

29,032.—N. S. Bean and J. G. Collins (assignors to the Amoskeag Manufacturing Company), of Manchester, N. H., for an Improved Steam Boiler:

We claim the described relative arrangement of parts in a vertical boiler having five tubes—the same consisting of an enlarged fire-box and dome, contracted waist and submerged smoke box, substantially as set forth.

29,033.—S. A. Briggs (assignor to himself and C. G. Crowell), of Philadelphia, Pa., for an Improvement in Corn and Cob Mills:

I claim the application of the spiral propeller vanes, g, around the cylinder of the rotary crusher, A, when the same are arranged in relation to the arms, h, h, substantially as and for the purpose specified.

I also claim the application of the stops, n, n, in combination with the grooves, j, j, and ridges, m, m, on the disks, B' and C', substantially in the manner and for the purpose set forth and described.

29,034.—Arnold De Witt (assignor to himself, John Wiarda and J. H. N. De Witt), of Brooklyn, N. Y., for an Improvement in Windmills:

I claim the employment of a series of revolving fans, A, with gear wheels, d, arranged around a stationary cog wheel, e, in a rotary frame, B, together with an adjustable scroll, D, substantially in the manner and for the purpose specified.

[This invention consists in arranging in a rotary frame a series of fans to which a rotary motion is imparted by a stationary cog wheel in the center of said revolving frame, and gearing into corresponding cog wheels on the ends of the rotary fans—the whole being inclosed in a round or polygonal scroll with a spout to conduct the wind to the fans in such a manner that a light, simple and powerful windmill is produced.]

29,035.—John First (assignor to himself and Isaac Frost), of New York City, for an Improvement in Sewing Machines:

I claim the combination and arrangement of the crook, G, lever, D, radius bar, E, crank or lever, G, and connection, H, for the purpose of giving the proper periods of rest and motion to the needle of a sewing machine, substantially as described.

29,036.—I. M. Gattman (assignor to himself and H. G. Steibel), of Cincinnati, Ohio, for an Improvement in Brick Machines:

I claim, first, The plunger, H, slide, I, and lateral slides, J, J', arranged and operating in combination substantially as and for the purpose set forth.

Second, The shafts, b and c, at right angles, bevel wheels, E, F, and cams, f, f', g, g', or their equivalents, in connection with plunger, H, slide, I, and lateral slides, J, J', arranged and operating substantially as and for the purpose set forth.

29,037.—S. H. Jones, of Jamaica Plains, Mass., assignor to H. W. Smith, of West Newton, Mass., and S. D. Smith, of West Roxbury, Mass., for an Improvement in Melodeons:

I claim, with a single set of bass and treble reeds and two swell valves therefor, arranging one swell valve at the back of the reed board and the other swell valve at the front thereof, substantially as and for the purpose described.

Also, arranging the two sets of the treble and bass reeds relatively to the line of range of valve pins and with respect to each other as specified.

29,038.—G. A. Keene (assignor to himself and S. D. Woodbury), of Lynn, Mass., for an Improved Combined Bed and Chair:

I claim the combination and arrangement of a bedstead, extension bed or couch and chair, substantially as specified.

29,039.—Lester Patee (assignor to himself and A. H. Ryan), of Peoria, Ill., for an Improvement in Soldering Irons:

I claim the use of a heating center of wrought or cast iron for soldering, in connection with a movable, lined, copper, cap when the latter is constructed with a spiral spring, as set forth, for the purpose of keeping the cap and center in contact under varying temperatures.

29,040.—E. W. Rowe (assignor to himself and J. T. Hardy), of Brewer, Maine, for an Improvement in Drain Tiles:

I claim the tongue, c, and groove, d, arranged on opposite sides of, and in combination with, the tile, substantially as and for the purpose specified.

I also claim molding or forming the clay or plastic drain tile above described with the tenon recess and the tenon for side connections, in the manner and for the purpose set forth.

29,041.—H. W. Smith, of Boston, Mass., assignor to himself and S. D. Smith, of West Roxbury, Mass., for an Improvement in Harmonicons:

I claim, when two sets of valves are employed with a supplementary lever to be operated by the key as described, constructing that part of the key frame which supports the key separate from that which supports the supplementary lever, and hinging or applying the two together so as to enable the key and its supporting part of the said key frame to be raised or moved in such manner as to enable access to be had to the inner reed-holders as occasion may require.

29,042.—H. A. Wills (assignor to A. W. Kingsland), of Keeseville, N. Y., for an Improvement in Machines for Making Horse-shoes:

I claim the arrangement of the movable front substantially as described, when the same is used in combination with the shaping die or mold, E, on the surface of the rotary cylinder, B', for the purpose set forth.

Also, The arrangement of the stationary cam, i, crank, h, spring, j, and front, f, in combination with the shaping die or mold, E, constructed and operating as and for the purpose specified.

[This invention consists in arranging the shaping die or mold of a cylinder machine with a movable front which, when thrown forward, bends the iron to the required shape and holds it in the proper position until the swaging die grips it, and then, being thrown back, allows the iron to spread. It also consists in the employment of a crank-shaft which is subjected to the action of a spring, and the bent end of which sweeps over a stationary die which is rigidly attached to the side of the frame which forms the bearings for the cylinders, so that, at the proper intervals, said front is drawn in and the iron set free.]

RE-ISSUES.

James Albro, of Elizabeth, N. J., for an Improvement in Printing Oilcloth. Patented June 7, 1859:

I claim forming ornamental figured surfaces on oilcloths by raising, at right angles with each other, by means of properly prepared blocks, parallel ridges or surfaces, b, d, substantially as described, to form, by the action or reflection of light, and with or without a plurality of colors, the damask ground and figure, it being understood that I claim the privilege of having either the ground or figure, one only if desired, composed of dots or broken lines, in order to obtain a similar effect.

James Albro, of Elizabeth, N. J., for an Improvement in Printing Oilcloth. Patented June 7, 1859:

I claim, as a new article of manufacture, an oilcloth with an ornamental figured surface, produced by means of raised lines or ridges, those forming the ground being at right angles to those forming the figure, substantially as described.

Douglas Bly, of Rochester, N. Y., for an Improvement in Artificial Legs. Patented May 17, 1859:

I claim, first, Curving or deflecting the jointed extremities of the bars, A, so as to bring their axes of motion back of their line of direction, substantially as and for the purposes set forth.

Second, I claim the cord, T, and spring, X, acting upon the parts, D and L, substantially in the manner and for the purpose set forth.

Third, I claim the combination of the non-elastic tendon, F, with the india-rubber spring, E, in such a manner that the required effect is derived from the compression and expansion of the material, and not from its elongations and contraction, substantially as set forth.

Fourth, I claim the use of the block, A, with its longitudinal and transverse axes, for producing the direct or antero-posterior lateral and diagonal motions of the ankle joint in walking, while retaining the foot in its proper relative position to the leg, substantially as described.

Fifth, I claim providing the ends of the cords, F, with the enlargements and with the conical socket fastenings, G, to receive the same, substantially as described, in order to apply adjusting screws, for the purposes specified.

Sixth, I claim the manner of constructing the bearing portions of the knee joint, consisting of the upper and lower bearing blocks, N, N, each of which forms the quarter of a circle more or less corresponding with the axial bolt, the one fixed in position and the other adjustable by means of the screws, a, a, to admit of adjusting the parts together to prevent looseness and noise, and to reduce and regulate the friction, substantially as and for the purpose set forth.

Reuben Jane, of Otego, N. Y., for an Improvement in Attaching Paddle Wheels to Canal Boats. Patented Nov. 24, 1857:

I claim, first, The bow wheels, B, the connecting rods, K, the rudder, L, the operating lever, O, constructed and arranged substantially as and for the purposes described.

Second, I claim the wheels, B, constructed with twisted floats, in combination with the preceding.

Third, I claim the arrangement of the vertical slotted shaft, N, supporting the wheels, B, and gear-wheel, C, in combination with the preceding, the whole operating as described and set forth.

J. B. Palser and Gardner Howland, of Fort Edward, N. Y., for an Improvement in Apparatus for the Manufacture of Paper Pulp. Patented June 21, 1859:

We claim, first, Having the pipe, p, which passes through the hollow journal of the boiler divided by a partition, s, so that the steam may find exit through one compartment of the pipe and the contents of the boiler through the other compartment, as set forth.

Second, The employment of the perforated diaphragm, p', when arranged substantially as described, to protect the pipes, h, h', s, s', and strain the liquids from the "stock," as and for the purposes set forth.

Third, The arrangement of the boilers, J, J', with the surrounding envelope, substantially as shown and described, so that the resultant liquids of the boiling may be evaporated, and also employed to cool down the boilers and surrounding envelope, as set forth.

Fourth, The arrangement of the basin, g, g, below the boiler, to receive the falling liquid, as and for the purposes described.

Fifth, We claim the injection of the steam arising from the boiling of the alkaline and other contents of boiler, J', into the boiler, J, and vice versa, substantially as and for the purposes shown and described.

Sixth, We claim the arrangement of the warming chamber, s, between the two boilers, and the combination therewith of the pipes, T, Y, W, as and for the purposes described.

Seventh, We claim the arrangement and combination of the boilers, J, J', furnace, A, and doors, D, D', E, E', F, F', so as to apply the furnace heat to either or both boilers at pleasure, substantially as shown and described.

Eighth, We claim the combination of the cylindrical-bottomed vats, K, K', having the chimneys, N, N, passing through them with the boilers, J, J', as and for the purposes described.

J. B. Palser and Gardner Howland, of Fort Edward, N. Y., for an Improvement in the Manufacture of Paper Pulp. Patented June 21, 1859:

We claim the destruction or carbonization of the gummy, resinous, and other matters from which the fiber is to be set free, without injury to the fiber itself, by the process described.

H. Baldwin, Jr., of Washington, D. C., assignee of J. E. Neisen, of Buffalo, N. Y., for an Improvement in Harvesters and Binders. Patented Aug. 27, 1853:

I claim, first, In combination with the cutting apparatus, the endless apron, C, having an intermittent motion for the purpose of carrying the cut grain to the binding hooks at intervals, and a proper quantity, to form a sheaf, substantially as described.

Second, The binding hooks, D, or their equivalents, for gathering the cut grain in bundles or sheaves, arranged and operating substantially as described.

Third, The combination of the endless intermittently moving apron, C, with the binding hooks, D, substantially as described.

Fourth, The combination of the discharging roller, Z, with the apparatus for gathering and compressing the cut grain into sheaves, substantially as described.

H. Baldwin, Jr., of Washington, D. C., assignee of J. E. Neisen, of Buffalo, N. Y., for an Improvement in Harvesters and Binders. Patented Aug. 27, 1853:

I claim, first, Constructing the blade of the cutter of a reaping or mowing machine with a projection or rib, e, or its equivalent for the purpose of strengthening it, substantially as described.

Second, The combination of a scolloped cutter, having the projections or ribs, e, or their equivalents, on its blade, with the slotted fingers through which the blade, with its projections, is arranged to pass, substantially in the manner and for the purposes described.

Third, The combination of the angular projections or ribs, e, or their equivalents, on the blade, with corresponding angular shoulders in the slot of the finger, substantially as described, the shoulders and projections being so arranged that the angles of one will vibrate set those of the other, in such near proximity as to facilitate the detachment and discharge of clogging matter, substantially as described.

EXTENSIONS.

Norman Sheldon and Jane Cary, of Chili, N. Y., executors of Daniel Cary (deceased), late of Clarkson, N. Y., for an Improvement in Horse-powers. Patented June 27, 1846:

I claim the special arrangement and combination of the gearing, as set forth, said gearing consisting of the single large wheel, A, driving two pinions, C, C, on the shafts of the two horizontal wheels, E, which horizontal wheels gear into two pinions, J, J, on the line shaft, there being a bridge, G, to admit of the passage of the line shaft; the whole arrangement being substantially the same with that represented and made known.

W. D. Dutcher, of Milford, Mass., for an Improvement in Looms. Patented June 27, 1846; re-issued April 21, 1857:

I claim supporting the wag-staff at its lower end, so that it may slide longitudinally in connection with supporting it other respects by a joint link, or its equivalent, applied so as to cause that part of the staff which strikes the shuttle to move in a line parallel or about parallel to the race-beam, as specified.

And I also claim connecting the lower end of the two staffs below their fulcrum, by means of a spring having an intermittent action for drawing them back, in combination with the application of a positive motion above for driving the shuttle, whereby the returning staff aids in arresting the momentum of the shuttle, substantially as described.

John McMullen, of Baltimore, Md., for an Improvement in Netting Machines. Patented June 27, 1846:

I claim, first, The forming of a true fisherman's or weaver's knot in netting, woven in a loom, by bearing a regular warp from the yarn to the cloth-beam, and the forming of loops thereon of the nature of those described, through which loops a thread of filling is thrown by a shuttle, these operations being effected under an arrangement of parts substantially the same with that set forth.

I claim the combination of parts, as made known, for giving motion to the thread-conductors, so as to wind the threads of warp, beamed as described, around the teeth, n, n', and o, in such manner as to constitute a loop such as is represented in Fig. 13, leaving a middle thread, c'', to be carried up by the forked teeth. I do not claim the use of thread-conductors for winding threads around teeth, they having been used in other manners and for other purposes; but I limit my claim in this particular to the arrangement and combination of parts, by which I form, simultaneously, a series of loops of the particular kind described, for producing the so-called fisherman's knot.

I claim the employment of the bearers and forked teeth, r, r', which are made to raise the thread, c'', and then to open out, so as to leave spaces between the threads, a'' and c'', through which a thread of filling is to be thrown by a shuttle.

I claim the employment of the reed, as described, with its hooked teeth, as combined with my machine, for drawing up the thread of filling against the teeth, o, to admit by its respective movements, made known, in the regular formation of the knots.

I claim the taking-up of the warp that is liberated in the drawing up or tying of the knots, whether the same be effected by the action of the weight, P, operating on a pulley, Q, and the other parts concerned in giving the reversed motion to the yarn-beam at the proper time, or by the aid of a roller or other analogous device, made to raise or depress the warp between the yarn-beam and the thread-conductors, or in any other way that is substantially the same, producing a like effect by analogous means; and I do hereby declare that I do not intend, by the foregoing claim, to limit myself to the particular form of the respective parts described, or to the particular position of the angles of the meshes, but to vary these as I may think expedient, whilst I do not depart from the general principle upon which my machine is made to operate, as set forth.

DESIGNS.

H. C. Foster, of Worcester, Mass., for a Design for Spoon Handles.

S. H. Ransom, of Albany, N. Y., for a Design for a Cooking Stove (2 cases).

S. H. Ransom, of Albany, N. Y., for a Design for a Parlor Stove.

Isaac De Zouche (assignor to Bridge, Beach & Co), of St Louis, Mo., for a Design for a Stove.

Garretson Smith and Henry Brown (assignors to Abbott and Noble), of Philadelphia, Pa., for a Design for a Cook's Stove (2 cases).

G. Smith and H. Brown (assignors to Liebrandt & McDowell), of Philadelphia, Pa., for a Design for a Cooking Stove (2 cases).

G. Smith and H. Brown (assignors to Abbott & Brown), of Philadelphia, Pa., for a Design for a Cook's Stove.

G. Smith and H. Brown (assignors to Cox, Whiteman & Cox), of Philadelphia, Pa., for a Design for a Cook's Stove.



CORRESPONDENTS sending communications for publication in our columns are requested to avoid writing on both sides of a sheet of paper. This fault, though common to persons unaccustomed to writing for the press, gives great trouble to the printer (especially in long articles), and, when combined with illegibility of handwriting, often causes interesting contributions to be regretfully consigned to our waste-paper basket.

L. D., of Mass.—We have heard of steel and iron having been deposited by the electrotype process, but have never seen a single sample of such electro-plating, and we very much doubt if it can be done. This opinion is based upon the fact that steels are alloy—not a pure metal.

G. P., of Mass.—There is no way known to us for preserving currants with their exact natural color and taste, but they can be preserved for pies and other purposes, without injury to their quality, by placing them in glass or stone-ware jars filled to the top with hot sugar sirup. The sirup is made with one pound of white sugar to a pint of water, and is poured on boiling hot, and the jars sealed up tight when the air bubbles cease to rise from the sirup. Peaches and plums may also be preserved in the same manner.

C. L., of Ind.—Boxes made of zinc, for containing water in refrigerators, are dangerous contrivances, because, as you state, the water decomposes the metal and forms the oxyd of zinc, an injurious salt if taken into the human stomach. Neither water nor milk should ever be kept in zinc or lead vessels. Some years ago, zinc milk-basins were employed in some of the large dairies in England, and they led to several cases of poisoning by the metal being decomposed by the lactic acid in the milk, thus forming a poisonous salt.

G. W. R., of Miss.—Your plan of carrying the heat from your furnaces over the top of the boiler, so as to save fuel, will accomplish the object, but we are adverse to advising you to do so, because the heat may be too high above the water-line, and the boiler thereby injured and rendered unsafe. You should use two or three fire-brides under the boiler, and thus retain the heat for a longer time in contact with the water surface.

G. H. J., of N. Y.—Mr. Colburn, in his able essay on boiler explosions, discards the idea that explosions are ever caused by superheated steam generating a great quantity of common steam from water suddenly thrown among it. He reasons correctly on this head, because superheated steam contains such a small excess of specific heat.

O A., of Ind.—If you employ a half-inch or even a quarter-inch iron rod, extend it ten feet above your chimney, connect it perfectly by sockets, and carry it into the moist ground, you need not have any apprehensions of danger. If your house is large, use a rod at each end, and connect the two by a lateral branch. Be sure and allow no large mass of metal to be near the rods, and make them fast with cleats of dry varnished wood. Copper is the best conductor. Any mechanic or farmer can put up his own lighting rod by following the above directions, of course, the thicker the rod the better the conductor.

W. G. R., of Mass.—We have no reliable data as to the use of zinc-coated iron pipes being superior to lead pipe, for conveying water to be used for domestic purposes. Pure zinc is a very oxidizable metal and is more readily decomposed with water than iron; but when combined with iron by the galvanizing method, it may resist the action of water in a very superior manner. Experience alone can settle this question, and some of our readers may be able to solve it.

H. C. F., of Mass.—French polish is made by dissolving 5 pounds of pale shellac and 1/2 pound of mastic in alcohol.

F. T. W., of Ala.—Asphalt dissolved in hot linseed oil and thinned with turpentine makes a good cement for painting a leaky tin roof, without injuriously affecting the water that may fall upon it. White lead thinned with oil and made into the consistency of soft putty, with fine sand or ground glass, makes a most enduring cement for leaks in roofs, but before it becomes perfectly dry, it is liable to affect the rain-water injuriously, if used for coating.

W. B. G., of N. Y.—Be pleased to give us your ideas on the best form of ships. There are so many different opinions among nautical men on this point that it appears to us they have no recognized principles to guide them.

T. S. H., of N. C.—The article on balancing machinery was credited to the London "Journal of Arts." Pulleys may be balanced by removing the surplus metal from the heavy part. Although an iron or wooden pulley may be turned perfectly true, some parts of it may be more dense than others, and of course it will be unbalanced. All pulleys or wheels should be spun on a free spindle, to ascertain if they are truly balanced, before they are put on.

T. S. B., of N. Y.—There is an engine operated by compressed air which has been working in a coal mine near Glasgow, Scotland, for several years. The air is compressed by a steam engine at the top of the pit, and forced down through a tube. The object of this arrangement is to obviate the use of fire in the mine. If you can render your method of operating an Ericsson engine with compressed air economically practicable, you should do it as soon as possible.

T. F. C., of Mass.—We have frequently heard of sulphur being found on the surface of the ground in Virginia and other places after thunder-storms, but we cannot account for its presence. In the case at Amesbury, Mass., it seems to have been deposited from the rain; in other cases, it is supposed to have been brought from the interior of the earth to the surface of the ground by lightning.

F. S., of C. W.—A colored person might obtain a patent for his invention, but it is a matter of doubt about his being able to sustain it against infringers, in view of the Dred Scott decision. We are not prepared to answer the question fully, as there is no adjudicated case which settles this exact question. We suppose the Commissioner of Patents, if addressed upon the subject, would give the advice you seek.

MONEY RECEIVED

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, July 7, 1860:—

- S. B. L., of Pa., \$25; S. W. M., of N. Y., \$110; J. S. B. R. of N. J., \$25; J. H., of Mich., \$30; L. & L., of N. Y., \$25; A. J. K., of Iowa, \$30; F. M., of Miss., \$30; L. A. F. De C., of N. Y., \$35; C. B. M., of Wis., \$25; L. C. H., of N. Y., \$30; H. & S. of N. Y., \$30; H. P. C., of Mich., \$15; N. S., of Ill., \$30; J. W. of N. Y., \$25; M. L. C., of N. Y., \$25; J. L. N., of N. Y., \$30; J. H., of Pa., \$30; J. B. C., of Ohio, \$30; G. K. P., of Mass., \$25; E. D., of Mass., \$35; J. P. M., of Ill., \$25; F. Z. N., of Conn., \$30; T. H. B., of N. Y., \$15; J. S. S., of N. Y., \$30; J. W., of N. Y., \$25; R. C. B., of N. Y., \$43; W. T., of N. Y., \$25; J. C. G., of Mass., \$55; C. & B., of Mass., \$30; M. B., of N. Y., \$30; P. K., of R. I., \$30; J. B. T., of Ill., \$45; I. G., of Pa., \$30; O. F. B., of N. Y., \$10; W. H. R., of N. Y., \$20; W. E. McL., of Mass., \$25; B. R., of Ga., \$30; J. R. McD., of Mo., \$25; E. E., of Ill., \$25; W. & F., of Tenn., \$100; L. W. N., of N. Y., \$25; F. S. B., of N. Y., \$30 A. & J. L., of Va., \$30; M. B., of Ohio, \$25; J. R. H., of Maine, \$30; S. G., of Ill., \$25; L. S. & J. E., of N. Y., \$25; D. C. T., of N. Y., \$25; A. P. C., of Ill., \$30; D. & C. of N. Y., \$30; R. H., of N. Y., \$250; L. V. N., of N. Y., \$25; F. W., of N. Y., \$25; J. R., of N. J., \$30; J. W. T., of Vt., \$30; J. C. L., of Ill., \$30; J. S., of N. Y., \$25; H. P. F., of Maine, \$30; E. J. F., of Mo., \$30; J. B. D., of N. Y., \$50; C. D., of Mass., \$30; E. C., of La., \$30; G. L. T., of N. Y., \$10; J. C. R., of Pa., \$25; C. V. S., of Ill., \$25; W. S. L., of Ohio, \$14; W. T., of N. Y., \$25; J. H. W., of N. J., \$30; S. & O. P., of Mich., \$30; I. N., of N. Y., \$25; J. B. L., of Conn., \$35; W. W. S., of Iowa, \$25; F. G., of Mich., \$30; M. & C., of Ill., \$30; W. F. J., of Pa., \$40; W. H. R., of N. Y., \$12; D. S. H., of N. Y., \$25.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, July 7, 1860:—

- J. W., of N. Y.; W. R., of N. Y.; C. B. M., of Wis.; W. T., of N. Y.; J. C. G., of Mass.; F. S. B., of N. Y.; H. P. C., of Mich.; J. C. R., of Pa.; H. N., of Ky.; E. D., of Mass.; J. P. M., of Ill.; W. H. P., of N. Y.; D. S. H., of N. Y.; S. B. L., of Pa.; J. S. B. R., of N. J.; C. D., of Mass.; J. S., of N. Y.; L. & L., of N. Y.; W. S. L., of Mich.; J. R. McD., of Mo.; L. S. & J. E., of N. Y.; J. B. L., of Conn.; W. W. S., of Iowa; R. C. B., of N. Y.; W. T., of N. Y.; L. W. N., of N. Y.; M. C., of Mass.; W. E. McL., of Mass.; M. L. C., of N. Y.; P. K., of R. I.; M. B., of Ohio; E. E., of Mich.; C. V. S., of Ill.; G. K. P., of Mass.; M. A. W., of Cal.; D. C. T., of Wis.; F. W., of N. Y.

NEW BOOKS AND PERIODICALS RECEIVED.

MILCH COWS AND DAIRY FARMING: Comprising the Breeds, Breeding and Management in health and disease of dairy and other stock, the selection of milch cows, with a full explanation of Guenou's Method, &c.; the production of milk, butter, and cheese. with a treatise upon the dairy husbandry of Holland; to which is added Horsfall's system of dairy management, by Charles L. Flint, &c. Liberally illustrated. Crosby, Nichols, Lee & Co., Boston; W. J. Pooley & Co., New York.

GRASSES AND FORAGE PLANTS: A Practical Treatise, comprising their Natural History, comparative value, methods of cultivating, cutting and curing, &c. By Charles L. Flint, Secretary of the Massachusetts Board of Agriculture, &c., with 170 illustrations. Fifth edition, revised and enlarged. Crosby, Nichols, Lee & Co., Boston; W. J. Pooley & Co., New York.

The above two works are thoroughly practical, and worthy of all praise. We heartily commend them to the attention of all those who feel interested in those subjects.

THE YOUNG FARMER'S MANUAL. Published by C. M. Sexton, Barker & Co., No. 25 Park-row, New York.

This volume details the manipulations of the farm in a plain and intelligible manner, with practical directions for laying out a farm and erecting buildings, fences, and farm gates; embracing also the "Young Farmer's Workshop," a division of the subject in which full directions are given for the selection of good farm and shop tools, their uses and manufacture; the whole work is adorned by numerous engravings of fences, gates and tools for performing nearly every branch of farming operations; and the volume forms a most excellent book of reference which we can earnestly recommend. The author is S. Edwards Todd.

USEFUL HINTS TO OUR READERS.

BOUND VOLUMES.—Persons desiring the first volume of the New Series of the SCIENTIFIC AMERICAN can be supplied at the office of publication, and by all the periodical dealers; price, \$1.50; by mail, \$2, which includes postage. The volume, in sheets, complete, can be furnished by mail; price \$1. Vol. II is now bound and ready for delivery. The price for this volume is the same as that charged for Vol. I.

BINDING.—We are prepared to bind volumes, in handsome covers, with illuminated sides, and to furnish covers for other binders. Price for binding, 50 cents. Price for covers by mail, 50 cents; by express, or delivered at the office, 40 cents.

SUBSCRIBERS TO THE SCIENTIFIC AMERICAN who fail to get their papers regularly will oblige the publishers by stating their complaints in writing. Those who may have missed certain numbers can have them supplied by addressing a note to the office of publication.

RATES OF ADVERTISING.

THIRTY CENTS per line for each and every insertion, payable in advance. To enable all to understand how to calculate the amount they must send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement sent for publication.

IMPORTANT TO INVENTORS.

THE GREAT AMERICAN AND FOREIGN PATENT AGENCY.—Messrs. MUNN & CO., Proprietors of the SCIENTIFIC AMERICAN, are happy to announce the engagement of Hon. CHARLES MASON, formerly Commissioner of Patents, as associate counsel with them in the prosecution of their extensive patent business. This connection renders their facilities still more ample than they have ever previously been for procuring Letters Patent, and attending to the various other departments of business pertaining to patents, such as Extensions, Appeals before the United States Court, Interferences, Opinions relative to Infringements, &c., &c. The long experience Messrs. MUNN & Co. have had in preparing Specifications and Drawings, extending over a period of fifteen years, has rendered them perfectly conversant with the mode of doing business at the United States Patent Office, and with the greater part of the inventions which have been patented. Information concerning the patentability of inventions is freely given, without charge, on sending a model or drawing and description to this office.

Consultation may be had with the firm, between nine and four o'clock, daily, at their Principal Office, No. 37 PARK ROW, NEW YORK. We have also established a BRANCH OFFICE in the CITY OF WASHINGTON, on the CORNER OF F AND SEVENTH STREETS, opposite the United States Patent Office. This office is under the general superintendence of one of the firm, and is in daily communication with the Principal Office in New York, and personal attention will be given at the Patent Office to all such cases as may require it. Inventors and others who may visit Washington, having business at the Patent Office, are cordially invited to call at their office. They 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. Martin, Paris, and 26 Rue des Eperonniers, Brussels. We think we may safely say that three-fourths of all the European Patents secured to American citizens are procured through our 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.

A pamphlet of information concerning the proper course to be pursued in obtaining patents through their Agency, the requirements of the Patent Office, &c., may be had gratis upon application at the Principal Office or either of the Branches. They also furnish a Circular of Information about Foreign Patents.

The annexed letters, from the last three Commissioners of Patents, we commend to the perusal of all persons interested in obtaining Patents:—

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

CHAS. MASON.

Immediately after the appointment of Mr. Holt to the office of Postmaster-General of the United States, he addressed to us the following very gratifying testimonial:—

Messrs. MUNN & Co.—It affords me much pleasure to bear testimony to the able and efficient manner in which you have discharged your duties of 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 an uncompromising fidelity in performing your professional engagements. Very respectfully, Your obedient servant, J. HOLT.

Messrs. MUNN & Co.—Gentlemen: 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.

Communications and remittances should be addressed to MUNN & CO.

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Makers of the celebrated Masmyth hammers, having a full assortment of patterns, continue to furnish them at reduced prices, and of any size, from 5 cwt. upwards. The large number hitherto made by them, and in successful operation, precludes the necessity of presenting any recommendations. They are also patentees and exclusive makers, for this country, of what is generally known as the "Condie," or inverted hammer, one of which of six tons, falling six feet, has been in operation at the Franklin Forge, New York, since 1848. [1 cwt.] MERRICK & SONS, Philadelphia.

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FOR SALE—ONE SECOND-HAND NO. 3 punch press, Fowler pattern; one drop hammer, 1,200 lb. bed, Fowler pattern; a complete set of upright steam engine patterns, modern style; a complete set of Morse machine patterns (see SCIENTIFIC AMERICAN, Vol. III., page 202). One Smees' electro-plating battery; size of plates, 4x7; all the apparatus complete. All of the above, with various other useful patterns, will be sold very low, and will pay any one wanting either of the above articles for his journey in purchasing. Address J. W. B., Box 186, Hartford, Conn. 1*

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