

## Recent American Inventions.

The following inventions are among the most useful improvements lately patented:—

## LOCK.

This invention is a valuable improvement in what are known as combination or permutation locks. The invention consists in the employment of two sets of toothed disks which gear together when the lock is in operation, but may be separated to change the combination on which the lock is set by turning an eccentric shaft on which one set of disks are journaled. The key is applied to the outer disks of the set by means of pins projecting from the faces of the disks, while each disk of the first set acts independently on the corresponding disk of the second set. Each disk of the second set is provided with a radial slot, which slots must be all brought to a correct position in respect to the bolt, to enable the latter to be withdrawn. By disconnecting two sets of disks, while the bolt is withdrawn—then changing the position of the first set, and afterward setting them again in gear, and then throwing the bolt and rotating the disks, so as to shift the radial slots—it is evident that the bolt is secured against withdrawal, except by adjusting the disks to the combination of positions last adopted. This ingenious device has been brought into extensive use, but cannot be readily explained without drawings. L. F. Munger, of Rochester, N. Y., is the inventor of this device.

## CHILD'S CARRIAGE.

The object of this invention is to combine, by a very simple arrangement, three different children's vehicles in one, so that any of them may be used, and answer equally as well as if made separately as heretofore—and the whole furnished at nearly as small a cost as the separate devices now made. Children require different kinds of vehicles according to their age. Infants are drawn and shoved along in "carriages" and "perambulators" as they are technically termed, while older children propel themselves along in "velocipedes." By combining these three devices in one, a vehicle is obtained which may be used for several children of a family, and one which may be adapted to the growth of a child, that is to say, changed from a carriage to a perambulator, and from a perambulator to a velocipede. This invention consists in applying to a frame which is mounted on three wheels, two behind and one in front (the latter being a caster wheel), a suspended platform, rear or back handles, and a suitable body or seat provided, when necessary, with levers and connecting rods, to effect the desired object. Benjamin P. Crandall and J. A. Conover, both of New York city, are the inventors of this ingenious device.

## ENAMELING MACHINE.

The object of this invention is to obtain a machine which will greatly aid and expedite the manual process of enameling frames, such as picture and mirror frames, preparatory to gilding them, and one which may be used for enameling circular, oval and all other shaped frames, except those containing angles. This invention was patented by John Sperry and C. W. Sherwood, both of New York city.

## IMPROVEMENT IN BOOTS AND SHOES.

This invention consists in an improved mode of preparing the sole and upper for sewing, whereby the seam is brought entirely on the outside of the shoe or boot in the sewing operation, but if the shoe or boot be turned, the seam will be brought on the inside thereof. The especial object of this mode of preparing the sole and upper is to afford greater convenience for sewing them together by a sewing machine, than is afforded by the common arrangement of the parts. Luther Holden and Stoughton P. Holden, both of Woburn, Mass., are the inventors of this device.

## IMPROVEMENT IN SETTING-UP STANDING RIGGING.

This invention relates to the use of metal blocks with sheaves, in place of the dead-eyes commonly used in the standing rigging of ships and other vessels. It consists in a certain construction of such blocks, with provision for securing the ends of the lanyards, and for securing them to the shrouds. Barton Ricketson, of New Bedford, Mass., is the patentee of this apparatus.

**GARDEN SEEDS GRATIS.**—We have received from Messrs. J. W. Briggs & Son, of Macedon, Wayne Co., N. Y., a sample of the choice garden seeds which they offer to send free to any one, on the receipt of a three cent stamp, to pay the postage. Thanks, gentlemen.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING APRIL 2, 1861.

Reported Officially for the Scientific American.

\*.\* Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 4, 1861, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

856.—J. H. Atwater, of Providence, R. I., for an Improvement in Portable Copying Presses:

I claim a book with a wedge-shaped back, substantially as described for the purpose specified.

And in combination with a book, having a wedge-shaped back, I claim a cylinder or roller provided with an apron to envelope the book, substantially as specified.

I claim interspersing leaves of thicker paper between portions of the copying paper in the copying book, substantially as described, so as to make the book more firm, and to prevent the leaves from being wrinkled.

857.—Francis B. Blanchard, of Brooklyn, N. Y., for an Improvement in Steam Boilers:

I claim the combination in the manner substantially as shown and described of the water heater and steam heater with each other and with the boiler, air-pump and chimney, all as set forth.

858.—J. O. Blythe, of Germantown, Pa., for an Improved Door Spring:

I claim the peculiar construction of the arm, b, as seen in Fig. 1, No. 1, at the point marked g, in combination with other parts of the machine to effect the purposes set forth, as stated.

859.—R. Boeklen and W. Staehlen, of Brooklyn, N. Y., for an Improvement in Smoking Tubes:

We claim, first, a smoking tube provided with a valve or valves, operating substantially as and for the purpose set forth.

Second, The smoking tube formed with an enlarged interior chamber A, as shown and described, in combination with a valve, C, for the purpose set forth.

860.—A. H. Boyd, of Rockville, Mass., for an Improvement in Sewing Machines:

I claim, first, The employment of the cam wheel, G, the eye pointed crossing arms, H I, a foot piece, N, and a needle, arranged and operating in the manner set forth, for the purpose of making the embroidery stitch represented.

Second, The employment of the bar, K, the ratchet wheel, D, the cam wheel, G, and the arms, H H, arranged in the manner represented, whereby the arms are made to cross under the foot piece as often as it rises, substantially as set forth.

861.—J. Brainerd, of Cleveland, Ohio, E. F. Olds of Lyons, Mich., and A. W. Olds, of Green Oak, Mich., for an Improvement in Harrow Frames:

We claim the radial arms, A, secured between the plates, B and C, by the bolts, A', in combination with a central pin or standard, D, socket or pipe, E, projection, J, box, H, and draw-bar, F, the several parts being constructed and arranged substantially as and for the purpose set forth.

862.—J. H. Breckinridge, of Meriden, Conn., for an Improved Cap for Oil Cans:

I claim as an improved article of manufacture, a sheet metal can cap having a portion of its exterior surface raised and formed into a groove of the form shown and described, for the purposes set forth.

863.—J. E. Briggs, of Watertown, N. Y., for an Improvement in Brakes for Carriages:

I claim the combination with a draught pole, E, which is allowed to have an endwise movement between the hubs C C, of the drag bar, G, levers, H H, rods, K K, transverse bar, J, and the stop rod, L, all arranged and operating substantially as and for the purposes set forth.

[The nature of my invention consists in combining with a draught pole or the thills of a vehicle, constructed so that they will have a longitudinal movement, certain levers and connecting rods which are operated upon by the said longitudinal movement of the draught pole, and which operate upon a transverse brake bar suitably arranged in front of the forward wheels, so as to apply the rubber blocks on the ends of this bar to the peripheries of the wheels, and to release these rubbers from the wheels.]

864.—Ezra Buss, of Yellow Springs, Ohio, for an Improved Clothes-dryer:

I claim the arrangement of the arms, C C, upon a spindle, B, which turns freely in a suitable support, A, in combination with a tightening and loosening screw, d, or its equivalent, for plying and securing the arms in any desired relative position, independently of the movement of the spindle in the support, substantially as and for the purpose specified.

865.—A. Christian, of New York City, for an Improved Rocking Horse:

I claim the platform, A, ratchet wheel, E, with its pawl, e, and the slotted plate, F, when the same shall be used in combination in the manner and for the purpose set forth and specified.

866.—J. T. Clegg, (assignor to himself and H. Coulter), of Philadelphia, Pa., for an Improvement in Lamps:

I claim, first, An open cap, so constructed that one side will impinge the flame, while upon the opposite side a space is left between the wick tube of the lamp, and the side of the cap, for the purpose of creating a draft, and thus supplying the requisite quantity of oxygen to the flame at the point of combustion, substantially as set forth.

Second, The combination of a sliding regulating tube (with or without flues) with an open cap, substantially in the manner and for the purpose specified.

867.—H. E. Copely, of Waterbury, Conn., for an Improvement in Photographic Medals:

I claim a solid mounting plate or frame produced by dies with one or more cavities upon either face of said plate or frame, and with raised rim surrounding each of said cavities, but this I only claim when said cavities are filled with pictures, substantially as described.

I also claim securing a picture to the face of a medal, metallic button or other similar article by means of a projecting rim formed upon the surface of said article by means of dies, which rim surrounds the picture, and is pressed down upon the edge thereof, substantially as described.

868.—B. P. Crandall and J. A. Conover, of New York City, for an Improvement in Children's Carriages:

We claim, first, The frame, A, mounted on the wheels, B B C, as shown with the suspended platform, G, seat or body, F, and rear or back handles, H, attached, all being arranged and used in connection with pole, I, or strap, E, substantially as and for the purpose set forth.

Second, In combination with the frame, A, platform, G, and seat or body, F, the hand levers, J J, connecting rods, K K, and foot lever, D, applied to the caster wheel, C, as and for the purpose set forth.

Third, The bending of the front ends, b, of the connecting rods, K K, as described to admit of the wheels, B B, and hand levers, J J, working.

Fourth, Extending the shaft, above the transverse bar, b, of the frame, and having any suitable figure or index D, connected therewith, above the transverse bar, with strap, E, connected to the index, substantially as and for the purpose set forth.

869.—J. A. Cramer, of Brooklyn, N. Y., for an Improvement in the Boxes of Carriage Hubs:

I claim the conical or wedge-shaped nut, B, Figs. 1 and 2, on the end of the box, A, for the double purpose of wedging and clamping the hub on the said box, substantially in the manner and for the purposes described.

870.—Benjamin Crawford, of Pittsburg, Pa., for an Improved Arrangement of Feed Water Heating Pipes of Steam Engines:

I claim the arrangement in the flues, J J, of a boiler of the transverse pipes or chambers D D, and series of zig-zag pipes, E E, in combination with supply pipes, A B C, which are arranged to run from the doctor or pump along the top of the boilers, and the induction pipes, I I, which are arranged along and to run from the flues, J J, under the arch or tile of the furnace to the interior of the boiler, substantially as set forth.

871.—Jonah Crites, of Orrville, Ohio, for an Improvement in Horse Rakes:

I claim the arrangement of the crank axle, F, provided with the grooved pulleys, G G, and with the arm, L, the drums, H H, upon the drivers, the bands, as, the levers, d and e, the connecting bars, J and K, with the rake shaft, E, provided with wheel, I, the several parts being arranged and constructed so as to operate jointly for the purpose specified.

872.—T. B. DeForest, of Birmingham, Conn., for an Improvement in Skirts:

I claim, first, Forming an open space, or open spaces, to accommodate the feet in walking, substantially as set forth.

Second, Making the skirt to open in front or behind, wholly or partially, by continuing the bottom hoop up to the waist band or other desired point and connecting thereto the ends of the other hoops, as described.

Third, Making the lower portion of the skirt detachable or removable from the rest at or near the termination of the open space, substantially as and for the purposes described.

Fourth, Forming the lower hoop or hoops into a spring, by bending up to operate, as and for the purpose described.

873.—S. S. Dice, of Stark county, Ohio, for an Improvement in Cross-cut Sawing Machines:

I claim the pulley at end of saw, in combination with the saw in cross-cut sawing machines.

874.—A. H. Downer, of New York City, for an Improvement in Hemmer and Finger Shield for Hand-sewing:

I claim, first, The arrangement of the snails upon the side of the finger next the work instead of on the top by which it is made to clear other work when the shield is used for other purposes besides that of hemming.

Second, Connecting the hem folder or snail to the shield or piece of metal upon which it is used upon a finger, in the manner described, so that it may readily be removed or changed, without changing the main plate, as set forth.

875.—William Ellard, of Woburn, Mass., for an Improvement in Machines for Finishing Leather:

I claim the specified arrangement and application of the bars, d, e, or the T-lever, E, the cam, L, the roller, I, and the retainer or rail, K, with respect to each other and the glossing tool carrier, D, the bed, B, and the crank wheel, G, the whole being to operate substantially as specified.

876.—C. R. Ely, of Sheldon, Vt., for an Improvement in the Process of Reducing Iron Castings and Preparing Cast Iron Patterns:

I claim, first, The use of hot dilute sulphuric acid for the purpose of removing wax or other like composition or coating from the surface of any cast iron pattern when it becomes desirable to cleanse or reduce the same, substantially as described.

Second, The use of hot dilute sulphuric acid for the purpose of removing rust or scale from the surface of cast iron patterns, substantially as shown.

Third, The use of hot dilute sulphuric acid for the purpose of preparing an improved surface upon cast iron patterns for the reception of wax or other composition preparatory to their being used to mold from.

877.—P. G. Gardiner, of New York City, for an Improvement in Carriage Springs:

I claim, first, The construction of a carriage or other spring, substantially as described, by combining with an upper elastic blade of a convex form, outwardly an open-shaped underblade, in the manner and for the purposes set forth.

Second, In combination with a spring made of two blades connected at their ends, as shown and described, I claim making the underblade of such length in relation to the upper as that the two blades shall be prevented from coming in contact at their centers, whatever the superincumbent weight or load may be.

878.—R. W. George, of Richmond, Maine, for an Improved Washing Machine:

I claim an improved washing machine, consisting of a vibratory presser frame, D, rotary dasher, C, made with a flat, m, yielding slatted apron, G, sectoral guards, L L, and yielding partitions or side boards, M M, combined and arranged substantially in manner and so as to operate as specified.

879.—S. P. Gilbert, of Racine, Wis., for an Improvement in Hollow Augers:

I claim the combination with the bit, D, and hollow auger, G, of the rotary case, C, substantially as and for the purposes shown and described.

880.—O. W. Goslee, of Glastenbury, Conn., for an Improvement in Cultivators:

I claim the arrangement of the frame, a f, arms, l, handles, b, braces, c, plates, g, elevators, d, axle, e, and cultivator teeth, 1 2 3, the whole being constructed in the manner and for the purpose described.

881.—E. Goulard, of New York City, for an Improved Apparatus for Buoying Vessels:

I claim the construction of the vessel, with recesses or boxes, B, at the ends, as and for the purposes shown and described.

I also claim the arrangement with the said boxes of the compressible balloons, A, air pump, F, air tubes, F, windlass, C, chains, e, and conduits, D, in the manner and for the purposes shown and described.

[The object of this invention is to enable the captain or master of a vessel to diminish her draught of water at a moment's notice, in order to enable her to pass over a bar, or over a sunken rock or other spot where the depth of the water, under ordinary circumstances, would be insufficient to carry the vessel safely across; or to enable the captain or master of a vessel to keep her afloat and to save himself, his crew and cargo in case the vessel should spring a leak, or be damaged by a collision, or become waterlogged from some other cause.]

882.—John Haynes, of Pembroke, Maine, for an Improvement in Machinery of Operating Fog Bells:

I claim the combination of the pendulum device, D E F, wheel, H, and bell, L, with the hull, A, substantially as and for the purposes set forth.

883.—Frederick Heidrich, of Philadelphia, Pa., for an Improvement in Lamps:

I claim the employment of a fluid-tight chamber over the wick pinion in combination with the wick tube, substantially in the manner and for the purpose described.

884.—R. W. Hunt and M. Kennedy, of Galesburgh, Ill., for an Improvement in Water Elevators:

We claim the arrangement of the self-opening valve, F, with the bucket, E, and lifting rope, G, when combined with the rod, J, ring, d, spout, I, projections, f, plates, e, and drops, g, as and for the purposes shown and described.

[This invention consists in the employment or use of a chain and counterpoised valvular bucket, in connection with a hinged spout and a bucket-sustaining and bucket-liberating device, whereby water may be elevated with facility for domestic purposes, and a very simple device obtained for the desired purpose.]

886.—S. Hutchings and J. D. Leach, of Penobscot, Maine, for an Improved Washing Machine:

I claim the curved connection between the flat bottom of the wash box and the inner surface of the inclined board, n, at the forward end of said box, when such a shape is given to the actuating faces of the swinging feet, g, g, as will enable them to produce the described compressing and rubbing effect upon the clothing which may be operated upon within our said machine, and when the several parts of said machine are arranged in the manner set forth.

886.—Samuel Ide, of East Shelby, N. Y., for an Improvement in Beehives:

I claim having the hive constructed with an inner wall composed of straw, or other equally porous material, when the said straw or porous wall is separated from the outer case so as to leave an air space, and used in connection with ventilating apertures, all substantially as shown and described for the purposes set forth.

[The object of this invention is to render beehives more suitable than those hitherto constructed for the wintering of bees, so that the same may be kept through severe cold weather without having their number diminished, as is generally the case, in consequence of the ordinary hives being poorly ventilated and not constructed sufficiently warm.]

887.—T. Jacobs and N. J. Wilkinson, of St. Louis, Mo., for an Improvement in Apparatuses for Purifying Water:

We claim arranging the corrugated plate or collector, D, in connection with the feed pipe and within the boiler, as described, for the purpose of cleansing the feed water before it mingles with that in the boiler and after it has passed through the purifier, in the manner described.

888.—Joseph Leeds, of Philadelphia, Pa., for an Improvement in Furnaces for Heating Buildings:

I claim the top plate, A, and side plates, B B, constructed in the form described, the division pipes, C D E, the heat radiating flues, K K, opening through the top plate, A, and communicating through the plate, C, with the fresh air chamber, G, as described, the deflecting plate, M, constructed with the openings, 2 2 3 as described, and the fresh air distributing pipe, N; the said parts being arranged in relation to each other, the chambers, F and G, and the flue, L, substantially in the manner described and for the purposes specified.

889.—J. G. Leffingwell, of Newark, N. Y., and G. W. Thompson, of New York City, for an Improvement in Gas Burners:

We claim, first, A gas burner, A, having in combination a tip, a, flexible diaphragm, C, and valve, D, arranged in the manner and for the purposes set forth. Second, The ring, b, with its inclined sides and hooked edge, as described, for the purpose of securing the diaphragm.

890.—Josiah Long (assignor to J. G. Wolf), of Morristown, Ind., for an Improved Wagon Brake:

I claim, first, The employment of the screw coupling, e, and screw adjustment, g, for the purpose of enabling the breaks of the hind and fore wheels, to be used either separately or combined, substantially as set forth.

Second, I claim the arrangement of levers, p p, screw coupling rod, e, screw adjustment, g, connecting rods, f f, lever, i, doubletree, E, and levers, d d d, for the purpose set forth and described.

891.—David Lyman, of Middlefield, Conn., for an Improved Mode of Attaching a Clothes-wringer to a Tub:

I claim the employment, in wringing machines, of adjustable hinges at the point, represented by E F G, between the main frame, B, and a clamping lever or frame, C C, the latter being operated by the screw, D, or equivalent mechanical device or devices, at or near the top of the machine, all substantially in the manner described and for the purpose set forth.

892.—G. H. Magersuppe, of New York City, for an Improvement in Lanterns:

I claim the portable lantern described, capable of being readily folded into the shape and size of a pocket book, in the manner and for the purpose substantially as set forth.

893.—G. H. Mallory, of New York City, for an Improvement in Sewing Machines:

I claim placing the dog, C, upon the needle stock, B, for the purpose described, in combination with the pressure plate, p, and feed lever, l, substantially as specified.

I also claim the looper, D, when placed above the cloth table or plate, 5, in combination with a vertical needle, b, piercing the cloth upward from below, with the looper head, S, shaft, v, crank, V, rod, u, lever, W, and cam, X, for communicating a rotary reciprocating motion to said looper, as specified.

894.—Edward Maynard, of Washington, D. C., for an Improvement in Cartridge Loaders:

I claim, first, The lateral or through aperture which communicates with the termination of the longitudinal cartridge cavity in said loader, and which may serve the respective purposes set forth.

Second, I also claim giving such a shape to the knob-head of my improved cartridge loader that a screw driver, or some other useful article, may be jointed thereto and partially concealed therein, substantially in the manner set forth.

895.—J. R. McDonald, of Fayette, Mo., for an Improvement in Hemp Brakes:

I claim the arrangement of the cap, D, a guard, C, with the boxes, b, and shaft, B, as shown and described for the purpose set forth.

[This invention relates to certain improvements in that class of hemp brakes in which a revolving beater is employed, and has for its object the preventing of the wrapping of the hemp around the bars of the beater, a contingency hitherto of frequent occurrence, and one which detracts greatly from the efficiency of the brake. The invention also has for its object the keeping of the journals of the beater free from tow and other substances which have hitherto found their way into the journal box and impeded the operation of the machine. The invention has further for its object the regulating of the action of the beater on the hemp as occasion or the nature of the work may require.]

896.—Orlando Miller, of Girard, Pa., for an Improvement in Beehives:

I claim the detachable drone and robber trap, constructed and arranged in the manner and for the purpose substantially as specified.

897.—C. G. Page, of Washington, D. C., assignor to G. C. Robinson, of New York City, for an Improved Refrigerator:

I claim the circulating flue, l, constructed substantially as described, in combination with an ice box open on its sides, as set forth.

I also claim, in combination with said flue, l, the flue, x, in the cover of the chest, as set forth.

898.—A. E. Parks, of Brooklyn, N. Y., for an Improvement in Electro-magnetic Telegraph:

I claim, first, The recording of a telegraphic alphabet of dots and dashes by means of two pencils or styles, one of them being operated by positive and one by negative electricity.

Second, The use of an alphabet composed, substantially as described, of dots and dashes recorded at pleasure in either of two positions on the paper.

Third, The type constructed, substantially as described, of several conducting pieces insulated from each other.

Fourth, The use of the port rule, constructed substantially as described, with the wires, p1 p2 n1 n2 g1 g2 l' and l2, inserted therein.

899.—J. A. Parlett and Jeremiah Thompson, of Elmira, N. Y., for an Improvement in Plows:

We claim the arrangement of moldboard, B, landside, D, coupling bar, C, shoe or sole, E, point, E, beam, A, anchorate drawback, F, clevis, d, and handles, G, the whole being constructed in the manner and for the purpose described.

900.—A. M. Perkins, of Springfield, Mass., for an Improvement in Pumps:

I claim the construction of a valve, as described, composed of a cylinder fitting into a corresponding groove in a suitable seal, the operation of opening and closing being performed by the rising of the cylinder out of, and the falling of the same into the groove, as aforesaid, when constructed and operated substantially as described.

901.—Wm. Randall, of Uxbridge, Canada, for an Improvement in Excavators:

I claim the cylinder form box, b, and the revolving shovels, c c, as combined, for the purpose specified.

902.—D. W. S. Rawson, of Galena, Ill., for an Improvement in Varnishing Photographs on Paper:

I claim the employment of wax in the method of varnishing photographic pictures, as described.

[The object of this invention is to obtain a perfectly smooth and highly glazed surface on photographic pictures taken on paper or other flexible fabric, and to this end it consists in sticking or sealing the picture, by means of the varnish or enamel employed to finish it, to the face of a plate of glass or other smooth inflexible surface, and removing it when dry, when it retains a surface of corresponding smoothness.]

903.—J. H. Rible, of Dayton, Ohio, for an Improvement in Mowing Machines:

I claim the arrangement of the eccentric journal boxes in which the ends of the crankshaft have their bearings, in combination with the draft pole or tongue of the machine and with the braces, H and I, which support the cutting mechanism, substantially in the manner and for the purposes set forth.

904.—Barton Ricketson, of New Bedford, Mass., for an Improved Apparatus for Setting Up Ships' Rigging:

I claim the employment, in combination with sheave blocks applied to take the place of dead eyes in standing rigging, of becket, e e', formed upon plates, d d', arranged to oscillate upon the sheave pin, c, substantially as and for the purpose specified.

905.—A. J. Russell, of New York City, for an Improved Adhesive Material:

I claim, as an improved article of manufacture, the dry adhesive sealing material made as shown and described.

[The nature of this invention consists in a new article of manufacture formed of suitable paper or such like material, saturated or coated with an adhesive substance, and then dried; thus providing a new adhesive sealing material of great convenience for sealing papers, wrappers, packages, &c.]

906.—R. S. Sanborn, of Sycamore, Ill., for an Improved Coffee Steeper:

I claim, first, The combination of the cup, A, and perforated tube, T, substantially in the manner described.

Second, The combination of the tubular handle, R, with the cup, A, and tube, T, substantially as set forth.

907.—C. F. Schmidt, of Williamsburgh, N. Y., for an Improvement in Muzzles for Dogs and Other Animals:

I claim the described muzzle for dogs or similar animals, constructed in the manner and for the purpose set forth.

908.—J. C. Schooley, of Cincinnati, Ohio, for an Improved Bathing Apparatus:

I claim the arrangement of tub, C, shower bath, H, seat, e f g, and upright case, A, constructed substantially as and for the purposes set forth.

909.—John Sperry and C. W. Sherwood, of New York City, for an Improvement in Machines for Enameling Picture Frames:

We claim, first, The employment or use on a vertical rotating shaft, C, of a basin or enamel receiver, D', with or without lamp, E, and the frame, I, to be enamelled, arranged substantially as and for the purpose specified.

Second, The scraper, J, formed of two plates, g h, connected together by a bolt, J, and arranged to operate as and for the purpose set forth.

Third, The lever, H, in combination with the pin, e, of shaft, C, and the pin, f, of the sliding or adjustable basin or receiver, D', or other suitable clutch, arranged to operate substantially as and for the purpose specified.

910.—Joseph Tiberi, of St. Louis, Mo., for an Improvement in Fire Grates:

I claim the arrangement of the said damper in the throat of the chimney, in the manner described, for the purpose specified.

911.—A. R. Turner, of Malden, Mass., for an Apparatus for Trimming Wicks:

I claim the organized apparatus described, for trimming the wicks of lamps, the same consisting substantially of the knife, g, attached to a traveling carriage, which is made to move back and forth in a horizontal plane, while the wick is firmly held by any suitable holding device during the cutting operation, as set forth.

912.—L. D. Valetton, of New York City, for an Improvement in Machines for Making Fringe:

I claim, first, The forked reciprocating carrier, B, for feeding the gimpure to the hook, g, at the proper time and in the required quantity, substantially as described.

Second, The hooked spindle, G, having a rotating motion for twisting the fringe, a vibrating movement to compensate for the shortening of the strand, and a reciprocating motion for discharging the strand and receiving another, substantially as specified.

Third, I claim, in machines for making fringe, the employment of the intermittently rotating spool frame, O, for twisting the wire around the strand, substantially as set forth.

Fourth, The employment of the rods, m m, or equivalent device, having a vibrating motion, in combination with the intermittently rotating spool frame, substantially as and for the purposes set forth.

Fifth, The combination of the reciprocating carrier, B, the rotating and reciprocating hook, g, and the revolving spool frame, O, or their equivalents, operating together substantially in the manner and for the purpose set forth.

913.—Wm. F. Veber, of Bowling Green, Ohio, for an Improvement in Cultivators:

I claim the arrangement of frame, A, handles, B B, slotted standard, C, shares, C', wedges, i, rods, D D D k, and slotted cross beams, d d g, the whole being constructed in the manner and for the purposes shown and explained.

[The subject of this invention is a cultivator of great simplicity and efficiency of construction, and so made that it may be readily changed to suit the varying requirements of crops at all the various stages of their growth.]

914.—W. S. Watson, of Madison, Ind., for an Improvement in Brick Machines:

I claim the combination of a pressing block, intermittently reciprocating press box formed with one or more pressing chambers, independently reciprocating plunger or plungers, and table or litter or tables or lifters, acting at intervals not only a raising and lowering action across or through the press box, but also an intermittently reciprocating motion in concert with the press box, substantially as and for the purpose or purposes set forth.

915.—H. S. White, of Newport, R. I., for an Improvement in Newspaper Files:

I claim a newspaper file composed of two strips, one of which is furnished with points or pins that pass into the holes or recesses in the other, and having slots formed in their ends, around and through which a cord or cords are wound and held by friction, for holding the slats to each other and to the paper between them, as set forth.

And I also claim fastening the slats together at their centers by means of the cord which fastens one or both of the ends of the file, as set forth and shown.

916.—S. H. Whitmore, of Cincinnati, Ohio, for an Improvement in Steam Engines:

I claim, first, The combination of two hollow-throated oscillating valves with each other, when operated by a link motion substantially as described.

Second, The application of a governor to a link, when used in combination with hollow-throated oscillating valves, for the purpose of effecting a variable cut-off, substantially as described.

Third, The V-shaped opening in the valve and valve seat of a hollow-throated oscillating valve, for the purpose of admitting steam before the valve is opened throughout its entire length, substantially as described.

917.—J. R. Whittemore, of Chicopee Falls, Mass., for an Improved Vegetable Cutter:

I claim the combination of the rotary cutters, f, and bed piece, D, and the knives, k, substantially as and for the purpose specified.

918.—J. G. Whittier, of Attica, Ind., for an Improved Boot Crimp:

I claim, first, The construction of the crimping jaws with rigid backs, flexible faces and interposed springs, substantially as and for the purposes set forth.

Second, The combination of the rod, K, set nut, L, and toggle movement, M N O, for compressing the jaws together with any desired force and readily releasing them, as explained.

[This invention is an important improvement in machines for the purpose named. The invention consists, first, in a new construction of flexible crimping jaws for pressing the boot fronts into shape upon the "form;" and second, in a novel device for setting the jaws to any required distance under, and adapted to be readily and quickly released at will for withdrawing the form.]

919.—Martin Wilcox, of Middlebury, Ohio, for an Improved Steam Pump:

I claim the arrangement of the chamber, A, float, F, pipe, N, and valve, E, in combination with the valves, M and J, with the pipes, H, constructed and operating in the manner and for the purpose substantially as and for the purpose specified.

I also claim the chamber, T, with the partitions, O O, and valve, J, in combination with the pipes, B B', valve, D, condenser, C, and pipe, G, constructed in the manner and for the purpose substantially as and for the purpose specified.

920.—Stephen Wilcox, Jr., of Westerly, R. I., for an Improvement in Hot Air Engines:

I claim, first, The employment, in a hot air or gas engine, of a plunger, C, in combination with an annular piston, B, arranged and operating within the cylinder, A, substantially as and for the purposes set forth.

Second, The employment of the tight case, D, around a plunger, C, serving as the working piston of two single-acting hot air engines, in combination with the employment of one or more lugs, c, and piston rods, G, arranged substantially as represented, for the purpose of diminishing the liability of leakage of air from the interior of the engine.

921.—C. M. Wilkins, of West Andover, Ohio, for an Improved Cheese Vat Operator:

I claim the hinged rockers, J J, in combination with the hinged lever, L, operating as and for the purpose specified.

922.—Turner Williams, of Providence, R. I., for an Improvement in Means for Avoiding Dead Centers in Cranks:

I claim the use of a spring combined with a rod for directing its force, or the equivalent thereof, arranged relatively with the crank substantially as described, to effect the purpose set forth.

923.—Levi Dodge (assignor to himself and David Blake), of Cohoes, N. Y., for an Improved Shear for the Manufacture of Axes:

I claim the employment of the circular shears and dies for cutting said steels and swaging their scarf ready for welding, in the manner set forth.

924.—T. J. Freeman (assignor to himself and E. T. Freeman), of Heyworth, Ill., for an Improved Machine for Cutting Standing Corn Stalks:

I claim, first, The roller, B, in connection with the reciprocating knife, J, arranged for joint operation as and for the purpose set forth.

Second, The combination of the roller, B, and reciprocating knife, J, with the toothed plunger bar, Q, and frame, K, all being placed within a frame, A, as and for the purpose specified.

Third, The peculiar arrangement of the bars, G H, with the plate, j, and pin, k, essentially as shown, whereby the pitman, F, may be readily connected to the traverse piece, I, and readily disconnected therefrom for the purpose of rendering the knife operative or inoperative, as required.

[This invention consists in the use of a roller placed in a suitable frame, and used in connection with a reciprocating yielding knife, a frame for bending over the corn, and a reciprocating toothed plunger, the parts being constructed and arranged so that the desired work may be expeditiously and perfectly performed.]

925.—Luther Holden and S. B. Holden, of Woburn, Mass., assignors to themselves and J. C. Seely, of East Cambridge, Mass., for an Improvement in the Manufacture of Boots and Shoes:

We claim as preparing the sole and upper for sewing that the parts to be sewed together are brought to the condition substantially as illustrated by Figs. 1, 2, and 6, and described, that is to say, projecting from the central or principal portion of the sole, at right angles or nearly so to the face thereof, in such manner as to bring both faces of the seam on the outside of the work while the sewing is being performed.

926.—H. H. Huntley (assignor to Chamberlain & Co. and William Craven), of Cincinnati, Ohio, for an Improvement in Cooking Stoves:

I claim, first, The described central, longitudinal fire box, C, provided with cool air passages, F F', which enter the lower part of said box from opposite sides at or about its mid length, in the manner and for the objects stated.

Second, I claim a cook stove with the following elements:—an oven, A, extending from side to side of the stove, a long, narrow, longitudinal fire box, C, suspended centrally in the top of said oven, cool air passages, F F', which enter at or near the mid width of the stove sides, pass over the oven at its middle portion, and enter the lower portion of the fire box at or about its mid length, and the four corner living flues; the whole being arranged as and for the purposes set forth.

927.—Henry Kipling (assignor to J. B. Behrmann), of New York City, for an Improvement in Bracelets:

I claim, as an improved article of manufacture, a bracelet composed of a single piece of wire arranged spirally with a central strengthening wire, C, covering, A, and tips, D, all as shown and described.

928.—R. J. Mann, of Brooklyn, N. Y., assignor to L. A. Osborn, of Newark, N. J., and I. J. Vincent, of said Brooklyn, for an Improved Method of Manufacturing Skeleton Skirts:

I claim the method of forming hoop skirts by applying the hoops and tapes, or their equivalents, to each other while they are supported in the relative positions which they are to occupy in the finished skirt, substantially as set forth.

929.—W. McCord, of Sing Sing, N. Y., assignor to himself, C. F. Cox, of said Sing Sing, and Robert Woodward, of New Egypt, N. J., for an Improvement in Firearms:

I claim, first, The combination and arrangement of the cams, H H', on the upright shaft, I, parallel bars, b, on the lower part of the reciprocating block or plate, F, sliding plates, M N, having spaces formed in their enlarged ends, and rammers, P', attached and inclined cartridge chambers, slots or channels, Q, formed in the transverse block, D; the said cams, H H', giving the necessary reciprocating movements to the said block or plate, F, and sliding plates or rammers, at the proper intervals of time in relation to each other, substantially in the manner and for the purpose fully set forth.

Second, I claim forming the lower part of the hopper, K, as represented and described, with a knife-edged partition between the entrance to the cartridge slots or channels, Q, for the purpose of preventing the detachment of the cartridges, P2, choking up the entrance to said slots or channels as they descend into the same, as set forth.

Third, I claim the peculiar tangential and eccentric form of the portions of the cams, T, immediately next the more abrupt portions from which the ends of the spring hammers, S, are tripped, in combination with said spring hammers operating in the manner and for the purpose described.



930.—James Nevison, of Morgan, Ohio, assignor to himself and A. D. Wood, of Buffalo, N. Y., for an Improvement in Stave Machines:

I claim the levers, o and p, and spring, in combination with the cords, u and n, connected with the saw frame, for the purpose of operating the feed works, as described.

931.—H. B. Peck, of Wolcott, N. Y., assignor to L. T. Snedaker, of Clyde, N. Y., for an Improved Method of Arranging Fly Wheels:

I claim the employment of a comparatively light fly wheel, F, made to produce the required effect by running it at a higher rate of speed than that of any part of the working train or machinery, in combination with an adjustable rolling pressure brake, H J K L, or its equivalent, for varying the machinery, substantially as and for the purpose specified.

932.—G. N. Seidler (assignor to Rawson Read), of Hartford, Conn., for an Improved Portable Folding Bed:

I claim the combination of the box or framework, a and f, racks, m and o, supports, b h', having the padded springs, x c, arranged substantially in the manner and for the purpose described.

933.—Gustavus Zecher and Jacob Kiefer, of Indianapolis, Ind., for an Improvement in Shingle Machines:

We claim the guide, v, working on the pin, t, when used for the purpose set forth.

934.—J. C. Tiffany, of New York City, and G. G. Heer- means, of Hudson, N. Y., for an Improvement in the Means of Promoting Combustion in the Furnaces of Steam Boilers:

We claim the heated chamber, f, through which air passes, combined with the pipe, e, within said chamber, supplying a regulated amount of steam or vapor, which combines with the air in said heated chamber, and passes off to the fire through a suitable opening or openings, as and for the purposes specified.

RE-ISSUES.  
58.—Leonard Campbell and T. W. Brown, of Columbus, Miss., assignors of said Campbell, for an Improvement in Cotton Gins. Patented May 22, 1855:

I claim, first, Giming the cotton, stretching and straightening its fibers, and combing the same at the continuous operation, by means of a combination of the gin saws, a, brush cylinders, E F, and stationary brush bar, I, substantially in the manner described.

Second, The use of a stationary brush bar, in combination with the brush cylinder, E, substantially in the manner and for the purpose described.

Third, The employment of a combined mote and cotton discharge board, constructed of two planes placed at certain angles or in certain relative positions to each other, substantially as and for the purposes set forth.

Fourth, The employment of a wind and guard plate, G', in combination with the brush, F, that takes the cotton from the gin saws, substantially as and for the purposes set forth.

Fifth, The combination of the gin saw, the brushes, the brush bar, the division wind board, the perforated concave, the wind and guard plate, and the combined mote and cotton separating board, substantially as and for the purposes set forth.

59.—Francis Draper, of East Cambridge, Mass., for an Improvement in Fountain Inkstands. Patented Jan. 7, 1851:

I claim, first, Extending the tube of the dipping cup, made adjustable up and down by screw or otherwise, down to the bottom of the reservoir, and so fitting or packing the lower end of said tube and bottom of the reservoir, or either, as to establish a cut-off at pleasure between the dipping cup and reservoir at the bottom of the latter, substantially as specified.

Second, In combination with the piston or cut-off for closing the tube at the end of the stroke, substantially as shown and described, I claim the formation in the bottom of the reservoir of a cup or recess, as set forth.

Third, The combination with the reservoir and adjustable dipping-cup or tube, of an inner or intermediate cylinder for operation together essentially as specified.

60.—C. F. J. Colburn, of Newark, N. J., for an Improved Evaporator for Hot Air Pipes. Patented Jan. 22, 1861:

I claim, first, The arrangement of the reflector, C, in combination with the evaporating vessel, A, and hot air pipe, B, as described, for the purpose of facilitating the evaporation and to prevent the dust rising into the apartment.

Second, Making the evaporating vessel, A, or a portion of the same, of unglazed earthen ware, or some other porous material, substantially as and for the purpose specified.

Third, Constructing the vessel, A, of two parts, a and b, the part, a, to be made of porous material, and the part, b, to contain a lamp wick or its equivalent, substantially as and for the purpose set forth.

[A full description of this invention will be found in No. 7, Vol. IV. (new series), of the SCIENTIFIC AMERICAN.]

61.—Jonathan Smith, of Tiffin, Ohio, for an Improvement in Seed Drills. Patented Jan. 4, 1860:

I claim, first, Producing a direct downward pressure on the grain by the ratchet washer, when its lateral agitation by the corrugated plates is suspended, to insure a continuous flow of grain, substantially in the manner described.

Second, The lateral corrugated wheels, D, and ratchet washers, E, conforming therewith in lateral surface, in combination with shaft, A, collars, F, and cone hopper bottom, B, the operation being as set forth.

62.—L. F. Munger, of Rochester, N. Y. (formerly of Le Roy, N. Y.), for an Improvement in Locks. Patented July 14, 1857:

I claim, first, A series of wheels, W, revolving on a common center and provided with teeth or indentations at their peripheries, for changing their position relatively with other wheels, V, or their equivalents, when each of the wheels, W, aforesaid has a pin projecting from its side or sides, so placed as to interlock with similar pins in the wheel or wheels next adjoining it, to operate substantially as and for the purpose set forth.

Second, The combination of the wheels, W, with the wheels, V, or their equivalents, when the latter are arranged or placed on an adjustable axle or shaft, specifically as shown, for the purpose of connecting and disconnecting the wheels, W, and the wheels, V, or their equivalents, as specified.

63.—A. W. Morse (assignor of J. H. Maydole and A. W. Morse), of Eaton, N. Y., for an Improvement in Grass Harvesters. Patented Feb. 6, 1855:

I claim, first, Combining with the finger bar of said grass harvester an adjustable arm or lever, c, provided with a roller or other means of passing easily over the ground, for the purpose of sustaining the finger bar at any required distance from the ground, or allowing it to rest upon the ground at pleasure, for the purpose set forth.

Second, The arrangement of the aforesaid arm or lever, c, in near proximity with the driver's seat, for the purpose of operating the finger bar, in the manner substantially as described.

Third, The combination of the brace bar, K, with the frame of the said improved grass harvester, when the said bar is arranged in such a manner as to form a lateral support to the operating arm or lever, c, substantially as described.

Fourth, The adjustable wheel, a, which serves as a fulcrum for raising the cutting apparatus, in combination with the inner shoe, substantially as set forth, and for the purposes specified.

DESIGN.  
N. S. Vedder (assignor to Ingraham & Phillips), of Troy, N. Y., for a Design for a Cooking Stove.

NOTE.—The title of Henry Jenkins' patent, re-issued March 5, is "Improvement in the Process of Manufacturing Wire Grating," instead of "Improvement in Machinery for Weaving Wire Grating," as published on page 190 of the current volume.

NEW PAMPHLETS IN GERMAN.—We have just issued a revised edition of our pamphlet of Instructions to Inventors, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon application to this office. Address MUNN & CO., No. 37 Park-row, New York.

J. H., of Ill.—By treating coal oil with caustic alkali, then washing it with warm water, you will remove nearly all its unpleasant odor. India-rubber does not dissolve well in rape seed oil, but it will do so in coal oil. The assignment of a patent deed can be recorded at any time after it is obtained, but a suit cannot be brought by the assignee until it is entered on record at the Patent Office. It has been held in Massachusetts that the assignment of a patent is valid without being recorded; it is certainly not invalid by not being recorded within 90 days after it is made. The statute in this respect is merely directory. Matches are dipped into molten brimstone, then dried before they are tipped with the igniting composition. Emery paper is the best to use for rubbing friction matches upon.

D. D. W., Jr., of Fla.—Decker & McRae, of Reidsville, Pa., are the inventors of the stave jointing and dressing machine illustrated on page 305, Vol. II. (new series) of the SCIENTIFIC AMERICAN. E. & B. Holmes, of Buffalo, N. Y., manufacture the kind described on page 332, same volume, and the stave jointer illustrated on page 216 of the current volume was invented by Bowker & Benseel, of this city.

B. C., Jr., of Mass.—The heat given off by air as it is compressed, is again absorbed as the air expands. Engines working by compressed air get very cold.

F. H. A., of Mass.—We do not know what becomes of all the scrap tin. Card loads of it may be sometimes seen thrown down in vacant lots throughout this city.

L. P. S., of Conn.—You can make a very good cement for the outside of buildings by using pure clay dried thoroughly, reduced to powder, and mixed with boiled linseed oil until it attains the proper consistency. It may be colored with any of the common pigments used for painting. The cement which is employed to coat the fronts of brick buildings, so as to make them resemble brown sandstone, is composed of dried sand, containing about twenty per cent of litharge and five percent of plaster-of-Paris, mixed together and slightly moistened with boiled linseed oil. The buildings are prepared to receive it with two, and sometimes three coats of boiled linseed oil. It appears almost dry when put on; it soon becomes hard and is very durable.

C. P. H., of Ill.—Paint is liable to flake off when the clapboards contain considerable resin or if they are wet when the paint is put on. But if the surface be dry and the paint made up with good linseed oil, and put on first in a thin primary coat, it will not scale off. If resin or varnish is mixed with the paint it will scale off.

J. P. J., of Minn.—The floss of the milk weed is too short in the fiber and too weak to be employed for spinning and weaving into thread or cloth.

J. J. L., of Ky.—Canvas prepared with boiled linseed oil and laid upon a roof makes a good water-tight protection; but we think you will find it more expensive and less durable than shingles. Coal tar mixed with asphalt in equal parts, and applied hot to a roof covered with canvas, does very well if covered on the top with a thick coat of sand and air-slacked lime.

P. McK., of S. C.—There is no work published that contains the information which you wish respecting river steamers; but there is an English publication that can be obtained on propellers and ocean steamers.

M. J. O., of Mass.—Pale varnish, containing a very minute quantity of fine Paris white, applied to glass makes it appear like ground glass.

O. W. S. H., of Ill.—We do not know the fireproof paint to which you refer by the name of "Ania." Dry clay, ground to fine powder and mixed with linseed oil, makes a moderately good fireproof paint. Strictly speaking, however, there is no such thing as a perfect fireproof paint known to us.

T. J., of Ga.—A solution of size (common glue) applied to wood, then allowed to dry, will form a good base to prevent the varnish entering the pores, but we do not see what injury the varnish can do in filling up the pores.

S. C., of Ohio.—The best substance known to us to apply to wooden slides, to prevent them from shrinking and swelling, is good linseed oil.

Money Received

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, April 6, 1861:—

- I. P., Jr., of N. Y., \$30; H. A. H., of Mass., \$25; J. B. S., of N. Y., \$15; F. H., of Mass., \$100; S. R. W., of Conn., \$10; J. A. De B., of N. Y., \$32; C. H., of N. H., \$20; B. T. W., of Wis., \$15; W. & H., of Ohio, \$25; Van W. & M., of N. J., \$25; S. R. W., of N. Y., \$45; H. B., of N. J., \$15; T. & G., of Mich., \$10; S. J. M., of Ohio, \$15; T. D., of Iowa, \$10; M. C. B., of N. H., \$50; F. F. M., of N. Y., \$100; N. A. P., of Tenn., \$60; E. J. Y. P., of N. Y., \$20; E. D., of N. Y., \$25; H. C. D., of Mich., \$25; J. G., of Miss., \$30; J. H., of N. J., \$10; H. W., of —, \$25; S. & A., of Ohio, \$15; A. B., of Ill., \$25; N. M., of Ohio, \$20; I. J. F., of Mass., \$25; M. C., of Iowa, \$10; J. S. Y., of N. Y., \$15; W. W. R., of Wis., \$25; A. A., of Ill., \$10; S. J. H., of N. Y., \$15; D. K., of Mich., \$10; A. M. H., of Cal., \$20; A. M. H., of Conn., \$15; C. J. E. T., of R. I., \$25; O. F. W. D., of Pa., \$15; L. M. S., of N. Y., \$20; M. T. G., of Ill., \$10; C. H. D., of Vt., \$15; J. J. M., of N. Y., \$28; W. S., of Mich., \$40; J. O. F., of Mass., \$20; F. & E., of Pa., \$25; P. B., of N. Y., \$25; P. D. B., of Mich., \$10; D. P., of Iowa, \$10; J. McA. G., of Mass., \$15; J. McD., of N. Y., \$25; H. P., of N. Y., \$25; C. B., of N. Y., \$25; A. J. S., of Ill., \$15; J. N. W., of N. Y., \$25; W. S. K., of Conn., \$40; H. P., of N. Y., \$40; W. N. B., of Iowa, \$40; I. H. W., of N. J., \$10; F. & S., of N. Y., \$15; W. Q., of Pa., \$15; J. B. L., of N. Y., \$10; J. L., of Mass., \$25; H. Y., of N. Y., \$15; G. H. J. r., of Conn., \$10; M. & C., of Pa., \$25; C. & B., of Mass., \$10; G. K., of N. Y., \$40; C. F. C., of Mass., \$20; J. C. S., of N. Y., \$25; E. G., of N. Y., \$25; P. P. W., of N. Y., \$25; F. G. J., of L. I., \$100; C. G. D., of N. Y., \$25; M. A. D., of Mich., \$10; P. T., of N. Y., \$25; S. R. W., of L. I., \$45; J. W. S., of N. J., \$10; J. T., of Conn., \$25; J. B. L., of N. Y., \$12.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending March 30, 1861:—

- [The patents on these cases, when issued, will be granted for seven years under the new Patent Law.]
- C. G. D., of Mich.; J. R. R., of Mass.; W. W. R., of Wis.; J. R., of Pa.; C. H., of N. H.; G. W. R., of N. Y.; N. A. B., of N. Y.; G. H. Jr., of Conn.; T. D., of Iowa; H. C. H., of Ill.; G. W. R., of Ill.; M. & C., of Pa.; S. R. D., of L. I.; P. D. B., of Mich.; J. N. W., of Pa.; I. J. F., of Mass.; W. D. B., of Mass.; H. S. Jr., of N. Y.; P. T., of N. Y.; C. & B., of Mass.; M. T. G., of Ill.; C. J. E. T., of R. I.; D. K., of Mich.; A. B., of N. J.; S. R. W., of N. Y. (2 cases); D. P., of Iowa; H. A. H., of Mass.; S. R. W., of Conn.; W. & H., of Ohio; J. McD., of N. Y.; J. A. De B., of N. Y.; H. B., of Conn.; T. & G., of Mich.; J. L., of Mass.; H. P., of N. Y.; J. T., of Conn.; J. B. L., of N. Y.

TO OUR READERS.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on Design Patents, when two good drawings are all that is required to accompany the petition, specification and oath, except the government fee.

BINDING.—We are prepared to bind volumes, in handsome covers, with illuminated sides, and to furnish covers for other binders. Price for binding, 60 cents. Price for covers, by mail, 60 cents; by express or delivered at the office, 40 cents.

New Books and Periodicals Received.

BLACKWOOD'S MAGAZINE. Published by Leonard Scott & Co., Gold Street, this city. The number for this month of this veteran periodical contains two interesting scientific articles; one on iron-clad ships of war, and the other on the physical geography of the sea. The other articles are excellent.

THE ATLANTIC MONTHLY. Published by Ticknor & Fields, Boston. The April number has the conclusion of the "Professor's Story." It is very inferior to the other series of articles by Holmes.

CHANGE IN THE PATENT LAWS.

NEW ARRANGEMENTS—PATENTS GRANTED FOR SEVENTEEN YEARS.

The new Patent Laws, recently enacted by Congress, are now in full force, and promise to be of great benefit to all parties who are concerned in new inventions.

The duration of patents granted under the new act is prolonged to SEVENTEEN years, and the government fee required on filing an application for a patent is reduced from \$30 down to \$15. Other changes in the fees are also made as follows:—

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

The law abolishes discrimination in fees required of foreigners, except in reference to such countries as discriminate against citizens of the United States—thus allowing English, French, Belgian, Austrian, 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.

During the last seventeen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN; and as an evidence of the confidence reposed in our Agency by the Inventors throughout the country, we would state that we have acted as agents for more than FIFTEEN 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 we have taken out Patents have addressed to us most flattering testimonials for the services we have rendered them, and the wealth which has inured to the Inventors whose Patents were secured through this Office, and afterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensive Offices, and we are prepared to attend to Patent business of all kinds in the quickest time, and on the most liberal terms.

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 to us, with a full description, for advice. The points of novelty are carefully examined, and a reply written corresponding with the facts, free of charge. Address MUNN & CO., No. 37 Park-row, New York.

Preliminary Examinations at the Patent Office.

The advice we 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 we may acquire of a similar invention from the records in our Home Office. But for a fee of \$5, accompanied with a model or drawing and description, we 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 our Branch Office, corner of F and Seventh-streets, Washington, by experienced and competent persons. Over 1,500 of these examinations were made last year through this Office, and as a measure of prudence and economy, we usually advise Inventors to have a preliminary examination made. Address MUNN & CO., No. 37 Park-row, New York.

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, under the new law, is \$10. A pamphlet of advice regarding applications for Patents and Caveats furnished gratis on application by mail. Address MUNN & CO., No. 37 Park-row, New York.