card, for the purposes herein specified.

RE-ISSUE.

1,616.—Sewing Machine.—C. S. Patterson, E. Pincus, A. Hart, M. Moore, A. Mitchell & H. H. Reed (assignees of E. A. Goode & E. L. Melker), Philadelphia, Pa. Patented July 26, 1859:

We claim, first, The loop-catcher or needle, b, so constructed, so arranged on a sewing machine, and having such a motion imparted to it that it will hold a loop of thread, and convey the same from the underside of the fabric and across the edge of the same as set forth.

Second, The combination of the needle or loop-catcher, b, the eye-pointed needle, n, and the hook, h, or its equivalent, the whole being arranged for joint action, substantially as and for the purpose set forth.

Third, The combination of the eye-pointed needle, n, the needle or loop-catcher, b, the hook, h, and tongue, L.

NOTE.—In the above list of claims we recognize the names of FORTY-ONE patentees whose specifications and drawings were prepared at the Scientific American Patent Agency.

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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 my 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 individuals 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.

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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.

HOW TO MAKE AN APPLICATION FOR A PATENT.

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

Patents are now granted for SEVENTEEN years, and the Government fee required on filing an application for a patent is \$15. Other changes in the fees are also made as follows:—

On filing each caveat.....	\$10
On filing each application for a Patent, except for a design.....	\$15
On issuing each original Patent.....	\$20
On appeal to Commissioner of Patents.....	\$20
On application for Re-issue.....	\$30
On application for extension of Patent.....	\$50
On granting the extension.....	\$50
On filing a Disclaimer.....	\$10
On filing application for Design (seven and a half years).....	\$10
On filing application for Design (three years).....	\$15
On filing application for Design (fourteen years).....	\$30