

RECENT AMERICAN INVENTIONS.

The following inventions are among the most useful improvements patented this week. For the claims to these inventions, the reader is referred to the official list on another page:—

KALEIDOSCOPE.

Since the invention of the kaleidoscope, manifold experiments have been made to turn these neat and entertaining instruments to a useful purpose, and not without success, for it has recently been found that by the aid of a kaleidoscope, beautiful patterns for embroidery or for painting or for engraving, &c., can be produced. The manner in which this is effected is as follows: a small picture of a flower or a piece of lace, or anything which may be found to serve the purpose, is placed under the kaleidoscope, and the picture produced by the same is copied by the aid of a photographic camera. The success of this operation depends in a great measure upon the angle of the kaleidoscopic mirrors, and it sometimes happens, that by placing the mirrors at a certain angle, the picture which is produced, gives no satisfaction at all, whereas, if the angle can be changed, and made either larger or smaller, the most satisfactory result is obtained. For this reason, the kaleidoscope which forms the object of this invention, is arranged in such a manner that the same contains a number of mirrors placed at different angles, or that the angle of the mirrors can be changed at the will of the operator, so that the angle of the mirrors can be adapted to the picture to be produced, or that several different pictures can be produced with the same instrument. The credit of this invention is due to Messrs. A. C. McNulty and D. Lyman, Jr., both of this city.

BALANCE SPRINGS OF WATCHES, &c.

The object of this invention is to provide in a better manner than has heretofore been done, for the adjustment of the balance spring to obtain for it the isochronal condition or property upon which the correct performance of a watch or chronometer is so much dependent. The isochronism of the balance spring is that condition or property which causes all the vibrations of the balance, whether they be long or short, to be produced in the same length of time. This property of the spring is usually obtained by making the spring of some particular length, which cannot be known at first, but is found by repeated trials of different lengths with every spring, which mode of operation is extremely tedious, vexatious and uncertain. It is sometimes obtained by compressing or enlarging the several coils which compose the springs; but this method is objectionable inasmuch as it has a tendency to destroy the regularity and uniformity of the volume of the spring, and is apt to leave it in a cramped and unnatural form. This invention consists in forming at that end of the balance spring which is secured to the fixed stud a coil making at least one full turn around the axis of the balance but not forming a regular continuation of the coil of the volume of the spring, by which construction the spring is made to present a definite adjustable portion where alterations may be made to obtain the isochronal condition without altering its length or disturbing the regularity of the main volume of the spring. This improvement was designed by G. P. Reed, of Roxbury, Mass.

TYPE-SETTING.

The object of this invention is, first, to facilitate the handling of composed matter without danger of knocking it into pi. This is obtained by the employment for the purpose of setting up the type of a permanent column-galley, where it shall remain until distributed; and in order to more perfectly obtain this object, movable end rules and justifying rules are added, whereby greater facility in taking proofs and correcting matter is effected. The second main object of this invention is to save the time and trouble spent in justifying lines, which is accomplished by the employment of spring spaces made of steel, brass, gutta-percha, india-rubber or any other elastic material, and used in place of the ordinary solid spaces. The importance of this invention will be duly appreciated by every practical printer. This invention was patented this week by D. B. Dorsey and E. Matthers, of Fairmount, Va.

FORCE PUMP.

This invention consists in the application of a loaded truck or a weight to a pump, arranged in such a way

that a great saving is effected as regards the application of power and other advantages obtained in cases where water is to be elevated a considerable height; the usual heavy timbers, rollers, straps, bolts, under plates, &c., being dispensed with, and the pump admitting of being driven or operated with greater speed than those arranged in the ordinary way. The patentee of this invention is John Holmes, of Schuylkill, Pa.

SPORTSMAN'S SADDLE.

This invention consists in attaching to the front part of the saddle, a bar which extends outward from the saddle at either side, in such a manner that a fowling piece or rifle may be suspended thereto, the bar admitting of being turned so that it, as well as the rifle or other fire-arm, cannot serve as an obstruction in passing through underbrush. The bar may also serve as a means of supporting, an umbrella when necessary. This improvement was designed by J. Commins, of Charleston, S. C.

TOOL SHARPENING MACHINE.

This invention consists in a machine whose principal elements are a hone carriage and a tool holder, said carriage having a reciprocating rectilinear motion in a direction parallel, or nearly so, with the edge of the tool, and a gradual or step by step movement in a transverse direction, and the tool holder being applied in a peculiar manner relatively to the said bed, so that the tool may rest upon the hone at any required inclination to the face thereof, according to the degree of bevel desired. J. C. Cooke, of Middletown, Conn., is the patentee.

The following inventions were unavoidably crowded out in our last number:—

HOT AIR FURNACE.

The object of this invention is to produce a furnace, which will take up but little room, and which with a small expenditure of fuel will heat a large quantity of air. The heat is conducted from the fire-place through pipes of a serpentine shape and put together out of several parts, each of which can be cast. These serpentine pipes when put up, form radiators of a very extended area, so that a large quantity of air is brought into contact with the heated surface of said radiators, and that a furnace is obtained which takes up little room, and which will produce a good effect with a comparatively small quantity of fuel. Each leg of the radiator can be cleaned out by a separate door. The credit of this invention is due to A. H. Bartlett, of Spuyten Duyvil, N. Y.

CALENDAR CLOCK.

The object of this invention is to produce a calendar clock, which by a simple arrangement of parts shows the number of the current year, the name of the current month, the days of the month, and the day of the week, and also the leap year, and the years between leap years by figures 1 2 3, for a period of 9,999 years, or for any desired number of years, by an addition of wheels for showing the date of the year. All the changes from long months to short ones, and vice versa, and long years to short ones, and vice versa, are produced by a double series of grooves of varying depths in the circumference of the year wheel, said grooves being so arranged that the same governs the position of the levers and pawls, which latter serve to impart an intermittent rotary motion to the year wheel and to the month wheel. The credit of this invention is due to T. F. Strode, of Nortonville, Pa.

FEEDING PAPER TO PRINTING PRESSES, &c.

With this invention the sheets of paper are carried from an adjustable table and delivered upon a paper-ruling machine, printing-press, or any machine requiring the feed of a single sheet at a time. The invention consists in combining one or more friction feed rollers with an adjustable stop, or stationary piece of rubber, and in arranging these in such a relation to the table on which the paper is held, that the rollers will carry the sheets one at a time, between the feed roller and rubber stop. The patent as now re-issued, covers broadly one or more feed rollers arranged by the side of a friction stop, as it has been found by a series of practical experiments, that one feed roller will serve the double purpose of drawing the sheets from the pile, and passing them to the printing press or ruling machine, with great rapidity. The patentees of this invention are G. H. and S. Ferguson, of Malden Bridge, N. Y.



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\* Pamphlets giving full particulars of the mode of applying for patents, size of model required, and such other information useful to inventors, may be had gratis by addressing MUNN & CO., publishers of the SCIENTIFIC AMERICAN, New York.

30,189.—J. D. Alvord, of Bridgeport, Conn., for an Improvement in Making Emery Wheels:

I claim the method described of making emery wheels, and which consists in pressing or casting the wheel upon a flanged tube, so that when the wheel contracts in drying, the central part thereof will have lateral support, and thus be prevented from cracking, and so that the wheel will become firmly attached to the tube and flanges, all as represented and described.

[This invention consists in so arranging the flanges which hold the wheel that the space between the same, when they are secured to the eye, decreases nearly all the way down to the eye, and that when they are attached to the wheel, while the substance constituting the same is yet in a plastic state, the peculiar form of the space between the flanges, allows the substance to contract without causing it to crack as it hardens.]

30,190.—John Andrews, of Elmira, N. Y., for an Improvement in Grinding Circular Saws:

I claim, first, The anti-friction rollers, E, when arranged in the manner set forth for the purpose specified.

Second, The manner of presenting the saw to the stone by means of a separate frame resting on a slide and moved by the set screw C.

30,191.—H. G. Armstrong, of Philadelphia, Pa., for an Improvement in Paper Bag Machines:

I claim, first, The employment, for severing the folded paper, of the upper and lower knives with their edges, X and Y, arranged in respect to each other, substantially as set forth, in combination with the revolving striker, K, or its equivalent.

Second, In combination with the said knives and striker, I claim the rollers U and V, for retaining the end of the folded paper during the operation of the striker.

Third, The roller, Q Q', in combination with the blade, N, the upper roller having one or more collars, n, n, so arranged in respect to openings in the blade that the action of the rollers on the folded paper cannot interfere with the said blade, as set forth.

Fourth, The horizontal rollers, K K', and the guide blocks, J J', arranged in respect to each other and to the blade, N, substantially as and for the purpose set forth.

Fifth, The plate, L, with its projections, l and l', or their equivalent, arranged as set forth for the purpose specified.

Sixth, Causing one edge of the paper to traverse in contact with a ratchet or notched wheel, b, arranged to revolve in a trough containing the paste as set forth, for the purpose specified.

30,192.—S. W. Barr, of Mansfield, Ohio, for an Improvement in Velocipede Vehicles:

I claim in three-wheel wagons the peculiar arrangement of the spring clutch, o, hand levers, c c, and break arms, e, in combination with the devices for applying the motive power and guiding the wagon, as described and for the purpose set forth.

30,193.—Henry Behn, of New York City, for an Improved Alarm for Doors:

I claim the arrangement of a hinged plate, B, acting on arms or levers fast on a shaft and placed in the opening of a door, when combined with a bell or alarm, and operated in the manner and for the purpose substantially as specified.

30,194.—W. B. Billings, of New York City, for an Improvement in Vapor Lamps:

I claim, first, The use of the hollow heater, B, when constructed substantially as described and provided with the broad flange, D, for the purposes set forth.

Second, I claim the use of the removable flange, F, in combination with the heater, B, and broad flange D, when constructed substantially as described, for the purpose of regulating the heat and the illuminating power of the lamp, thus adapting the same to burning different materials.

30,195.—J. F. Blondin, of Niagara Falls, N. Y., assignor to himself; Frank Douglas, of Norwich, Ct.; N. H. Spofford, of Boston, Mass., and J. B. Hershooft, of Seekonk, Mass., for an Improvement in Skates:

I claim the supports, E E, hinged or jointed to the heel, in combination with a skate, for the purposes substantially as described.

I also claim the arrangement of the adjustable bars, I, screws, K, swivel block, n, plate, s, and strap, L, for the purposes described.

30,196.—E. I. Bodrio, of St. Louis, Mo., for an Improvement in Machine for Drying Grain:

I claim the combination of the cylinders, B, the pipes, r and v and y, the diaphragm plate, o, and the furnace, K, the whole being arranged and operated substantially as described.

30,197.—C. K. Bradford, of Lynn., Mass., for an Improvement in Gaiter Boots:

I claim in a gaiter boot having a front and flap divided by a side opening, as shown, the holding up and fastening of said front and flap to each other and to the ankle of the wearer by means of the strap, B, fastened to said fore part and passing through a slot, f, thence around the ankle and buckled to the flap, C, as described and represented.

30,198.—Jehu Brainerd of Cleveland, Ohio, for an Improvement in Rotary Harrows:

I claim in rotary harrows feathering the teeth thereof, substantially as described.

30,199.—W. C. Bridges and D. P. Dietrerh, of Philadelphia, for a Hose Protector:

We claim the described hose protector, composed of two sheets of gum elastic or other suitable flexible material connected together at one end, the lower sheet being furnished with transverse ribs, a, a, and the whole being constructed and applied substantially in the manner set forth for the purpose specified.

30,200.—R. M. Brooks, of Greenville, Ga., for an Improved Cotton Press:

I claim the arrangement of the box, B, the trunnions, x, projecting pieces, a a, working in grooves or openings in the frame pieces A A, the head, D, arms, d d, block, c, and screw, F, with the frame pieces A' and A'', and gear wheels, E G, when the same are constructed and used as and for the purpose specified.

30,201.—Ferdinand P. E. Carré, of Paris, France, for an Improvement in Apparatus for Freezing Liquids: I claim the general arrangement of apparatus described for producing cold in manufacturing ice by chemical agents

30,202.—S. R. Bryant, of Waterford, Pa., for an Improvement in Beehives:

I claim first, The rotating cap, b, perforated at one side and fitted within a circular recess, d, at the center of the bottom, A, of the hive the bottom within the recesses having openings, e, made through it, to form a ventilator, as set forth.  
Second, Constructing the bottom, A, of the hive, elevated within the body, so as to form a ledge, j, for the parts, C, to close against, and having the outer part of the bottom inclined or beveled and made horizontal beneath the parts, C, for the purpose specified.  
Third, Constructing the comb frames, D, with diagonal braces, m, n, and having the upper cross rails, a, grooved, to form ledges or guides, O, for the combs, as set forth.

[This invention consists in a novel and improved construction of the hive, whereby several advantages are obtained over those hitherto constructed.]

30,203.—James Brown and Lyman Bridges, of Chicago, Ill., for an Improved Furnace and Cooking Range:

I claim the arrangement of coils of hot water pipes, N<sup>1</sup> N<sup>2</sup>, at both sides of the reversible oven, B, in combination with a combustion chamber, G, hot air-chamber, D, and coils of hot water pipes, P and P', all the parts constructed and connected, substantially as and for the purposes set forth.

30,204.—Cyrus Chambers, Jr., of Philadelphia, Pa., for a Copying Press:

I claim, first, The combined stand and press, constructed substantially as described.  
Second, The combination of the bed toggle, platen, and treadle, for the purpose and substantially in the manner specified.

Third, The stops, m n o p, on the arms of the toggle, arranged and operating as specified.

Fourth, The lug or stop, i, on the platen, F, to determine the position of the book in the press.

Fifth, The combination of the mortise and screw, for the purpose set forth.

Sixth, Casting the column, frame, and bed in one piece in the manner described and shown.

30,205.—Francis J. Collier, of Philadelphia, Pa., for a Label-holder:

I claim the described label-holder having the end retaining flanges, e and e', the curved slide flanges, f and f', the recesses, y and openings, m and n, arranged substantially as and for the purpose set forth.

30,206.—James P. Collins, of Troy, N. Y., for an Improved Hanger for Shafting:

I claim the combination with the shaft box, F, trunnions, g, and adjusting screws, h, of the shell, D, arm, E, rod, C, curved plate, B, arbor, b, screw, c, and frame, A, in the manner and for the purpose shown and described.  
I also claim the peculiar arrangement of the cap G, with the trunnions and the rod, C, as and for the purpose shown and described.

[The object of this invention is to obtain a bearing of simple construction which will have an universal adjusting movement, and at the same time be properly supported at all points, so as to admit of belts being applied to the shafting in any direction.]

30,207.—John Commins, of Charleston, S. C., for an Improvement in Saddles:

I claim the bar, B, attached to a saddle, essentially as and for the purpose set forth.

30,208.—J. C. Cooke, of Middletown, Conn., for an Improved Machine for Sharpening Tools:

I claim the combination of the reciprocating carriage, B, and the transversely moving hone bed, C, with the tool stock, L, by means of a bar, M, applied, and having the tool stock fitted to it, substantially as and for the purpose described.

30,209.—J. D. Custer, of Norristown, Pa., for an Improved Saw-grinding Machine:

I claim the slotted wheel, K, constructed as described, and operated in connection with the hook, P, and pin, N, in front of a traversing grindstone, for grinding and polishing saws, as set forth.

30,210.—Jean de Lihatcheff, of Yaroslavl, Russia, for an Improved Machine for Planing Staves:

I claim supporting the frame or table carrying and presenting the staves to the planing tools, and at various parts of its length, upon a series of eccentrics mounted upon shafts having pinions at their extremities, each and all of which are operated by means of one common transverse shaft provided with a worm or endless screw, as set forth, and for the purpose and purposes specified.

30,211.—D. B. Dorsey and E. Mathers, of Fairmount, Va., for an Improvement in Setting Type:

We claim the employment of a permanent column galley, A, arranged with end rules, a b, and with a justifying rule, B, substantially as and for the purpose set forth.

30,211.—J. B. Duane, of Schenectady, N. Y., for an Improvement in Seeding Machines:

I claim, first, The arrangement of the toothed bars, b b, and perforated plates, h i, outside or in front of the hopper, G, substantially as and for the purpose specified.  
Second, The adjustable board, N, placed relatively with the shake-board, M, harrow, O, and drags, Q, to operate as and for the purpose set forth.

Third, The arrangement of the lever frame, D, roller, E, bars, b b, shaft, B, and castor wheels, C, C, substantially as shown and described, for the purpose set forth.  
Fourth, The combination of the vibrating board, M, hopper, G, with the reciprocating agitators, L L, the seed box, S, harrow, O, drags, Q, frame, D, with roller, E, attached and connected to the shaft, B, by the rods, b; all arranged for joint operation as set forth.

[This invention is designed to sow seed broadcast on newly-turned sod without breaking or disturbing the latter, and, at the same time, perform the work in a perfect manner, and with a capacity of freeing itself from all obstructions, and without being liable to choke or clog.]

30,213.—J. T. Eichberg, of New York City, for an Improved Parasol and Fan:

I claim, first, Arranging the handle of a parasol, substantially as described, so that a portion of the same can be taken off at pleasure and used as a fan.  
Second, Arranging the fan, D, which forms the end of the handle, B, of a parasol with folding sides of a tapering form, substantially as set forth, so that the same, when closed, forms a case which protects the fabric of the fan, and which produces a good and convenient hold for the hand.

[This invention consists in arranging the handle of a parasol in such a manner that a portion of the same can be taken off and used as a fan when it is desired; and it consists, also, in the arrangement of the fan, which forms the end of the handle, with folding sides, united by hinges and spring catches, or in any other convenient manner and of a tapering form, which, when folded up, form a case or box that runs down tapering towards one end, which, when rounded, can be fastened by means of a spring catch in a suitable socket attached to the outer end of the handle, whereby the fan is rendered convenient for the hand-to-take hold, and, at the same time, the fabric of the fan is protected.]

30,214.—Israel Forman, of Grafton, Va., for an Improved Culinary Apparatus:

I claim the chest or box, A, with an inclined top water receptacle in its bottom, and provided with a movable sliding door, B, flanges, a, shelves, C C', and otherwise constructed and arranged as and for the purposes set forth.

30,215.—T. N. Foster, of Watertown, N. Y., for an Improvement in Harvesters:

I claim the arrangement of the three-hinged frames, N N' A and B, with their hinges, in relation to each other, the axle, A<sup>2</sup>, and inner driving wheel, A<sup>3</sup>, in combination with the rigid and flexible draught-connection, D D', operating jointly in the manner and for the purpose described.

30,216.—A. J. Fullam, of Springfield, Vt., for a Stencil-printing Machine:

I claim a stencil-printing or marking machine, as composed of a rotary brush, C, or its equivalent, a stencil plate, D, and a sheet-supporter or carriage, B, combined together, and with mechanism for rotating the brush or for revolving it and moving the sheet-supporter or carriage, substantially as and for the purpose specified.

30,217.—J. P. Gay (assignor to himself and D. C. King), of Cincinnati, Ohio, for a Composition for Roofing Purposes:

I claim the composition described, consisting of the various ingredients in the proportions named, or similar proportions, substantially as and for the purpose described.

30,218.—P. A. Gladwin, of North Providence, R. I., for an Improved Sash Fastener:

I claim a lever with curved end, k, or its equivalent, moving eccentrically on a pivot, constructed and operating substantially as described, for the purposes specified.  
I also claim the combination of such a lever with a locker and spiral spring, or their equivalents, constructed, arranged and operating substantially as described, for the purposes specified.

30,219.—Israel Grafius, of Alexandria, Pa., for a Portable Fire-escape:

I claim a portable fire-escape, constructed of a folding frame, A, covered by an elastic sheet, B, and cushion, C, and having its edges protected by a stout elastic tube, D, and operating in the manner and for the purpose set forth.

[The object of this invention is to provide the means to catch persons leaping out of a window, without requiring the assistance of more than one or two persons.]

30,220.—Robert Harper, of Trumbull, Ohio, for an Improvement in Tanning:

I claim the use of the above-mentioned weeds, in combination the aforesaid drugs, in the proportions named; thereby facilitating the process of tanning, as well as being much cheaper than the usual process of tanning with bark.

30,221.—John Holmes, of St. Clair, Pa., for an Improvement in Pumps:

I claim the arrangement of the loaded truck, D, rod, F, plunger rod, P', with the pump, G, chain, E, frame, C, and rod, D', as and for the purpose set forth and described.

30,222.—S. J. Homan, of Walden, N. Y., for an Improvement in Hay Rakes:

I claim attaching the rake tooth to the axle, C, and mounting the thills on the hubs of wheels, A A, and the driver's seat on the thills, substantially as and for the purpose set forth.

[The nature of this invention consists in dispensing with a frame and using the rake-head or bar to which the tines are attached as the axle for the carriage wheels, thus making the rake-head serve two purposes; and it also consists in attaching the rear ends of the thills to hubs which are on the inside of each wheel, and in mounting the driver's seat on the thills.]

30,223.—C. B. Hurxthal and John Lee, of Boliver, Ohio, for an Improvement in Gates:

We claim the arrangement of the inclined standard, B, slots, C and C', spring, A, levers, E, and fixed bearing, F, and weight, b; the whole operating as set forth.

30,224.—Wm. Humphreys, Jr., of Cold Spring, N. Y., for an Improvement in Rotary Engines:

I claim, first, The annular arrangement of the recesses, e, in the cylinder, B, in combination with the flanges, c c', on the piston, C, and with the cylinder-heads or covers, i, constructed and operating substantially as and for the purpose described.  
Second, The arrangement of the adjustable packing plates, k, in the ends of the sliding abutment, D, constructed and operating substantially as and for the purpose set forth.

Third, The arrangement of the abutment, D, in the interior of a closed box, E, in combination with the pipe, e<sup>2</sup>, constructed and operating substantially in the manner and for the purpose specified.  
Fourth, The arrangement of the hand rockshaft, i<sup>2</sup>, with eccentric rollers, v v', and a pinion, i, in combination with the valves, t t', and eccentrics, i'; the whole constructed, combined and operating as and for the purpose described.

[The principal object of this invention is to prevent the escape of steam at and around the working surfaces of the engine; and also to arrange the steam valves in such a manner and in such relation to the steam cylinder that, by a simple change in the position of the hand wheel, the engine can be reversed.]

30,225.—Joseph Harvey and Edwin Ford, of Philadelphia, Pa., for an Improvement in Handles for Canes, &c.:

We claim the art, process or mode of making handles shown and described, consisting substantially in the employment of forms or models composed of tapered angles and the providing of the sections of which the handle is to be composed, with tapered apertures, and the fitting of said sections upon said tapered angles; all as set forth and represented.

30,226.—W. F. Johnson, of Philadelphia, Pa., and J. Doyle, of Wetumpka, Ala., for an Improvement in Sugar-cane Harvesters:

We claim, first, The double axle, C, or an axle formed of two parts, a, connected by a clamp, F, or its equivalent, in connection with the right and left screwshafts, F, F, fitted in the parallel beams, A A, to which the parts, a, of the axle are attached, for the purpose of admitting of the lateral adjustment of the cutters, O, to suit the width of the space between the rows of cane, as set forth.  
Second, The employment or use of the cutters, O, and knives, T, when placed on shafts, T R, and used in connection with lever blades, m, beaters, S, and guide rods, W, for the purpose of cutting, simultaneously, the cane at top and bottom, as described.

Third, The arrangement of guide rods, X, and pendant curved rods, Z, in connection with the discharging levers, B, substantially as shown, for the purpose of allowing the cut cane to be discharged from the machine in gavel, as set forth.  
Fourth, The arrangement of the sliding shafts, L, with slides or bearings, f', levers, h, and shafts, M, substantially as shown, to admit, when necessary, of the cutters, O, as well as the knives, T, being readily thrown out of gear, and the cutters, O, at the same time, elevated.

[The object of this invention is to obtain a machine which will cut the standing cane (two rows simultaneously), top the cane, and allow of the same being discharged in gavel; the several parts being so arranged as to admit of adjustment to suit the varying widths the cane may be grown apart in rows, and also to suit the length of the same; the latter features being necessary, in order that the cane may be properly topped, and the cutters adjusted so that they may, in all cases, be brought in line with the rows.]

30,227.—Wm. H. Johnson, of Richmond, Ark., for an Improvement in Cotton Cleaners:

I claim the combination, with a cotton gin, of an inclined gin, having a continuous slotted bottom with curved tapering passages through it, and the fan beaters; said parts being arranged and operating, relatively to one another, substantially as and for the purposes set forth.

30,228.—Frederick Jonas, of McConnell's Grove, Ill., for an Improvement in Breech-loading Fire-arms:

I claim, first, The connection of the barrel, C, with the frame, A, by means of a spring, D, applied as described, to serve both as a flexible joint and as a means of returning the barrel to its position for firing, substantially as described.  
Second, The arrangement of the cocking lever, K, in combination with the trigger-guard lever, E, substantially as described, to provide for the operation of the said lever, K, either by or independently of the trigger-guard lever.

[This invention relates to that class of breech-loading fire-arms whose barrels are raised at the breech end for the introduction of the charge in a forward direction. It consists, principally, in certain means of cocking the hammer, either independently of the opening of the breech or by the act of opening the breech by a trigger-guard lever applied for the purpose.]

30,229.—J. F. Keeler, of Cleveland, Ohio, for an Improvement in Freight-car Locks:

I claim the spring lock and hasp, in combination with the provisions for sealing the escutcheon, as described.

30,230.—John Koppe, of New York City, for an Improvement in the Glass or Metal Harmonicons:

I claim producing a scale of tones, hanging the plate, A, of a pianoforte upon two threads, u u, passing over two rows of pins, e, in such manner that each end of each plate, A, shall be supported between two inclined portions, n n', of thread, n, for the purposes described.

30,231.—S. T. Lamb, of New Washington, Ind., for an Improvement in the Cutting Apparatus of Harvesting Machines:

I claim a cutting apparatus, composed of the following elements, viz: a guard below above and below the cutter blades, opening above, below and in rear of the cutter bar, and flanges on top, extending in a curve forward to the cutters and laterally to each other, to form a line in close proximity with the cutter blades and a cutter bar, supported on all four sides on independent bearers; all substantially as and for the purpose described.

30,232.—H. S. Leshner, of Brooklyn, N. Y., for an Improvement in Diaper Pins:

I claim combining with the pin, A, and tube, B, jointed together as described, the cross hook bar, C, or its equivalent, for holding the point of the pin, A, in place within said tube, substantially as set forth.

30,233.—D. C. Lockwood, of Derby, Conn., for an Improvement in Martingale Rings:

I claim, as a new article of manufacture, a martingale ring having its metallic lining interlocked with its sides, substantially as and for the purpose described.

30,234.—C. B. Long, of Worcester, Mass., for an Improvement in Planing Valve Seats for Steam Engines:

I claim the arrangement and combination of the carriage, B, and its feeding mechanism with the supporting frame, A, the cutter carriage, F, and its mechanism for imparting to it reciprocating longitudinal movements, as described; the whole being substantially as and for the purpose as specified.

I also claim the combination and arrangement of the parts for operating the screw, H, for effecting the reciprocating movements of the cutter carriage, F, such parts being the two tubular shafts, K L, the clutch, P, the plunger or slide rod, R, the bifurcated lever, S, the weighted lever, T, and its shouldered rod, V, and the bent arm, U; the whole being applied to the set screw and to the two carriages, B and F, and the tubular shafts, K L, being geared to the driving-shaft, substantially as described.

30,235.—F. H. Manny, of Rockford, Ill., for an Improvement in Harvesters:

I claim the arrangement of the beams, a b c d, relatively to the finger beam and main frame, and to each other, substantially as described, for the purpose set forth.

30,236.—N. H. McLean, of the United States Army, for an Improved Window-curtain Fixture:

I claim the large wheel or roller, I, and the two wheels or rollers above it, 2 and 3, the sliding carriage, E F G H, the spring, S, and rod, R, when arranged and combined substantially as and for the purpose specified.

30,237.—L. J. Masterson, of Newton, Mass., for a Self-adjusting Skate:

I claim, first, The spring foot-piece, C J B, locked to the runner, A, by the pressure of the foot, substantially as set forth.  
Second, I claim the clamps, E, operated by the descent of the heel piece, C, substantially in the manner described.

30,238.—A. C. McNulty and D. Lyman, Jr., of New York City, for a Kaleidoscope:

We claim the arrangement of two or more pairs of kaleidoscopic mirrors, A, in one case, B, substantially as and for the purpose set forth.

30,239.—D. M. Mefford, of Jeffersonville, Ind., for an Improvement in Machines for Stemming Corn Husks:

I claim the combination of the toothed picker, B, gripping cylinder, G, and guard, J, operating in the manner and for the purposes set forth.

30,240.—C. R. Otis, of Yonkers, N. Y., for an Improvement in Oscillating Engines:

I claim the employment, in combination with a steam chest, arranged at one side of the cylinder of an oscillating engine, and having the bearing of one trunnion resting upon it, of two arms, G G, secured to the said chest, for the purpose of supporting the opposite trunnion, also, from the steam chest, substantially as described, for the purpose set forth.

[This invention was illustrated and described on pages 161 and 162 of the present volume of our paper.]

30,241.—E. G. Otis, of Yonkers, N. Y., for an Improvement in Oscillating Engines:

I claim, first, The arrangement of the steam chest, B, containing the two sets of passages, d' d' d' d' e' e' e' e' e<sup>2</sup>, in such a manner as to constitute the main framing of the engine; that is to say, as to support the bearings of the main shaft and of one trunnion of each cylinder, substantially as described.  
Second, The arrangement of the steam chamber, n, in the bed-plate, in combination with cavities in the standards, F F, for supporting the outer trunnions, whereby the outer trunnion bearings are caused to rise and descend with the inner ones, as the latter rise and descend with the expansion of the steam chest, B.

Third, The springs, L L, applied to the outer trunnions, substantially as and for the purpose specified.  
[This invention is illustrated and described on pages 161 and 162 of the present volume.]

30,242.—Auguste Pellet, of Paris, France, for a Process of Ornamenting Leather Cloth:

I claim the peculiar succession of operations to secure the firmness and durability of the ornaments, consisting of, first, ornamenting the unvarnished tissue with colors that sink to the surface thereof, and then varnishing and rolling the same to complete operation; and this I claim as my invention, for the purposes set forth.

30,243.—M. R. Pelletreau, of New York City, for an Improvement in Bookbinders' Standing Press.

I claim the arrangement of the guide-rack bars, G, pinions, E, E, shaft, D, worm wheel, L, screw, C, and shaft, M, with the followers, A, J, and top and bottom plates, A, A, as shown and described, whereby the press is strengthened, the followers guided, and the lower follower quickly adjusted; all as set forth.

[The object of this invention is to produce a strong and durable press for bookbinders, which allows of quickly adjusting the load to and removing it from the upper follower without the use of filling boards.]

30,244.—William Phelps and Clark Wright, of Sycamore, Ill., for an Improved Washing Machine.

We claim the described arrangement of a smooth board, G, and a corrugated rubber, H, fixed obliquely in opposite outside corners of each of a series of chambers mounted on the extremities of revolving arms; the said parts being constructed and combined in the manner and for the purposes set forth.

30,245.—E. A. Prescott, of Worcester, Mass., for an Improvement in Revolving Fire-arms.

I claim the combination of the lever-like locking dog, G, the elbow-shaped unlocking lever, H, and the stud, I; the whole applied and operating, in connection with and relatively to the hammer, substantially as specified.

And I further claim the rearward projection on the front part of the frame, having its upper part made V-shaped and sharp-edged (as illustrated in Figs. 5 and 2), for the purpose specified.

[This invention consists in a novel, simple and effective mechanism for locking and unlocking the cylinder, whereby it is caused to be positively locked while the hammer is cocked, and while it is down, and during the whole striking movement, and only unlocked at that stage of the cocking operation during which the rotary movement is required to be effected.]

30,246.—I. M. Potter, of Providence, R. I., for an Improvement in the Manufacture of Sheet Metal Finger Rings, &c.:

I claim the use of a "former" (Fig. 6) when used in the manner described for the purposes specified.

30,247.—G. P. Reed, of Roxbury, Mass., for an Improvement in Watches:

I claim the construction of a flat or cylindrical balance spring for a watch or other time-keeper, with an adjusting coil, a, a, or e, e, substantially as described, making at least one full turn round the axis of the balance, but not forming a regular continuation of the coil of the spring.

30,248.—T. M. Richardson, of Stockton, Maine, for an Improved Device for Securing Plane Bits:

I claim the arrangement of the clamp wedge, E, the pitman, F, the inclined plane, G, and the screw, H, with the plane iron, D, its cap bearing, C, and the stock, A, substantially as described.

30,249.—Charles Robinson, of Cambridgeport, Mass., for an Improved Clothes Dryer:

I claim the combination and arrangement of the rod, B, with its catch, b, hub, D, with its radial arms, d, d, and the elastic cords, f, f, the whole forming an improved article of manufacture, substantially as and for the purposes specified.

30,250.—George Sanford, of Providence, R. I., for an Improvement in the Manufacture of Bracelets:

I claim the improvement described in the method of making the half band for ladies' bracelets and similar articles, that is to say, in forming both the outer and inner surfaces from a single piece of sheet metal, substantially as specified.

30,251.—Wm. Scarlett, of Aurora, Ill., for an Improvement in Biers:

First, I claim, in biers constructed with windlasses for lowering the coffin, the arrangement of the longitudinal cords, C, C, and cross supports, D, D, adapted to slide thereon, substantially in the manner and for the purposes set forth.

Second, I claim so arranging the cords, C, C, and straps, E, E, or their equivalents, upon the windlasses, B, B, that a continued rotation of the latter lowers the coffin and then disengages the sliding supports, D, D, or their equivalents, therefrom, substantially in the manner above specified.

30,252.—G. W. Scollay, of St. Louis, Mo., for an Improvement in Glass Coffins:

I claim, first, Making a glass coffin with the rib, I, near the upper edge thereof, and in combination with the flange, V, to strengthen and stiffen the said flange and upper edge of the coffin, to serve as a basis for the lid to rest upon, and as a handle to lift the coffin by, and—

Second, I claim making the upper edge of the body of the coffin and the lower edge of the lid thereof, with the flange and lateral grooves, in the manner described for the purpose specified, and—

Third, I claim the use of a valve or cock in combination with a coffin arranged in the manner described, so that a pipe can be attached to exhaust the air out of the coffin when said cock and coffin are of glass, and—

Fourth, I claim the use of the glass plugs, b (the head of which is shown in Fig. 2, by b), for the purpose of uniting the lid to the body of a glass coffin more firmly than the cement would unite it unaided by the said plug.

30,253.—J. P. Scudder, of Hightstown, N. J., for an Improvement in Potato Diggers:

I claim constructing the elevator with a series of open or grated bottom radial chambers, and corresponding series of open curved fingers, J, which are caused to pass through a series of open fingers, K, upon the digger, as set forth.

30,254.—S. B. Sexton, of Baltimore, Md., for an Improvement in Cooking Stoves and Ranges. Antedated Sept. 17, 1860:

I claim the arrangement of chambers, A, B and C, and flues, a, b, c, d, e and F, with the grate, G, constructed as described.

30,255.—H. M. Schaffer, of Bucyrus, Ohio, for an Improvement in Beehives:

I claim the within-described miller and robber trap constructed substantially in the manner specified, to wit: a box, A, provided with a wire gauze cover, and having two of its sides pierced with inclined holes, D, D, one of its sides provided with a sliding door, and the other side provided with a flange or shelf, beneath, and above which long openings are cut; the whole being arranged and used as and for the purpose set forth.

30,256.—J. S. Sylva, of Savannah, Ga., for an Improvement in Ice-cream Freezers:

I claim, first, The arrangement of a triangular dasher, C, in combination with the cylindrical barrel, A, as described, so that in turning the dasher, its corners serve to keep the inside of the barrel clear of ice.

Second, The arrangement of the scraper, E, in combination with the hollow dasher, C, constructed and operating substantially as and for the purpose set forth.

[This invention consists in the arrangement of a triangular hollow dasher in combination with a scraper of corresponding form, in the interior of the barrel, in such a manner that on turning the dasher its three corners scrape off the ice which may adhere to the inside of the barrel, and, on moving the dasher up and down, its sides are scraped off clear by the action of the scraper, and that, by this arrangement, the formation of ice is considerably accelerated.]

30,257.—Samuel Slocomb, of Cambridge, Mass., for an Inkstand:

I claim, in combination with a well and a hollow plunger, the projection, F, formed of the same material, and at the same time that the bowl of the inkstand is formed and fitting into the opening, e, in the plunger, as set forth and represented, and for the purpose specified.

30,258.—E. W. Smith and J. H. Mars, of New York City, for an Improved Steam Boiler:

We claim the arrangement of the combustion chamber, D, relatively to the two tiers of furnaces and to the flues, or their equivalents, whereby the gases from the upper tier of furnaces are drawn downward and mingled with those from the lower tier, in the middle and lower portion of the combustion chamber, and the agitation and combustion is allowed to proceed in the large flues along the bottom of the boiler, and the heat is extracted in a series of smaller flues or tubes, which makes a partial return of the draft, and terminates in an uptake or equivalent connection, H, immediately behind the upper furnaces, substantially as set forth.

30,259.—Samuel Soule, of Cincinnati, Ohio, for an Apparatus for Printing Addresses on Newspapers:

I claim the moving plate, A, with platen attached, when used in connection with and made to traverse the forms in the chase, in this or any equivalent manner, for the purpose specified.

30,260.—August Spellier, of Philadelphia, Pa., for an Improvement in Revolving Fire-arms:

I claim the spring, I, or its equivalent, connected to and arranged on the frame, R, in respect to the revolving breech and hammer, D, substantially as specified.

30,261.—C. F. Spencer, of Rochester, N. Y., for an Improved Hose Coupling:

I claim my improved packing for hose couplings, consisting of the loose ring, f, of India-rubber or its equivalent, in combination with the annular chamber, d, for retaining the same in a position to readily impact with the end of the inserted section, B, by the force of the water passing through the hose, substantially as set forth.

I also claim, in combination with said packing ring, the groove, r, on the neck of tube, B, and latch, g, or its equivalent, substantially as and for the purposes specified.

30,262.—G. A. Stephenson, of Paw Paw, Mich., for an Improvement in Reapers and Mowers:

I claim the combination of curved loops, D, D, forming the main frame with the finger bar, B, cam wheel, E, with its adjustable journal boxes and pins, i, i, when the parts are constructed, arranged and operated as described.

30,263.—J. A. Stewart, of Philadelphia, Miss., for an Improvement in Plows:

I claim the arrangement of an adjustable, triangular point, C, perforated at J, J', cutter and landside, D, also perforated, and adjustable and mold board, A, of a plow; the whole constructed substantially as and for the purposes set forth.

30,264.—T. T. Strode, of Mortonville, Pa., for an Improvement in Adding Machines:

I claim, first, The combination of a registering apparatus, A, with the platform, C, and V-shaped guide strips, E, E', constructed and operating substantially as and for the purpose specified.

Second, The arrangement of the notched slide, D, in combination with the registering apparatus, A, constructed and operating substantially in the manner and for the purpose set forth.

[The object of this invention is to produce a simple, cheap and reliable device for adding numbers, that can be carried in the pocket with convenience, and used in the field or on a wharf, or in any place where it is desirable to have a machine for adding numbers, or which can be used in combination with a platform fitting on an account book, so that the several rows of figures on the said account book can be added up conveniently and with little trouble.]

30,265.—Darwin Talbot, of Ironton, Mo., for an Improvement in Saws:

I claim combining alternate short and long teeth, when the former are narrower at their cutting points than the latter, both being made as herein-before described.

30,266.—W. H. Towers, of New York City, for an Inkstand:

I claim combining with the body or reservoir, A, of the inkstand, having a circular opening, C, in its top, and a groove, F, around its periphery, a correspondingly perforated, turning cover, B, having lugs, E, on its rim, which move in said groove substantially in the manner and for the purpose set forth.

30,267.—Philip Ulmer, of Charlestown, Mass., for an Improved Bed Bottom:

I claim the combination and arrangement of the rubber webbing, the steel spring, the wood slat, and the leather strap, by which one length slat may be made adjustable to beds of various lengths, substantially as and for the purpose specified.

30,268.—P. D. Van Hoesen, of New York City, for an Improvement in Wagon Wrenches:

I claim, first, The arrangement of the revolving head, A, provided with holes, b, of different sizes, in combination with the rotary handles, D, constructed and operating substantially as and for the purpose specified.

Second, The combination with the revolving head, A, and handle, D, of an additional stationary handle or supporter, E, constructed and operating substantially as and for the purpose set forth.

[This invention consists in the arrangement of a revolving head, with holes of different sizes in its sides, in combination with a rotary handle, in such a manner that the different sides of the head can be brought to face the nut or screw to be operated upon, and that, by the different sizes of the holes, provision is made for the different sized heads or nuts on a wagon. It also consists in combining with the revolving head and the rotary handle, an additional stationary handle or supporter, for the purpose of keeping the revolving head up against the nut or screw while the same is run in or out.]

30,269.—H. Y. Wildey, of Philadelphia, Pa., for an Improvement in Animal Traps:

I claim the arrangement of the movable shelf, D, box, K, cover, L, and sliding doors, J, D', with the rods, E, g, and weighted lever, E, as and for the purposes set forth and described.

[This invention is a self-setting trap for catching small animals, and intended especially for entrapping rats or mice without killing them. It consists in using a quadrangular box with a small hole in each end, and a cage attached to one end; and in arranging within this box a movable, horizontal shelf in such relation to the holes in the ends of the box, that when the trap is set the entrance hole is open and the exit into the cage will be closed, and when the shelf is depressed by the weight of the animal upon it, the entrance hole will be closed and the exit opened; said shelf is so balanced by a weight and lever that the weight of a mouse will be sufficient to overcome the balancing weight, and when this weight is removed, by the mouse passing into the cage, the shelf will return to its former position, thus making the trap self-setting.]

30,270.—Jonathan Warren, of Brooklyn, N. Y., for a Pen Cleaner:

I claim a pen cleaner constructed of a bottle, A, with an inclined spout and with a curved back, and being provided with a brush, B, which is retained by a notch, c, under the neck of the bottle, as described.

30,271.—Maurice Vergnes, of New York City, for an Improved Electro-magnetic Helix:

I claim constructing a helix of a number of separate wires, when each of such wires is so arranged or coiled as to form a double lay, substantially as described, each lay lying against or in contact with the other, but not crossing it, and when such wires are so connected with each other, as described, that the section of the helix at right angles with the axis of its core, shall be increased as the distance from the battery is increased, such section being the greatest in the middle of the helix.

I also claim, in combination with a helix, the use and application of the armature or iron plates, k, k', substantially as described, for the purpose of increasing the power of the helix.

30,272.—Maurice Vergnes, of New York City, for an Improvement in Electro-magnetic Engines:

I claim the arrangement of a series of electro-magnets disposed as the radii of a wheel, on a common center or axle, and revolving within stationary helices, and the polarization of which revolving magnets is constantly changed, as described, so that all such magnets shall have a like polarization when passing through one end of the helices, the polarization of which helices remains continually the same.

I also claim the general arrangement of the whole apparatus, substantially as and for the purposes set forth and described.

30,273.—J. A. Veatch, of San Francisco, Cal., for an Improved Gold Separator:

I claim the rotary disk, D, with or without the trough, C, in connection with a cup, E, communicating with the disk by a perforated space, e, substantially as and for the purpose specified.

[This invention, as the title implies, is to effect a thorough separation of the amalgam and mercury from quartz pulp, after the same has been treated by any of the ordinary means employed for separating the precious metals therefrom.]

30,274.—J. J. Watson, of Buffalo, N. Y., for an Improved Water Wheel:

I claim, first, the wheel, C, consisting of a series of buckets made and placed substantially in the form and position herein represented, together with the cylinder, G, and its arms, H, H, and collar, I, as set forth.

Second, The lower wheel as constructed, revolving independently in the cylinder, G, and used separately or in connection with the wheel, C, when the whole are constructed and arranged to operate substantially as specified.

30,275.—Henry Wilkins, of Brownsville, Pa., for an Improvement in Furnaces for Steam Boilers:

I claim the combination of two furnaces or fires, separated by a division wall, with a return flue arranged as described, so that the smoke and products of combustion from one fire, after traversing its furnace, is caused to pass over the other fire, previous to its escape into the chimney, for the purpose set forth.

30,276.—McClintock Young, Jr., of Frederick, Md., for an Improvement in Reaping and Mowing Machines:

I claim the combination of the self-acting spring clutch lever, G, with the loose driving wheel, D, and fast gear wheel, E, for making a self-acting clutch, substantially in the manner and for the purpose specified.

30,277.—W. T. Anderson (assignor to himself and H. S. Archer), of Brooklyn, N. Y., for an Improvement in Binding Engravings, &c.:

I claim the construction and arrangement of the sheets with joints or hinges at graduated distances from the back of the cover, increasing from the sides towards the middle of the book, so that the inner leaves will fold over those outside of them without breaking or coming loose from the cover, as described.

30,278.—E. H. Graham, of Manchester, N. H., assignor to B. H. Whitcomb, of Henniker, N. H., for an Improvement in Skates:

I claim hinging the fore end of the toe pad to the runner, so that it may be vibrated and adjusted to the bight of the heel of the boot or shoe, as required.

And, in combination with a toe pad hinged to the runner, as above claimed, I claim the screw, D, or its equivalent, for adjusting and supporting the rear end, substantially as described.

I claim fastening the heel pad to the runner by means of the dovetailing score, E, groove, H, and screw, F, substantially as described.

30,279.—Frederick Mathushek (assignor to himself and Wellington Wells), of New York City, for an Improvement in Pianofortes:

I claim, first, The combination and arrangement of the cross bars, 13, the wrest plank bar, 6, the wrest plank, 4, the string plate, 3, and the interior braces and bolts forming the framework of the pianoforte, substantially as set forth.

Second, The mode of arranging the strings of a pianoforte, in combination with the arched or concave sounding board, so as to make a tension or pressure of the strings against the arch of the board and in the same direction with the stroke of the hammers, substantially as described.

Third, The wrest plank bar, 6, with the arrangement of the inverted bridge, 8, or its equivalent, and of the strings thereon, in combination with said bar and the wrest plank and cross bar, substantially as described.

30,280.—C. Watson (assignor to himself and A. H. Finsley), of Cascade, Va., for an Improvement in Harrows:

I claim the arrangement of the box, I, arm, a', rotary collar, H, upright axle, E, brace, G, beam, F, hub, A, and arms, B, all as shown and described, for the purposes set forth.

[This invention consists in a novel and improved means employed for loading the harrow, whereby the same may be made to rotate by the draught movement, and without creating any unnecessary friction or increasing the draught, but, on the contrary, diminishing the same greatly below the ordinary square and triangular harrows, and considerably below the other forms of rotary harrows.]

30,281.—E. R. Shepard, of Scranton, Pa., assignor to Abel Baker, of Carbondale, Pa., for an Improvement in Blind Hinges:

I claim, first, Arranging the flanges, g, g', in the head, D, or on the screw, d, with two noses, m, in the manner and for the purpose set forth.

Second, Arranging the head and the screw, d, in such a manner that the connection rod, F, can be placed quite loosely into the sockets, j, j', as and for the purpose specified.

[The principal object of this invention is to produce a cheap and effective hinge which allows of operating the blind without raising the window. It consists in a peculiar manner of attaching the endless screw and the head which serves for operating the hinge, to their respective guide plates by means of double-nosed flanges, whereby a connection rod can be used which is placed quite loosely into the socket in the screw and in the head, and the length of which can therefore be easily adjusted according to the thickness of the casing through which it passes.]

RE-ISSUES.

A. C. Vandyke, of Greensburg, Ky., for an Improvement in Heating Ores. Patented April 24, 1860:

I claim the described arrangement of the ore heater, E, gate, F, rod, G, and doors, D and D', in connection with the tunnel head, A, the whole being constructed, combined and operated in the manner and for the purposes set forth.

I also claim the open work basket grate, E, in combination with the conical or bell-shaped open work gate, F, when used in connec-





tion with the tunnel head of a blast furnace, substantially as described.

I also claim the conical or bell-shaped open work gate, F, for the purpose of more readily diffusing the heat and gases through the ore and of discharging the ore into the furnace when heated, substantially as described.

Edward Lindner, of New York City, for an Improvement in Breech-loading Fire-arms. Patented March 29, 1859:

I claim, first, The method described for operating or closing the breech and forming a tight joint at the junction of the barrel with the breech, by the employment of a screw, ferrule or sleeve fitting an outer screw thread on the barrel, and provided with a projecting annular flange for grasping and releasing the breech and for drawing the same backwards and forwards in the direction of the barrel to or from the rear end thereof upon said screw-threaded sleeve, being operated substantially as described.

Second, I claim, in combination with a movable box within the breech, constructed and operating as described, the packing thereof by means of asbestos, or its equivalent, substantially in the manner and for the purposes described.

Third, Looking the screw-threaded sleeve that operates the breech, by forming the pivoted lever which serves to turn said sleeve with an eccentric or cam, arranged to act upon a locking pin by pressing down said lever after the breech is drawn tight, as set forth.

Edward Lindner, of New York City, for an Improvement in Breech-loading Fire-arms. Patented March 29, 1859:

I claim the employment of a hollow screw, arranged to fit the rear end of the barrel, and serving to lock and open a suitable sliding breech-piece, substantially as and for the purpose or purposes set forth.

S. J. Seely, of New York City (formerly of Buffalo, N. Y.), assignor to C. W. Durant, of New York City, for an Improvement in Railroad Cars. Patented April 24, 1860:

I claim, first, The application of corrugated metal plates combined with and secured to and upon the angle iron, a, b, c, d, for the construction of the bodies of railroad cars and other vehicles, as set forth.

Second, The application of the said corrugated metal plates and angle iron, combined with the trough iron, E, as set forth, for the purposes described.

ADDITIONAL IMPROVEMENTS.

D. F. Elmer, of Haydensville, Mass., for an Improved Watch Key and Guard Bar. Patented June 26, 1860:

I claim making that portion, f, of the slot in the sheath which provides for the longitudinal movement of the sheath upon the tube of a spiral form, substantially as and for the purpose described.

W. H. Johnson, of Richmond, Ark., for an Improvement in Plows. Patented Feb. 14, 1860:

I claim the segmental ring, D, provided with the screw threads and nuts for adjusting it in the beam, A, in combination with the share piece, E, constructed, arranged and operating substantially as and for the purposes specified.

J. B. McEnally, of Clearfield, Pa., for an Improved Paper and Letter File. Patented Feb. 28, 1860:

I claim the hollow cylinder or tube, A, provided with a bottom, a, lid, c, and hand or rim, d, the latter having, in connection with the open end, b, of the cylinder, spiral edges, when said cylinder is used in connection with the link, B, and wires or rods, e, for the purpose specified.

[This invention relates to an improvement on a paper and letter file, for which Letters Patent were granted to this inventor, bearing date Feb. 28, 1860. This invention consists in having the cylinder of the file made hollow, so as to serve as a box or case to hold the wires or rods, whereby the implement is rendered much more desirable than the one previously patented.]

G. T. Parkhurst, of Baltimore, Md., for an Improvement in Lamps. Patented Sept. 13, 1859:

I claim a spring attached to the outside of the upper half of a burner, and extending each way around it from the point where it is attached, with a catch on each end, suitably shaped to fasten the glass to the burner and the two parts of the burner to each other.

I also claim the oval-shaped dome or cap made in one piece with the flooring, in combination with the partitions which divide the currents of air which flow to the wick from those which pass through the side openings between the cap or dome and the chimney.

I also claim the snuffing blade attached to the interior of the lamp and actuated by mechanism outside the same, all made substantially as described, or their mechanical equivalents, and operating in the manner set forth.

DESIGNS.

Henry Berger, of New York City, for a Design for Center Pieces.

E. A. Murdoch, of Boston, Mass., for a Design for a Lady's Hat.

Alonzo Hebbard assignor to W. Gale, Jr., and J. R. Willis, of New York City, for a Design for Spoons.

E. J. Ney, of Lowell, Mass., assignor to the Lowell Manufacturing Co., for a Design for Carpets.

G. Smith and H. Brown (assignors to North, Chase and North), of Philadelphia, Pa., for a Design for Stoves.

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

H. G. Thompson, of New York City, assignor to the Hartford Carpet Co., of Hartford, Conn., for a Design for Carpeting, &c. (13 cases.)

N. S. Vedder, of Troy, N. Y., assignor to J. S. & Merritt Peckham, of Utica, N. Y., for a Design for a Stove Register.

NOTE.—In the above list of claims we recognize thirty-six patents which were secured through the Scientific American Patent Agency.—Ebs.

NEW BOOKS AND PERIODICALS RECEIVED.

THE ATLANTIC MONTHLY. Published by Ticknor & Fields, Boston. An excellent number.

MOTT'S CLINQUES. Report of Professor Valentine Mott's Surgical Cliniques in the University of New York, Session 1859-60. By Samuel Francis, Member of Dr. Mott's Surgical Staff. Published by S. B. & W. Wood, 389 Broadway, New York.

NARRATIVES AND ADVENTURES OF TRAVELERS IN AFRICA. By Charles Williams, Esq. Dick & Fitzgerald, publishers, No. 18 Ann-street, New York.

BLACKWOOD'S MAGAZINE FOR SEPTEMBER. Re-printed by Leonard Scott & Co., 79 Fulton-street, New York.

We suppose most of our readers are aware that they can get this re-print of Blackwood with the four British Reviews (the best literature in the world) all for \$10 per year.

J. H. A., of N. Y.—We know of no treatise on dipping.

Either of the strong acids may be used for coloring brass. Sulphuric and hydrochloric acids act slowly, but are easily managed. To give the dead or "mat" surface, nitric acid, or a mixture of nitric and sulphuric is used. Many also prefer to make a thick mixture of niter in sulphuric acid. The acids act chiefly by dissolving out the zinc from the surface of the brass. Gold is colored on the same principle.

W. G. W., of Va.—We have not seen the invention to which you refer, and therefore cannot meet your question. You will learn the cost of a piston, &c., by addressing the Novelty Works, in this city.

B., of Ill.—Friction is independent of velocity in relation to distance, not in relation to time. If a hundred pound weight is dragged over an iron rail a mile long, and it takes a hundred pound weight, falling perpendicularly 1,000 feet, to overcome the friction, then it will require this weight to fall the same distance, to overcome the mile of friction, whether the rubbing body moves over it in an hour or in a minute; though, in one case, the friction would be sixty times more per minute than in the other case.

C. D., of Mass.—If gunpowder be exploded in a chamber which can resist the pressure, the pressure will be maintained provided no heat escapes. The same answer applies to gun cotton.

O. P., of S. C.—Molds for india-rubber manufacture are made of metal, plaster of Paris, &c. The rubber is pressed in when at the consistence of very thick dough. Hard rubber is sold for about \$2 per pound.

J. E., of Mo.—We would prescribe an application of sand paper for the purpose of removing the glaze from your rubber belts.

T. M., of N. J.—The waxed cloth to which you refer should be of oil. We think you would find sheets of pure gutta-percha preferable.

W. F. H., of Tenn.—You "consider it a fixed fact that man must fly," and ask why he may not fly with the machine you describe, just as well as with any other.

[W. F. H. proposes to use a modified, explosive engine, constructed of aluminum, &c.]

J. M. L., of Ind.—The bristles of brushes are arranged by careful and dexterous manipulation.

S. L. C., of Ind.—You ask: "Why is it that the earth does not perform one fourth of its revolution in the same time that it would fall to the sun, if deprived of its projectile force?" There is no reason.

G. H. H., of Maine.—Instead of .4 read .04, and your way is clear.

B. F. C., of Tenn.—Your philosophy teaches you correctly; we advise you to arm yourself with it and demolish your opponents. Tell them how a babe can move the earth, and they will be satisfied that a force of 100 pounds will move the "Great Eastern" under the circumstances you describe.

F. F., of S. C.—Creosote is extracted from coal tar and wood tar. For use in preserving wood, it is not necessary that the creosote be pure; coal tar is often used without any special preparation. It is very desirable that creosote shall be produced in some convenient form for sale and use.

W. F. C., of Md.—The "laminated" gold is gold in the shape of foil or ribbon.

H. S., of Md.—We gave the recipes with the endorsement of others. The ordinary way of depositing alloys is by means of the battery, from cyanide solutions.

W. W. B., of Mass.—Bars of soap shrink by reason of the evaporation of the water combined with the soap. You may, therefore, prevent the shrinkage by keeping the soap in a damp place.

MONEY RECEIVED

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, Oct. 6, 1860:—

- J. D., of N. Y., \$30; J. H. B. S., of Ga., \$10; L. F. M., of N. Y., \$15; E. D., of Mass., \$25; F. H. P., of Conn., \$25; T. E. R., of Fla., \$30; S. B. S., of Ind., \$30; D. G. & Co., N. Y., \$40; H. P., of N. Y., \$20; W. J. H., of Conn., \$25; J. T. W., of N. Y., \$32; J. M. T., of Va., \$25; J. S., of Va., \$25; D. D., of Pa., \$25; A. M., of N. Y., \$30; P. H., of Mass., \$50; T. S., of Ohio, \$20; W. H., of Ill., \$30; J. B. C., of N. Y., \$20; J. B. S., of N. Y., \$25; E. S., of Mass., \$30; C. W., of N. Y., \$30; E. C., of N. Y., \$25; J. B. G., of N. Y., \$55; J. B., of N. Y., \$25; J. B. Van D., of N. Y., \$35; H. B., of Ill., \$35; J. McA., of Ill., \$25; W. C., of Pa., \$15; C. W. S., of Ala., \$35; F. V. A., of Maine, \$30; J. E. T., of La., \$100; J. W. G., of Pa., \$20; J. R. S. G., of Ky., \$15; J. G., of Ohio, \$30; H. W., of Pa., \$20; J. L., of N. Y., \$20; S. M. G., of Va., \$25; S. W. M., of N. Y., \$30; J. S. B., of N. Y., \$30; S. C. St. J., of N. Y., \$40; D. L., of Ill., \$25; B. M., of N. Y., \$30; J. T. P., of Conn., \$30; H. P., of Ill., \$30; H. H., of Va., \$35; A. K. W., of Pa., \$30; P. L., of N. Y., \$30; W. H. L., of N. Y., \$40; J. B. S., of N. Y., \$25; V. V., of N. Y., \$38; W. H. T., of Ohio, \$25; G. & S., of Ohio, \$25; J. H. K., of Mass., \$25; W. J. L., of N. Y., \$25; J. W. C., of Ind., \$25; W. R. H., of Ga., \$35; J. G., of Miss., \$50; S. N. D., of Mich., \$30; J. W., of N. Y., \$30; W. G., of Mass., \$30; R. C. M., of S. C., \$30; E. & G., of Mass., \$30; O. S., of Mo., \$25; E. L. G., of Conn., \$25; J. W. of Conn., \$30; G. A. C., of N. Y., \$30; R. T. K., of Pa., \$30; G. & S., of Mass., \$25; W. P. L., of N. J., \$25; R. C. B., of N. C., \$30; S. I. of N. Y., \$35; H. S. H., of N. Y., \$25; S. T., of N. Y., \$25; A. F., of N. Y., \$20; J. B. S., of Conn., \$25; A. A., of Conn., \$30; G. W. H., of Pa., \$55; J. G., of Ga., \$30; J. N. N., of Pa., \$35; A. A., of Va., \$30; H. N. H., of Va., \$35; R. L. U., of N. Y., \$12; J. M., of N. Y., \$35; S. G., of La., \$35; A. R., 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, Oct. 6, 1860:—

- R. C., of Texas; J. H. K., of Miss.; E. L., of N. N.; F. H. T., of Conn.; W. B. H., of Ga.; J. B., of N. Y.; C. T. S., of Cal.; R. P. K., of Pa.; W. S., of N. Y.; S. M. G., of Va.; S. C. St. J., of N. Y.; W. H., of Ill.; H. H., of Va.; D. G. & H., of N. Y.; V. V., of N. Y.; J. McA., of Ill.; H. B., of Ill.; A. F., of N. Y.; W. C., of Pa.; C. W. S., of Ala.; J. M. T., of Va.; G. & S., of Mass.; F. S. G., of Conn.; O. S., of Mo.; W. A. D., of Ill.; P. M., of La.; J. B. Van D., of N. Y.; H. S. H., of N. Y.; J. B. S., of Conn.; W. H. T., of Ohio; S. J., of N. Y.; J. B. G., of N. Y.; E. D., of Mass.; W. J. H., of Conn.; J. W. C., of Ind.; D. L., of Ill.; H. & K., of Ill.; H. H., of N. Y.; J. J. S., of Ga.; A. R. W., of Pa.; G. & S., of Ohio; E. C., of N. Y.; L. S. G., of Ky.; D. B. B., of Pa.; W. J. L., of N. Y.; P. H., of Mass. (two cases); T. S. of Ohio; D. D., of Va.; S. & G., of N. Y.; W. P. L., of N. J.; J. B. S., of N. Y.; S. W. M., of N. Y.; G. W. H., of Pa.; A. A., of Va.; J. N. N., of Pa.; L. G., of La.; R. L. U., of N. Y.; A. R., of N. Y.

IMPORTANT TO INVENTORS.

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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.

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