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The Novelty Works, New York City.

THE accompanying engraving presents an interior view of a portion of the celebrated Novelty Iron Works of Stillman, Allen & Co., at the foot of Twelfth street, East river.

The position selected by our artist shows one end of the erecting shop, in which the various parts of engines and other machinery in process of construction, are assembled after having been cast, turned, and finished in the different shops composing this immense establishment. Here the final adjustment, and fitting of the several parts to each other are effected, and each member of the future machine adapted to former is 105 inches in diameter, while the piston-rod is 11

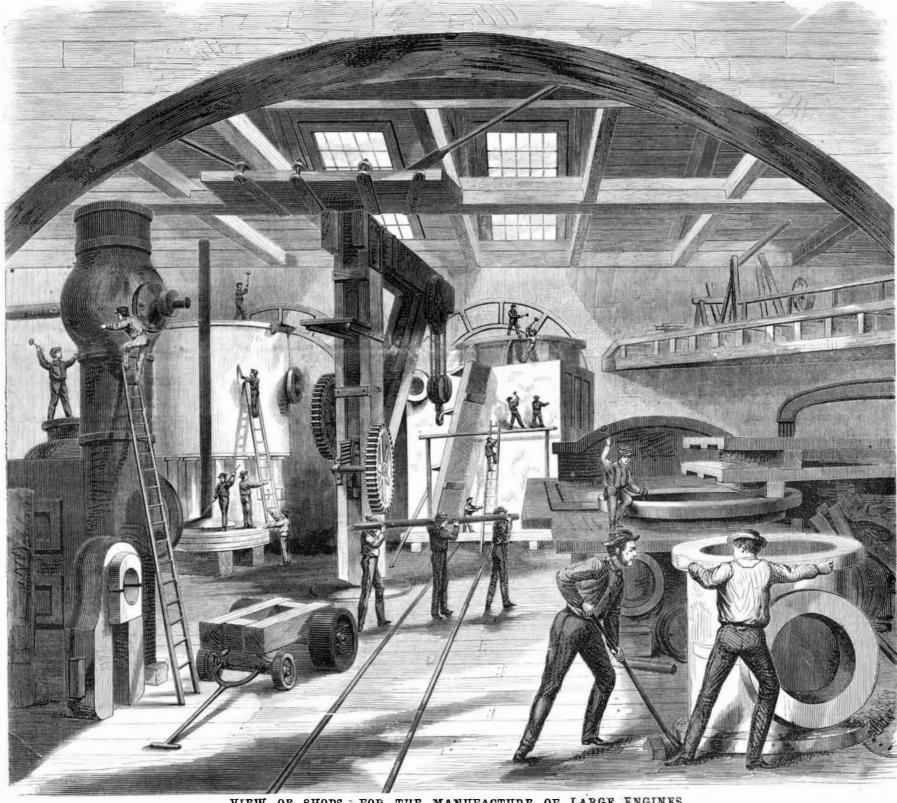
This shaft is to carry the working parts of Mr. Allen's mer and chisel. This foundation plate of the whole superengines with the most gratifying success. It is indeed a the side pipe stands the main crank pin.strap for the connecting rod. It is 4 ft. 6 inches long and grasps a crank-pin hav. ing 14 inches diameter.

Immediately to the right of, and behind the side pipe, are seen the piston and piston-rod, for the same engine. The perform perfectly and harmoniously its appointed function. inches diameter and 19 ft. 4 in. long. The rod is firmly seated

adjustable cut-off now applied by this firm to all their marine structure weighs 20 tons. To the right, and resting on the bed plate are shown the bed plates for a large 40 ft. lathe. marvel of ingenuity and must challenge the admiration of Over these again, in the background, appears a portion of all lovers of mechanical beauty and perfection. In front of the tool gallery where the hand tools are kept ready for the workman's hand, but out of the way, and in place, when not

> The large casting in the foreground, right hand corner, is a jet condenser for a smaller 62 inch engine, and weighs 4

> The shifting and placing in position of these heavy masses are effected by the use of the ponderous crane shown in the



VIEW OF SHOPS FOR THE MANUFACTURE OF LARGE ENGINES.

and uses of the objects shown in the engraving, we propose to give some explanatory notes, obtained in a recent visit to the works, through the courtesy of Lyman Hall, Esq., the superintendent.

Most of the parts here shown belong to a large marine engine now building for the Pacific Mail Steamer America. She will be the twelfth vessel of this line fitted with machinery from these works, and has the following dimensions: Length 360 ft., beam 50 ft., and depth of hold 32 ft. 6 in., giving a burden of over 4000 tons. She is to be fitted with a single beam engine of 105 inches cylinder, and 12 ft. stroke, with Allen's adjustable cut-off.

In the left foreground of the engraving, will be seen the front lower steam-chest, and one of the side pipes with the cut off shaft passing through its upper portion.

That the reader may have an intelligent idea of the nature | in the piston by a conical expansion and large nut on the end | central part of the engraving, and by immense chains and of the former.

Just behind these may be seen the air pump and reserveir, with a ladder standing against it. This pump has a diame- is now being excavated from the sand pit in which it was ing 9 tons. In the central background and over the tram- shop. Of the other parts not appearing in the engraving, ing weighing 21 tons. It is of the tubular kind and is to be without its centre pin, which alone weights 4 tons. fitted with Mr. Allen's wooden packing. On its top flange, where the workman is seen with a sledge hammer, the cylinder bottom will rest with a weight of 8 tons. Upon this a weight of 24 tons. figures with a workman seated upon it, engaged with ham- have recently added to their extensive works an architectural

pulleys to which steam power is applied.

The cylinder which is to form a part of the America's engine, ter of 62 inches and 6 feet stroke, the whole casting weigh cast, and has get to go through the boring mill and finishing way stands the condenser, an immense and complicated cast-the working-beam descrives mention. It weighs 24 tons

> The main shafts are 2 feet in diameter, and are probably the largest ever made entirely of charcoal iron, they having

again comes the main cylinder weighing 19 tons with its Beside the large marine engine, we noticed a stationary encover, weighing 7 tons. These are all supported by the con-gine of beautiful cosen and improved valve gear, in process denser, which in its turn is to be securely fastened on the bed of construction. This firm is also manufacturing Stephen plate which is seen just to the right of the three central son's & Luther's turbines, and Messrs. Stillman, Allen & Co., department, in which we noticed a building partly completed, of 65 feet front by 58 feet high, for parties at St. Pauls, Min-

To the mechanic not already familiar with the building of heavy machinery, no more interesting place can be found for a visit than the Novelty Works. The ease and precision with which the largest work is planed, turned, and bored cannot fail to excite his admiration.

OFFICIAL REPORT OF

PATENTS AND CLAIMS

Issued by the United States Patent Office,

FOR THE WEEK ENDING JUNE 9, 1868.

Reported Officially for the Scientific American

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees: -

On fling each Cavest.
On fling each application for a Patent, except for a design.
On issuing each original Patent.
On appeal to Commissioner of Patents.
On appeal to Commissioner of Patents.
On application for Extension of Patent.
On application for Extension of Patent.
On franting the Extension.
On thing a Disclamer. On thing a Disclaimer
On filing application for Design (three and a half years)
On thing application for Design (seven years).
On thing application for Design (fourteen years). In addition to which there are some small revenue-stamp taxes. Residents

of Canada and Nova Scotia pay \$500 on application.

Pamphletscontaining the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to Inventors, may be had gratis by addressing MUNN & CO.. Publishers of the Scientific American. New York.

78,637.—LAMP BURNER.—Lewis J. Atwood (assignor to him self and Holmes, Booth & Haydens), Waterbury, Conn.

I claim 1st, A cone or deflector with a circular range of springs to form the chimney holder. In combination with a perforated burner shell, to which said deflector and chimney holder are hinged, substantially as set forth.

2d, A rig, n, formed around the edge of the burner shell by the sbeetmetal turned over, in the manner and for the purpose set forth.

78,638.—PLOW AND PLANTER.—G. C. Avery, Waldron, Ind.

1 claim 1st, The combination of the rock shaffs C. standards d, and seed boxes H. H, arranged and operating substantially as described.

20, The combination of the rake g, and seed box H, with the standard d, as set forth.

78,639,—Evaporator.—Pierre J. Badoux, New York city.

I claim the construction of the within described rotary evaporator, for evaporating all fluids at a low or high temperature, by means of the hollow spirals or serpentines, with any number thereof, substantially as described and set forth.

and set forth.

78,640.—PROCESS OF TREATING MILK TO OBTAIN USEFUL
PRODUCTS.—Anna E. Baldwin, Newark, N. J.
I claum the impoved methods of obtaining products from milk, substantially as and for the purposes herein described.

tially as and for the purposes herein described.

78,641.—POATO DIGGER.—Edmund Bennett, Nankin, Mich. I claim 1st, The method of separating the vines from the potatoes, by the curved teeth in the endless chain K, and endless beltL, and shield N, arranged substantially as described and for the purpose specified.

2d. The combination of the above with the frame or box A, the wheels B, the axles C, the cog wheels D and O, the pinions E H and P, the shatts G and I, the shaker M, the wheels X, the slatted scoop J, the lever B, the cora or claim S, and the full crum T, when constructed substantially as and for the purpose described.

78, 642.—FOLDING OR IDDNING TARLE —M C Briggs Boston

purpose described. 78,642.—Folding or Ironing Table.—M. G. Briggs, Boston,

Mass.

Claim the apparatus or device above described, consisting of the leaves A A', twin cross frames or legs c c'd d', and anxiliary leaf or shelf g, the legs being pivoted to each other and to the leaves, and provided with the stops for i'. and the whole operating together in manner and for the purpose as herein shown and described.

Also, apply one pair of cross frames or supports to the leaf bymeans of the bar b, and binl, or its equivalent, essentially in manner and for the purpose as explained.

as explained. 78,643.—Cheese Hoop.—L. Chapin, Antwerp, N. Y.

I claim the within described cheese hoop, composed of sheet iron and tin and formed in the manner specified. 78,644.—MAKING HORSESHOE NAILS.—S. E. Chase, Boston,

Mass.
I claim in finishing nails the process of curving their bodies and beveling their bodies, and atterwards forcing them through an open die to shearoff superfluous metal, substantially as and for the purpose specified.

78,645.—HOISTING MACHINE.—G. R. Clarke, New York city. I claim primary wheels 32 and 33, pinion wheels 16 and 15. in combination with revolving case C. Also, revolving case C. crank D. and collar O, when constructed, arranged and operated substantially as nerein set forth.

78,646.—ELEVATOR.—George R. Clarke, New York city. I claim 1st, The combination and srrangement of the hollow and revolving table and worm parallel guides, rollers, and their supporting brackets, when the whole is operated by means of pulleys and engless belt, substantially as described.

when the whole is operated by means of putters and enters out, substantially as described.

2d, The endless belt t, when the same is used in combination with the table or platform p, anti-riction rollers bb, and screw thread arm t', when the whole is so constructed as to operate substantially as described and for the purpose specified.

3d, The combination of the lever r, the guide bar R, and the clutches, q and q', the stop lever H, and the stop pin w', when the same are used and operated in the manner substantially as described.

78,647.—BEDSTEAD.—John C. Cline (assignor to himself and

Henry C. King), Philadelphia, Pa.

I claim the bed bottom composed of the slats c, attached at head and foot to the bars e and f respectively, said bars being free to turn on end bearings or journals, in combination with springs k, and spring bar h, these several part being constructed, arranged and operating substantially as shown and described.

described.
78.648—Coffee Mill.—I. Fremont Colby (assignor to him-

78,648—COFFEE MILL.—1. Fremont Colby (assignor to himself and Daniel C. Colby, Washington, D. C.
I cleim providing the coffee mill with a supply reservoir B, in combination with the smaller chember C, and chamber E, all arranged for the purpose specified and set forth.

78,649.—FASTENING FOR GLOVES.—Isaac Cole, Brooklyn, N. Y.
I claim the glove fastening consisting of buttons a and b, and chain d, the head of one button being bollow or partly hollow, and within which is placed eccentrically a vertical post e, and having on its periphery openings h k, and a contracted slot f, leading into the bollow head, whereby the chain enters through one opening, then around the eccentric post and out through the other opening, both in lastening and unfastening the glove, substantially as described. described 78.650.—Thrasher for Grain, Clover, Flax, etc.—Lewis

Cosler, Yellow Springs, Ohio.

Cosler, Yellow Springs, Ohio.

I claim ist. The adjustable arms M. as herein set forth.

2d, The extension sieve U, for the purpose set forth.

3d, The construction of the incline shaped throat L, when located at the op of the apron K, as herein described and for the purposes set forth.

top of the apron K, as herein described and for the purposes set forth.

4th, The arrangement of the two conveyers R and S, when located and operating with the sieve T, as described and set forth.

78,651.—CLOTHES PIN.—John O. Couch, Middlefield, Conn.

I claim the employment of a rubber or elastic compound, in combination with a metallic clothes pin made as herein described, and adapted to operate therewith, as and for the purposes herein set forth.

therewith, as and for the purposes herein set forth. 78,652.—BRACE FOR BIT.—John W. Craig, Knoxville, Ill. 12.—BRACE FOR DIT.—JUHN W. CHAIS, MINOXPIRE, III. tim the device for holding bits in braces, consisting of the invoted by lever C, formed with the toe b, which engages with the bit, the free festid ever adapted to catch under the spring catch Φ secured upon d of the brace and provided with a round hole for the passage of the loossfructed and arranged to operate as herein shown and described.

3.—MODE OF ATTACHING HANDLES TO CHOSS-CUT SAWS.

Patrick Donoughe, Loretto Pa. Antedated May 19 1868.
I claim the arrangement of the handle a ferrule b, washer c, rod d, and nut e, the whole being constructed arranged and operating substantially as lerein described and for the purpose set forth.

8,654.—HARVESTER RAKE.—John C. Durborrow, Ellicott's

City, Md.

forth. —Penholder.—H. G. Eastman, Poughkeepsie, N. Y I claim 1st, The combination of the egg-shaped hand support or form A with a penholder by means of the swivel joint or equivalent therefor sub stantially as hereinbefore described.

y as hereinbefore described.

combination with a penholder the ring F as hereinbefore set forth

STEAM ENGINE OSCILLATING VALVE.—John S. Ev-

eritt and Ossian Cook, Oshkosh, Wis.
I claim 1st, The valve boles S S, of the valve H, constructed with inclines n, slots x x arranged relatively to the arms m, and valve stem C, as a means of adjustment in compensating for wear.

2d, The valve case AA, when constructed as described and arranged relatively to the oscillating balance valve H, as herein set forth.
78.657.—Mor WRINGER.—John Filkins, Sandwich, Ill.
I claim the combination of the standards CC, DD rollers PR, springs ZZ, levers JJ, having projections L, and treadle O, substantially as herein described. 78,658.—Petticoat Pipe for Locomotive.—W.G. Freeman,

Richmond Va.

I claim the combination of the cone or converging sheet E, with a petticoat pipe D closed at its lower end, when arranged and operating as described for the purpose of equalizing the draft through the tubes by converging the secaping products of combustion towards the mouths or muzzles of the exhaust pipes.

exhaust pipes. 78,659.—Beer Cooler.—Gerhard Fuchs and Jos. Luigart,

Logansport. Ind.
We claim the pan H. and ice pan K, provided with a tortuous pipe through which the beer is passed and cooled substantially in the manner specified and arranged under the pipes B B, as hereindescribed all operator the purposes set forth.

78,660.—Fulling Mill.—Ernst Gessner, Aue, Saxony.

I claim 1st. The toothed segments c, gearing in pinions c, in combination with the beaters and tub or tubs of a fulling mill, substantially as and for the

when the neaters and tub or tubs of a fulling mill, substantially as and for the purpose set forth.

2d The springs f or v, in combination with the tub or tubs of a fulling mill, substantially as and for the purpose described.

3d, The springs k, and adjusting screws k', in combination with the eccentrics L, the beaters B, of a fulling mill, substantially as and for the purpose set forth.

set forth.

78,661.—CLOTHES DRYER.—Almos W. Griffith, Boston, Mass. I claim 1st, The supports B B, constructed with a recessand openings in combination with the flexible frame D, and the fastenings d. as and for the purpose set forth.

2d. The flexible sliding frame. D D E, as and for the purpose specified.

3d. The firxible side pieces D D, in combination with the cord E, adjustable and piece D'D', as and for the purpose set forth.

78,662.—FRUIT GATHERER.—R. S. Hall, Hamburg, Mich.

I claim the combination and arrangement of the semi-circular wires C, the outwardly projecting rim B, and the bag or conductor as herein represented. outwardly projecting rim B, and the bag or conductor as herein represented. 78,663.—IACKLE BLOCK.—Jos. F. Harcourt. Cincinnati, O. I claim a two or more sneave tackle block whose partitions C extendfrom side to ide in one piece and are formed with grooves G'in their sides for the reception of the inner forked strap D', all as herein described for the purpose specified.

78,664.—CORN PLANTER.—Wm. N. Harrison and John J. 78,664.—CORN PLANTER.—WIII. IN. Haitison and solid s. Harrison, Hornby, N. Y. We claim the side tubes J. attached to cross bar j. the covering rollers K K, connected with hinged arms in m, and springs L L, and the double sets of seed holes ft', with suffing slide i, the whole arranged as described and operating in the manner and for the purpose specified.

78,665.—CORN COVERER.—J. D. Haynie, New Antioch, O. I claim 1st, The arrangement Aubstantially as described of the two series of rearwardly diverging times F F', adjustable shares G G', g g', H, and roller I as and for the nurnose set forth.

of rearwardly diverging these F. adjustable shares G.G., g.g., H. and roller I, as and for the purpose set forth.

2d, In combination with the described elements F.F., G.G., g.g., H. and roller of the preceding clause, the adjustable clevis L.I.m., for the object explained.

78,465.—SEED PLANTER.—Ashael linys, Guy's Mills, Pa.

1 claim 1st, The slide P, and droppers 11 and H.H., when operated as described for the purposes set forth.

2d. The whole seed planter, when constructed as described for the purposes set forth.

78,667.—HEEL FOR BOOTS, ETC.—Rudolph Herr, Brooklyn.

N.Y.
I claim the combination of the above described yoke, sole, spurs, tap hole and heel, with its filling and crossbar, as within described and for the pnrpoess set forth.
78,668.—HAT.—Fleury Huot and Constant Baudouin, New

York city. Antedated May 23, 1868.

York city. Antedated May 23, 1868.

Ye claim a bonnet having metaline foil or leaf pressed upon its surface for the purposes and as specified, 78,669.—PLATE FOR ARTIFICIAL TEETH.—David S. Hutchin-

78,1619.—I'LATE FOR ARTIFICIAL I EETH.—David S. Ridellingson, San Francisco, Cal.

I claim a flexible cavity plate, having in part or in whole the palatine portion of the plate in a et of flexible material D, in connection with a combound cavity or series of cavities, united or otherwise with a cavity on the center or palatine portion of the plate and upon the internal or external, or both, borders of the alveolar ridge, substantially as and for the purpose specified.
78,670.—FARM GATE.—T. W. Johnson, Grainger, Ohio.
I claim the links B B', gate A, links F, seath, and lever G, as arranged in the manner as and for the purpose set forth.
78,671.—SHEEP SHEARING TABLE.—Wm. C. Jones, Orangeville. Ohio.

ville, Ohio.

I claim 1st, The tilting table B, with the folding leg M.
2d. The spring-supporting rests E E, in connection with the notches J, in he legs C C.

20. The spring-supporting to the legs C.

30. The bed B, provided with leaves A A, secured in position by the hook G, and staple H.

4th, The block D, in combination with the straps I and F F, all operating in the manner described and for the purcoses set forth.

78,672.—COMPOSITION FOR TANNING.—Eli Keith, Wabash, Ind., and Alfred A. Eylar, Pontiac, Ill.

We claim the tanning composition and process, substantially as herein specified.

specified.
78,673.—Bomb Lance for Killing Whales.—Zeno Kelley,

New Bedford, Mass.
I claim the hainmer V, spring h, rod j, pin t, and bar g, in combination with the head E, all arranged 38 and for the purpose set forth.
78,674.—Electric Fan for Lamps.—Charles T. Mason, Sumter. S. C.
I claim last. The application of electricity to cause the revolution of a fan for the production of a dratt of air, substantially as and for the purpose de-scribed.

for the production of a draft of air, substantially as and for the purpose described.

2d, The combination of the electric coil A and fan F, and their respective equivalents, in manner substantially as and for the purposes described.

78,875.—Hoisting Apparatus.—J. Vaughan Merrick and Wm. H. Merrick, Pbiladelphia, Pa.

We claim the combination with a hoisting cage of a weight arranged to move in a contrary direction to the said cage, when the said weight is attached to arree' ingeams, levers, or their equivalents, all substantially as and for the purpose herein set forth.

78,676.—Apparatus for Making Bottles of Clay.—E. H.

for the purpose herein set forth.
78,676.—Apparatus for Making Bottles of Clay.—E. H.

78,676.—APPARATUS FOR MAKING BOTTLES OF CLAY.—E. H. Merrill and H. E. Merrill, Akron, Ohio.
We claim ist, The combination of the barg, adjusting stays a, roller F, and bottle mold, in the manner substantially as described.
2d, The disk C'provided with curved or radial arms or grooves D', terminating within a short distance of the margin of the disk leaving a rim around the entire edge for the purpose set forth.
78,677.—MACHINE FOR GROOVING AND SWAGING SHEET METAL.—Martin Metcali, Grand Rapids, Mich.
1 claim 1st, The pencular arrangement and construction of the small frame C C C C with the rollers 12, and the oscillating shaft d, fig. 2, substantially as and for the purpose specified.
2d, The construction and arrangement of the small frame C C C C with the rollers 12, and the shaft d, in connection with the small leaver, slot f, and stop pin n, substantially as and for the purpose described.
3d, The combination of the parts constituting the small frame with t's shaft d, rollers 1 and 2, cog wheels 1's' 3, lever b, and thumb screw h, with the large frame A A, the stationary relier 4, and swedge rollers B B, and eccentric lever D, substantially as and for the purposes specified.
78,678.—DISTILLING APPARATUS.—A. A. Meyendorff, New York city.

York city.

York city. Arranging in one distilling apparatus two stills and connecting them by means of pipes in such manner that the vapors of one can be forced through the mash in the other, substantially as herein shown and described, for the purpose of completely extracting the alcoholic contents of the mash,

as set forth.

2d. Arranging in combination with the double still A B, a testing apparatus consisting of a tub f, and worm c, and so operating that the strength of the mash can be ascertained directly from the still, as set torth.

3d. The vapor collector G, arranged between the still and rectificator H, of a sistilling apparatus, substantially as herein shown and described for the pui pose of condensing the weakest and most impure contents of the vapor, as set forth.

4th. The rectificator H, when provided with false bottoms g and h, between

as set forth.

4th, The rectificator H, when provided with false bottoms g and h, het ween which detaining devices l1 are arranged, and when so arranged that all liquids condensed above the lower false bottom g, are by means of pipe j and K, or j alone, separared from the low-wines in the lower compartment of the rectificator, substantially as herein shown and described.

5th, The vessel L. containing decomposing or flavoring ingredients, when arranged in combination and connection with the rectificator of a distilling

arranged in combination and connection with the rectilicator of a distilling apparatus, substantially as herein shown and described.

6th, A distilling apparatus consisting of two hollers A give of a vapor collector of, cettificator H, 6th lumn I, and final condenser J, and of a vessel L. containing decomposing or flavoring ingredients, all operating substantially as and for the purpose herein shown and described.

78,679.—MANUFACTURE OF SHOVELS.—H. M. Myers, Allegheny City, Pa. Antedated June 5th, 1868.

I claim a blank for the manufacture of shovel blades, made of steel or fron, of the form and with the tang portion split, substantially as herein described and for the purpose set forth.

78,680.—Switch for City Railroads.—Thos. Newman,

New Orleans, La.

1 claim the supplemental short bars B, in combination with an ordinary switch C, at the point at which a single-track city railroad runs into two tracks when constructed as shown and described for the purpose set forth. 78,681.—MACHINE FOR CUTTING FILES.—W. T. Nicholson (assignor to the Nicholson File Co.), Providence, R. 1. Antedated June 5.1568.

5, 1868.
I claim in a file-cutting machine a rolling bed whose longitudinal axis is set angularly with the line of motion of the carriage, or of the cutting chisel if the former be stationary and the latter movable, in combination with such cutting chisel, substantially as described for the purposes specified.

R. 682.—Grain Drill.—M. L. Nickels, Dunlapeville, Ind.
I claim the arrangement of the slotted arms CC, pitman D, slides FF, and
plates HH, with the frame A, and its hoppers I, when the several parts are
constructed and operating substantially as and for the purposes set forth.
78,683.—SHOE BRUSH.—J. E. Nolan, Chicago, Ill.
I claim the combination of the brush B, with the piece b, projection d, the
connecting piece a, screw c. and brush A, as specified.

78,684.—MACHINE FOR THREADING THIMBLE SKEINS.—W.T.

Norton, Dundee, Ill.

I claim 1st, The improved machine for threading thimble skems consisting

of the parts herein specified and shown, all constructed and arranged as de

erneed. 2d, The device G. with the lug H thereon, the slide A' having a head B, the 2d, Silde D, lever E, and hook F, all constructed and arranged substan-ally in the haaner set forth.

rod C, slide D, lever E, and hook F, all constructed and arranged substantially in the manner set forth.

78,685.—GRATE AND ASH SIFTER IN COOKING STOVES.—D.E. Park, Troy, N. Y.

Iclaim, let, A fire grate, made in two parts, having journals eccentrically attached, and arranged to dump or discharge its contents from the center of the fire box, whenever the two parts are moved off their supports and allowed to fall down perpendicularly, substantially as described.

2d. The elongated points oo on the shaker E, or stops on the side plate of the stove for the shaker to strike against or an equivalent therefor, which shall prevent the shaker from driving either part of the grate in too far when in usc, and so as to prevent it from dumping while in operation.

3d The support bars c. placed over and in combination with a vibrating fire grate, for the purpose herein described and set forth.

4th. A sifting pan situated below or in front of a fire grate, having attached to its bottom siles or ends. two or more open movable sitting grates or sieves, and arranged to vibrate inside of the stove by means of a pronged handle or double shaker operated from the outside of the stove, substantially as herein described and set forth.

5th. The lifting and sitting grate G H, or equivalent, in the hearth of a cook.

the historian set form.

5th The lifting and sifting grate G H or equivalent, in the hearth of a cooking stove, provided with journals, I i projecting through the hearth, and adapted to be suaken or vibrated from the outside substantially as shown and described.

ing stove, provided with journals, I projecting through the hearth of a cooking stove, provided with journals, I projecting through the hearth, and and peter to be basken or vibrated from the outside substantially as shown and described.

A bail, attached to a sitting pan, or to its movable bottom grate or grates and so arranged as to move the grate or grates backward and forward by raising said bail up nerpendicularly and letting it down horizontally substantially as herein shown and elescribed.

78,686.—WATCR RESERVOIR ATTACHMENTTO COOKING STOVE.

D. E. Paris. Troy. N. Y.

I claim, ist, A cooking stove constructed to he used with or without a water reservoir by means of an opening through the back of the stove, through which the flue passes when used with a reservoir and which is closed by a movable piece, or by a pipe collar bag, when used as a plain top stove, substantially as herein shown and described.

2d, A pipe collar, or a flue-opening through the rear part of the top plate of a cooking stove or ranke arranged to receive a smoke pipe, also an opening through the back plate of the stove arranged to receive a reservoir seat of flue chamber, so that either opening may be used separately or alternately as an exit passage substantially as and for the purpose described.

3d. A reservoir or waier tank having the whole or a part of the bottom surface elevated sufficiently far to sit over an ordinary pipe collar, and so that the outer edges of the reservoir will set down level on the stove top substantially as herein shown and described.

4th The extension piece or reservoir seat D, serving both as a sunken nit or flue chamber underneath the reservoir, and also as a top covering to a warming closet, when said piece or seat is sitted to and combined with an out said piece, substantially as herein described and set forth.

78,687.—OVEN OF COOKING STOVE.—D. E. Paris, Troy, N.Y. I claim, ist, the heating of the oven of a cooking stove by directradiation from the fire box through the plates intervening between the

78,688.—Hot Water Tank on Cooking Stoves.—Daniel

E. Paris and Chas. S. Dayis, Troy, N. Y., assignors to D. E. Paris, same place, and 'lement Olnaber, Cincinnati, Ohio. We claim, 1st. The horizontal flue in or under the bottom of the reservoir, formed by elevating a part or the whole of the bortom above the outer lower edges of the reservoir sufficiently high to all.—w the broducts of combustion to pass rearward under the same into the exit pipe, substantially as described.

to pass rearward under the same into the exit pipe, substantially as described.

2d, The base slide or bottom piece g g, or its equivalent, made either permanent or movable and and forming the rear part of the bottom to said norizontal flue, and connecting both with the reservoir and the back flue piece or its equivalent, substantially as herein described and set forth.

3d, The self-mounting cover or covers C. together with the back piece D, formed with the concave prougs N N, the convex half rounds O O, the crook ed hooks L, and the elongated slot M, or their equivalents, so arranged and lung that the drip of the cover shall real hack into the reservoir. Ath, The attaching, fastening or supporting a reservoir to or by a stove top by means of bolts, pins, bars, nooks or lugs i seried in or through the ordinary pipe collar or exit passage opening of the tob halt of the stove.

78,689.—TUBE WELL.—A. B. Parsons, Dunton, Ill., assignor to himself and Edward Rechead, La Crosse, Wis.

I claim the combination of the tube C, provided with grooves and holes, the spirally arranged wire coil E, and the Fanza screen F, arranged and operating in the manner and for the purposes set forth.

78,690.—CASTER.—John W. Pugh, Grand Rapids, Mich.

I claim the disk A, with a square opening in its center, and provided with a space within which works a slotted metal plate C, when used in combination with the caster, having a shank B, with grooves on three sides, as herein set torth, all constructed and operating substantially as specified,

78,691.—COMPOSITION FOR SETTING POSTS, TIMBER, ETC.—Amos D. Purinton, Dover, Mass.
I claim the above described arrillaceous composition, as well as the em-

Amos D. Purinton, Dover, Mass.
I claim the above described argillaceous composition, as well as the em-loyment or use of it, substantially in manner and under circumstances and or the purposes as described.

78,692.—Lumber Dryer.—Julio H. Rae, Syracuse, N. Y. 10,000.—100MBER DRYER—40110 ft. Rac, Syracuse, N. Y. I claim a kiln A, for drying lumber, peat or other materials, containing the following combination, to wit, a corrugated metallic roof and metal lining ra, gutters de, trap; h, and wells F, substantially as and for the purpose described.

ra, gutters de, trap; h, and weils F, substantially as and for the purpose described.

78,693.—STEM WINDING AND SETTING WATCH.—O. P. Rice and J. H. Gerry, Springfield, Mass.
We claim the reciprocating arbor K, having the incline d, and annular grnove e. in combination with the segment x, spring lever q', when constructed and operating substantially as herein described and set for th.

78,694.—TILE CUTTING MACHINE.—John Shellaberger, Shane's Crossings, Ohio.

1 claim, 1st, The pivo ed cutters C E D F, constructed and operating substantially as and for the purpose described.

2d. The hing'd frame B, in combination with the cutters C D E F, for the purpose of adapting them to cut in a ver ical plane, substantially in the manher and for the purpose specified.

78,695.—Sugar Evaporator.—William C. Smith, Warrensburg, Mo.

78,695.—SUGAR EVAPORATOR.—WIHIBIN O. DINICH, burg. Mo.
I claim the pan A A, as arranged on the body R, of the device, and in connection with the flues formed by the partition D, and the dampers m m, and the ban B B, divided by the partition r, having a gare h, when used in connection with the movable frame F. carrying the skimmer I, and a driver J moving upon the cogs L, by means of the cog wheels c, operated by the cranks n n, and used substantially as described and torthe purposes set forth. Also the dampers g g g g, with the connecting bar G, and the ashirt S, when applied to a sugar evaporator substantially as and for the purpose specified.

Caleb S. Stearns

specified.
78,696.—Machine for Cutting Leather.—Caleb S. Stearns 70,090.—MACHINE FOR CULTING LEATHER.—Calcid S. Steath is (assignor to himself, Chas. F. Davis and Thomas Corey), Marlbono, Mass. I claim attaching the cutter or die to a movable frame, so that it can be brought over any portion of the table B, in combination with a mechanism attached directly to the frame and moving therewith for decreasing the cutter, substantially as described.
Also the trame U, in combination with the movable frame C and the clutch, for throwing the mechanism into action which operates the cutter, substantially as set forth.

73,697.—Machine for Splitting and Rolling Leather. Caleb S. Stearns assignor to himself and Thomas Corey, Mariboro, Mass. I claim, 1st. The roller S for rolling leather, in combination with the carrying evilider C, when the roller S is acted on by levers T or their equivalent, all constructed and arranged substantially as and for the purpose described. 2d, The blocks M, with the springs N acting independently of each other, and constructed substantially as described. 3d, The screws Q and plates R, in combination with the knife E, substantially asset forth.

3d, The screws want place A. I. Stall as the stally asset forth.

4th, The roller D, for feeding the split leather out of the machine, when used in combination with the carrying cylinder C, and arranged substantially as and tor the purpose set forth.

78,698.—PEN AND PENCIL HOLDER.—Ambrose Tower, New

78,698.—PEN AND PENCIL HOLDER.—Ambrose Tower, New York city.
I claim a pencil point protector having barrel i' and slot s. in combination with the stamped plate fig. 1b, constructed and operating substantially as specified, and all equivalents of the same.
78,699.—NAIL EXTRACTOR.—James Tyzick, St. John, N. B. Iclaim the combination of the lever A, sliding fulcrum D, and hook or gripper E, the whole constructed and arranged to operate substantially as specified.

78,700.—Harvester Rake.—John Underwood, Muscatine,

78,700.—HARVESTER TAKE.—John Chuci wood, Assessing Jowa 1 claim, 1st, The combination of a revolving rake and gatherer, a concave grain receiver B, a rear elevated platform C, a reciprocating follower P, and a binder's support K or D, operating substantially in the manner and for the nurposes desorthed.

2d, The revolving rake and gatherer with its teeth applied to a rocking bar, in combination with the devices described and shown for causing the teeth to assume in their circuit the different positions required, and with a concave grain receiver, substantially as and for the purpose described.

3d. the binder's support K, which is attached to the finer bar, in combination with the elevated platform C and reciprocating follower P, substantially as described.

78,701.—KNIFE FOR SPLITTING LEATHER.—Arzy E. Van Gieson, Newark, N. J., administrator of the estate of AmziH. Van Gieson, deceased, **sssisnor to Newark Patent Leather Company.

I claim the construction of a knife for splitting leather, in sections, forming together a continuous knife, substantially as hereinbefore set forth.

78,702.—HEAD AND SHOULDER REST.—Abraham V. W. Van Vechten, New York city.