

BOOKS AND PUBLICATIONS.

INTERNAL REVENUE LAWS—As Amended by the last Congress. With Copious Marginal References. A Complete Analytical Index and Tables of Taxation. Compiled by Horace Dresser.

This is a very valuable publication, and ought to be in the hands of all who wish to be informed of our internal revenue tax system. It is published by D. Appleton & Co., No. 443 Broadway, New York.

INCOME RECORD. A List giving the Taxable Income of Every Resident of New York.

This work has just been issued by the American News Company, No. 121 Nassau street. Price, 75 cents. We select a few of the names of those who paid tax on the largest incomes:—

Table listing names and taxable income amounts, such as A. T. Stewart, L. C. Clark, W. B. Astor, etc.

We shall all agree that these men ought to enjoy a comfortable living, but it would doubtless appear on examination that they are less happy than the same number of industrious mechanics picked out at random in any of the trades of this city.

A SUCCESSFUL COMMANDER.

Gen. Grant is the only one of our great commanders who has actually compelled, through the combined agency of stubborn fighting and strategical skill, the surrender of rebel armies. Thomas nearly annihilated Hood in Tennessee; Sheridan nearly did the same thing to Early's army in the Shenandoah Valley, while Sherman has always outgeneraled his antagonist in a manner that places his name among the great military chieftains of history.

THE YANKEE NUT-CRACKERS.—The Richmond correspondent of the London Times, February 16th, predicts "that General Lee's army will be a hard nut to crack, which will severely try the jaws not only of General Grant, but General Sherman."

[It's squeezed.—Eds.]

BREAKING ROCK BY FIRE.—The ancient method of breaking rocks by fire, has lately been revived at the Rammelsberg Mine, in the Hartz Mountains. In a portable furnace about one and a half bushels of coke burn from 4 P. M., to 5 A. M.; when the furnace is removed, and the rock left to cool, after being sprinkled with water.



ISSUED FROM THE UNITED STATES PATENT-OFFICE FOR THE WEEK ENDING APRIL 11, 1865. Reported Officially or the Scientific American.

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

47,177.—Manufacture of Ordnance.—Horatio Ames, Falls Village, Conn.

I claim, First, Making the interior ring, a, of a combined series, out of solid metal, and without a weld, substantially as and for the purpose described.

I also claim making the section of a series of concentric rings, of which the inner one is longer than the one outside of it, substantially as and for the purpose described.

I also claim welding the sections to the mass during one and the same heat, by means of two hammers or rams, one working horizontally and the other vertically, substantially as described.

I also claim combining with the centralizing or matching pin, G, the arms and handles, h, by which it is more readily operated, held and withdrawn, substantially as described.

47,178.—Lazy Jack for Vessel's Sails.—Daniel R. Arnold, Haddam, Conn.

I claim a revolving lazy jack surrounding the boom, sail and gaff, substantially as set forth and described.

47,179.—Staging for Buildings.—Wm. Arronquier, Worcester, Mass.

I claim the construction of the supporting bars and platform, and their combination with the ladders, forming a staging, as described.

47,180.—Boiler Feeder.—J. W. Bishop, New Haven, Conn.

I claim the combination of the vessels, B and D, diaphragm, c, or its equivalent, with a steam boiler supplying pumps, when constructed and arranged to connect or disconnect the power operating said pump, as and for the purpose substantially as herein set forth.

47,181.—Automatic Boiler Feeder.—J. W. Bishop, New Haven, Conn.

I claim the combination of the vessels, B and D, diaphragm, c, or its equivalent, with inlet and exit pipe, C and M, constructed and arranged to operate a valve, A, substantially as and for the purpose specified.

47,182.—Steam Trap.—J. W. Bishop, New Haven, Conn.

I claim the combination of the vessels, B and D, diaphragm, c, with a water tank or reservoir and steam boiler, constructed and arranged to operate the valves connected therewith, substantially as and for the purpose herein set forth.

47,183.—Low-water Indicator.—J. W. Bishop, New Haven, Conn.

I claim, First, The combination of the two vessels, B and D, arranged as described, with a diaphragm, c, or its equivalent, in the manner and for the purpose substantially as herein set forth.

Second, The combination of the vessels, B and D, diaphragm, c, or its equivalent, with a steam boiler, when arranged to operate substantially as and for the purpose specified.

47,184.—Water Regulator.—J. W. Bishop, New Haven, Conn.

First, I claim the valve, C, when constructed with a hollow stem, and combined with chambers, F and G, substantially as and for the purpose herein set forth.

Second, Adjusting the pressure of water in pipes by means of the chamber, G, and cocks, L and M, substantially as herein specified.

47,185.—Skate.—Daniel S. Brigham, Worcester, Mass.

First, In combination with the supporting plates, A, B, the clamp bolts, E, G, and lock, H, of the heel and sole, substantially as and for the purpose described.

Second, Providing one or both of the catch bolts, E, G, with a pin which enters the leather of the sole or heel, to prevent any longitudinal motion of the skate, substantially as herein described.

Third, The application to a yielding or elastic runner of the adjusting screw, I, for the purpose of making the bottom part of the runner, J, following, substantially in the manner described.

47,186.—Fanning Mill.—J. K. Buck, Winona, Minn.

I claim the combination of the elevator, B, shaft, e, provided with the pulley, d and wheel, b, with the driving wheel, a, when all the parts are arranged to operate as and for the purpose herein set forth.

47,187.—Saw-set.—John Ruser, Philadelphia, Pa.

I claim, First, The pinchers, A, with their jaws, b b', and cheeks e, e, combined with the within-described devices, or their equivalent, substantially as and for the purpose specified.

Second, Adjusting the pressure of the jaws, b, b', in combination with the pinchers, A, and springs, g, g, or their equivalents, the whole being constructed for joint operation, substantially as described.

47,188.—Composition for Removing Scale from Boilers.—Jacob Buzby, Philadelphia, Pa.

I claim the use for removing scale from steam boilers of a decoction of the bark of the sweet gum tree, in combination with a solution of gamboge or catechu.

47,189.—Gas Regulator.—Charles M. Cresson, Philadelphia, Pa.

I claim the use in a gas regulator of a holder of the tapering form herein described, for the purpose specified.

47,190.—Machine for Spinning Flax.—Caleb S. Davis, Lancaster, Pa.

First, I claim the direct application of steam to the rovings, in their passage through a chamber, J.

47,192.—Press.—Hezekiah Dodge, Albany, N. Y.

First, I claim the combination of the right and left hollow screw, E, fixed screw, G, and movable screw, F, with the follower, D, substantially as and for the purposes described.

Second, The stationary and movable right and left screw shafts, F and G, hollow screw, E, and spur wheel, C, with the driving spur wheel and shaft, B, B', substantially as described.

47,193.—Pump.—Wm. Foster Dodge, New York City.

First, I claim the cylinder cover, C, the air chamber, D, and the covers for the two side pipes, when such parts are united with the cylinder, A, and side pipes by a single plane joint, substantially as described.

Second, In combination with the air chamber, arranged directly over the cylinder, and with the stuffing box on the top of the so-arranged air chamber, I claim the tube, E, surrounding the piston rod, connecting the top of the air chamber with the cylinder cover, and isolating the piston rod and stuffing box from the air chamber, substantially as and for the purpose herein specified.

47,194.—Apparatus for Withdrawing Tubes from Wells.—Wm. H. Downing, Philadelphia, Pa.

First, I claim the jaws or arms, A, A', having projections, a, a', and adapted to be opened or spread by the spring, F, and lever, G, when lowered into the tubing of a well, for the purpose of taking hold of and raising the same, substantially as herein set forth.

Second, I claim the combination of the toggles, C, C', yoke, C', and cord, D, for contracting the jaws, A, A', when the apparatus is to be withdrawn from the tubing, as explained.

Third, I claim the detachable cap, E, employed to retain the jaws, A, A', in their closed position while the apparatus is being lowered into the tubing, substantially as described.

[This device consists essentially of two pivoted jaws, having teeth or sharp projections on their outer faces, adapted to indent or penetrate the metal tubing to be withdrawn from oil wells. The jaws are thrown forcibly open to make the teeth catch the tube, by means of a spring and a lever, the latter being made to operate by means of a cord pulled by hand, which throws the end of said lever against the two jaws, opening them and forcing them toward the sides of the pipe with great force.]

47,195.—Upper Bearings or Bolsters for Spindles of Spinning Frames.—Mexworth D. Drake, Providence, R. I.

First, I claim the use and employment of an upper and lower groove in the oil chamber in the bore of the bolster, in combination with the use and employment of a spiral or helical groove, substantially as described.

Second, The use and employment of a spiral groove in the bore of the bolster, in combination with a groove, a, at the bottom, whether the top groove is used or not.

47,196.—Piano-fortes.—Spencer B. Driggs, New York City.

First, I claim the sounding chamber, B, provided under the case proper of the piano forte, substantially as and for the purpose herein specified.

Second, Connecting each or any one of the strings with the sound-board bridge independently of the other strings by means of two metal bearings, t, m, constructed or provided on or in one side of a stud, n, or p, secured in the bridge and having between them a lateral opening through which the string can be inserted in a lateral direction substantially as herein described.

47,197.—Wardrobe Bedstead.—John Eby, Muncie, Ind.

I claim the combination and arrangement of the posts, A, A, C, C, and F, bars, B, B and G, rails, D and E, doors H and K, with the elevating board, P, and table, T, the whole being constructed as described for the purpose specified.

47,198.—Composition and Manufacture of Iron.—Alexander H. Everett, New York City.

First, I claim the combination of cast iron, wrought iron, oxide of manganese, oxide of iron and fluor-spar or other fluoride as and for the purposes set forth.

Second, The combination of cast iron, magnetic iron ore, oxide of manganese and fluor-spar or other fluoride substantially as set forth and described.

Third, The process herein described for improving the qualities of cast iron.

47,199.—Tobacco Pipe.—George W. Francis and Wm. L. Woods, Washington, D. C.

We claim, first, The combination of case, A, with its air holes, F, F, the bowl, B, and its nipple, D, the cap, C, the grooves, G, and air chamber, X, substantially as described.

Second, The combination of the bowl, B, and cap, C, with its air holes, F, substantially as described.

Third, The bowl, B, with its nipple, D, and cap, C, when arranged and operating substantially as described.

47,200.—Pumps.—Kingston Goddard, Philadelphia, Pa.

I claim the construction and arrangement of the tubular and perforated piston rod substantially as described.

47,201.—Machine for Rolling Tea Leaves.—Kingston Goddard, Philadelphia, Pa.

I claim the machine substantially as described which submits the leaves to the rolling action of the two described rollers.

47,202.—Method of Preserving Eggs.—Wm. Hansford, San Francisco, Cal.

I claim the coating of eggs with glue substantially as and for the purposes herein recited.

47,203.—Fence.—Davis Harvey, Jackson Township, Iowa.

I claim placing upon any common fence a panel, or board projecting outward and upward for the purpose of preventing dogs and wolves from getting to sheep.

47,204.—Tonic Bitters.—Isaac Hellman, St. Louis, Mo.

I claim the combination of the several ingredients mentioned in the foregoing specification in the proportions and for the purpose set forth.

47,205.—Apparatus for Generating Carbonic Acid Gas.—Peter and Frederick Hinkel, New York City.

We claim, first, the long necked jar, l, hose, r, or their equivalents and the air tight connection between them and the cover of a gas generator, A, as described or its equivalent.

Second, We further claim the sliding bar, m, the wires, w, w, or their equivalents and the connection of them with jar, l, hose, r, and cover, A, in the manner fully described or its equivalent, and for the purpose set forth.

47,206.—Wash Board.—Nelson Homes, Laona, N. Y.

I claim the wash board composed of the plane edged slats or bars, B, B, fitting closely together so as to prevent the leakage of water through, and having a necessary degree of elasticity, said slats being provided with corrugations, a, a, b, b, so arranged that the corrugations of anyone slat alternate with the next substantially as and for the purpose described.

47,207.—Instrument for Lighting Gas.—Thomas W. Houchin, Morrisania, N. Y.

In combination with the tube, A, I claim the use or employment of the wick or taper, B, cord or string, C, and attachment, D, when the frame shall be constructed and combined substantially as shown for the purpose specified.

47,208.—Straightening Rails of Railroads.—John Johnston, Alexandria, Va.

I claim the use for straightening rails of three or more pairs of rollers having depressions and projections conforming to the shape of the rails, the rollers themselves as well as the said depressions and projections of the several pairs being arranged in respect to each other as set forth.

47,209.—Machine for Pressing Brick.—John K. Lemon, Allegheny City, Pa.

I claim a brick press which employs a pressing follower, C, and a movable supporting follower, b, which are so combined and operated that the latter is allowed to descend by its own gravity during the introduction of a brick into the press box, and to rise during the retrocession of the pressing follower, C, substantially as herein described.

Second, A spring, d, or its equivalent for elevating the follower, b, in combination with the crosshead, E, and rods, f, f, of the frame, C', for allowing the follower, b, to descend, substantially as described.

Third, Providing for adjusting the followers, C and b, so as to

work nearer to or farther from each other according to the thickness of the bricks required substantially as described.

Fourth, Sustaining the follower, b, when in an elevated position upon a spring, d, or its equivalent, and when it is in a depressed position upon the bottom, l, of the press box, a, substantially as described.

Fifth, The combination of a reciprocating follower, G, and guides, E, H, with the movable followers, C and b, substantially as described.

Sixth, A movable separating board, K, in combination with a brick press in which the three followers, O b and G, are employed substantially as described.

Seventh, The separator, K, when used in conjunction with a follower, G, or its equivalent, and a removable shelf, M, substantially as described.

Eighth, The parallel guides, H, H', in combination with the movable followers, C b and G, arranged and operating substantially as described.

47,210.—Clamps for Stretching Card Clothing upon Carding Cylinders.—Joshua O. Lewis, Worcester, Mass.: I claim as a new article of manufacture a card-clothing clamp constructed with the ends to sustain and strengthen the ends of the clamp jaws so that they cannot spring or yield, and with looped ends for the operating strap all substantially as and for the purposes described.

47,211.—Carriages.—Lewis W. Mason, Shelburne Falls, Mass.: I claim my peculiar arrangement of two sets of shafts, A B C D, and crossbar, E, with the whiffletrees, F, G, whereby the crossbar carrying the whiffletrees is brought in rear of the draft animals when they are between the shafts.

I also claim the combination and arrangement of the connector, K, and the two sets of shafts, A B C D, and the crossbar, E.

I also claim the combination and arrangement of the two mud guards, L L', with the two sets of shafts and their crossbar, E.

47,212.—Lantern.—John G. Leffingwell, Newark, N. J.: I claim the lugs, C, when used in the manner and for the purposes specified substantially as described.

Second, My device for attaching the lamp to the lantern part by means of the hooks or flanges represented working in combination with a spring substantially as set forth.

Third, The lantern as it stands with its several devices, to wit, lugs, hooks or flanges and spring fastening with rivets, reflectors and posts combined and arranged substantially as described.

47,213.—Packing Projectiles for Rifled Ordnance.—Albert J. S. Mollard, Baltimore, Md.: I claim the inclination of the mortises or openings, E, connecting the conical hole in the base with the outer belt of metal or packing, in combination with the soft metal packing united to the shot as therein described and the tapering of said packing to a thin feathered edge at or near the base of the shot that is raised by the gases acting simultaneously against the solid lead at the base and feather edge at the time of the discharge for the purpose set forth.

47,214.—Helve.—Wm. Morehouse, Buffalo, N. Y.: First, I claim a helve with handle, A, constructed with sockets, c, therein substantially as and for the purposes described.

Second, I claim a helve or handle, A, constructed with a concavity, b, therein substantially as and for the purpose described.

Third, I claim so forming ax-helves and other handles that when fastened in the eyes of implements by wedges of wood the wedges will be allowed to expand and swell into recesses or sockets formed in the handles substantially as and for the purpose described.

47,215.—Alarm for Railroads.—C. P. Morton, Chester, Pa.: I claim the combination of the arm, F, spring, H, projections, I, J, with the rod, M, and bell crank, L, so constructed and arranged as to operate in connection with the draw-bridge, O, D, in the manner and for the purpose herein described.

47,216.—Fruit Can.—Joseph Newberger and Peter J. Illig, Buffalo, N. Y.: First, As a distinct article of manufacture a rim, A, made of tin or other similar material having a slightly tapering neck with a groove, a', formed therein for receiving and holding a packing strip, C, substantially as and for the purposes described.

Second, In making a cap or cover, B, to fit on to the taper neck of the rim and having a flange, b, formed thereon in combination with a button, D, for the purposes and substantially as described.

47,217.—Treating Straw to Obtain Paper Pulp.—Theodore A. Nixon, Philadelphia, Pa.: First, I claim manufacturing paper pulp from straw by a process substantially as described.

Second, Subjecting the prepared straw to the action of a hot solution of alkali prior to boiling the same substantially as set forth for the purposes specified.

47,218.—Stove.—Edwin A. Parker, Horseheads, N. Y.: I claim the special arrangement for supplying the air draw from the outside of the room, partly to support the combustion and partly to supply the room, the same consisting of the passage, E, central heating chamber, G, the induction pipe, H, and the draught pipe, I, operating substantially in the manner and for the purpose herein set forth.

47,219.—Churns.—Edward J. Phillips, Prescott, Wis.: I claim the crank wheel, A, pitman, B, and adjustable wrist, I, in combination with the dasher, C, and guide pin, D, the several parts being constructed, arranged and operating as and for the purpose herein set forth.

47,220.—Velocipede.—Wm. Quinn, Philadelphia, Pa.: First, I claim the combination of the two cranked axles, G and G', with the connecting link, z, with the bearing, c, substantially as for the purpose as described and shown.

Second, The construction of the fulcrum bearing, N, the treadle levers, when used in combination with the brace, D, substantially as described and shown.

Third, The construction and arrangement of the frame, as hereinbefore set forth and described.

47,221.—Dying Kid Gloves.—Josiah T. Reed, Charlestown, Mass.: I claim as a new article of manufacture a kid glove having the inside of the same color as the skin from which it was made, and the outside being colored of any desired shade after the glove is cut out and sewed, substantially as described.

I also claim the art, method or process of coloring kid gloves by applying with a brush or sponge the required dye or color to the exterior of the glove while it is stretched upon a suitable form or mold.

47,222.—Apparatus to Preserve and Exhibit Photographs.—Charles Robinson, Springfield, Mass.: I claim the combination of a continuous band, G, provided with means for mounting the photographs thereon, two cylinders, B, C, of sufficient diameter not to injuriously affect the appearance of the photographs by being bent around them, and an inclosing box or case, A, provided with an aperture or apertures, H, H', through which the photographs are exhibited, substantially as and for the purposes herein specified.

I also claim the brake clamp shown in Fig. 4, for keeping the tangent portion of the connecting band or strip straight, as herein set forth.

47,223.—Clothes Pin.—Henry W. Sergeant, Jr., Boston, Mass.: I claim constructing a clothes pin with two flexible prongs, substantially as and for the purpose described.

47,224.—Pump for Oil Well.—John B. Root, New York: I claim, First, The employment in an oil well of tubing composed of wooden staves and surrounding bands of metal, substantially as herein specified.

Second, The arrangement of the pump cylinder, in combination with the tubing of wood, substantially as herein specified, whereby the said cylinder can be drawn up through the tubing without disturbing it.

Third, The arrangement of the pump cylinder in the interior of the tubing of wood in an oil well, whereby the said cylinder and its piston may be withdrawn together from the said tubing by means of the piston rod, substantially as herein described.

47,225.—Machine for Boring Wells.—Charles A. Saxe, Philadelphia, Pa.: I claim, First, The combination of the drill frame and the frame that carries the double cam planes, both suspended to the screw and arranged to operate substantially as herein described and represented.

I also claim, in combination with a drill or boring tool that is raised, the gear, U, and its stem or shaft, by which said feed motion may be increased, diminished, or suspended, as and for the purpose set forth.

I also claim, in combination with the raising and dropping, rotating, and feeding mechanism, the gear, V, and its appliances for raising the drilling tool and its frame, and automatically stopping its action when the drill is up, and without stopping the first moving power, substantially as described.

47,226.—Oil Ejectors.—S. Franklin Shoonmaker, New York City: I claim, First, The use in apparatus employed for the raising of liquids from great depths or to great heights, of an annular-shaped orifice or opening for producing an air blast in the same, said orifice being so arranged as to allow the liquid to be raised, to come in contact with both the exterior and interior surfaces of the air blast, substantially as described and for the purpose specified.

Second, In combination with the nozzle, o, c, having an interior oil passage, the conical plug, n, or its equivalent, arranged and operating in the manner and for the purpose specified.

Third, Adjusting the inlet of the nozzle of the air pipe in the oil or liquid pipe, the same consisting in the use of the movable plate or ring, e, e', arranged and operating substantially as described.

47,227.—Oil Ejectors.—S. Franklin Shoonmaker, New York City: I claim, First, Forming the delivery nozzle of an air blast pipe in elevators for petroleum or other liquids, of a series of pipes of any desired number and size, with their delivery ends in the same horizontal plane, and having the form of a circle or any other suitable form, and so arranged as to give the oil in the oil tube and surrounding the air pipe a passage through which to communicate with and to approach the interior surface or surfaces of the air blast, substantially in the manner and for the purpose specified.

Second, The combination with the double truncated conical diaphragm, o, p, of the adjustable cone, l, arranged together substantially in the manner and for the purposes satisfied.

47,228.—Egg Boiler.—Abel Sharlow, Fort Lee, N. J.: I claim as a new article of manufacture the culinary vessel, A, when constructed and operated substantially as described for the purpose set forth.

47,229.—Ditching Machine.—J. H. Snyder, Killbuck, Ill.: First, I claim the guides, m' n', spring catches, r, and levers, m n, in combination with the adjustable standards, p, and slides, L, as and for the purpose set forth.

Second, I claim the curved levers, Q', arms, j, in combination with the scrapers, G, and links, H, as and for the purpose set forth.

Third, I claim the standards, F, cross trees, h', in combination with the shoes, S, D, and scrapers, G, as and for the purpose set forth.

Fourth, I claim the carriers, f, guides, f', and spring, g', in combination with the shoots and scrapers, as and for the purpose set forth.

47,230.—Signal Frames.—William A. Sprague, Boston, Mass.: I claim two kinds of frames to extend signals when there is no wind, as herein described and set forth in this specification.

47,231.—Fuse Hood for Explosive Shells.—Thos. Taylor, Washington, D. C.: I claim the use of the same hood, E, located between the front end of the shell and the front of the fuse, held secure in its place by the flange of the plug, c, the same constructed and operated substantially as described.

47,232.—Sediment Extractor for Steam Boiler.—Eli Thayer, Worcester, Mass.: I claim the vessel, O, when arranged in the manner and for the purposes substantially as set forth.

47,233.—Flour Bolt.—Francis S. Thayer, Troy, N. Y.: I claim the use of one or more falling weights, in combination with the shaft, so arranged as to operate entirely through the shaft, thus allowing the weights to fall from side to side of the bolt, substantially as and for the purpose set forth.

47,234.—Box for Transporting Plants.—Timothy F. Wa dwell, Penn Yan, N. Y.: I claim a box for plants, etc., formed by the flat pieces of wood grooved at the ends, and having the same secured, and provided with an opening, for the purposes and as set forth.

47,235.—Apparatus for Distilling Petroleum, Etc.—Cyrus M. Warren, Boston, Mass.: I claim the special application of heat by means of a separate fire, or its equivalent, to a condenser attached to a still, for the purpose of separating and controlling the temperature of the vapors given off in distillation under reduced pressure, and for the complete separation of the constituents of complex mixtures of liquids.

47,236.—Machine for Pressing and Shaping Screws.—Thomas Welham, Washington, D. C.: I claim the combination and arrangement of the movable and adjustable cam, H, and revolving stop, J, as herein described, for the purpose of pressing and shaping screws by pressure, instead of cutting and swaging the threads of screws as heretofore.

47,237.—Machine for Leveling and Smoothing Ice.—Wm. Wharton, Jr., Philadelphia, Pa.: I claim, First, A machine for leveling and smoothing ice, consisting of a frame to which one or more blades or plates are secured, so that they may be raised or lowered, and moved entirely through perpendicular, to the surface of the latter, substantially as described.

Second, The inclined draught pole, C, combined with the frame, A, and its blade, a, substantially as and for the purpose described.

Third, The frame, A, its blade, a, draught pole, C, and guide rod, B, with its support, D, the whole being constructed and arranged substantially as and for the purpose specified.

Fourth, The detachable plate, E, in combination with the frame, A, and draught pole, C, arranged substantially as and for the purpose specified.

47,238.—Stopper for Fruit Jars.—John M. Whitall, Philadelphia, Pa.: I claim a hollow stopper, with an opening at the top, and a cavity in it to hold ice or cold water, substantially as described, for the purpose specified.

47,239.—Knitting Machine.—Joseph Whittle, Philadelphia, Pa.: I claim, First, The self-acting needles, a', with their long latches operating in combination with the self-acting needles, a, and their sliding latches, substantially as and for the purpose specified.

Second, The cam cylinder, z, z', z'', z''', z'''' and z''''', or one or more of the projections in which are cut away, in the manner and for the purpose described.

47,240.—Automatic Valve for Steam Radiator.—James P. Wood, Philadelphia, Pa.: I claim the cup, B, diaphragm, C, and valve, D, in combination with the vessel, A, and its tubes, E and F, or their equivalents, the whole being arranged and operating substantially as and for the purpose herein set forth.

47,241.—Chain Hook.—Michael Colgan (assignor to himself, Charles D. Cooper and L. H. Beckwith), Port Jarvis, N. Y.: I claim the hook, A, in combination with corresponding suitable size chain links, B and D, so constructed that the hook will grasp the chain in the manner herein described, for the purposes set forth.

47,242.—Horse-shoe.—Oliver P. Magill, Brooklandville, Md., assignor to himself and Thomas Poultney, Baltimore, Md.: I claim, First, The expanding frame, to be attached to the horse-shoe, and provided with calk points or edges, substantially as described.

Second, I claim the removable roughing points or calks passing through the frame and resting at their upper ends (in situ) upon the under side of the horse's shoe.

Third, I claim the method of securing the false shoes to the ordinary shoe by means of the flanges on the expanding bars of the false shoe.

Fourth, The expanding false shoe, consisting of two parts hinged together, and provided with the expanding screw, substantially as described.

47,243.—Air Pump.—James Molyneux (assignor to the Bordentown Machine Company), Bordentown, N. J.: I claim the combination of two air pumps, having barrels of different diameters, and a vertical reservoir, G, arranged between them and communicating with both pumps, all substantially as set forth.

47,244.—Harness Saddle.—Oliver B. North (assignor to O. B. North & Co.), New Haven, Conn.: I claim the use of studs or pins upon the frame, for the purpose of holding or of aiding to hold the skirts, jockeys, back or tug straps of the harness thereto, substantially as described.

I also claim casting the bolt or projection, e, on the under side of the seat, as and for the purpose herein described.

47,245.—Carriage Bolt.—Alvin Pond, Hamden, Conn.: I claim manufacturing bolts from round iron by means of dies formed so as to produce sharp corners at the ends of the squared portion, as set forth.

47,246.—Machine for Cupping Metallic Cartridges.—Timothy J. Powers (assignor to J. P. Fitch and J. R. Van Vechton), New York City: I claim, First, The combination, as described, in a machine for cutting out and cupping cartridge shells of the punch, d, dies, i, c, e, and adjustable table, B, the whole operating as and for the purpose herein set forth.

Second, The rising and falling rags, p, applied in combination with the punch and dies, operated by means of a rod, q', tappet arm, q, and tappet collars or pieces, p', p', and controlled by a rest, r, substantially as and for the purpose herein specified.

47,247.—Automatic Grain Weigher.—Martin Robbins (assignor to himself and Mahlon M. Wornbaugh), Cincinnati, Ohio: I claim, First, The revolving and gravitating drum, E, E', supported and balanced in the represented inclined position, and containing two or more chambers or compartments, F, F', F'', for the automatic weighing of grain, substantially as set forth.

Second, The provision, on an inclined gravitating grain drum, of the cams, J, J', J'', when combined with the devices, b', b', c, or their equivalents, for the automatic opening and closing of the hoppers, substantially as set forth.

Third, In the described combination, with an inclined gravitating grain drum, armed with studs, K, K', K'', or other suitable projections, I claim the adjustable gage, D, d', substantially as represented, or any mechanical equivalent thereof.

Fourth, The devices, L, L' and M, or their mechanical equivalents, for the automatic opening and closing of each successive grain chamber, substantially as set forth.

Fifth, The self-acting governor, consisting of the parts, P, Q, R, S, T, U, V, W, in the described combination, with the parts, b', b', c, or devices, substantially equivalent, for the automatic arrest of the weighing action, as set forth.

47,248.—Syringe.—Luke Wheelock (assignor to himself and O. B. Leavenworth), New Haven, Conn.: I claim a syringe when the discharged apertures are formed, substantially as and for the purposes specified.

47,249.—Well-boring Device.—Albert A. Wilson, Green Point, N. Y., assignor to himself and Hoffman A. Kinison, Rouseville, Pa.: I claim the method substantially as herein described of increasing the sectional area and strength of the concussion surface of J-ras, used in connection with tools for artesian well boring, for the purpose set forth.

47,250.—Shears.—George Carter, Nottingham, Eng.: I claim constructing shears, scissors and other cutting instruments of a similar character thereto, with three edges, viz: one cutting edge and two edges for keeping the cutting edge in proper position and for preventing the same moving sideways, substantially as set forth and described.

47,251.—Filter.—M. Antome Espirat and Etienne Sause, Marseilles, France. Patented in France, Jan. 30, 1864. Patented in England, July 19, 1864: We claim the combination of the filters, G, H and R, S, with their reservoirs, and L, when constructed and operated substantially as and for the purposes described.

We also claim in combination with the filters and their reservoirs above described the self-cleansing apparatus, consisting of pipe, p, reservoirs, c, c', wheel, a, and apertures, u, when constructed and operated as herein described.

We also claim in combination with the filters and the reservoirs, c, c', and the operating devices, x, x', and pipes, V, Z, as substitutes for the pipe, p, and for the purposes set forth.

47,252.—Revolving Fire-arms.—Alexander Guerriero, Genoa, Italy: I claim, first, The combination in a revolver of the following parts, the barrel, the cylinder, the breech plate and the stock, when the cylinder, as herein described, each being capable of being detached in the manner and for the purpose set forth.

Second, In combination with the many chambered cylinder and rotating breech plate I claim the means herein described of locking and unlocking the same.

Third, The combination of the rotating cylinder and breech plate, with a fixed breech casing and its spring packing device to hold the breech plate in place without interfering with its rotary movement.

47,253.—Barrel Packer.—Thomas Burns, Williamsburg, N. Y.: First, I claim giving to the barrel the rocking motion, substantially as shown for the purpose specified.

Second, In combination with the flanged platform, A, levels, C, C', provided with the engaged slots, G, G', I claim the adjustable clamp, J, when the same shall be combined and operated, substantially as and for the purpose specified.

47,254.—Wick Scraper.—Charles W. Cahoon, Portland, Me.: I claim a wick scraper, substantially as described.

47,255.—Saw.—Edwin S. Drake, Portland, Me.: I claim as a new article of manufacture a saw constructed with cutting points or edges, substantially as described.

47,256.—Apparatus for Carbureting Air.—John H. Irwin, Chicago, Ill.: I claim arranging a carbureting apparatus, provided with an inlet for air and an outlet for gas above the point of combustion, substantially as and for the purposes herein set forth and shown.

47,257.—Process for Carbureting Air.—John H. Irwin, Chicago, Ill.: I claim producing a current of air through a carbureting apparatus and a pressure at the burners by the action of heated air, substantially as and for the purposes herein specified and shown.

47,258.—Apparatus for Carbureting Air.—John H. Irwin and Isaac Simmons, Chicago, Ill.: First, We claim so arranging a series of carbureting pans, A, with the chambers, C, D, and connecting pipes, provided with stop cocks or other equivalents, that the apparatus may be regulated, controlled and operated, substantially as and for the purposes set forth and shown.

Second, We claim the combination of a series of carbureting pans with the chambers, C and D, and the two series of connecting pipes, G and L, provided with the stop cocks or their equivalent, operating substantially as and for the purposes specified and shown.

Third, We claim the combination of a series of carbureting pans with the chambers, C and D, and the three series of connecting pipes, G, L and Q, substantially as and for the purposes specified.

Fourth, We claim, in combination with the series of pans, A, and the chambers, C, D, the employment of a condensing chamber, E, as and for the purposes set forth.

Fifth, We claim connecting the said pans and chambers, A, C, D, by removable or detachable pipes, substantially as and for the purposes specified.

47,259.—Churn Dasher.—Danforth Johnson, Chicago, Ill.: I claim a wooden churn dasher, conical or oval on the top, with wedging apertures around the bottom edge of the dasher for compressing the cream in the manner and for the purpose set forth.

47,260.—Scraper for Cleaning Gun Barrels.—E. L. Pratt, Boston, Mass.: I claim the spring blades, when cut from sheet metal, and swayed or stamped into form, substantially as set forth.

I also claim the attachment of the blades to a shank or foundation piece, in the manner substantially as described.

I also claim the construction of the gun cleaner, by which the ring is prevented from slipping therefrom, substantially as set forth.

I also claim the employment of the swab, in combination with the spring blades, substantially as set forth.

I also claim the construction of the spring blades, by which they form a trumpet mouth, substantially as described.

47,261.—Filters.—Thomas Simmons, Chicago, Ill.:

I claim, First, The combination and arrangement of the spiral wire, C, the horizontal plates, H, and the fibrous covering, F, when enclosed inside of a case, A, substantially as and for the purpose set forth.

Second, The combination and arrangement of the above with the carbon cups, substantially as and for the purposes described.

47,262.—Flexible Types and Apparatus for Printing.—Henry Tubeshing, Pittsburg, Pa.:

I claim making the separate pieces of elastic type, with a projection at top and bottom having a gutter for the purpose of holding them in place by means of a cord or similar device for that purpose.

Also the use of a flexible bed plate for holding the movable elastic type, so that the bed plate and type may be attached to the curved surface of a frame, substantially as described.

Also the use of strips of leather or other flexible material, placed above and below the upper and the lower line of type, for the purpose of keeping the movable type straight, and yet allowing the form to be readily curved when set on the machine for the purpose of printing.

Also the mode of securing the movable elastic type to the bed plate, by means of elastic cords resting upon the projecting base of the type, substantially as described.

Also the combination of the flexible bed plate, A, flexible strips, b and d, and slide, e, with a curved or cylindrical frame for printing with movable elastic type, substantially as described.

47,263.—Ox Yoke.—Erastus S. Woodford, Winchester, Conn.:

I claim the manner of arranging the staples and cords, in combination with the blow blocks, 5 and 6, the center blocks, 1 and 2, and the caps, 3 and 4, as and for the purposes herein set forth.

REISSUES.

1,930.—Sewing Machine.—R. G. Fairbanks, New York. Assignee by Mesne Assignment of W. A. Akins and J. D. Felthousen. Patented August 5, 1851. Reissued January 20, 1863:

I claim, First, The combination of the needle bar of a sewing machine with a spring to draw up the needle after the stitch is formed, for the purpose of tightening the stitches, substantially as set forth.

Second, The combination of the stitch-forming mechanism and spool spindle with an intermittent thread-gripping mechanism, located between the spool spindle and the place where the stitch is formed, substantially as set forth.

Third, The combination of the needle bar and shuttle driver of a sewing machine with mechanism for operating them in such manner that the shuttle is caused to enter between the needle and its thread, while the needle is arrested after having made a short retrograde movement.

Fourth, The combination in a sewing machine of the stitch-forming mechanism with a cylindrical rest, for the purpose of supporting articles of curved or tubular form, substantially as set forth.

Fifth, The combination of a toothed feeding instrument with reversible driving mechanism, substantially as set forth.

1,931.—Gas Cock.—John G. Leffingwell, Newark, N. J. Patented Feb. 19, 1861:

I claim, First, A set screw, in combination with a lever and gas cock, to prevent the flame from being extinguished, substantially as described.

Second, A set screw, in combination with a lever and gas cock, to prevent too great a flow of gas to the burner, substantially as set forth.

1,932.—Tackle Block.—Isaac E. Palmer, Middletown, Conn. Patented Nov. 1, 1859. Reissued Sept. 8, 1863:

I claim so constructing a tackle block and pulley that the rope or fall, when desired, may be clamped between a fixed portion of the block and a portion of the pulley, substantially as herein described, by simply leading it in a direction oblique (lateral) to the plane of revolution of the pulley without tying, or the use of dogs, or movable stops, or any other means of fastening.

1,933.—Design for a Trade Mark for Lead Pencils.—Joseph Reckendorfer (assignee of Joseph Rosenthal), New York. Patented April 3, 1860.

I claim the design for a new trade mark label for lead pencils composed of an eagle in flight, with the words "Eagle Pencil," substantially as and for the purpose described.

DESIGNS.

2,042.—Sewing Machine.—Caleb Cadwell, Waukegan, Ill.

2,043.—Trade Mark.—Stuart Gwynn, New York.

2,044.—Clook Front.—G. S. Lovell, Philadelphia, Pa.

2,045.—Clook Front.—G. S. Lovell, Philadelphia, Pa.

2,046.—Carpet Pattern.—Elemir J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass.

2,047.—Carpet Pattern.—Elemir J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass.

2,048.—Carpet Pattern.—Elemir J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass.

2,049.—Carpet Pattern.—Elemir J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass.

2,050.—Carpet Pattern.—Elemir J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass.

2,051.—Carpet Pattern.—Elemir J. Ney (assignor to Lowell Manufacturing Company), Lowell, Mass.

2,052.—Composition in Alto-Rellevo.—Helen P. W. Purdy, Cambridge, Mass.

2,053.—Trade Mark.—John C. Richard, New York.

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.

PRELIMINARY EXAMINATIONS AT THE PATENT OFFICE.

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

THE VALIDITY OF PATENTS.

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

The Patent Laws, enacted by Congress on the 2d of March, 1861 are now in full force, and prove to be of great benefit to all parties who are concerned in new inventions.

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

CAVEATS.

Persons desiring to file a caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention. The Government fee for a caveat is \$10. A pamphlet of advice regarding applications for patents and caveats is furnished gratis, on application by mail. Address MUNN & Co., No. 37 Park Row, New York.

REJECTED APPLICATIONS.

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

All persons having rejected cases which they desire to have prosecuted, are invited to correspond with MUNN & Co., on the subject giving a brief history of the case, inclosing the official letters, &c.

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:—

Table with 2 columns: Fee description and Amount. Includes '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 \$25', '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 (three and a half years) \$10', 'On filing application for Design (seven years) \$15', 'On filing application for Design (fourteen years) \$30'.

SEARCHES OF THE RECORDS.

Having access to all the official records at Washington, pertaining to the sale and transfer of patents, MESSRS. MUNN & Co. are at all times ready to make examinations as to titles, ownership, or assignments of patents. Fees moderate.

ASSIGNMENTS OF PATENTS.

The assignment of patents, and agreements between patentees and manufacturers, carefully prepared and placed upon the records at the Patent Office. Address MUNN & Co., at the Scientific American Patent Agency, No. 37 Park Row, New York.

FOREIGN PATENTS.

Messrs. MUNN & Co. are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business they have offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Marti, Paris; and 26 Rue des Eperonniers, Brussels. They think they can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through their agency.

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

Circulars of information concerning the proper course to be pursued in obtaining patents in foreign countries through MUNN & Co.'s Agency, the requirements of different Government Patent Offices, &c., may be had, gratis, upon application at the principal office, No. 37 Park Row, New York, or any of the branch offices.

INVITATION TO INVENTORS.

Inventors who come to New York should not fail to pay a visit to the extensive offices of MUNN & Co. They will find a large collection of models (several hundred) of various inventions, which will afford them much interest. The whole establishment is one of great interest to inventors, and is undoubtedly the most spacious and best arranged in the world.

MUNN & Co. wish it to be distinctly understood that they do not speculate or traffic in patents, under any circumstances; but that they devote their whole time and energies to the interests of their clients.

COPIES OF PATENT CLAIMS.

MESSRS. MUNN & Co., having access to all the patents granted since the rebuilding of the Patent Office, after the fire of 1856, can furnish the claims of any patent granted since that date, for \$1.

EXTENSION OF PATENTS.

Many valuable patents are annually expiring which might readily be extended, and if extended, might prove the source of wealth to their fortunate possessors. Messrs. MUNN & Co. are persuaded that very many patents are suffered to expire without any effort of extension, owing to want of proper information on the part of the patentees, their relatives or assigns, as to the law (and the mode of procedure in order to obtain a renewed grant. Some of the most valuable grants now existing are *extended patents*. Patentees, or, if deceased, their heirs, may apply for the extension of patents, but should give ninety days' notice of their intention.

Patents may be extended and preliminary advice obtained, by consulting, or writing to, MUNN & Co., No. 37 Park Row, New York.

UNCLAIMED MODELS.

Parties sending models to this office on which they decide not to apply for Letters Patent and which they wish preserved, will please to order them returned as early as possible. We cannot engage to retain models more than one year after their receipt, owing to their vast accumulation, and our lack of storage room. Parties, therefore, who wish to preserve their models should order them returned within one year after sending them to us, to insure their obtaining them. In case an application has been made for a patent the model, is in deposit at the Patent office, and cannot be withdrawn.

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

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

TO OUR READERS.

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

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a *bona-fide* acknowledgement of our reception of their funds.

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

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

PATENTS GRANTED FOR SEVENTEEN YEARS. MUNN & COMPANY, with an illustration of a mechanical device.

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 U ited States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in foreign countries are procured through the same source. It is almost needless to add that, after seventeen years' experience in preparing specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office; but they take pleasure in presenting the annexed testimonials from the three last ex-Commissioners of Patents.

Messrs. MUNN & Co.—I take pleasure in stating that, while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE CAME THROUGH YOUR HANDS. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with