

ISSUED FROM THE UNITED STATES PATENT OFFICE

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Reported Officially for the Scientific Ameri

. Pamphlets giving full particulars of the mode of applying f patents, under the new law which wentinto force March 2, 1861, specifying size of model required, and much other information useful nrentors, may be had gratis by addressing MUNN & CO., Publishe of the Scientific American, New York.

36,760.—Ethan Allen, of Worcester, Mass., for Improve-

ment in Back Sight for Rifles:
I claim plate, A', and disk, B, constructed substantially as described and for the purpose set forth.

and for the purpose set forth.

36,761.—C. H. Amidon, of Greenfield, Mass., for Improved Wringing Machine:

I claim. in combination with a turning shaft, G, that serves as a shaft and brace both, and the rising and falling crossbars, E, the arrangement of the cams, h, block, f, and spring, e, intermediately placed on said shaft and crossbar, for the purpose of making pressure on the upper roll, D, and allowing said roll to rise at either end without producing undue pressure a the other end, in the manner and for the purpose herein set forth and explained.

36,762.—C. M. Atkins, of Pottsville, Pa., for Improvement in the Construction of Railroad Cars:

I claim the cast-iron brackets, D, when applied to the inner surfaces of the angles or corners of the ear bed or frame, and used in connection with the external straps or brackets, C, and bolts, a, for the purpose herein set forth.

[This invention is designed to strengthen the framing of milesed.]

[This invention is designed to strengthen the framing of railroad cars by causing the ends of the timbers, which comprise the car bed, to be secured much more firmly together than hitherto, so as to effectually prevent the springing out of the side and end pieces of th

car bed.]

36,763.—George Bailey, of Buffalo, N. Y., for Improvement in Presses for Stamping Tickets, &c.:
I claim, first, The combination with the inking ribbon and pawls, of two shifting levers or other equivalent devices, so arranged in respect to the plate or arm to which sad pawls are attached as to effect the shifting or reversing of the direction of travel of the inking ribon, in the manner substantially as described herein.

Second, I claim, in combination with the stamp press and inking ribbon, as ast of numbering or dating type wheels, arranged and operating substantially in the manner set forth.

ating substantially in the manner set forth.

36,764.—A. C. Bouk, of Clinton, Iowa, for Improved Mode of Rafting Logs and Timber:

I claim the application of booms to rafting logs and timber in any waters, so as to save the timber rafted from loss either by boring every log or by obstructions like bars and snags, the ssecuring the timber rafted and transporting the same without diminishing either quality or quantity.

nuantity.

765.—L.D. Bunn, of Morristown, N. J., for Improvement in Corpse Preservers:
claim the arrangement of the cooling board, C, with head-piece, a sombination with the body chamber, A, ice-box, D, and air cham, E, all constructed and operating substantially in the manner and the purpose shown and described.

G. W. Buss, of Boston, Mass., for Improvement 36.766.

36,766.—G. W. Buss, of Boston, Mass., for Improvement in Wagons:
I claim, first, Supporting the wagon by means of the lever or levers and spring or springs, arranged with regard to each other and to the axle, substantially as described, so that the spring or springs shall be acted upon at such a point of the lever as receives comparatively the shortest play or motion, as set forth.

Second, In combination with the lever or levers, the crossbar, Il or r, as described and for the purpose specified.

Third, In combination with the lever or levers, it, and axle, c c, the radial arms, f f, the whole operating together as set forth.

radial arms, if, the whole operating together as set forth.

36,767.—D. M. Cummings, of Enfield, N. H., for Improvement in Adjustable Hames:

I claim, first, The combination of the clasp, D, and its projections, b, with the face plate, E, and its indentations, a a a, constructed and operating as above set forth.

Second, The combination of the terret, C, with the clasp, D, as above described.

Third, The combination of the face plate, L, with the clasp, D, and the terret, C, constructed and operating as above set forth.

36,768.—J. C. Day, of Jersey City, N. J., for Improved Hammock Cot:
I claim the portable army hammock cot constructed and arranged substantially as described and shown.

Learns are portable army hammock cot constructed and arranged substantially as described and shown.

36,769.—David Dick, of Meadville, Pa., for Improvement in Apparatus for Mineral Oils as Fuel:

I claim, first, The employment in a mineral oil furnace of pumice stone or other equivalent porous incombustible material, through which the oil flows, and upon the surface of which it will be stantially in the manner described, for the purpose of the condition of a pace and the condition of a pace and the condition of a pace and the same, substantially in the manner described for the purpose of prevening the overheating of the furnace, and the consequent generation of gas in the frebox, as set forth.

Third, The combination in a mineral oil furnace of a water chamber, a firebox, and as series of air flues, substantially in the manner and for the purposes described.

Fourth, The combination of an extinguisher plate with a firebox and air tubes, substantially as and for the purpose specified,

Fifth, perforating the extinguisher plate, as described, for the purpose of permitting the escape of the gas, and preventing the entrance of air, as set forth.

of air, as set forth.

36,770.—John Dickinson, of New York City, for Improvement in Apparatus for Dressing Mill Stones:
First, I claim the combination of the scroll cam wheel, I, the arm or lever, C, compensating arm, D, operating lever, U, and pawls, P and Q, for operating the scroll cam wheel, or equivalents of either of the said several parts in combination with the said scroll cam wheel, to produce the results hereinbefore set forth.

Second, I also claim the combination of the graduated scale, a2, and adjustable stop, b2, with the lever, U, and scroll cam wheel, I, for the purposes hereinbefore set forth.

Third, I also claim the use of the raised ledge, c2, on the upper side of a double guide-way parallel rule, for the purposes hereinbefore set forth.

forth. Fourth, I also claim the use of the two strips of steel, 12, as a shield for the setting of the diamond in dressing mill stones in combination with the double guideway, d2'. substantially as hereinbefore set forth. Fifth, I also claim the use of the two ledges, g2 g2, raised on the lower surface of the double guide way, so as to form a channel for the shiekls, 12, to be adjusted in, in combination with the shields, 12 for the purposes hereinbefore set forth.

for the purposes hereinbefore set form.

36,771.—Ambler Edson, of Cambridge, Ill., for Improved Washing Machine:
1 claim the slides, C C, the handles, D D, the pivoted arms, R R, the lever, O, the stirrer, FF G G H and I, in combination with the beveled pinion, K, and the beveled segment, L, as represented and for the purpose specified.

72.—Leonard Eggleston, of Battle Creek, Mich., for Improved Mode of Filling Bags with Grain: Isim the combination of a movable hopper with the manner of

holding it in the required position, and the manner of attaching the bag to the hopper, substantially as set forth.

oag to the nopper, substantially as set forth.

36,773.—A. H. Emery, of New York City, for Improvement in Projectiles for Rifled Ordnance:

I claim, first, The construction and use of a soft metallic point arranged with a sub-callber projectile, substantially as and for the purpose herein described and set forth.

Second, The construction and use of the compound-metallic sabd, arranged with a sub-callber projectile, substantially as and for the purposes herein described and set forth.

purposes nerein described and set forth.

36,774.—Josiah Eveland, of Elizabeth City, N. J., for Improved Mode of Connecting Fellies of Wheels:

I claim having the sockets, C.C., provided respectively with a tapering dovetail tenon and a tapering dovetail recess, fitting and operating together in the manner herein shown and described, so as to form a firm but easily separable connection between the ends of the fellies and prevent all lateral and inward spreading or bending of the felly ends, as set forth. The object of this invention is to obtain a coupling for connecting

ogether the ends of wheel fellies, in such a manner that they will not be liable to be depressed or forced inward under the weight to which the wheels may be subjected when attached to the vehicle, and at the same time admit of being very readily applied to the fellies, form a firm connection and one capable of being adjusted with the greatest facility in order to form the connection.]

greatest facility in order to form the codnection.]

36,775.—Geo. B. and C. B. Garlinghouse, of Allonsville, Ind., for Improvement in Harvesters:

We claim, first, The conical or considal coupling hinge, K K' L L, and set screws, F F', arranged and adapted to the cutting apparatus of a harvester in the manner and for the purposes set forth.

Second, The branched pitman, m m', having conical or considal gudgeons, K'' K'', adjustable in the line of their common axis, within corresponding sockets in the cutter bar by means of a sorew, N, or its equivalent, substantially as set forth.

in corresponding sockets in the cutter bar by means of a sorew, N, or its equivalent, substantially as set forth.

36,776.—J. T. Gilmore, of Barton, Ohio, for Improvement in Machinery for Training, Staffing and Fine-dressing of Mill Stones:

I claim, first, Specifically, the employment of the arm, S, with its dovetailed guide, T, and the socket slide and set crews, e f and g, constructed and operating as and for the purpose set forth.

Second, I claim, in combination with the said arm, the shaft, W, with its crank plate, Y, beveled geared wheel, X', and set screw, U, the same being attached to and used in combination with the other parts of the machine, to wit, the slide, K, cross plate, G, dovetailed guide, H, screw shaft, I, nut O, beveled geared wheel, N, and crank plate, R; said several parts connecting with the circular pivot plate, F, clips, c and c', sleeve, D, double flange, E, hollow journal, A, branchfeet, B, set screws, c'', cap plate, a, screw botts, b, and lever nut, y, the whole constructed and operating as described and for the purpose specified.

Third, I claim the mode described for attaching the machine to the bed and runner stones by means of the branched straps and grappling arms, secured as described for the purpose set forth.

Fourth, I claim the employment of the small training and staffing block, i, with its shaft fitting into the socket slide, e, and adjusted and secured by the screws, I and g, as described, and operating in combination with the horizontal movement of the arm, s, for the purpose specified.

Fourth, I claim the peculiar arrangement for using and controlling the damed in combination with the arm set are set and the advanced in combination with the arm set are set and the arm set are set and the advanced in combination with the arm set are set and the advanced in combination with the arm set are set and the advanced in combination with the arm set and set are set and set are set and the advanced in combination with the arm set and set are set and set are set and set are se

specified. Specified the peculiar arrangement for using and controlling fifth, I claim the peculiar arrangement for using and controlling fit diamond, in combination with the said arrangement being formed of the stock, J, diamond handle, it, pivoted to said stock at m, spring, u, hooked finger, o, lever, p, and handle, r, constructed and operating as set forth and for the purpose specified.

specified.

Sixth, I claim attaching the arm, S, with its dovetailed guide, T, socket slide, e, and screws, f and g, to the circular plate, F, said plate having a shoulder, t, as shown in Fig. 9, and using the same in combination with the sleeve, D, and hollow journal, A, as described and for the purpose stated.

for the purpose stated.

36,777.—Benj. Gonzales, of Goodland, Ind., for Improved Chest and Table for Bread-making:

I claim the combination and arrangement of the several parts, comprised in the method of opening and closing the flour chest, E, by lowering and raising the molding board, A, the relation of the flour chest, E, by lowering and raising the molding board, A, the relation of the side depositions, v, &c., to the flour chest, E, meal chest, B, and molding board, A, the relation of the side depositions, v, &c., to the flour chest, E, meal chest, B, and molding board, A, and the mode of attachment of meal chest, B, to flour chest, E, in the manner and for the purposes described.

36,778.—B. F. Gossin, of Cincinnati, Ohio, for Improvement in Machines for Making Joint Fastenings for Railroad Rails:

I claim, first, The arrangement of stationary bed and hardy, C D, clamping gage, L M, and simultaneously conveying dies. E E', or devices substantially equivalent, he whole being combined and operating together, as set forth.

Second, I claim the yielding supports, K, for the temporary support of the biank, in the manner set forth.

36,779.—Sebre Howard, of Elyria, Ohio, for Improvement

36,779.—Sebre Howard, of Elyria, Ohio, for Improvement in Breech-loading Fire-arms:

I claim, first, Combining the barrel and the stock of my improved fre-arm with each other through the medium of the hollow breechpiece, B, which has an oblong opening in the side thereoffor the tem porary reception of a metallic cartridge; but this I only claim when the said cartridge is driven forward into the chamber of the barrelof the fire-arm and is then provided with an unyielding recoil block by means of the tubular piston, E, and the levers. Fand G, which are combined with each other and with the hollow breech-piece, D, substantially in the manner herein set forth.

Second, I also claim opening and closing the lateral aperture in the breech piece of my improved breech-loader by means of the tubular piston, E, which his accurately within the bore of the main compariment of said breech-piece, and is operated therein in a longitudinal direction, substantially in the manner herein set forth.

Third, I also claim operating the tubular piston, E, by means of the levers, F and G, in cennection with the slot in the under side of the recoil proving of the breech piece, B, substantially in the manner herein set forth.

Fourth, I also claim the arrangement of the trigger, e, the bridle of

tubular portion of the breech piece, B, substantially in the manner herein set forth. Fourth, I also claim the arrangement of the trigger, e, the bridle, d, the sear, c, and the sear spring, i, with each other and with the hammer rod, H, the mainspring, b, the tubular piston, E, and the levers, F and G, substantially in the manner and for the purpose herein set

F and G, substantially in the manner and for the purpose herein set forth.

Fifth, I also claim the arrangement of the set trigger, g, and the sliding pin, y, with the sear, c, and the lever, F, substantially in the manner and for the purpose herein set forth.

Sixth, I also claim combining the barrel, C, with the breech-pin, B, y slipping a portion of the but of the former within the mouth of the latter, and then securing said connection by means of the ears, x and w, the hinged loop, h and the set screw, m, in the manner herein represented and described.

Seventh, I also claim combining toothed and movable valve-plug, g, with the head, O, of the tubular piston, E, and with the valve seat within the same, in such a manner that a slight degree of inward pressure upon said valve plug will produce a perfectly tight joint at that end of the saidtubular piston, substantially as herein set forth.

that end of the saidtubular piston, substantially as nerein set forth.

36,780.—J. M. Grosh, of Shaefferstown, Pa., for Improvement in Harvesters:

I claim, first, The jointed sliding rake arm, applied and operating substantially as and for the purpose described.

Second, Widening the claws of the binding device between their axis and their inner curved edge, substantially as and for the purpose described.

ided.

hird, The arrangement of means specified for opening and closing claws alternately, as set forth.

the claws alternately, as set forth.

36,781.—Thomas Hunter, of New York City, for Improvement in Portable Shields for Riflemen:

I claim the portable folding armature, S, made of three or more shot-proof sections, A B C, connected by hinges, a b, substantially as described, so that the same can be used as an armature, table or bedstead, in the manner specified.

And I also claim the application of the rest, F, in combination with the section, C, of the armature, S, as and for the purpose set forth.

[The object of this invention is to produce a shot-proof armature or shield, which is capable of being carried from place to place and put upon the desired spot with ease and convenience, and of protecting one or more riflemen, and affording a firm and convenient rest for their rifles while taking aim, said armature being constructed in such a manner that it can readily be folded up when it is designed to move paper.]

the same from place to place, and that it can be converted into a bed

36,782.—Daniel Hussey, of Nashna, N. H., for Improvement in Bobbins:

I claim the double-coned bobbin or spool, made as described, and the formation of the mass of roving thereon, in the improved manner substantially as specified.

36,783.— Huchins, of Norwich, Conn., for Improved Camp Bed:
I claim the folding frame, a, in combination with the pillow, n, rod, h, and legs, dgj, arranged substantially in the manner and for purpose described.

purpose described.

36,784.—J. H. Jones, of Dayton, Ohio, for Improvement in Separator and Smut Machines:

I claim, first, A scouring cylinder, which answers as a concave for a smut or grain clearing machine, whose inner circumference is dressed with a screw or spiral soouring surface, substantially as and for the purpose set forth.

Second, The combination with such screw or spiral scouring surface, of a beater, C C, whose blades, J J, and wings, dd, are arranged and operate in the manner and for the purpose substantially as described.

scribed. Third, The sieve and frame, JJ', so constructed and arranged on a smut or grain-cleaning machine, that the frame supports and acts as springs to the sieve, substantially in the manner and for the purpose described.

described.

Fourth, The combination of the screw concave, the beater, the trunks, M L suction spout, H H, fan, D I, sleve, J J', and shaft, B E F, the whole constructed, arranged and operating substantially as

associated.

36,785.—W. H. Jordan, of Roseville, Ind., for Improvement in Cultivators:

I claim the plows, J', when arranged so as to be simultaneously raised and lowered by the turning of the bars, I G, connected by a rod or bar, J, as shown, in connection with the laterally adjustable frame, A, connected with the axle, E, and all arranged as and for the purpose set forth.

[This invention relates to a new and improved cultivator for plowing those crops which are grown in hills or drills, such as corn, potatoes, &c. The object of the invention is to obtain a cultivator with plows so arranged that they may be lifted from and adjusted into the ground more readily than those hitherto devised, and also to have the draught pole so arranged that the line of draught may be changed at the will of the operator or attendant, and the machine thereby placed under the complete control of the farmer, so that he may readily guide the machine to conform to the sinuosities of the rows of plants, and also readily raise the plow above the surface of the ground in turning at the ends of rows.]

86.—John Laughlin, of Gettysburgh, Pa., for Improve-ment in Mode of Attaching and Detaching Whifile-

trees:
laim the arrangement of the spring bolts, E. E., the bent levers, the boxs, II, the straps, G.G.J., and the bar, H., constructed operating in the manner and for the purpose herein specified.

36,787.—John Lees, of Racine, Wis., for Improvement in Churns:

I claim the construction and arrangement of the dashers, No. 2 No. 1, connecting rods, No. 3 No. 3, attached to driving wheel, No. 1, the whole constructed and operating substantially as hereinbefore set

whole constructed and operating substantially as neremovine serforth.

36,788.—C. McGinniss, of Chicago, Ill., for Improvement in Smut and Separator Machines:
I claim, first, In combination with the surrounding perforated internally ribbed cylinder, G g g', the angularly corrugated scourer, G g'm m' n o p, the whole constructed and operating substantially in the manner and for the purpose specified.

Second, Arming the scourer, G', and the vertical ribs, g, and upper head of the cylinder, G, with oval form projections, g', as described. Third, Providing for the uniform distribution of the grain in its passage from the shoe, U, to the shoe, V, by means of inclined distributing channels or their equivalents, on the bottom of the shoe, U, substantially as described.

Fourth, The combination of the slotted adjusting rods, w w, and hinges, u u, substantially as and for the purpose described.

Fifth, The combination of the screening shees, U and V, with the slotted adjusting rods, w w, and hinges, u u, the whole arranged and operating substantially in the manner and for the purpose described.

operating substantially in the manner and for the purpose described 36,789.—John Platt and William Richardson, of Oldham, England, for Improvement in Cotton Gins:

We claim, first, The two alternately reciprocating blades, ch. constituted and arranged to operate in combination with each other and with the roller, a, and breast, b, of the McCarthy cotton gin, in the manner and for the purposes herein shown and explained.

Second, The employment or use of combing or carding instruments, substantially as herein described for opening the material preparatory to its presentation to the ginning mechanism, a b c.

Third, The transferring comb, u v, constructed as described, and employed to present the material in turis to the ginning mechanism, a b c. substantially as and for the purposes set forth.

Fourth, The elastic or yielding connecting rod, o p q, employed to operate the comb, u v, substantially in the manner described.

36,790.—N. W. Northrup, of Greene, N. Y., for Improvement in Combined Car Wheel and Car Axles:
I claim the divided follower, D, set screw, C, on axles, B, in combination with the tight wheel, E, in the manner and for the purpose hereinbefore set forth.

36,791.—Glendy Moody, of Falmouth, Maine, for Improvement in Machines for Spreading and Turning Hay:
I claim, first. A reciprocating bar, M, with forks, L, pivoted to it, and operated by means of cranks or other equivalent eccentric movement, substantially as and for the purposes set forth.

Second, The combination of a carriage, A, with suitable actuating gearing and a series of independently reciprocating forks, L, which receive a united reciprocating motion from a series of cranks or equivalent eccentric means, substantially as and for the purposes set forth.

forth. Third. The cross bar, N, with its slots, i, and loops, i, or equivalent means, in combination with the uprights, g g, for the purpose of adjusting the forks, substantially as described. Fourth, The swirelling eyes, f, in combination with the bar, N, and pivoted forks, L, substantially as and for the purpose set forth.

36,792.—G. A. Poppy and C. H. Colegrove, of Rochester,
Ohio, for Improvement in Water Elevators:
I claim the compound clutch and brake, G, in combination with
the spring lever, L, weighted pawl, F', and pulley, C, when these parts
are constructed, arranged and operated as and for the purpose herein
set forth.

36,793.—N. B. Powers, of Lansingburgh, N. Y., for Improved Composition for Sizing for Use in the Manufacture of Floor Cloths, &c.:

I claim the employment or use of a sizing compound made of the within described ingredients mixed together in about the proportions specified.

[This invention consists in the employment as a sizing compound of composition of blood and lime, either alone or in combination with her ingredients, to be applied to canvas used in the manufacture of our oil cloths, or to other textile fabrics or paper.]

36,794.—N. B. Powers, of Lansingburgh, N. Y., for Improved Composition for Sizing and Steeping Floor Cloths, &c.:

I claim the employment or use of a sizing compound made of the in-redients herein specified, and mixed together in about the propor-ons set forth.

[This invention consists in the employment as a sizing compoun of a mixture of blood and tannin, either alone or in combination with other ingredients, to be applied to textile fabrics, such as canvas used in the manufacture of floor oil cloths, or to any other textile fabric or

36,795.—John Price and William Lewis, of Danvillle, Pa., for Improvement in Piles for Railroad Rails:
I claim the employment of the flanged layer, i, on top, or on top and bottom of the pile, A, when the same is used in combination with the layers, h g f, and arranged so as to form recesses, k, between the points of its flanges and the next adjoining layer, f, as and for the purpose shown and described.

[An engraving and full description of this invention has been published in least week's Supervise Approximation of the purpose shown and lescribed and the purpose shown and lescribed.

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lished in last week's SCIENTIFIC AMERICAN.]

36,796.—M. B. Riggs, of New York City, for Improvement in Guard Fingers for Harvesters:

I claim, first, The construction of the finger with a cavity, E, so arranged as to permit the fastening of the stationary cutter, J, as described; and also, so as at secure nearly equal thickness to the walls, sides and parts of the finger throughout, as and for the purpose hereinbefore described.

Second, I claim fastening the blade, J, beneath the cutter bar, in the manner hat forth and for the purposes specified.

36,797.—J. B. Roach, of Elizabethport, N. J., for Improvement in Slide Valves of Steam Engines:

I claim the combination of the two inclined pieces, B C, and adjusting screws, j g, with each other, and with the valve seat, a a, and back, b b, in the manner herein shown and described.

36,798.—Gregory Roth, of Cincinnati, Ohio, for Improvement in Candle Molding Machines:
I claim the arragement of the stationary perforated racks, B B' B'', and the perforated slide, C, adapted to retain and center the candle while permitting the descent of a full-sized tip mold, substantially as

36,799.—Thomas Rowe, of New York City, for Improvement in Machines for Crushing Linseed, &c.:
I claim introducing the substance to be crushed through a chaunel e, passing down through the center of the vertical shaft, C, and discharging through the aperture, f, between the crushing wheels, E substantially as and for the purpose herein shown and described.

36,800.—John Rynearson, of Farmington, Ill., for Improvement in Harvesters:

I CLAIM, first, In the described combination with the vertically curved platform, G, the rake, H, pivoted to and projecting horizontally forward from the rake arm, I, by which it is carried in a vertical orbit, all as herein shown and described.

Second, The guide, L, and spring, h, operating in the described combination with the pivoted rake-head, H, to present it in the proper position to gather the grain, and afterward retract it therefrom.

from.

Third, The fender, Q, employed in combination with the pivoted rake, H, in the manner and for the purpose specified.

Fourth, The yielding hood, i, operating in combination with the revolving rake, H I, substanally as and for the purpose explained.

Fitth, A platform constructed of vertically curved slats placed transversely of the machine at sufficent distance apart to admit the points of the rake teeth between them, when used in combination with the rake, H I, revolving in a vertical orbit, all as herein shown and described.

The prominent feature of novelty in this invention is a raking device, so operated and regulated as to remove the grain from the platform, in compact even gavels without scattering.]

36,801.—Daniel Sager, of Albany, N. Y., for Improvement in Self-Acting Wagon Brakes:
I claim the brake block, X, formed as shown and fitted to resolve freely upon an axle from the extremity of the brake bar, for the purpose set forth.

The mode of construction by which the brake-block is fitted and secured upon the axle, to wit, the combination of the orifice, M, the groove, a b, and its flange, t, with the axle, G, flange, f, and space, y, substantially as described and for the purpose set forth in the above specification.

36,802.—James and A. W. Sangster, of Buffalo, N. Y., for Improvement in Lamp Chimney Fastenings:
We claim the stationary lip. I, the movable lip on the lever, F, the spring. E, the thumb piece, K, and the aperture, V, arranged in the manner and for the purpose herein set ferth and described.

manner and for the purpose herein set forth and described.

36,803.—David Saunders, of New York City, for Improvement in Machines for Cutting and Planing Metals:
I claim, first, The arrangement of the plates, c and d, screws, e e'e'e, actuated by the shafts, 45 and 6, and gearing connecting the besame, in combination with the table, g, applied as and for the purposes specified.

Second, I claim the shaft, h. and wheel, h', in combination with the said plates, c and d, adjusted as aforesaid, and applied in the manner and for the purposes specified.

Third, I claim the secondary bed, i, in combination with the plate, when said bed and plate are connected by the flanges, in substantially the manner specified, so as to provide for inclining the second bed, l, as and for the purposes set forth.

Fourth, I claim the arrangement of the gearing, 13 14 15 and 16, for actuating the wheel, p, that gives an end movement to the rod, o, and slide, u, as set forth.

Fifth, I claim the slide, u, applied as aforesaid, in combination with the tool stock, x, and rotary lever or cutter, y, fitted and acting as and for the furposes specified.

for the jurposes specified.

36,804.—O. Sherwood, Jr., of Independence, Iowa, for Improvement in Grinding Mills:
I claim the adjustable frame, D. having the bed-stone, C, placed upon it, and arranged as shown in connection with the spindle or shaft, B, and the upper stone or runner, so as to be operated through the medium of the bridge-tree, G, for the purpose herein set forth.

[This invention relates to an improvement in regulating the mill-

stones for the purpose of causing them to grind finer or coarser as may be desired, and consists in having the bed-stone arranged in such a manner that it may be raised and lowered on the spindle, while the latter, as well as the upper stone orrunner, and the waterwheel have a rotary motion only.]

arotary motion only.]

36,805.—J. D. Smedley, of Chicago, III., for Improved Grate for Burning Petroleum and other Liquid Fuel: I claim, first, The arrangement and combination of the trough or grate, A, and the air.conducting pipes, B B, substantially as described and for the purpose above set forth.

Second, The arrangement and combination of the trough or grate, A, the air-conducting pipes, B B, &c., and the supply pipe. D, with its gage cock. I, appended, substantially as described and for the purpose above set forth.

Third, The arrangement and combination of the trough or grate, A, the air-conducting pipes, B B, &c., the supply pipe, D, with its gage cock, I, appended, and the damper, E, substantially as described and for the prupose above set forth.

Fourth, The arrangement and combination of the trough or grate, A, the air-conducting pipes, B B, &c., the supply pipe, D, with its gage cock, I, appended, the damper, E, and the lower air chamber, L, substantially as described and for the purpose above set forth.

Fitch, I claim so constructing the trough or grate, A, narrowing from its upper surface and edges at an angle or curve to the bottom, as to present continually reducing areas of surface, substantially as described and for the purpose above set forth.

6,806.—W. S. Smoot, of Washington, D. C., for Improve-

6,806.—W. S. Smoot, of Washington, D. C., for Improvement in Combined Time and Concussion Fuses for

ment in Combined time and Concussion Fuses for Shells:

I claim, first, The improvement in the means of igniting time fuses by combining the windage and concussion principles, substantially as and for the purposes set forth.

Second, The improvement in timefuses of providing them with a communication with the shell, closed by a sliding valve or plunger just above the point at which the fuse ignites, substantially as and for the purposes set forth.

36,807.—F. B. Stevens, of New York City, for Improve-

ment in Surface Condensers:
I claim closing the ports of exit and entrance of a condenser or cooler of a steam engine, and attaching pipes leading to the boiler and to the atmosphere, substantially as described.

36,808,—F. B. Stevens, of New York City, for Improve-ment in Shields for Surface Condensers: I claim a guard enclosing a surface condenser or cooler, placed on he outside submerged surface of a vessel, substantially as described.

36,810.—F. B. Stevens, of New York City, for Improvement in Surface Condensers:
I claim, first, Forming a surface condenser or cooler on the outside submerged surface of a steamer, by placing there one or more thin and fiat passages, containing the steam to be condensed or water to be cooled, and having a lamina of the water in which the steamer floats interposed between them.
Second, The passages so arranged that each passage has its own separate port of entry and of exit.

James Thompson, of Vevay, Ind., for Improve

I claim the arrangement of tube, A, having the flaring crotches, B B', in combination with the rotary dash, D, having in one plane a handle, F, and the tongue, c, which tongue is adapted to couple with the notched shaft, E, the whole being constructed and operating in the manner set forth.

36,812.—A. C. Twining, of New Haven, Conn., for Improved Mode of Uniting Timbers:

I claim the construction and employment of such iron bearings or steps, when formed or furnished with teeth or knobs, standing apart and in rows, substantially as and for the purpose described.

Also the hooked front of the rows or knobs for giving a draw, as above described.

anove described.

Also the construction and employment of rolled iron strips with teeth or knobs, substantially as above.

teeth or knobs, substantially as above.

36,813.—Richard Vose, of New York City, for Improvement in Car Springs:

I claim the arrangement within a suitable casing of one or more series of volute springs, I I, and a number of layers. H H, of some elastically-yielding substance, when the requisite number of metallic combining and steadying pates, D E, are arranged with the said volute springs and elastically-yielding layers, in the manner represented by the accompanying drawings, and herein particularly set forth.

by the accompanying drawings, and herein particularly set forth.

36,814.—Henry Underwood, of New York City, for Improved Belt Coupling:

I claim the connecting of rivets, B, permanently in pairs, by means of straps, C, swaged with the rivets from or out of a single piece of copper, to form an improved belt coupling or joint.

[This invention relates to a new and useful improvement in the rivet coupling or joint hitherto employed for connecting together the ends of machine belting. The invention consists in having the rivets connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together in pairs by a strap, the rivets and strap between the connected together the con ing swaged in proper form from a single piece of copper, whereby several advantages are obtained over the ordinary rivets.)

36,815.—J. M. and W. C. Wallis, of Milton, Iowa, for Improvement in Hand Corn Planters:

We claim the plunger, D., provided with the recesses, g.m., in combination with the partitions, E. provided with the cut-off brush, k, and the elastic plates, F. B., and fixed plate, d. all arranged relatively with each other and within the box, A., to operate as and for the purpose herein set forth.

We further claim the stop, G, attached to the plunger, D, and provided with the spring, o, when arranged relatively with the side, c, of the box, A, and used in combination with the elastic plates, F. B, million partitions, E, brush, k, and fixed plate, d, as and for the pupose set forth.

This invention relates to an improved corn planter of that class.

[This invention relates to an improved corn planter of that class which are designed for manual operation and consists in a novel arrangement of a plunger provided with a seed-cell and used in con-nection with a cut-off or partition, spring plates, and a stop, arranged in such a manner that the device may be operated and the seed measured, dropped and planted with the greatest facility.]

36,816.—H. F. Wieseck, of New York City, for Improved Sugar Tablets for containing Medicines:
I claim, first, The manufacture of tablets of sugar rystals, bearing numbers in figures of like material, and—
Second, The process which completes the manufacture, and endows the tablets of sugar crystals with a healing power, by exhausting the air from their capilliary interstices, and then impregnating them with alcoholtures (remedies in alcoholic form).

alcoholtures (remedies in alcoholte form).

36,817.—John Woodward, of Wilmot, N. H., for Improvement in Gates:

I claim a gate twice or more than twice the length of the space used as a passage way, provided with the grooved rails and fianged rollers, constructed and operating in the manner and for the purpose set forth.

forth.

36,818.—J. G. Young, Jr., of Aubnrn, Maine, for Improved
Boot and Shoe Stretcher:

I claim, first, The arrangement of the lifting rods, E E' H, in combination with the nut, F, screw, G, toggle arms, b c b' c', 1, cap, C, and side pieces, D, all constructed and operating, substantially in the manner and for the purpose shown and described.

Second, The cap, C, arms, b c b' c', lifting rods, E E', in combination with the central part, B, screw, G, and nut, F, loop, i, and hook, j, when arranged to operate in the manner and for the purposes specified.

fied.

36,819.—S. C. Crane (assignor to D. R. Barton), of Rochester, N. Y., for Improvement in Skates:

I claim connecting the foot piece, B. and the runner, D. of skates substantially in the manner specified, viz.: by placing the clamping points, e, at one-fourth of the width of the runner below the foot piece, in combination with the collar, C, when the latter is constructed as described, and is placed entirely below the lower face of the foot piece, in the manner and for the purposes specified.

36,820.—Smith Groom (assignor to himself and Jacob Shavor) of Troy, N. Y., for Improvement in Explosive Canister Shot:

Canister Shot:

I claim a canister shot or shell, so constructed as to shoot forward
the wood or metal plug, A, war missiles, O, and wadding, E, in the
nanner substantially as herein described and set forth.

36,821.—A. L. Poitevin, of Paris, France, assignor to Leopold Eidlitz, of New York City, for Application of
Photography to Printing:
Lelaim, first. The application, in the process of photographic engraving hereinhefore described, of a plate of glass or other suitable surface
coated with a solution of gelatine which is allowed to set or solidity,
and is then (either before or after being dried) immersed in orexposed to the action of a solution of bickromate of potash or other
chromate whose base does not produce an insoluble compound with
gelatine.

posed to the action of a solution.

Second, The application in the process of photographic engraving in manner hereinbed ore described, of a plate or surface coated with a mixture of gelatine and bichromate of potash or other suitable chromate, or first coated with gelatine, and then exposed to the action of the bichromate of potash or other suitable chromate, in either case without the addition of nitrate of silver.

Third, The application of a solution of proto-sulphate of iron to the surface of the photographic gelatine engraving, before pouring the plaster upon it, in the process of taking a plaster cast from the gelatine, as hereinbefore described.

Fourth, The mode hereinbefore described of metallizing the surface of the gelatine before submitting it to the electrotype process.

suc genume vetore submitting it to the electrotype process.

822.—Lewis Powe (assignor to McCurdy & Co.) of Pittsburgh, Pa., for Improvement in the Manufacture of Sheet Copper:

claim the mode of treating the sheets of copper after they have seed through the reducing rollers, substantially as and for the purhence in the process of the state of the sheets of copper after they have seed through the reducing rollers, substantially as and for the purhence of the sheets of the s

pose hereinbefore set forth.

36,823.—John Slingerland, of Greenpoint, N. Y., assignor to himself and J. H. Kelly, of New York City, for Improved Window Stop:
I claim, first, The combination and arrangement of the movable inclined piece, D, and the stop, d', or its equivalent, with the clastic roller, E, substantially as and for the purpose herein described.

Se cond, I also claim, in combination therewith, the employment of test h, or of equivalent roughened surface on the face of D, for the purpose herein set forth.

36,824.—Charles Stowell, of Concord, Mass., assignor to himself and W. M. Gaylord, of Northampton, Mass., for Improvement in Blasting by Electrical Currents: Lelaim my improved arrangement or application of the shield, the circuit wires and the strip of platina, substantially as described.

36,825.—William Mullally, of St. Paul, Minn., for Improve-

10,820.—William Mulially, of St. Paul, Minn., for improve-ment in Pumps:

I claim the combination of the hollow operating and discharging rod, K, hollow diaphragm, E F G I, internal valve, J, chambers, a b, and ports, N O f g, the whole being arranged to operate in manner substantially as and for the purposes set forth.

[This is a new and improved form of diaphragm pump, by which a

ontinuous stream of water may be thrown with great force and with

continuous stream of water may be thrown with great force and with the smallest possible expenditure of power.]

36,826.—Giuseppe Tagliabue, of New York City, for Improved Apparatus for Testing Coal Oil:

I claim, first, The vessel, B, extending above the stand, A, and having holes in it near the top.

Second, The cup, P, with its projections on the outside. Third, The ring, Q, in the cup, P, that holds the cover, C, and its appendages upright in any position other than over the vessel, B.

Fourth, The perforated tube, D, that surrounds the thermometer, and enters the ring, Q, allowing the cover, C, to stand in any position.

Bith The dome P, with the appairs V. C. Courte.

sition.

Fifth, The dome, F, with the opening, L, in front, for applying the lighted paper or wood, and the opening, K, on top.

Sixth, The rotating covers, J J, on the cover, C; each and all as and forthe purposes substantially as described.

[An engraving and description of this invention will be found on page 184 of the current volume of the SCIENTIFIC AMERICAN.]

36.312.—Eli Thaver, of Worcester, Mass., for Improvement

in Plane Angulometers. Patented Angust 26, 1862:
I claim the pendulum, moving upon three or more bearings in the same plane, and carrying upon its top a graduated arc, and its combination with the spherical surface, and the opening therein, substantially as set forth and described in the accompanying specifications and drawings, and for the purposes indicated.

tially as set forth and described in the accompanying specifications and drawings, and for the purposes indicated.

35,929.—J. H. Foster, of Pittsburgh, Pa., for Improvement in Attaching Movable Type to Cylindrical Surfaces. Patented July 22d, 1862:
I claim, first, Using a stereotype plate in combination with movable type, on a curved surface, by making that portion of the "turtle" or segment of a cylinder upon which the base of the type rests, deeper than that part occupied by the stereotype plate, for the purpose of bringing the face of the type to the same degree of curvature also for creating a wall or shoulder against which the type may be secured. Second, I claim the use of column rules in the form of the segment of a circle, having grooves on one or both sides describing the same curve, in combination with wedge-shaped "leads" or equivalent device, for the purpose hereinbefore stated.

Third, I claim separating the upper portion or face of the lines of type (arranged for printing on a curved surface) to a greater distance than the base thereof, by means of wedge shaped "leads" or equivalent device, without requiring the type to be grooved for the purpose of retaining them in place.

Fourth, I claim the use of a stereotype plate formed in such a maner as that the faceor lettered surface shall be longer and project over the lower edge of the bearing part next to the movable type, when use of wedge-shaped column rules, which would be indispensable upon a curved surface, fif this was not done.

RE-ISSUES.

-No. 1.--P. W. Gates, Thomas Chalmers and D. R. Fraser (assignees through mesne assignments to Wheeler Hedges) of Chicago, Ill., for Improvement in Evaporating Sugar Juices and Solutions by Means of

Evaporating Sugar Juices and Solutions by Means of Steam. Patented Nov. 29, 1859:

We claim the cooking or evaporating of sirup and sugar juices by using steam coils, in such manner as to produce violent ebuiltion at the point where the steam first expends a portion of its heat upon the coils and sirup, and from such point have the ebuiltion gradually decrease in violence or to subside—so that the scum or feculient matter separated from the juices may be caused to flow toward, and equably and completely deposit outside of the side margin or margins of the stream or body of juice in the pan, substantially as set forth.

-No. 2.-P. W. Gates, Thomas Chalmers and D. R. ,348—No. 2.—P. W. Gates, Thomas Chalmers and D. R. Fraser (assignees through mesne assignments to Wheeler Hedges) of Chicago, Ill., for Improvement in Apparatus for Evaporating Sugar Juices and Solutions. Patented Nov. 29, 1859:

We claim, first, The combination of the transverse stops, F. F., and he pan, C., with inclinedsides, the stops having a narrow now passege equal to the woth of the bottom of the pan beneath them, subtantially as and for the purpose set forth. Second, The combination of the stops, F. F., the pan, C., and defecance. C. C., substantially as and for the purpose set forth. Third, The combination of the coils, G. G., operating as described, or namener equivalent thereto, the pan, C., and the fire furnace, A, ubstantially as and for the purpose set forth. Fourth, The combination of the deep preparatory heaters, B. B. the hallow evaporating pan, C. D. and steam coils, G. G., or equivalents hereof, and fire arch, A, substantially as and for the purpose decribed.

scribed.

Fifth, The combination of the preparatory heaters and cleaners B B', and the defecator, C', substantially as and for the purpose de

scribed.

Sixth, The arrangement of the two sets of coils, B B, two chambers, B' B', and the receiving and exhaust steam pipes, g h, and the sirup cocks, k k, substantially as and for the purpose set forth. Seventh, The combination of the evaporating pan, C, steam coils, G G', or their equivalents, inclined side beaches, D D, and gutters, E E, substantially as and for the purpose described.

Eighth, The combination of the inclined beaches, D D, and the gutters, E E, substantially as and for the purpose described.

1,349—No. 3.—P. W. Gates, Thomas Chalmers and D. R. Fraser (assignees through mesne assignments to Wheeler Hedges), of Chicago, Ill., for Improved Apparatus for Defecating and Evaporating Sugar Juices. Patented Nov. 29, 1859:

LAUGHLEU MV. 25, 1535; We claim an evaporating pan constructed with a defecating apart-ent, for the purpose set forth.

1,350—No. 4.—P. W. Gates, Thomas Chalmers and D. R. 1,000—NO. 4.—P. W. Gates, Thomas Chalmers and D. R. Fraser (assignees through mesne assignments to Wheeler Hedges), of Chicago, Ill., for Improved Evaporating Pan for Sugar Juices and Solutions. Patented Nov. 29, 1859:

We claim an evaporating pan for sirupand sugarjuices, constructed with a shallow depth by having one or both of its sides form a continuation of its bottom by rising on inclined planes, substantially as set forth.

Second. The combination of the continuation of the source of the second of the second

Second, 'The combination of the pan, constructed as described, and a laterally-located defecator, substantially as set forth.

EXTENSION.

Jarvis Howe, of Worcester, Mass., for Improvement în

Boot Trees. Patented Oct. 24, 1848:

I claim the combination of the swivel and turning journal and its
bearing with the frame boot tree and mechanism for distending the
parts of the leg, substantially as set forth.

I also claim the peculiar arrangement of the bo t tree upon its supporting st the same being represented in the drawing.

TAX ON SALARIES OF CONGRESSMEN.—The tax on the salaries of members of the House of Representatives will be a handsome sum. Each member is taxed \$72 per year; the Speaker \$144. The next house will consist of 204 members, and the aggregate sum realized will be \$14,520 a year. The amount derived from the employes of the house will be \$7,433.