#### RECENDANTICAN INVENTIONS

The following inventions are among the most important of those for which patents have recently been granted, and which will be found recorded in our List of Claims.

Hand-Mowing Machine.—The object of this invention, patented by L. M. Doudna, of Amherst, N. H., is to obtain a simple and efficient mowing machine, to be operated by hand; one that can be operated or shoved along by a single person with facility and perform good work. The invention is more especially designed for mowing lawns and meadows containing trees, around which an ordinary mowing machine drawn by a team could not be made to operate to advantage. The invention consists in mounting an ordinary hand frame on wheels, the axis of which is provided with a serpentine cam, said cam, as the machine is shoved along, operating or vibrating a bar, having a segment cutter at its outer end, and which works over a segment cutter plate.

Machine for Pegging Boots and Shoes.—This invention, patented by Moses Marshall, of Lowell, Mass., relates to a device for pegging boots and shoes by manual operation, and has for its object the facilitating of the work, enabling the same to be performed much more expeditiously and perfectly than by the exclusive manual process of punching the soles and driving the pegs therein. The invention consists in the employment and use of an awl, punch and feeder, combined and arranged to operate in such a manner as to effect the desired end.

Improvements in Ordnance.—The principal object of this invention, patented by William Page, of New York city, is to obtain in a gun of smooth bore the advantages derived from a rifle bore, viz, the rotary motion of the projectile about its axis, with a less costly combination of the gun and projectile, less wear and tear of the gure, and less liability to windage; and to this end this invention consists in furnishing a gun, at or near its muzzle, with one or more pins or short protuberances projecting from the surface of the bore toward the axis thereof, to enter spiral groves in the exterior surface of the projectile, which is to be of sufficient length to reach from the charge of powder or packing to the muzzle, or to a point in front of the said pins or protuberances.

Applying Fuse to Projectiles.—This invention, patented by R. P. Parrott, of Cold Spring, New York, is more especially intended for the explosive projectiles of elongated form usually thrown from rifled cannon. and which move with the point forward; and it has for its principal object to make the same fuse serve either as a time fuse or a percussion fuse, as may be desired, the fuse employed being the paper fuse commonly used in shells or of any other suitable kind, and the use of fulminates being dispensed with. The said invention consists in providing in the projectile, on each side of the hole, commonly known as the fuse hole, a hole for the reception of the fuse intersecting or meeting the first-named hole in a transverse direction. In connection with this transverse hole for the reception of the fuse, there is employed in the first-mentioned hole to effect the explosion of the projectile by percussion, a movable plug, plunger or other piece of metal suitably applied to break the fuse when the projectile strikes, so that the fire from the fuse, which is ignited by the fire of the gun, may communicate with the charge of the projectile; but this plug or piece may be omitted when the fuse is to be used as a time fuse.

Water Closet .- This invention, patented by F. H. Bartholomew, of New York city, relates to an improved water closet of that class which are provided with metal hoppers attached directly to the trap The object of the invention is to so combine and arrange a hopper, trap, trap screw or opening and floor flanch that the trap may be screwed to the floor and made to serve the double function of a trap and stand or support for the hopper, the trap at the same time admitting of being cleansed when necessary with the greatest facility. The invention also has for its object the attaching of the wooden seat to the hopper in such a way that no other support will be required, and the whole device thereby rendered capable of be ing put up or adjusted for use independent of extra neous fixtures or framing hitherto required to sustain the seat. The invention has farther for its object the concealment of the contents of the trap, a desirable feature in using the water closet.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WERE ENDING NOVEMBER 5, 1861.

#### PATENTEES. READ THIS.

The new Patent Laws which went into force on the 2d of March last, authorized the Commissioner of Patents to have all the specifications which form part of the Letters Patent printed.

This is a wise provision, and it renders the documents much handsomer than the old system of engrossing them on parchment; besides in passing before the printer and proof reader, the clerical errors, which were often made by the copyist, are mostly obviated, thus rendering the patent more likely to he correct.

But to afford the printer and proof reader an op portunity to do their work properly, the Patent Office is obliged to withhold the Letters Patent after granting them, from four to six weeks after the claims are published in the SCIENTIFIC AMERICAN.

Camphlets giving full particulars of the mode of applying for , under the new law which went into force March 2, 1861, specipasents, under the new new which wentinto force March 2, 1861, speci-fying size of model required, and much other information useful to faventors, may be had gratis by addressing MUNN & CO., Publishe s of the Scientific American, New York.

2,624.—Benjamin Andrews, of Philadelphia, Pa., for Improvement in Army Trunks:

I claim the folding platform, B, in combination with the mattress, A, tray, D, and drop legs, f, the same being constructed and arranged to operate together in combination with a trunk, whether dosed or opened, anjoistanuially in the manner described and set forth and for the purpose specified.

And in combination with the sald platform, B, mattress, A, tray, D, and drop legs, f, constructed and arranged to operate as described, I claim the legs, h, attoched thereto, so as to operate in the manner described and set forth, and for the purpose specified.

2,625. Lichn P, Avenue of Nowwish Conn. for Improvements

2,625.—John P. Avery, of Norwich, Conn., for Improvement in Trusses for Bridges:
I claim the combination of two sets of braces standing upon two base chords, and terminating at the top in one chord, forming a truss. And also the combination of two or more trusses thus formed by making one set of braces in each truss unite or stand on the same base chord, the whole being constructed substantially as described and for

ne purposes set forth.

2,626.—H. W. Ball, of New York City, for Improved Cook
Stove and Camp Chest Combined:
I claim a cook stove, C, and boller, D, when constructed and aranged to fit one within the other, and to contain the necessary cultnary vessels, dishes, &c., when said stove is used in connection with
t camp chest, A, and combined therewith, substantially as and for
he purpose set forth.

[For description of this invention sec page 296 of the cur ent volume.]

[For description of this invention see page 296 of the cur ent volume.]
2,627.—C. H. Ballard, of Worcester, Mass., for Improvement in Breech-Loading Fire Arms:
I claim, first. The breech, B, composed of a long block with shoulders, a b, fitted to corresponding shoulders, e f, within the breech supporter, A, and arranged in combination with a lever, D, to move upward and downward, as well as longitudinally within a parallel-sided cavity in the said supporter, under the control of guides, dd, above and below its rear portion, all substantially as specified.

Second, The a rangement of all the parts of the lock of breechloading rifle or other small arm within a slot in the movable breech, substantially as specified.

Third, The link, E, having a protuberance, e, applied in combination with the lever, D, the breech and the hammer, for the purpose of bringing the hammer to half cock by the act of opening the breech, substantially as specified.

Fourth, Combining the lever, F, with the hammer, H, by means of a horn, n, or its equivalent, substantially as and for the purpose specified.

[This invention consists in a novel construction and mode of applying a movable breech for breech loading; also in the arrangement of all the parts of the lock of a breech-loading firearm, within a slot in the movable breech; also in certainnovel means of bringing the lock to half-cock by the act of opening the breech; and further in certain means whereby the cariridge-drawing device, after having drawn the discharged cariridge case, is returned to a recess within the barrel, out of the way of the movable breech and lock, by the force of the main spring of the lock acting through the hammer.

nain spring of the lock acting through the hammer.]

1,628.—F. H. Bartholomew, of New York City, for Improved Water Closet:

I claim, first, The combination of the trap, A, hopper, B, opening, provided with the cap or list, i, and the flanches, e, f, either or both, at the lower part of the trap, all being arranged substantially as and or the purpose set forth.

Second, The flanch, C. for the attaching of the seat, E, directly to he hopper, B, when said hopper is attached to a trap, A, which serves he two-fold purpose of a trap and stand or support, as set forth.

Third, Constructing or casting the trap, A, in the form substantially as shown and described, to wit, having it so curred that a screen or sartition, d, will project forward in front of the lower or discharge end of the hopper, B, for the purpose of concealing the contents of the rap, as described.

J. D. Boedicker, of New York City, for Piano-

2,629.—J. D. Boedicker, or New forte Action:

I claim, first, The arrangement of the levers, n and m, in combination with the hammer shank, I, and acted upon by the jack, B, in the manner and for the purpose substantially as described.

Second, I claim the use of the spring, S, between the end of the lever, n, and the hammer shank, I, operating the levers, n and m, and in combination with the jack, B, the hammer, H, in the manner and for the purpose substantially as set forth.

Third, I claim the screw, v, or its equivalent, acting upon the levers, m and n, substantially as specified.

2,630.—John Bruckshaw, of Oakley, Henry Bruckshaw, of Market Drayton, and Wm. S. Underhill, of Newport, England, for Improvement in Machines for Elevating

claim the elevating or raising grain from one level to another by s of a blast and fan, as more fully set forth and specified.

2,631.—E. B. Butterfield, of New York City, for Improvement in Breech-Loading Ordnance:

I claim combining with the breech of a breech-loading cannon, a movable breech pin and a movable breech piece, the breech pin being arranged and constructed so as to screw into the breech, at the end of the bore or chamberand the breech piece having a socket in which is a screw corresponding with and forming a continuation of the screw in the bore or chamber, substantially as and for the purposes described.

scribed.

2,632.—A. H. Dixson, of San Francisco, Cal., for Improvement in Grain Separators:

I claim, first, The employment or use of a series of adjustable screens, e, and stationary chutes, f, placed in a vibrating or reciprocating box, D, connected at their outer ends by strips, g, of leather or other suitable material, and placed relatively with the fan-box, C, to operate as and for the purpose set forth.

Second, The employment or use of the slides, G, placed beneath the screens, e, at their outer ends, substantially as and for the purpose set forth.

[This invention relates to a new and improved machine, designed for separating wheat from oats, as well as from straw and other foreign substances. The object of this invention is to obtain a machine which may be adjusted to suit the condition or quality of the grain, an leave the blastact in a more efficient manner than hitherto on the

2,633.—Lewis Dungan, of Philadelphia, Pa., for Improvement in Apparatus for Preserving and Discharging

ment in Apparatus for Preserving and Discharging Malt Liquors:

I claim the tube, M, with its detachable air-tight cap, N, when combined with the piston, D, of the described apparatus for preserving and discharging malt liquors, substantially in the manner and for the purpose specified.

2,634.-H. G. Eastman, of Poughkeepsie, N. Y., for Pen-

man's Assistant:
I claim the use of a spherical or other shaped instrument having finger rests or supports attached thereto, substantially as described, for supporting the hand and fingers, for the purpose set forth.

for supporting the hand and fingers, for the purpose set forth.

2,635.—J. Fargusson, of Dubuque, Iowa, for Improvement in Grain Separators:

I claim the wheat riddles, D, constructed and operating in the manner substantially as described, for the jurpose set forth.

Second, The combination of the wheat riddles, D, pins, i, and buttom less hopper, E, substantially as and for the purpose described.

Third, The combination of the wheat riddles, D, springs, Q, and eccentric, I, substantially in the memor and for the purpose described. Fourth, The combination of the wheat riddles, D, and tan, B, substantially as and for the purpose described.

Fifth, The combination of the wheat riddles, D, and an, B, substantially as and for the purpose described.

Sixth, The adjustability of the hopper, E, relatively to the upper riddle, D, substantially in the mumer and for the purpose described.

2,636.—D. K. Fishel. of Lancaster. Ohio, for Improve

2,636.—D. K. Fishel, of Lancaster, Ohio, for Improve ment in Weather Strips and Fasteners for Doors:

I claim the sliding threshold or carpet strip for the purposes set forth, substantially as described.

I also claim in combination with the sliding threshold the weather strip and door fastener described.

surp and door instener described.

2,637.—Henry Francisco, of White Water, Wis., for Improved Spring Tooth for Cultivators:

I claim a spring cultivator too be constructed and operating aubstantially in the manner and for the purpose described, in combination with a check brace, substantially as described.

Second, So constructing the shoulder of a cultivator tooth, that when the working point of the tooth is arrested by any sudden obstruction, the strain upon the tooth will be relieved by the action of the shoulder, substantially as described.

-Thomas Gates, of Worcester, Mass., for Improved 2.638.

Refrigerator:
I claim the refrigerator, as described, consisting of the ice case, hamber and base, with its movable table, when constructed in the nanner and for the purpose set forth and described.

manner and for the purpose set forth and described.

2,639.—D. S. Hamilton, of Elmira, N. Y., for Improvement in Rotary Pumps:
I claim the combination of the annular piston space, E, having both annular sides fixed, with the buttnent, G, bearing on one of the said fixed annular sides, substantially as and for the purpose set forth.
I also claim the combined arrangement of the buttnent, G, and induction and eduction apertures, J and D, so that the said aperture shall be nearly or quite radially opposite to each other, and the buttnent shall close diagonally between the two, and open into the eduction aperture, for the purpose specified.
I also claim inclining the closed butment and approaching piston toward each other, so that the piston shall open the buttnent in the direction contrary to that of its own motion, substantially as and for the purpose specified.

J. W. Hardie, of New York City, for Improvement

2,640.—J. W. Hardie, of New York City, for Improvement in Army Trunks:

I claim, first, The construction of the trunk, as described with the upper section of less depth than the lower, when hinged at the end, as etherful, and provided with sockets or their equivalent, and in combination therewith the U-shaped frons, for the purposes and substantially as set forth.

Second, The table hinged so as to fold and provided with cars or hooks, as specified, for the purposes described.

Third, The combination of the frame, U-shaped fron and top of the trunk, when the said frame is hinged to the trunktop, and supported by the fron, for the purpose of forming a high-backed chair in connection with the body of the trunk, in the manner specified.

Fourth, The double frame or frames, E. F., having two sets of braces, G. and Z. for the several purposes set forth, arranged and combined with the trunk, substantially as described.

Fifth, The frame, D, hung near the main hinges, so as to swing up and permit the folding out of the double frame, E. F., as set forth.

1.—D. A. Haviland and A. S. Phillips, of Fort Dodge, Iowa, for Improvement in Apparatus in Handling Hides

in Tanning:
e claim the arrangement of the windlass axles, D D', cranks,
movable bars, E, and standards, B B', with the vat, A, the
ele combined and operating in the manner and for the purpose

This invention is designed to supersede the ordinary mode of hand-

ing skins in the process of tanning, and it consists in the arrange ment of a series of movable bars and windlass with a vat, whereby a great number of skins can be simultaneously lowered into or raised out of the vat, thereby effecting a great saving of time and labor, and doing the work more uniformly than heretofore.]

8,642.—W. S. Henson, of Newark, N. J., for Improve-ment in Breech Loading Ordnance:

1. All of the Independent recolling breech, together with the non-re-olling barrel and double vents, made and operated as described. B. J. Hildreth, of Philadelphia, Pa., for Improved

Sash Supporter:
I claim the T-shaped shoe, c, and spring, d, with the cavity, b, and grove, a, when combined, arranged and operating in the manner and for the Durgose described.

(This invention is designed more especially for railroad cars, and

This invention is designed more especially for familiar case, and consists in a peculiar device, by which the sashes are kept pressed outward against the jamb of the window frame, to form a light joint, and by friction alone made to sustain themselves in any desired post-

2,644.—A. H. Jones, of Falsington, Pa., for Improvement in Corn Shellers:

I claim the weighted arm, L, arranged in respect to the plate wheel.

G, and surpper wheel, K, as and for the purpose set forth.

-August Kaestner, of New York City, for Improve-

ido — Auguss and a ment in Lamps:

ment in Lamps:
claim the combination of the tube, B, taper slot, c, large perforance, d, and horizontal ranges of small perforations, all constructed darranged inrelation to each other and to the wick tube, c, in the suner and for the purpose explained.

The object of this invention is to obtain a lamp for burning coal oil without a glasschimney, whereby the air is admitted to the base of the flame in such a manner as to supply the latter with a requisite degree of oxygen, and ensure proper co mbustion.

of oxygen, and ensure proper combustion.]

2,646.—O. W. Kellogg, of Ripon, Wis., for Improvement in Road Scraper:

I claim the bottom board, E, provided with a share or shod portion, a, and baving side pieces, D.D., attached, in connection with the back board, A, having the draught pole, B, and handles, C.C., attached to it, and connected to the back edge of the bottom board, E, by hinges or joints, a', all being arranged and combined, substantially as and for the purpose set forth.

the purpose set forth.

(The object of this invention is to obtain a road scraper of simple construction, which may be readily tilted in order to discharge its load, and also readily righted or set for filling after the load is discharged—one in which the necessary manipulation will be attended with but little labor, while the device will be under the complete con trol of the operator.

2,647.—Colomanus Kollinsky, Jacob Ehrlick and Albert J. de Zeyk, of Washington, D. C., for Improvement in

Military Fatigue Caps:

Milita

ner and for the purposes set form.

2,648.—Charles Le Due, of Boston, Mass., for Improvement in Safe Locks:

I chaim the construction, arrangement and combination of the bolts. E, and stileds, G, with their flanged and inclined plane ends, to be operated by the pins, J, substantially as described.

erated by the pins, J, substantially as described.

2,649.—Josiah Lees, of Birmingham, England, for Improvement in Swivel Hooks and Rings. Patented in England, May 19, 1860.

What I claim in the manufacture of ewivel hoeks and rings, for attaching and securing watch toains, ear rings, key rings and other similar articles of jeweiry, is the so combining of a spring bolt with the article of jeweiry as that said bolt when shot out shall form a part of the rim or boundary of said hook or ring, and thus close the space through or by which the article of jeweiry is secured to any other thing, and thus avoid the use of a hinge of any kind, substantially as represented.

2,650.—A. H. Lorton, of New York City, for Improved Potato Masher:

I claim the perforated pulverizer or potato masher, constructed sub-tantially as described, as a new article of manufacture.

a cuaim une periorated pulverizer or potato masher, constructed substantially as described, as a new article of manufacture.

2,651.—S. W. Marsh, of Washington, D. C., for Improvement in Breach-loading Firearm:

I claim the construction of a gun barrel, or part of a gun barrel, having a binge joint, as shown at 1, upon the fixed breech connection, D D D' D' D D D D D D. Fig. 1, 25, with the channel. F. F. Figs. 1, 26, and cavities, F' F. Fig. 1, and the cavities, F' F. Fig. 2, and the fixed breech connection, substantially as described and set forth. Second, I also claim the peculiar construction of the gates, H. formed with the cavities, J K K'L M, Figs. 1, 4, 8, 13, 22, 24, and of the gates, H. hinged at 1, formed with the cavities, J K X K 3 M, Figs. 26, 23, and operating substantially as shown at Figs. 1, 2, 3, 26, as described and set forth.

scribed and set forth.

Third, I also claim the adjustable plungers, O, whether made solid, as represented in Fig. 7, or perforated longitudinally for the introduction of a needle, as shown in Figs. 1, 2, 3 and 6, and their equivalents, Figs. 5, 9, 15, 19, 23, 27 and 29, constructed and operated substantially as specified.

Figs. 5, 9, 15, 19, 23, 27 and 29, constructed and operated substantially as specified.

Fourth, I also claim the bolts represented in Figs. 15, 16 and 30, constructed and operating substantially as set forth.

Fifth, I also claim the spring, U, Figs. 1, 2, 3 and 26, constructed, arranged and operating substantially as specified.

Sixth, I also claim the peculiar or equivalent form of needle head, R R', as represented in Figs. 10, 17 and 21, constructed and operating as and for the purpose described.

Seventh, I also claim the peculiarly-formed trigger, V, Figs. 1, 2 and 3, constructed, arranged and operating as set forth.

Eighth, I also claim the combination of the nut, P, or its equivalent series. W, with the plungers, 0, for the purpose set forth.

Ninth, I also claim, in combination with a fixed breech connection the springs, T, Figs. 1, 2 and 3, and T2, Fig. 26, constructed, arranged and operating as and for the purpose described.

Ferenth, I also claim the combination in a firearm of a perforated plunger with a needle, substantially in the manner and for the purpose described.

2,652—C. H. McCormick, of Chicago, Ill., for Improve-ment in the Cutting Apparatus of Mowing and Reap-

ing Machines:
I claim the combination of the drooping blade and its bar with the supporting guide for the bar on the front margin of the finger beam, all constructed and arranged, substantially as described.

2,653.—C. H. McCormick, of Chicago, Ill., for Improvement in Metallic Finger Beams of Reaping and Mowing Machines:

2,654.—C. H. McCormick, of Chicago, Ill, for Improvement in Reaping and Mowing Machines:

I claim the combination in a mowing machine, balanced, or nearly so, upon its main driving wheel, of a driver's seat, arranged over the driving wheel, a leaning bar or bars on the side or sides of the driver's seat, and a jointed tongue, so arranged that by a forward and lateral movement, or a backward and lateral movement of his body the driver can correspondingly turn the machine upon the driving wheel, as a fulcrum, substantially as described.

S. W. Mudge, of Rome, N. Y., for Improved

Churn: laim the plates, D and E, dasher, F, and ribs, J J, when all shall instructed, arranged and operated in the manner and for the pur-

pose specified.

2,656.—William Page, of N. Y., for Improvement in Rifled Projectile for Ordnance, &c.:

I claim the combination and use of both pins and spiral groove, as described, by which the rotation of the projectile on its axis is secured in its passage throughout the smooth bore of the gun. P. P. Parkhurst, of Millford, Mass., for Washing

Machine:

Machine:

Machine cylinder formed with two concentric series of alternating ats, h h and i i, as and for the purposes specified.

alata, h h and it, as and for the purposes specified.

2,658.—R. P. Parrott, of Cold Spring, N. Y., for Improvement in applying Fuses to Shells:

I claim the combination with an aperture leading to the interior of the shell, of a transverse hole or passage, D, for the reception of the fuse substantially as described.

And I also claim the combination with the transversely-inserted fuse of a plunger, C, applied and operating substantially as and forthe purpose specified.

9.—A. R. Reese, William Gould and NelsonLake, of Phillipsburgh, N. J., for Improvement in Rakes for Harvesters:

Harvesters:
I claim, frst, The combination of the rake, c, the blank heads, D D, operating as described, and an endless chain, N N, with the removable frame, F F, the whole being arranged and operating in the manner and for the purpose described.

Second, The combination of cross pieces, H, and the braces, I I, with the removable frame, F F, for the purpose of strengthening and supporting the ring, G G, substantially as described.

2,660.—T. R. Richmond, of Massillon, Ohie, for Improvement in Seeding Machines:

I claim the arrangement of the slotted cam, M, pivot, k, and adjust-

able frame, N, with the lever, i j, rod L, slide k, straps, O, tubes, P, arms, O, and tubes, S, all as shown and described

[This invention relates to an improved sceding machine, of that class designed for sowing the seed in drills. The invention consists in a novel arrangement of sides, placed underneath the hopper to regulate the discharge of the seed, and also to cut off the same simultaneously with the elevating of the teeth, when required ; and also using in con nection with the slides aforesaid a series of agitators, to ens discharge of the seed.]

ascnarge of the seed.]

2,661—J. R. Rowand, of Philadelphia, Pa., for Improved Mode of Diminishing Effect of Collision on Railways:
I claim, first, The employment, in connection with railway cars, of any convenient number of frames, CD and E, arranged to slide into each other, and forming chambers, containing blocks of friable material, in combination with the grating, G, or its equivalents, for the purpose specified. purpose specified.
Second, The adjustable strap, H, applied to the sliding frame, substantially in the manner and for the purpose set forth.

22.—William Shaw, of Hudson, N. Y., for Mode of Sup-porting and Locking Window Sashes:

I claim employing the spring key, c, in combination with the pin-on, A, and spring, b, when the guard or stop, a, operates on the side f the pinion, opposite to the rack, B, substantially as and for the pur-ose set forth.

of the pinion, opposite to the rack, B, substantially as and for the purpose set forth.

I also claim constructing the case or box, g, substantially in the manner and for the purpose set forth.

2,663.—Cyrus W. Strout, of Calais, Maine, for an Improvement in Machines for Dovetailing Window Sashes:

I claim, first, The rocking table, H, carriage, I, screw, d, adjustable stops, n n, and screw, f, when combined, arranged and operating in the manner and for the purpose described.

Second, The arrangement of the gage rest, J, provided with an arm, N, with the slide, i, and connecting link, i, at one end and the slotted segment plate, I I, at the other, in connection with the pin, K, and adjustable catch, L, combined and operating in the manner described.

Third, The revolving cutters, a s, with table, H, and gage rest, J, when combined arranged and operating in the manner and for the purpose described.

[This machine is designed for dovetailing sashes. The object of the invention being to obtain a machine adapted for cutting the dovetail mortice in the stile and also the tenon on the meeting rail to correspond therewith, and both so accurately as not to require, after leavmg the cutters, other fitting to form a perfect joint.)

2,664.—Henry R. Terry, of Edenboro', Pa., for an Improvement in Beehives:

I claim the depression of the horizontal slats on the top of the sections whereby a lateral passage is formed for the bees through the section of comb.

2,665.—H. F. Thiemeyer, of Baltimore, Md., for an Improved Railroad Switch:
I claim, first, The use of the recession.

proved Railroad Switch:

I claim, first, The use of the recesses, b, and the lugs or stops, c, in
the bed plate or casting, B, substantially in the manner and for the
purposes set forth.

Second, I claim the mode of fastening the tip of the tongue to the
bed plate by the bar, H, sliding under the rail, I, and the lip, G, substantially as described.

stantially as described.

2,666.—H. F. Thiemeyer, of Baltimore, Md., for an Improvement in Railroad Crossings:

I claim, first, The use of the bed plates, B, provided with the recesses, b, in connection with the rail, C, and four swinging tongues, B, substantially in the manner and for the purposes set forth.

Second, The arrangement of the tongues, in combination with the double lever, and the connecting rods, C and H, for the purpose of topening one pair of tongues and closing the other pair by the same motion, substantially as described.

-T. J. Wadleigh, of Sutton, N. H., for an Improve

ment in Pumps:
I claim an improved pump composed of the stock, A A' A", the axle D, the braces, II, and corresponding braces in the rear of II, the collar, O, the shaft. H, with its right and left screws, the wheels, O and E, the collar, M, the arms, J J, the valve rods, Q Q, the arms, E K, the supports, L L', the sliding block, R, the mortice, U, the rotary blocks, S S', with their projections, b, the collar, N, with its sliding and rotary blocks. and the lubricating cap, P, combined, arranged and operating as above set forth.

2,668

in Mold-Board Blanks: claim as a new manufacture the mold-board skelp having a thick-d margin, substantially as described.

9.—William S. Winsor, of Port Orford, Oregon, for an Improvement in Planing Saws: laim the supporting flanges, 32 employed in connection with the rs, c and c', of a circular saw, substantially as and for the pur-

poses set forth.

2,670.—John Wright, Jr., of New York City, for an Improvement in the Process of Refining and Purifying Sugar:

I claim applying alcohol, white liquor or other liquid used to wash the sugar at or near the bottom of the vessel containing the sugar, and making the shoot of other liquid to flow up through the mass of sugar, and carry up, float out and carry off, any impurities and extraneous matter lighter than the sugar, and such other matter or substance as a may be dissolved by the alcohol, while liquor or other liquid used to wash the sugar, substantially as described.

1.—J. C. Cooke, of Middletown, Conn., assignor to William Wilcox & Co., for an Improvement in Liquid

Wheters:
laim, first, The valve, D, with its ports, d d', and cavities, e e',
nged to work transversely to the stroke of the piston in a box, C,
ne end of the measuring cylinder and in combination with a sysof ports, i o b b', and passages, I Oc, arranged substantially as

escribed.

secribed.

escribed.

Record, The valve operating rock shaft, F, with its spiral grooves, k', weighted arm, F2, and tappets, h h, applied and arranged in commination with the piston and slide valve, to operate substantially as and or the purpose set forth.

Third, The construction and arrangement of the valve-operating ock-shaft, substantially as described, to serve as guide for the piston ock-shaft, substantially as described, to serve as guide for the piston

rod.
Fourth, Combining the piston with the spirally-grooved valve-ating rock-shaft. F, by means of a slide, H, working in straight gu and hooking into a circular-grooved protuberance, m, on the piston

This invention consists in a certain novel arrangement of a valve nd its operating mechanism in combination with a cylinder and piston for effecting the measurement of liquids, by counting the number of reciprocating movements of the piston produced by the pre

the liquid admitted to it by the valve on opposite sides alternately.]

the inqua samitted to it by the vaive on opposite sides alternately.]

2,672.—F. O. Degener, of New York City, assignor to Himself and Peter Weiler, of Bellville, N. J., for a Cylinder Printing Press:

First, I claim the vibrating, tapering endlessrack for giving a rotary motion to a rectilinear reciprocating impression cylinder.

Second, I claim supporting the link cylinder in a frame separate from the impression cylinder carriage, and swiveling the link-cylinder frame on the axis of the impression cylinder, for the purpose as fully described.

ioribed. Third, I claim giving a rotating motion to an ink cyliuder, by and hrough the rotary motion of a rectilinear reciprocating impression

Third, I claim giving a rousing among through the rotary motion of a rectilinear reciprocating impression cylinder. Fourth, I claim giving to an ink cylinder, operated as described, a motion to and from the inking rollers, for the purpose as specified. Fifth, I claim giving to the ink cylinder motion to and from the inking rollers, by and through the motion of the vibrating rack. Sixth, I olaim the combination of the adjustable ink cylinder with the adjustable inking-roller supporters, when the ink cylinder and inking rollers are carried by, and travel with the impression-cylinder carriage, for the purpose as set forth.

Seventh, I claim the combination of the adjustable inking-roller supporters on a traveling carriage, with an ink cylinder having a motion to and from the inking rollers, and the adjustable bearers of the frame, for the purpose as described.

Eighth, I claim, in combination with a rectilinear reciprocating impression cylinder having a rotary motion, the described mechanical arrangement for operating the impression cylinder gripers, said arrangement consisting of the inside arm or trip, S", the shaft, R", and the outside arm or trip, T", operated by a pin or roller of the main wheel, (or any other means.) for closing the gripers when they are taking the sheet to be printed on to the cylinder, and the inside arm or trip, S", the chaft, R", and the outside arm or trip, T", operated by the fixture, b, or its equivalent, for opening the gripers, so as to relieve the sheet from the cylinder, whether constructed in the precise manner as described or in an equivalent way.

Ninth, I claim attaching the two inside arms or trips and the two outside arms or trips to one and the same shaft.

Tenth, I claim the stationary gripers in combination with an impression cylinder, for the purpose as set for the. Eleventh, I claim the traveling pile table, or its equivalent, in combination with stationary gripers for the purpose as specific.

Twelfth, I claim, in combination with a traveling pile table, or its equivalent, I claim the combination of a traveling pile table, for the purpose as described.

Thirteenth, I claim to combination of a traveling pile table with an impression cylinder or its equivalent, of the purpose way, by means of the arm, I, arm, o, sit, n, or its equivalent, and pin, m, or its equivalent.

Fifteenth, I claim opening the stationary gripers as as to receive the

of the arm, i, arm, o, siz, n, or its equivalent, and pin, m, or its equivalent.

Fifteenth, I claim opening the stationary gripers so as to receive the printed sheet, and allowing the gripers to close and hold the sheet and relieve it from the impression cylinder, by and through the motion of the vibrating rack,

Sixteenth, I claim opening the stationary gripers so as to release the printed sheet and pile it, by and through the motion of the vibrating rack.

Seventeenth, I claim operating the paper gages by and through the motion of the vibrating rack.

Eighteenth, I claim constructing a cylinder printing press in such a manner as that the printed sheet after it has been taken from the cylinder and deposited on the pile table, shall be brught in front and before the eyes of the operator, for the purpose as fully described.

2,673.—R. W. Drew, of Abington, Mass., assignor to A. B.

Ely, of Newton, Mass., for Improvement in Sewing Machines:

Ely, of Newton, Mass., for improvement in Sewing Machines:

I claim. First, So constructing and arranging the parts that the needle har of a sewing machine can be continuously revolved in either direction at the will of the operator, as the stitching progresses. Second, So constructing, arranging and combining the needle bar und feed bar or their equivalents in a sewing machine, that they can be continuously revolved either way, and preserve their relative pos-

section, so constructing, arranging and continuing the needle har be continuously revolved either way, and preserve their relative positions.

Third, So constructing and arranging the thread guide or whir in a sewing machine that it can be continuously revolved, and present the thread to the needle, in any desired position of the needle.

Fourth, So constructing and combining the needle and thread guide with each other that any change of position of the needle may be accompanied by a corresponding change of position of the thread guide, either way or continually in either direction.

Firth, in combination with a rotating needle stock so arranging and operating the feed that it shall form a guiding point in advance of the needle. But any constructing the cast off, that it shall surround the needle and form a support to it while the stitch is being formed or drawn up. Seventh, So constructing the cast off, that it shall surround the needle and form a support to it while the stitch is being formed or drawn up. Seventh, So constructing the cast off, that it shall surround the needle hard to the thickness of the work by means of a spring pressure.

Eighth, Operating the thread guide, r, by means of the rod, O, substantially as described.

Ninth, The combination of the cam cylinders, 8 and L, or their equivalents with their connections, substantially as and for the purposes described.

Tenth, The combination of the adjustable eccentric with the adjustable pin, v'', or its equivalent for changing the throw of the needle bar so that the range of motion of the needle may be changed without changing the point to which it descends may be changed without changing the point to which it descends may be changed without changing the point to which it descends and allows, as they occur in sewing proceeds, as in curves, angles and lines, as they occur in sewing to not and shoe soles.

2,674.—W. H. Forbush (assignor to E. B. Forbush), of Britale N. V. Cor Improved Hammed.

2,674.—W. H. Forbush (assignor to E. B. Forbush), of Buffalo, N. Y., for Improved Hammock: I claim the combination of a portable folding frame and hammock substantially as described.

substantially as described.

2,675.—Moses Marshall, of Lowell, Mass., assignor to S. S. Bucklin, of Brookline, Mass., for Improvement in Pegging Machines:

I claim the point, S, on swivel plate, K, when arranged to operate as shown and described, to wit, entering the hole previously made by the awl, and causing the machine to move along on the sole, so as to bring the peg to be driven simultaneously with the succeeding descent of the awl directly over the hole made at the previous descent of the awl.

awi.

I also claim the point, S, when so arranged as to become a fixture under the peg to enable the operator to turn the machine on any curve or
angle, while the relative position of the hole and peg will remain the
same.

same.

2,676.—W. S. McCormick (assignor to C. H. McCormick),
of Chicago, Ill., for Improvement in Cutting Apparatus of Reaping and Mowing Machines:
Iclaim the cutter faving a series of clearing projections co structed
arranged and wibraling as described, in combination with the series of
guard-fingers arranged as described, whereby the liability of the cutting apparatus to clog is diminished, substantially as described,

2.77. W. S. McCormick (consense of H. McCormick)

2,877.—W. S. McCormick (assignor to C. H. McCormick), of Chicago, Ill., for improvement in Cutters for Reaping and Mowing Machines:

I claim the flanged cutter bar with notches in one or more of the flanges, substantially as described.

2,678.—William Miller (assignor to himself and J. B. Bridgman), of Boston, Mass., for Improved Guard Attachment for Door Latches:
I claim the socket, A, provided with the bolt, D, and connected by an arm, B, and joint, a, to the plate, C, which is attached to the door, C, at such a point that the socket and bolt may have a proper relative position with the bow, d, of the key, to operate as and for the purpose set forth.

[The object of this invention is to obtain a simple and efficient de securing the key of a lock at the inner side of a door, so as to

prevent the key being turned at the outer side of the do plication of pincers or pliers, a means frequently used by burgiara in order to enter dwellings.

2,679.—G. R. Moore, of Westford, Mass, assignor to A. B. Ely, of Newton, Mass., for Improved Steering Apparatus:
I claim imparting a reciprocating motion to the rudder of a vessel, by means of the soute angled crank, and pivoted sleeve, substantially as described.

2,680.—George Munger (assignor to himself, L. Candee and J. E. P. Dean), of New Haven, Conn., for Improvement in Chalk Erasers:

I claim the fitting or securing of straps, of chamois or sheepskin, or other similar or soft leather or cloth, in a block, A, substantially as shown to form an improved article of manufacture for the purpose specified.

[The object of this invention is to obtain a simple and durable de vice by which chalk marks may be rubbed off from boards without the aid of moisture, the invention also serving as an excellent device for rubbing and cleaning the glass of windows, mirrors,

2,681.—O. A. A. Rouillion (assignor to W. Herman Stubbe), of New York City, for Improved Bed Bottom:
I claim an elastic bed-bottom constructed of a series of spiral springs interlocked or connected together to form one or more layers or bottoms, one over the other and attached to a suitable frame substantially as shown and described.

The object of this invention is to obtain a spring or elastic bed bottom of simple construction, which will be more flexible than those hither to devised, and which will admit of being used with a very than 122

2,682.—W. H. Towers (assignor to W. S. Bard), of New York City, for Improved Broom:
I claim embodying and securing in the central part of the broom below the handle, a curved, rigid strip or plate, C. and divergent body or bodies of Tampico grass, South American bass, or other like material substantially in the manner and for the purposes et forth.

or bodies of Tampico grass, South American bass, or other like material substantishly in the manner and for the purposees te forth.

2,683.—Ferdinand Wüterich (assignor to himself and J. M. Hathaway), of New York City, for Improvement in Machines for Making Cigars:

I claim, first, The pointing rollers, P. P. P. for pointing a cigar, by pressing and rolling upon the head or point of it while the wrapper is being rolled on, as described.

Second, Making pointing roller, P, to open, for the greater convenience of putting in the bunch or filling and taking out the cigar after it is completed, as described.

Third, A movable pointer to press upon the head or point of a cigar, and form it while the wrapper is being rolled on, and the cigar is being made, as described.

Fourth, Cutting the wrapper after it is rolled upon the cigar up to, or upon, the point by means of shear knives, T and W, placed at or near the point of the cigar, as set forth.

Fith, Cutting the wrapper set forther is rolled upon and near to the point of the cigar, by means of die cutters Y and X, when placed in proper position, as described.

Sixth, The hinged patiern or shape, Z, to be used as a pattern to shape the wrappers to form the point of the cigar, as described.

Seventh, Connecting the cylinders or rollers, G and G, by pins or dowels as described.

Eighth, Placing roller or rollers, N N, in the pocket of a cigar machine and holding them there by adjustable strip or strips, M, for holding the cigars while the pointer presses upon and finishes the point, as described.

DESIGN. -Gardner Chilson, of Boston, Mass., for a Design for

Hillie Dintines

- C. C. B., of N. Y.—We know no reason why a smooth bore should not send a globular projectile as faras a rifle. As a cylindrical or conical projectile would be kept end foremost throughout its flight by the rotary motion imparted to it by the rifle, it would have a greater range than if fired from a smooth bore.
- A. D., of Ind.—You will find all the information we pos sess respecting a position as engineer in the Navy, upon page 198, Vol. IV. (new series) Scientific American. The information then was obtained from a former Engineer-in-chief of the Navy, and is therefore reliable.
- E. M. B., and G. W. L., both of New York. -On another column you will find a notice of a work on drawing.

  A. F. M., of New York.—B. H. Horn, No. 212 Broadway,
- ound microscopes at \$2.50 each. The object glass of these has a focal length of about one inch. The mounting is simple, bu enough. He has others with two additional object glasses and \$4. They are sufficiently powerful for showing infusor
- C. W., of Mass.-Fulminating mercury is probably the rial which is put into the caps that are used in the Prussian rifles : at all events this substance would be suitable.
- O. D. B., of Pa., asksthe following questions: machine patented. B buysone of the machines with a shop license.

  Now if B sells the machine to C, is there any law to prevent C's

  using it?" Ans.—C has no right to use the machine unless B old the shop license with it.
- J. N. E., of Mass.—There is no illustrated paper published in this city called the "Building Guide."
- J. G., N. J.—Aich's alloy is composed of copper, 60 parts, zinc 38.20 parts, and iron 1.80 parts. It is darker in color than common bran; it bends at a red heat, is ductile, takes a high polish and can be worked with a hammer almost like wrought iron
- J. B. Z., of N. T .- Pewter is composed of tin 100 parts animony 8 parts, copper 4 parts; bismuth one part. Fuse the whole together in a crucible—the copper first, then the other metals. The cheapest kind of pewter is composed of tin 4 parts, lead one part In an elaborate report of a French commission appointed several years since to examine into the character of alloys, it is stated tha pewter containing more than one part of lead to five of tin is gerous to use. A paste composed of borax, soda, and ground glass will form a good glaze for your bricks. They should be first dipped into this paste, then dried slowly and afterward burned in the kilin
- J. C., of Va.—Your suggestions in regard to rifles have been elaborately discussed, and many of them tried.
- M. H. B., of Mo.-Benzole is manufactured by distilling naphtha at a temperature of from 176° to 194° Fah. It is frequently sold under the name of benzine, and is very useful for cleanin, soiled gloves, sliks, &c. It vaporizes at a low temperature and ma be burned like common coal gas.
- E. D. H., of C. W.—The gloss on shirt collars and bosoms is put on by friction with a hot iron. Use starch containing a small quantity of white wax or spermaceti, and the table upon which you perform the ironing should have a hard smooth surface. Clean pasteboard, of which calender rollers are made, is the best material u can use for covering the table.
- M. C. D., of N. Y.—All the information which we posses ing the Henry rifles was given with the illustration on page 44 of current volume of SCIENTIFIC AMERICAN. Many of our use bullets containing a small portion of tin. lieved that they are not so liable to strip as those made of pure lead You will find an article on American and English rifles on page 265,
- H. C. S., of Mo.—The process of concentrating sweet milk is not a secret, but is secured by patent to Gail Borden, ir. The milk is concentrated in a vacuum pan, similar to saccharin
- W. M. W., of Mass.-In order to secure attention to your theory of two forces to produce the motions of the planets, you must compare it with Sir Isaac Newton's calculations based on the theory of one force, and see which explains all the phenomena in the most satisfactory manner. We have recently received a long communication contending that all the inhabitants of the earth and other planets are living in the insides of the globes instead of upon

- B. M. of N. Y .- To enable us to give you proper advice tingyour ventilator, werequires sketch and descrip the plan you desire to patent. If your model is ready you had better whenever you are in the city.
- W. S. K., of N. Y .- Mr. Meigs, the contractor of the Valpa raiso and Santiago R. R., has no office in this city, so far as we know We presume his headquarters are at Valparaiso
- J. T. E., of C. W.-We are informed that Morrison's grammar and dictionary of the Chinese language are suitable for your purpose. Write to C. S. Francis & Co. of this city.
- H. P., of Mo.-Kaolin is the most suitable substance from which to obtain aluminum, though labradorite is frequently used The usual method is to decompose the chloride of aluminum with the chloride of soda. You will find a minute description of the process in Gregory's Chemistry, and other modern works. Two new processes are described on page 345, Vol. II. (new series) SCIENTIFIC
- J. M., of Mich.—Byrne's Cyclopedia of Engineering has a pretty good description of the glyphographic process. We have used a good deal of india ink but never heard of any process for rendering it when very black, more fluid than the aqueous solution

#### Money Received

At the Scientific American Office on account of Patent Office business, during one week preceding Wednesday, Nov. 20,

H. C. H., of Ill., \$20; M. and M., of Ohio, \$20; J. S., of N.Y., \$20; T. L., of Conn., \$28; M. C. ., of Me., \$25; P. and C., of Conn., \$25, J. J. M., of Conn., \$25; W. B., of N. Y., \$20; F. J. F., of Pa., \$15 S. E. and P., of Wis., \$20; C. and P., of Me., \$15; G. H. S., of Iowa., \$15; J. W. C., of Mass., \$15; S. D. K., of N. Y., \$15; L. and W. of N. Y., \$25; A. B. H., of Conn., 40; A. M., of Ohio, 15; I. H. S., of R. I., \$25; S. G. B., of Conn., \$15; M. E. L., of N. Y. \$25; J. S., of N. Y., \$40; G. K. W., of N. Y., \$25; R. S., of N. Y. \$25; A. H., of Minn., \$20; W. F., of Iowa, \$45; J. A. DeB., of N. Y., \$49; H. K., of Pa., \$30; N. McC., of N. Y., \$25; R. W., o Conn., \$15; J. N., of Ind., \$15; R. S., of N. Y., \$35; M. W. W., o Conn., \$15; J. N., of Ind., \$15; R. S., of N. Y., \$35; M. W. W., of III., \$25; C. M. S., of Conn., \$15; G. K., of Pa., \$25; N. B. J., of Mass., \$10; C. and G. M. W., of N. Y., \$100; E. and R., of N. Y., \$15; R. H. S. of N. Y., \$15; C. B. L., of Mass., \$15; T. and E., of Pa., \$15; d. J. S., of N. Y., \$25; G. W. R., of Ind., \$15; F. J., of N. B., \$15; S. I. B., of N. J., \$25; F. C. P., of N. Y., \$25; T. J. B., of N. Y., \$28; R. R., of N. Y., \$40; H. & Son, of Ohio, \$15; E. T., of Pa., \$20; E. R. O., of Ohio, \$15; J. K. A., of Ohio, \$15; S. P. O., of Conn., \$20; A. McG., of N. Y., \$15; E. C., of Mass., \$15; J. V. N., of N. J., \$12; L. S. H., of Cal., \$25; S. H., of Ind., \$15; J. B., of Cal., \$25; C. R. T., of Oregon, \$20; W. B., of N. Y. \$40; A. B., of N. Y., \$40; J. H. F., of N. Y., \$40; W. W., of Wis. \$25; F. G. W., of Mass., \$30; P. and S., of N. Y., \$25.

Specifications and drawings and models belonging to parties with the following initials have been forwarded ent Office from Nov. 13, to Wednesday, Nov. 20, 1861:—

T. L., of Conn.; R. R., of N. Y.; J. A. D. B., of N. Y.; A. J. A., of Wis.; J. V. N., of N. J.; J. J. M., of Conn.; M. C., of Me.; P. and C. of Conn.; N. McC., of N. Y.; J. K. A., of Ohio; G. K. W., of N. Y.; or conn.; N. Mec., of N. I.; J. R. M., of Onio; G. R. W., of N. I.; L. S. H., of Cal.; G. K., of Pa.; J. B. R., of Conn.; P. N., of France; F. C. P., of N. Y.; W. B., of N. Y.; T. J. B., of N. J.; H. W. B., of N. J.; L. W. P., of Mass.; L. and W., of N. Y.; P. and S., of N. Y.; R. S., of N. Y.; W. W., of Wis.; F. G. W., of Mass.; M. E. L., of N. Y., S. J. B., of N. J.

### New Books Received.

A MANUAL OF ELEMENTARY DRAWING.—By S. Edward Warren, C. E. Published by John Wiley 56 Walker street, New York.

This little work is designed for use in high schools, academies, engine ering schools, &c., and for the self instruction of inventors, artizans, &c. It seems to be an excellent work.

ZARS, &C. It seems to be an excellent work.

THE HARBINGER OF HEALTH, Containing Medical Prescriptions for the Human Body and Mind. By Andrew Jackson Davis. Published by A. J. Davis & Co., 274

Canal street, New York. Price \$1,00.

We observe some good extracts in the book from Mirabeau, Emerson, Scientific American, and other well-known anthorities. The work is designed for popular circulation, but we confess that we have not much faith in such books. They usually contain a mixture of sense and nonsense as is the case with the work before us. We have no doubt of the fact that Mr. Davis is a man of talent, but it strikes us that he is out of his element as a medical adviser.

### RATES OF ADVERTISING.

Thirty Cents per line for each and every insertion, payable in dvance. To enable all to understand how to calculate the amount they nust send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitte our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may deem ob

## THE CHEAPEST MODE OF INTRODUCING INVENTIONS.

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No charge is made for the publication, and the cuts are furnished to the party for whom they are executed as soon as they have been used. We wish it understood, however, that no secondhand or poor engrav ings, such as patentees often get executed by inexperienced artists for printing circulars and handbills from, can be admitted into these pages reserve the right to accept or reject such subjects as are presented forpublication. And it is not our desire to receive orders for engraving and publishing any but good Inventions or Machines, and such as do not meet our approbation in this respect, we shall decline

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### CHANGE IN THE PATENT LAWS.

# PATENTS GRANTED FOR SEV-ENTEEN YEARS.

The new Patent Laws enacted by Congress on the 4th 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 set is prolonged to investigate years, and the government fee required onfilingan 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	<b>3</b> 10
On fling each application for a Patent, except for a design	\$15
On issuing each original Patent	\$ 20
On a ppeal to Commissioner of Patents	\$20
On application for Re-issue	<b>8</b> 30
On a pplication for Extension of Patent	\$50
On granting the Extension	8 D()
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, fourteen years	<b>5</b> 30

The law abolishes discrimination in fees required of foreigners, ex ept in reference to such countries as discriminate against citizens o the United States—thus allowing English, French, Belgian. Austrian Russian. Spanish, and all other foreigners except the Canadians, te onjoy allthe privileges of our patentsystem (exceptin cases of designs) n 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 onfidence reposed in our Agency by the Inventors throughout the country, we would state that we have acted as agents formore 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 m 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

#### Testimonials.

The annexed letters, from the last three Commissioners of Patents. mend to the perusal of all persons interested in obtaining Pat-

eats:—

Messra. Munn & Co.:—I take pleasure in stating that, while I held
the office of Commissioner of Patents, more train one-fourth of all
the business of the office Oame theodogh four hands. I have no
doubt that the public confidence thus indicated has been fully deserved,
as I have always observed, in all your intercourse with the Office, a
marked degree of promptness, skill and fidelity to the interests of your
employers.

Yours, very truly,

CHAS. MASON,

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

Messrs, Munn & Co.:—It affords me much pleasure to bear testimony to the able and efficient manner in which you have discharged your duties of Bolicitors of Patents while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and, I doubt not, justly deserved) the reputation of energy, marked ability and uncompromising fidelity in performing your professional engagements.

Very respectfully,

Your obedient servant,

J. HOLT.

MESSRS.MUNN & Co.;—Gentleman: 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 foundyou faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Autorneys with skill and accuracy. Very respectfully, Your obedient servant, WM. D. BISHOP.

WM. D. BISHOP. The Validity of Patents.

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

## Extension of Patents.

Valuable Patents are annually expiring which might be extended and bring fortunes to the households of many a poor Inventor or his family. We have had much experience in procuring the extension of Patents; and, as an evidence of our success in this department, we would state hat, in all our immense practice, we have lost but two cases, and these

were unsuccessful from causes entirely beyond our control.

It is important that extension cases should be managed by attorneys of the utmost skill to insure success. All documents connected with extensions require to be carefully drawn up, as any discrepancy or un-truth exhibited in the papers is very liable to defeat the application.

Of all business connected with Patents, it is most important that extensions should be intrusted only to those who have had long experience, and understand the kind of evidence to be furnished the Patent Office, and the manner of presenting it. The heirs of a deceased Patentee may apply for an extension. Parties should arrange for an application for an extension at least six months before the expiration of

For further information as to terms and mode of procedure in obtaining an extension, address MUNN & CO., No. 37 Park-row, New

## Preliminary Examinations at the Patent Office.

The advice we render gratuitously upon examining an invention does to textend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon whal 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