

## RECENT AMERICAN INVENTIONS.

**Cork Cutter.**—This invention consists in the arrangement of a reciprocating sliding knife in combination with a vibrating gage plate, and with a stationary rest in such a manner that the blocks of cork can be cut into slices or sticks of the desired thickness, and that said sticks, after being cut, are caused to drop freely from under the knife by the action of the vibrating gage, thereby enabling the operator to proceed with his work without interruption and without danger of choking the machine; it consists also in the employment of an automatic tilting table in combination with a series of revolving cutters for the purpose of cutting the sticks into pieces of suitable length for the corks to be manufactured. Invented by Edward Conroy, of Boston, Mass.

**Budding Knife.**—The object of this invention, by Edward D. Gird, of Cedar Lake, New York, and R. Gird, of Healdsburg, California is to obtain an implement by which trees may be budded or inoculated with far greater facility and with much greater success than hitherto. The invention consists in the employment or use of a blade or cutter provided with curved portions for the purpose of cutting the buds from the limb, and also in the employment or use of a T-shaped cutter for the purpose of making the incision in the stock to receive the bud.

**Bridge Girder.**—This invention consists in the employment, in combination with a catenary series of links, of a chord, posts, diagonal tension braces and joint blocks, so arranged and applied as to truss the links in the catenary line and make a very simple, light and strong girder. Patented to A. McGuffie, of Rochester, N. Y.

**Anemometer.**—This invention, the merits of which are due to G. R. Stuntz, of Superior, Wis., consists in a certain system of pencils or other marking instruments connected with a vane, and applied in combination with a sheet of paper or other material moved at a regular speed by a clock movement, for the purpose of indicating and recording the direction and changes of direction of the wind through a considerable period of time. It also consists in certain improved means operating in combination with the vane and movable sheet of paper, or other material, for the purpose of indicating and recording the force or velocity of the wind during a period of time.

**Manufacture of Cube Sugar.**—One of the obstacles which has heretofore presented itself in the manufacture of cube sugar has been the want of suitable machinery by which to form the sugar into cubes with an economical application of power. The object of this invention is to overcome the above obstacle and to dispense, as far as possible, with manual labor in the manufacture, and to this end it consists in the formation of the cubes from the granular sugar by means of machinery composed of an endless or rotating series of molds fitted with compressing and discharging pistons, and having applied, in combination with them, a cam or cams, or their equivalent, for operating the pistons one or more at a time in regular succession, throughout the whole of the series, whereby, so long as a supply of granular sugar is supplied to the molds, and the machinery is kept in motion, a continuous delivery of compactly compressed cubes is effected. This invention is by Gustavus Finken, of Brooklyn, N. Y.

## A Remedy for Sleeplessness.

How to get sleep is to many persons a matter of great importance. Nervous persons, who are troubled with wakefulness and excitability, usually have a tendency of blood on the brain, with cold extremities. The pressure of blood the brain keeps it in a stimulated or wakeful state, and the pulsations in the head are often painful. Let such rise and chafe the body and extremities with a brush or towel, or rub smartly with the hands, to promote circulation, and withdraw the excessive amount of blood from the brain, and they will fall asleep in a few minutes. A cold bath, or a sponge bath and rubbing, or a good run, or a rapid walk in the open air, or going up or down stairs a few times just before retiring, will aid in equalizing circulation and promoting sleep. These rules are simple and easy of application in castle or cabin, mansion or cottage, and may minister to the comfort of thousands who would freely expend money for an anodyne to promote "Nature's sweet restorer, balmy sleep."



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\* \* Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 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.

34,286.—S. F. Ambler, of Brooklyn, N. Y., for Improved Amalgamator :

I claim, first, Giving to the pan, D, the shaking and vibratory motions for the purpose described.

Second, The combination of the agitating board, H, constructed as shown, with the pan, D, for the purpose specified.

Third, Placing the discharge openings, O, upon the side of the pan, D, for the purpose set forth.

34,287.—E. D. Baker, of Claremont, N. H., for Improvement in the Construction of Ordnance :

I claim, first, The flanges projecting from the body of the gun near the breech, in combination with the external screw or straining rods, substantially as and for the purpose described.

I also claim, in combination with the flanges, the wire wrappings or said flanges furnishing both a support for and the means of securing the ends of the wires, substantially as described.

34,288.—F. H. Bartholomew, of New York City, for Improvement in Valve Regulators :

I claim the combination of an open vessel from which water may be removed, with a valve that controls the discharge of the water under pressure, into an open vessel by means of a mechanism, substantially as described, so that the weight of water in the open vessel determines the closing of the valve.

I also claim the combination of the handle by which the valve is opened with the mechanism described, with the open vessel, and with the valve, in such manner that the said handle is made available both to open the valve and to adjust the said mechanism, substantially as described.

34,289.—T. L. Birch and J. C. Noble, of Washington, Pa., for Improvements in Car Couplings :

We claim the combination of the similarly-formed double-hooked bars, C' c', springs, F, and levers, G', when the parts are so constructed and arranged as to adapt the hooks to lock together whichever is uppermost, substantially as explained.

[The object of this invention is an automatic coupler adapted to secure the cars when the latter are run together, without necessitating an accurate adjustment of the parts or the setting of them at specific relative heights.]

34,290.—S. A. Clemens, of Rockford, Ill., for Improvement in Construction of Walls of Buildings :

I claim the method of constructing the walls of buildings, and other structures, of lath or any narrow strips of wood put in two or more parallel tiers or rows with cross ties of the same secured between the lath by mortar or nails to be finished by plastering, when combined either with the vacant space or spaces between the tiers or rows of lath, or with filling of mortar or other material in the said space or spaces, whether the entire skeleton wall be constructed of the lath work, or it be combined with parts of a frame, substantially as described and for the purposes specified.

34,291.—Edward Conroy, of Boston, Mass., for Improvement in Machines for Cutting Corks :

I claim, first, The arrangement of the vibrating gage plate, H, and stationary rest, G, in combination with the reciprocating knife, B, constructed and operating substantially in the manner and for the purpose shown and described.

Second, The arrangement of the tilting table, C, in combination with one or more rotary cutters, L, constructed and operating substantially as and for the purpose set forth.

34,292.—Samuel and L. A. Davis, of Providence, R. I., for Improved Washing Machine :

We claim the combination of the two suds boxes, A, B, the latter being fitted within the former, perforated at its sides and bottom and provided with a perforated reciprocating plunger, C, substantially as and for the purpose set forth.

We further claim the two levers, F, G, when arranged and connected together as shown and with the plunger, C, and used in connection with the boxes, A, B, as and for the purposes set forth.

[The object of this invention is to obtain a clothes washing machine which will effectually cleanse the clothes from dirt without subjecting them to the usual friction by rubbing, an operation which has a tendency to injure as well as to divest them of buttons.]

34,293.—E. P. Dickie, of Fishkill Landing, N. Y., for Improved Chimney for Lamps :

I claim, in glass chimneys for illuminating purposes, the transparent partition or partial partition, d, when made part of and of the same piece as the chimney, substantially as and so as to realize the advantage set forth.

34,294.—John Dickson, of New Castle, Pa., for Improvement in Manufacture of Sheet Iron :

I claim the use of an enamel or preparation for giving a highly glazed and durable surface to sheet iron, composed of an oxide or oxides of lead and carbon, and prussian blue, pulverized and mixed with drying oil, and a solution of beeswax in oil of turpentine, or its equivalent, with or without the addition of a small proportion of acid, and in connection therewith, the reviving of metallic lead in the enamel on the surface of the iron during the annealing process, in the manner and for the purpose described.

34,295.—Watson Duchemin, of Charlottetown, Prince Edward Island, for Improved Anti-friction Bearing of Hoisting Blocks :

I claim the sleeve, g, operating in combination with the box, a, and friction rollers, h, substantially as described.

34,296.—J. H. Ellis, of Brooklyn, Pa., for Improvement in Mills for Crushing Apples, Sugar Cane, &c. :

I claim the fluted rollers, B, B', in combination with the rotary cleaners, E, E', when said parts are provided respectively with flutes, a, of semi-cylindrical form and with hawk-bill projections, c, and all arranged to operate as and for the purpose set forth.

[This invention consists in the combination of a pair of fluted crushing rollers and rotary cleaners so constructed and arranged that the crushed substance is thoroughly cleaned out of the cavities in the rollers, and the latter thereby enabled always to work in a most efficient manner.]

34,297.—William Fulton, of Elizabeth City, N. J., for Improvement in Cooking Apparatus :

I claim the combination of the lamp, A, with the reservoir or boiler, B, jacket, C, and extinguisher, D, when the whole are arranged, constructed and operated in the manner specified and for the purpose set forth.

34,298.—Benjamin Garvey, of Ashland, N. Y., for Improvement in Ascertaining Position and Direction on Land and Sea :

I claim the application of rotating bodies for the purpose of preserving normal or base lines or planes, whereby the direction and changes

of direction of other planes and lines can be ascertained; for the purposes and in the manner set forth substantially in my specification.

34,299.—A. P. Griffing, of East Cambridge, Mass., for Ink stand :

I claim my improved inkstand as made with its cap, screws and holes arranged in the parts, A, B, substantially in manner and to operate as specified.

34,300.—C. H. Guard, of Troy, N. Y., for Improved Machine for Making Carriage Wheels :

I claim so proportioning and arranging certain of the parts of said machine that I am enabled, by the auxiliary use of a lathe rest, R, and a chuck, L, to temporarily convert the same into a turning lathe of of suitable proportions for shaping wheel hubs, previous to mortising the same in said machine, all substantially as set forth.

34,301.—C. T. Holloway, of Baltimore, Md., for Improvement in Branding and Stamping Irons :

I claim a branding or stamping iron consisting of a stock, B, false bottom, D, movable types, E, and wedges, F, or screws in lieu thereof; but otherwise constructed and arranged as shown and described.

[This invention consists in an improved device for readily securing and releasing movable dies for branding, stamping or printing.]

34,302.—G. C. Jones, of Alma, Maine, for Improvement in Shells for Ordnance :

I claim, first, A projectile flattened on opposite sides or at its poles, when its equatorial belt or larger diameter only is perforated with holes or bores perpendicular to the axis of the projectile, for the reception of bullets, substantially in the manner and for the purpose described.

Second, The removable plug or block, D, by means of which, in combination with the enlarged chamber or cavity, I am enabled to use my projectile, either as a shot or shell, substantially as set forth.

34,303.—A. S. King, of Commerce, Mich., for Improvement in Gas Retorts :

I claim, first, The employment of a movable cup, B, provided with a hollow cone, b, as its bottom, in combination with a retort, A, provided with a conical protuberance, a, at its bottom and with a movable cap, C, substantially in the manner and for the purpose shown and described.

Second, The arrangement of the annular belt, E, in combination with the outer retort, A, and with the inner retort, D, as and for the purpose specified.

[This invention consists in the employment of a movable cup provided with a hollow cone at its bottom to fit over a conical protuberance projecting from the bottom of the retort, for the purpose of increasing the heating surface and spreading the material of which the gas is manufactured over a greater surface than can be done on a plain bottom, and also for retaining the residuum from the material used, so that said residuum may be readily removed from the retort by simply removing the cap, this operation being facilitated by having the cap or cover of the retort movable. It consists further in the arrangement of an annular chamber or belt in connection with the inner retort, for the purpose of preventing a draft of the gas in any one direction from the lower part of the retort, thereby allowing sufficient time for the perfect transformation of the material used into gas, and preventing the escape of the material in the form of vapor.]

34,304.—C. W. Krebs, of Baltimore, Md., for Improved Sash Supporter and Fastener :

I claim the obliquely-grooved slide, E, in the described combination with the bolts, C, c, springs, D, and a knob or handle, F, the latter being employed to move the slide, E, and likewise the sash itself, in either direction, all as explained.

[This invention is especially applicable to the windows of cars and carriages. The sash is secured at any point at which it may be placed, and by the application of the hand to the proper point to raise or lower it, is automatically released so that it may be freely moved.]

34,305.—L. B. Lathrop, of San Jose, Cal., for Improvement in Apparatus for Shrinking Tires :

I claim a tire-shrinking device composed of a block, A, provided with a concave, E, curved shoulder, B, guides, d, d, movable jaws, H, B, and wedges, D, D, all combined and operating as shown and described for the purpose set forth.

[This invention relates to a simple and efficient device for contracting or shrinking the tires of wheels for vehicles without cutting and welding. The object of the invention is to effect the result without the employment of levers and complex arrangements for compressing the heated part of the tire, as heretofore practiced.]

34,306.—Jones Laubenstein, of Minersville, Pa., for Improvement in Coal Screens :

I claim an improved manufacture of screens for the screening and preparing of anthracite coal, or other coals and hard substances, similarly handled and prepared, substantially as described.

34,307.—Ira Leonard, of Lowell, Mass., for Improvement in Railroad Chairs :

I claim a rail-connecting chair composed of a continuous sheet of wrought iron bent into such a shape that it is enabled to embrace the base and the sides of the abutting ends of two rails while it is rendered laterally elastic and vertically stiff by means of a hollow rib or fin immediately beneath the embracing jaws of said chair, all substantially as represented.

In connection with my said improved rail-connecting chair, I also claim the use of the wooden cushion, E, or the equivalent thereof, in the manner and for the purpose set forth.

34,308.—J. Y. Leslie, of Brooklyn, N. Y., for Improvement in Tobacco Holders :

I claim the combination and arrangement of the stopple, 1, charger, 2, gate, 3, spring, 4, matchbox, 10, cover, 11, pipe cleaner, 6, the receptacles 7 and 9, with the case, 8, or their equivalents, for the purposes set forth and described.

34,309.—T. J. Mayall, of Roxbury, Mass, for Improvement in Restoring Waste Rubber :

I claim the combining or incorporating of waste vulcanized metallic or hermetized rubber with vegetable tar or pine oils, for the purpose and substantially in the manner as set forth.

34,310.—G. B. McClinch, of Hallowell, Maine, for Improved Valve for Hydraulic Engines :

I claim the arrangement, substantially as described, of two opposite port faces of the valve as well as those of its seat.

I also claim the connection piece, f, and its passage, e, in combination with the two valve plates, their seat and chest, when the two opposite port faces of the valve, and those of the seat thereof, are arranged in manner substantially as described.

34,311.—A. McGuffie, of Rochester, N. Y., for Improvement in Truss Girders for Bridges :

I claim the combination with the catenary series of links, A, A, of a cord, C, joint blocks, B, B, posts, E, E, and diagonal braces, f, f, the whole arranged substantially as specified.

I also claim the joint blocks, B, B, serving the three purposes of connecting the links, A, A, supporting the joints of the chord and connecting the diagonal braces, f, f, with the chain of links substantially as specified.

34,312.—Charles Monson, of New Haven, Conn., for Improved Writing Desk :

I claim the application of the cover, B, to the drawer holder or box, A, in manner and so as to operate therewith, substantially as specified.

I also claim the improved drawer, as made, with the elevating bottom and mechanism combined with the said bottom and the drawer frame, the whole being arranged substantially in manner and to operate as specified.

34,313.—Charles Monson, of New Haven, Conn., for Improvement in Ladders and Staging for Artisans :

I claim the combination of the two sets of parallel bars or ladders, a, a, base or foot connection and a leg stand or pair of stands, or the mechanical equivalent thereof, the whole constituting a ladder or artisan's stage, substantially as described.

**34,314.**—Charles Monson, of New Haven, Conn., for Improved Folding Stair Case and Ladder :  
I claim the described slide ladder or folding staircase or combination of stair plates or mechanical equivalents, and parallel bars arranged and connected substantially in the manner and so as to operate as described.  
I also claim the combination and arrangement of a series of hand holes with the said stair plates, or their equivalents, and their parallel bars, when arranged and connected substantially in the manner and so as to operate as specified.  
I also claim the combination of a spring catch and a series of notches or mechanical equivalents therefor, with the stairway constructed of stair plates and parallel bars, arranged in manner and so as to operate substantially as set forth.

**34,315.**—H. W. Mosher, of Coeymans, N. Y., for Improvement in Cooking Stove :  
I claim the plate, G, having a grate, H, attached, when used in combination with the front plate of the stove, the fire chamber, C, flues, a, a, c, and the draught openings, f f h i, as and for the purpose specified.  
[The object of this invention is to obtain a cook stove which will be self-feeding, that is to say replenish its flue chamber with coals for a considerable period of time, and also be capable, by a simple adjustment, of being converted from a self-feeding coal to an ordinary wood-burning stove.]

**34,316.**—George Owen, of Jaskonville, Ill., for Improved Coupling for Double Plows :  
I claim connecting two single plows by means of the hinged coupling pieces or rods, s s, attached to the beams of said plows in the rear of the standards thereof, so as to bring the plows close together, and thereby form a double mold-board plow, in the manner and for the purpose described.  
I also claim the combination of the curved or bent piece s, t, l, and the sliding joints of the bars, C and D, in the manner and for the purpose specified.  
I also claim connecting the compound curved or bent bar, c, with the bar, D, by means of the chain, x, or its equivalent, for the purpose set forth.  
I also claim the combination of the front curved stretcher bar, B, and jointed bars, C, D, for the purpose of connecting two plows, as set forth.  
I also claim the combination of the front straight bar, B, with the curved or bent-jointed bar, C, and straight-jointed bar, D, for the purpose of connecting two plows, as specified.

**34,317.**—W. H. Palmer and W. Crumb, of Orleans, N. Y., for Improvement in Horse Pitchforks :  
We claim in a horse pitchfork, which composed of cross bar, shank and prongs that are rigidly connected and suspended for operation by means of a brace, as described, the bow springing from the suspension brace and connecting it with the shank, as set forth, in combination with a mechanism located within the shank, whereby the bow may be locked or allowed to slide, substantially as described.

**34,318.**—Addison Smith, of New York City, for Improvement in Rotary Blowers :  
I claim the employment or use for the purposes specified of the external case, A, having induction and education openings, d e, in combination with the rotary cylinder, B, when the latter is provided with radial sliding pistons, C, placed eccentrically within the case, A, and has its pistons, C, operated or drawn in and out so that their outer edges will be kept in contact with the inner surface of the body, b, of the case, through the medium of the segments, F, I, and grooves, f g, either or both of the latter being stationary or rotating, substantially as described.  
[This invention consists in placing a cylinder having radial sliding pistons eccentrically within a cylindrical case which is provided with an induction and education opening, the several parts being so arranged that the moving or running parts may be operated at a very high rate of speed without being subjected to a great amount of wear and tear and the air which enters the device during its operation forced out from it by the action of the pistons in connection with the case, the blast being produced on the same principle as that caused by an ordinary bellows, and not like ordinary rotary fans or blowers produced by a vacuum formed by a rapid revolution of a fan within a case.]

**34,319.**—C. M. Spencer, of South Manchester, Conn., for Improvements in Breech-Loading Firearms :  
I claim, first, in combination with the breech, C, and eccentric, D, applied as described, the hammer, F, secured to the eccentric for the purpose of enabling the breech to be operated by the movements of the hammer, substantially as specified.  
Second, in combination with the hammer, F, eccentric, D, and breech, C, I claim the main spring or springs, I, I, so applied in relation with a flattened portion, k, of the hammer pin, that the said spring or springs serve not only to produce the blow of the hammer, but to assist in operating the breech, as set forth.  
Third, the cylindrical tumbler, G, so applied on an upright axis and in combination with the hammer and trigger as to allow the cock notch, j, to pass beyond the trigger and the hammer to be thrown back for the operation of the breech beyond the position in which it is cocked, substantially as specified.  
[This invention consists in a novel arrangement of means for operating the movable breech of a breech-loading firearm, also in a certain mode of combining the breech with the lock.]

**34,320.**—Robert Spencer, of Brooklyn, N. Y., for Improved Military or other Riding Saddles :  
I claim the cantle, C, and front piece, D, when applied to or used in connection with the parts, A, B, of the tree connected by the springs, B B, as and for the purpose specified.  
[The object of this invention is to obtain a military riding saddle which will conform to the shape of the back of the horse and fit perfectly thereon, and which will form a firm seat for the rider and retain its shape however much it may be used.]

**34,321.**—G. R. Stuntz, of Superior, Wis., for Improvement in Anemometers :  
I claim, first, The combination of the system of pencils, a, a, described, the vane, D, and the endless apron, F, or equivalent device, moved by clock-work, for carrying a sheet of paper or other material on which the record of the direction of the wind is to be made, the whole arranged to operate substantially as described.  
Second, The employment of one or more prickers, p, actuated by means of one or more springs, i, and one or more pins, h, deriving a rotary motion from a train of gearing driven by a wind wheel attached to the vane, the whole operating substantially as described for the purpose of recording upon the moving sheet of paper or other material the velocity of the wind.

**34,322.**—J. G. Treadwell, of Albany, N. Y., for Improvement in Cook Stoves :  
I claim the employment of the plate, a, in connection with the ovens, B B, arranged as set forth, whereby two separate draughts of air are formed, one upon each side of the ovens, for equalizing the heat, substantially as set forth.

**34,323.**—J. G. Treadwell and Wm. Hailes, of Albany, N. Y., for Improvement in Parlor Hot-air Stoves :  
We claim the employment of the damper, K, constructed and arranged in the manner and for the purpose specified.  
Second, The combination of the damper, K, constructed and arranged as set forth with the cross pipe, G, and pipe, F, as and for the purpose set forth.

**34,324.**—H. W. C. Tweddle, of Pittsburgh, Pa., for Improved Apparatus for Distilling Coal Oil and other Substances :  
First, I claim the vacuum apparatus, R, with which, by the use of steam, I produce a vacuum.  
Second, The use of the vacuum apparatus, R, arranged substantially as described, in combination with the receivers, L and M, or their equivalents.  
Third, the use of the vacuum apparatus, R, in combination with the steam pipe, F, arranged in the interior of the still, substantially as described.

**34,325.**—Geo. W. White, of New York City, for Improvement in Breech-Loading Firearms :  
I claim opening and closing the rear end of the barrel by means of a plug which has both a revolving and a sliding motion, substantially in the manner set forth.

**34,326.**—John Armstrong (assignor to R. T. Kensil & Co.), of Philadelphia Pa., for Apparatus for Drying Pasted Envelopes :  
I claim the drum or pulley, A, its endless band, E, and the endless tapers, F, the whole being arranged and operating substantially as set forth, in combination with the fan or its equivalent, for the purpose specified.

**34,327.**—F. B. Fournier (assignor to himself and Robert Wallace), of Berea, Ohio, for Improved Drain Roller and Molder Combined :  
I claim the combination of the rollers, B and C, with the enlargement, b, when arranged in combination with the framework so as to operate in the manner and for the purpose set forth.  
I also claim in combination therewith the plow, D, in the manner and for the purpose specified.

**34,328.**—E. D. Gird, of Cedar Lake, N. Y., and R. Gird, of Healdsburg, Cal., assignors to themselves and T. J. Bedwell, of Healdsburg, Cal., for Improved Budding Knife :  
We claim, first, The employment or use of the blade, B, provided with one or more curved portions, b, substantially as shown, for the purpose of cutting the buds from the limbs.  
Second, A blade provided with a spur, d, at its end, substantially as shown, for the purpose of making the T-shaped incision in the side of the stock to receive the bud.  
Third, the combination of the blades, B, C, constructed substantially as shown and fitted in a suitable handle, the whole forming a new and useful implement for the purpose specified.

**34,329.**—Herrmann Grundt, of Berlin, Prussia, assignor to Hess, Kessel & Co., of New York, for Improved Iron Pontoon :  
I claim, first, The arrangement and construction of iron pontoons, in sections, when said sections are provided, as herein shown, with a flanch or saddle iron, corresponding with a flanch or angle iron on another and adjoining section, the whole being arranged in the manner and for the purpose, substantially as described.  
Second, I claim the use or an opening in one or both the end sections, K and L, in a pontoon, constructed as described, closed by a door or doors, in the manner and for the purpose, substantially as specified.

**34,330.**—E. M. Hendrickson (assignor to himself, J. H. Prentice and J. W. Blackham), of Brooklyn, N. Y., for Improvement in Sewing Machines :  
I claim, first, The transversely-reciprocating frame or plate, K, in combination with a clamp or presser foot carried thereon, and adapted to compel the fabric to reciprocate transversely therewith, and to allow it to be led longitudinally through or upon the same, substantially as and for the purpose set forth.  
Second, I claim mounting the longitudinal feeding device, N, N', or its equivalent, on the cross feed reciprocating plate, K, so that each shall perform its proper function, independently of the other, substantially as and for the purpose specified.  
Third, I claim the clamp or presser foot, U, u, so arranged in connection with the curved edge of the plate, K, as to hold the junction of the rim and body of a hat with an adjustable force in the line of the stitch, as to yield to the varying thickness of the stuff, substantially as described.  
Fourth, I claim the combination of the hinges, u and v, and springs, u' and v', with the guide or presser foot, U, for the purpose of allowing the said guide or presser foot to be folded back out of the way when changing the hat, and be again readily placed in position, substantially as described.

**34,331.**—W. H. Place (assignor to himself and George Hayward), of New York City, for Improved Blast Generator :  
I claim an improvement on A. F. W. Parry's hydraulic blast generator, patented June 2, 1867, first, The arrangement of rings, A A B B, with the shaft, D, and gearing, F.  
Second, The combination of valve, V, or its equivalent, with the valve chamber, G, as and for the purpose described.

**34,332.**—Christian Richman (assignor to Gustav Wedekind), of Philadelphia, Pa., for Improved Clasp for Lamp Shades :  
I claim the clasp composed of the metal ring, D, having lips, f and h, connected by the lower portion of the ring, and any convenient number of springs, i, n, or their equivalent, the whole being constructed and arranged for attachment to the shade and chimney of a lamp, substantially as set forth.

**34,333.**—S. H. Roper (assignor to Elmer Townsend), of Boston, Mass., for Improvement in Hot-Air Engines :  
I claim, first, The employment of a current of air forced in between the prolongation of the piston and the cylinder in a direction counter to that entering from the fire box, for the purpose described.  
Second, I claim the air space within the piston, in combination with the double-acting pump and hollow pistons, for pumping cool air therein and therefrom, for the purpose of preserving the packing cool, as set forth.  
Third, I claim regulating the engine, by exhausting the air from the fire box, by means of a governor, as set forth.  
Fourth, I claim placing the force pumps upon the top of the cylinder and attaching the piston rods, M, directly to the main piston, for the purpose described.

**34,334.**—J. F. Sargent (assignor to Elmer Townsend), of Boston, Mass., for Improvement in Machinery for Rolling Metal for Shoe Tacks :  
I claim the combination of the guides, F, F, and the lips, f, f, or mechanical equivalents therefor, with the upsetting flanges and the reducing rollers beveled in opposite directions, substantially as explained.

**34,335.**—J. F. Sargent (assignor to Elmer Townsend), of Boston, Mass., for Improvement in Machines for Pegging Boots and Shoes :  
I claim as a new machine the combination of the mechanism for operating the awl, peg driver, and for feeding the work, with the mechanism for cutting and feeding the peg work, all being arranged compactly in the frame, A, or its equivalent, and operated by the cams and levers, arranged substantially as and for the purposes described.  
I also claim the pendulum or swing piece, H, having the awl and peg-driver carrier, L, the throat piece, b, the peg box, W, the pointing mechanism and pegwood feeder, arranged and applied thereto, or connected therewith, as set forth, in combination with so applying such pendulum to a quill or sleeve, F, disposed on the driving shaft, B, or on a stud or arm arranged just above or below the same, that the whole may be caused to operate together in manner and for the purpose set forth.  
I also claim combining and arranging with a vibrating peg box and pegwood feeder, constructed as described, a stationary knife, whereby the pegs are severed from the peg strip, in manner as set forth.  
I claim so constructing and applying the throat piece or block to the pendulum, H, as to have no vertical movement, in combination with so forming and applying the retainer that it may have a short vertical movement, whereby the two are made to operate together in manner as set forth.

**34,336.**—C. E. Sweeney (assignor to himself and W. H. Hooton), of Charleston, Mass., for Improvement in Knapsacks :  
I claim suspending the knapsack, A, on the frames, B, or their equivalents, so that an air space may intervene between the knapsack and the back of the wearer, substantially as described and for the purpose set forth.  
Second, I claim the shoulder pads, c, in combination with the frame, B, for the purpose specified.

**34,337.**—Philip Ulmer (assignor to himself, L. H. Worman and J. O. Ely), of Philadelphia, Pa., for Improvement in the Construction of Knife and Fork :  
I claim constructing the handles of table knives and forks of sheet metal shafted, so as to be wholly closed and hollow, combined with the knife blade or fork tines, formed of sheet steel, substantially as and for the purpose specified.

**34,338.**—Philip Ulmer (assignor to himself, L. H. Worman and J. O. Ely), of Philadelphia, Pa., for Improved Camp Spoon :  
I claim a spoon formed substantially as specified, so as to ease with the knife and fork, as set forth.

**34,339.**—G. W. Walker (assignor to himself and John Ma-

ger), of Lawrence, Mass., for Improvement in Steak Broiler :  
I claim my improved steak broiler, having its several parts constructed and arranged in relation to each other and so as to operate in manner as set forth.

**34,340.**—G. L. Witsil (assignor to himself and L. S. Hacker), of Philadelphia, Pa., for Improved Washing Machines :  
I claim the frame, with its vibrating ribbed blocks, D, horizontal bar, E, and lever, F, in combination with the vessel, A, and its permanent ribs, b, the whole being arranged and operating as and for the purpose set forth.

**34,341.**—B. B. Lewis, of Bristol, Conn., for Improvement in Calendar Clocks :  
I claim, first, Arranging the month wheel, F, and the year wheel, D, to turn upon the same center, in combination with the indicating pointers, that point to the numerical day of the month, and the month of the year, depicted on the face of the time dial, as a distinct attachment or device for a clock, substantially as and for the purpose described.  
Second, I claim the gears, q, c, cam, r, plate, s, combined with the wheels, E, F, arranged and operating substantially in the manner and for the purpose described.  
Third, I claim the hinged and pivoted clock lever, I, in combination with the guard, e, gear, B, arranged to communicate motion once in every twenty-four hours, from the center or time spindle, A, or gear, a, to the wheel, F, and at the same time to adjust itself to show on the face of a dial through an indicating pointer, k, the day or number of days in each of the months, substantially as described.

**RE-ISSUES.**

**1,268.**—Ethan Allen, of Worcester, Mass., for Improvement in Revolving Firearms. Patented July 3, 1860.  
I claim the combination of a revolving cylinder, having its chambers extending entirely through the block, with an unbroken recoil shield having a projection on its face, as described and for the purpose set forth.  
I also claim, in the said combination, as described, the making of the said projection on the recoil plate, in the form of an inclined plane, substantially as and for the purpose specified.

**1,269.**—Gustavus Finken, of Brooklyn, N. Y., for Improvement in Apparatus for Manufacturing Cube Sugar. Patented Aug. 20, 1861.  
I claim the formation of the cubes from the granular sugar in the manufacture of cube sugar, by means of machinery composed of an endless or rotating series of molds, fitted with compressing and discharging pistons, and having applied, in combination with them, a cam or cams, or their equivalent, for operating the pistons, one or more at a time, in regular succession throughout the whole of the series, substantially as specified.

**1,270.**—J. J. Haley, of South Dedham, Mass., for Improved Rollers for Wringing Machines. Patented Jan. 14, 1862.  
I claim the connecting or uniting of india-rubber rollers to metallic shafts, by the means and in the manner described.

**1,271.**—Henry Steinway, Jr., of New York City, for Improvement in Pianoforte Actions. Patented June 16, 1858.  
I claim the repeating lever, e, attached to an arm, j, at the back of the jack, and arranged relatively to the hammer, and operating under the control of a spring, substantially as described and for the purpose set forth.  
[The object of this invention is to provide for the instantaneous return of the jack to its notch in the hammer but, after the hammer has struck the string, for the purpose of enabling a quick repetition of the blow, by a contrivance operating with less friction than the sliding post and its appendages. It consists chiefly in a repeating lever applied to the jack, and operating under the control of a spring.]

**1,272.**—Daniel Treadwell, of Cambridge, Mass., for Improvement in the Manufacture of Cannon. Patented Dec. 11, 1855.  
I claim, first, In making a cannon consisting of a body, in which the caliber is formed, the walls of which are of one piece, surrounded by rings, hoops or tubes, in one or more layers, placed upon said body under great strain, by which said body is compressed and the natural equilibrium of the molecules or particles of which it is composed disturbed, by their being brought nearer together, and this is accomplished in the manner set forth, viz., by making the hoops smaller than the part which they are to surround, and then expanding them by heat, and then suffering them to shrink or contract, after having been put in their places.  
Second, I also claim the method of securing the hoops to the body of the gun, and the several layers of hoops to each other by screw threads, when they shrink to their places, as described.

**DESIGNS.**

**1,521.**—John Dean and S. P. Emerson, of Worcester, Mass., for Design for a Photograph Preserver.

**1,522.**—Simeon Hayes, of Prattsburgh, N. Y., for Design for Trellis Frame.

**1,523.**—C. J. Shepard, of New York City, for Design for a Stove.

PATENTS FOR SEVENTEEN YEARS.



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

The 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.....	\$25
On application for Re-issue.....	\$30
On application for Extension of Patent.....	\$50
On granting the extension.....	\$50
On filing Disclaimer.....	\$10
On filing application for Design, three and a half years.....	\$10
On filing application for Design, seven years.....	\$15
On filing application for Design, four and one half years.....	\$30

Thelaw abolishes discrimination in fees required of foreigners, excepting 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 sixteen 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 it 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. More than 5,000 such examinations have been made through this office during the past three years. Address MUNN & CO., No. 37 Park-row, N. Y.

#### How to Make an Application for a Patent.

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

#### Rejected Applications.

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

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

#### 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, in English and German, furnished gratis on application by mail. Address MUNN & CO., No. 37 Park-row, New York.

#### Foreign Patents.

We are very extensively engaged in the preparation and securing of Patents in the various European countries. For the transaction of this business, we have offices at Nos. 66 Chancery-lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. We think we can safely say that *rien n'est plus sûr* of all the European Patents secured to American citizens are procured through our Agency.

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

Circulars of information concerning the proper course to be pursued in obtaining Patents in foreign countries through our Agency, the requirements of different Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park-row, New York, or either of our Branch Offices.

#### Assignments of Patents.

The assignment of Patents, and agreements between Patentees and manufacturers, carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American Patent Agency, No. 37 Park-row, New York.

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

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

#### TO OUR READERS.

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.

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

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

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

**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 at this office. Address MUNN & CO., No. 37 Park-row, New York.



**R. T. C., of D. C.**—Your proposition does not seem to meet the case of a patentee, who had inadvertently made a wrong oath at the time he filed his application into the Patent Office. We believe it is perfectly competent to correct such an error by re-issue the practice would be both sensible, and just, and but for the opinion of some crochety judge would have been the established policy of the office.

**G. C. Jr., of Conn.**—By reference to page 279, Vol. V. SCIENTIFIC AMERICAN, you will find an article upon the use of a patented invention which fully answers your inquiry.

**W. R., of Ohio.**—The recoil of a gun is produced by the pressure of the gases. The burning of gun powder changes a portion of its elements from the solid to the gaseous state, by which their volume is increased some 300 fold. In expanding, these gases exert a pressure in every direction, driving the ball forward and the gun back with the same force. Capt. Rodman devised a delicate apparatus for measuring the recoil of the gun while the shot was passing along the bore on its way out, and thence by calculations based on the relative weight of the gun and the shot, he was able to ascertain the velocity of the shot during each portion of its passage out.

**C. S. F., of N. Y.**—Your spring door knob made flush with the face of the door and operated by pushing it in would be an improvement, as the projecting knobs are liable to catch the loose dresses of females and the coat pockets of males. Several stem carriages for family use have been made and used. You will find an illustration of one on page 1, Vol. III. (new series) SCIENTIFIC AMERICAN.

**B. A. H., of Iowa.**—Calcination produces no chemical change in sand composed of silica. The "shore sand" to which you refer may contain oxide of iron and other substances capable of being decomposed by calcination in an open furnace. You can easily determine the question by an experiment.

**H. L., of Mass.**—Sweet oil is made from the fruit of the olive, but much oil sold under this name is made from lard. Opium is obtained by wounding the unripe seed capsules of the poppy and collecting the milky juice which exudes from the wound then allowing it to dry in the sun after which it is kneaded into cakes.

**J. J. H., of Ky.**—Bronzing on metal is produced by powders applied with varnishes. We are not acquainted with any other method of bronzing than by using bronze powders, which can be obtained in nearly all stores where painter's materials are sold.

**J. T., of Eng.**—We are not acquainted with any original source on fishing by American authors. The good old Isaac Walton is our authority still on this interesting question.

**J. B. M., of Ohio.**—The question of preserving stone is likely soon to be one of much interest in this city. If you have a reliable article for preserving it, you had better advertise it in the leading city papers. We do not know of any surer way of getting it before the public.

**O. A. P., of N. Y.**—In No. 5, Vol. XIV. (old series) you will find a diagram and description how to lay out a grain hopper.

**H. W. L., of Boston.**—We believe that several coats of good linseed oil is the best application you can use for protecting the surface of your artificial stone from absorbing moisture. Any stone, however, which absorbs moisture and freezes in cold weather is unfit for building purposes, because the frost splits it off in scales from the surface.

**G. C., of Ohio.**—No patent can be obtained in Canada, for an article which has been patented in Great Britain or the United States. The Canadian patent laws very injurious to the interests of the Province, it prevents the introduction of a great number of useful manufactures which would be of great benefit to that country.

**J. W. C., of Wis.**—Ure's "Dictionary of Arts and Sciences," contains all the published information known to us respecting the manufacture, bleaching and sizing of paper.

**J. W. C., of Conn.**—A pendulum vibrating on a perfectly frictionless axis and where it would not meet resistance from the air, &c., would oscillate for ever. You cannot, however, obtain a frictionless axis because the friction is just in proportion to the weight of the pendulum.

**W. L. W., of N. B.**—About the cheapest paint which you can use for a steam boiler, which is intended to stand without use for three months in winter, is a mixture of linseed oil, black lead and some turpentine. A thin coat of coal tar, oil and a little black lead will also answer well. Any paint will burn off when the boiler is again fired up for use. In the use of salt water for steam boilers, no chemicals could be economically employed to prevent saturation of the brine and a deposit of salt.

**R. V. J., of Pa.**—The adaptation of a well known vegetable substance, as a substitute for coffee is not patentable. A combination of various kinds of vegetables for that purpose might be patented.

**P. D. F., of Pa.**—Many ways have been proposed for fitting the breech of a breech-loading cannon to make it gas tight. The commonest forms of the breech, have been the slide, the screw and the faucet. In the celebrated Armstrong gun a combination of slide and screw is used, that is said to be perfectly gas tight.

**W. F. J., of Del.**—If the moon were resting upon the earth would not the two globes be pressed together at the point of contact with great force? The same is the case with the two halves of the earth, and there can be no hollow in the middle. The centrifugal force near the centre of the earth is exceedingly feeble, and at the surface it is just sufficient to raise water 13 miles.

**S. L., of Iowa.**—Rodman's cannons are all cooled in the manner you propose, namely, by a stream of cold water-passed through their interior. You will find a description of the method of cooling, and experiments testing the strength of such guns on page 261, Vol. XI. (old series) SCIENTIFIC AMERICAN. You will also find an illustration of a wrought iron cannon formed in rings bolted together (such as you suggest) on page 220, Vol. II. (old series) SCIENTIFIC AMERICAN. DeBrame's cannon is loaded with a revolving chambered breech. See page 385, Vol. IV. (present series) SCIENTIFIC AMERICAN. We do not discover any patentable novelty in your marking tool.

**O. F. D. & Co.**—Giffard's injector is manufactured in Philadelphia by Messrs. Sellers.

**P. S., of C. W.**—The Sibley army tent is manufactured by J. H. Landell, Newark, N. J. Holzapffel's work on turning and mechanical manipulation can be procured in this city, price \$15. We are glad to know that you have taken our paper so long. We hope you may be able to extend its circulation amongst your friends.

**A. P., of N. Y.**—You will obtain all the information you desire respecting the grinding, &c., of lenses in Dick's "Practical Astronomer." With it and Brewster's Optics, you may be able to make such lenses as you require. A receipt cannot instruct you how to set jewels in chronometers. You must go and learn the art with a practical man. A hard solder for gold is composed of 13 grains of gold, 7 of pure copper and 4 of pure silver. Melt altogether and roll it out thin for use.

**T. W., of Ohio.**—To make a good black varnish for iron work, take 8 lbs. of asphaltum and fuse it in an iron kettle, then add 2 gallons of boiled linseed oil, 1 lb. of litharge, one-half pound of sulphate of zinc, (add these slowly or it will fume over,) and boil them for about three hours. Now add 1½ lbs. of dark gum amber, and boil for two hours longer, or until the mass becomes quite thick when cool. After this it should be thinned with turpentine to the proper consistency.

**E. P. P., of N. J.**—"The Engineers and Mechanic's Dictionary," was published some years ago by Messrs. D. Appleton & Co. booksellers of this city.

**J., of Wis.**—Pure clay is a silicate of alumina, composed of silica and alumina. If a substance not soluble in water, is dissolved in a mixture of acid and water, and then an alkali is added which will combine with the acid, the substance dissolved will return to its solid condition and fall to the bottom of the water. This process is called precipitating, and when ammonia is the alkali used the precipitating is said to be done by ammonia. Any process which causes a substance in solution to take the solid form is called precipitating.

**H. W. B., of N. Y.**—Your questions in relation to tugs do not state all the conditions necessary for an answer.

**A. P. W., of Pa.**—We cannot answer your inquiries about Pott's projectile. You had better correspond with him on the subject.

**T. McM., of N. Y.**—Wells's geology is a good elementary work. You can get it of Balliere Brothers, 440 Broadway, N. Y. An advertisement in the SCIENTIFIC AMERICAN, would doubtless procure for you the kind of miner that you want.

#### Money Received

At the Scientific American Office on account of Patent Office business, during one week preceding Wednesday, Feb. 12, 1862:—

L. B., of Conn., \$20; H. H. W., of N. Y., \$45; R. and P., of Pa., \$20; W. J. P., of N. Y., \$45; H. and B., of France, \$20; E. B. McC., of Conn., \$20; S. and B., of Wis., \$45; D. S., of N. Y., \$70; G. H., of N. Y., \$30; W. H. C., of Mich., \$25; A. O. C., of N. J., \$15; J. L., of Mass., \$12; P. H., of N. Y., \$15; J. G., of Pa., \$500; W. B. B., of Ill., \$15; S. H. M., of O., \$25; H. J., of Conn., \$22; L. G., of N. Y., \$10; W. H. D., of N. Y., \$15; D. and K., of Mass., \$25; J. D. W., of N. Y., \$15; A. D., of N. Y., \$25; J. F. L., of N. Y., \$25; G. B. O., of N. Y., \$25; J. N. H., of N. Y., \$45; R. and P., of Pa., \$20; J. L. T., of N. Y., \$20; B. and C., of Mich., \$20; W. H. Van G., of N. J., \$45; J. C., of Conn., \$20; C. G., of Mass., \$20; E. D. W., of Pa., \$40; E. S., of N. Y., \$15; E. C., of Mass., \$25; J. F. L., of N. Y., \$40; J. K. Z., of Ind., \$15; J. D., of Ill., \$10; D. C. D., of Ind., \$15; L. W. P., of Mass., \$15; T. C., of R. I., \$45; E. C., of Ky., \$25; C. P. B., of Conn., \$25; McK., and F., of N. Y., \$25; S. H., of Ind., \$15; C. H. B., of Mass., \$15; A. H. N., of Mass., \$15; L. K., of N. Y., \$25; G. T., of N. Y., \$25; A. W., of Pa., \$45; W. H. H., of N. J., \$45; A. B. H., of Conn., \$20; H. and S., of N. Y., \$40; E. M. J., of Conn., \$20; W. M. M., of Ill., \$45; D. O. F., of Mass., \$20; W. W. G., of Me., \$15; D. J. M., of O., \$25; D. S., of N. Y., \$10; J. N., of Ind., \$25; J. K., of N. Y., \$40; D. and H., of N. Y., \$15; C. C., of Ill., \$15; A. N. P., of Ill., \$15; G. F. H., of Ill., \$25; B. F. C., of N. Y., \$15; F. C. F., of Mass., \$15; F. and G., of Conn., \$100; W. and P., of O., \$25; R. J. S., of N. Y., \$10; E. M., of Conn., \$25; D. M., of N. Y., \$50; C. W. I., of N. Y., \$25.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from Feb. 5, to Wednesday Feb. 12 1862:—

H. & S., of N. Y.; D. S., of N. Y.; A. D., of N. Y.; S. A. M., of N. Y.; D. J. M., of O.; J. N., of Ind.; R. K., of Ill.; D. M., of N. Y.; (2 cases.) C. E. L. H., of Conn.; W. H. C., of Mich.; J. L., of Mass.; J. F. L., of N. Y.; E. D. W., of Pa.; E. C., of Mass.; W. & P., of O.; D. & E., of Mass.; S. H. M., of O.; C. W. L., of N. Y.; G. B. O., of N. Y.; G. F. H., of Ill.; E. C., of Ky.; B. B., of O.; G. T., of N. Y.; C. P. B., of Conn.; J. K., of N. Y.; McK. & F., of N. Y.