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77,707.—STOVE GRATE.—D. S. Baker. West Bloomfield, N. Y. lclaim, ist, A rotating grate, h, having uprigat figures, m, in combination with the lower grate, 1, constructed and operated in the manner substantial-ly as shown and described, and ior the purpose set forth. 2d, Thecombination of the fingered ring, C, with the fire box. A, fingered rotating grate, b, and the under supporting grate, i, constructed and operat-ed in the manner substantially as shown and described and for the purpose set forth. 3d, the combination of a cylinder or fire box, or its equivalent, with a fin-gered ring or bar, C, as shown and described and for the purpose set forth. 4th. The combination of rotating grat, o, with a fingered ring, n, con-structed and operated in the mainter as shown, and described and for the purpose set forth. 5h, In combination with said parts, as just described, the fingered ring, C, or its equivalent. 77,707.-STOVE GRATE.-D. S. Baker, West Bloomfield, N. Y

equivalen or i's equ 77.708.--CORN HARVESTER.-Moses Bales and Wm. P. Bales,

77,708.—CORN HARVESTER.—MOSES Dates and Wm.1. Lates, London, Ohio.
We claim, let, The arrangement of gatherers, E E', spreaders, F F', curved bar, I and central platform, O O', for the purpose set torth.
2d, The oblique sickles, JJ', HDB, JJ', oblique tongue, N, and plyoted frames K K', combined and operating in the manner explained.
3d, The plyoted platform. O O', in the described combination, with the discharging levers, P, arranged and operating as set forth.
4th, The curved guide or rod, R, in the described combination, with the gatherers, E E', spreaders, F F', curved bar, I, and platform, O O', for the purpose specified.
77,700. A LITOMATIC FAN.—Joseph Beck, New York city.

7,709.-AAUTOMATIC FAN.—Joseph Beck, New York city.

gatherers, E.E., spreaders, F.F., curved bar, I., and platform, O.O., for the purpose specified.
77,709.—AUTOMATIC FAN.—Joseph Beck, New York city. Antedated April 25.1868.
I claim, ist, The employment of the fan, C, constructed with the protectors, b b and c c, operated and for the purpose substantially as herein described.
2d, The arrangement and combination of the clock work, G, the balance, V, with the craik. W, the rot, X, the arm, Y, the axle, 7, the gear, Z Z, and the fan shaft, C, operated and for the purpose as herein shown.
77,710.—MACHINE FOR THREADING BOLTS,— Benjamin D. Beecher, Plantsville, Conn., assignor to luther Beecher.
I claim, ist, Arranging the cutting threads on the surface of the dies, as herein described, that is to say, so that a portion of each of said diesurfaces shall be lef plain, for the purpose of gadually rounting the blank, as the operation of ibreading it progresses, and the initial or commencing portions of the several curing threads shall follow one another in succession, all substantially as set forth.
24, In combination with the threaded part of the die, the embossed surface, k k, substantially as and for the purpose set forth.
77,712.—FENDER RING FOR HEATING STOVES—N. A. Boynton, New York, assignor to himself and Daniel E, Pans, Troy, N. Y. I claim a fender ring situaced ator near the bottom ot a fire pot, with its outer edges turning upware, so that the ring and the pot shall form together an acute angle. with its point toward the base of the pot, substantially as and tor the purpose set forth.
77,712.—DRYER.—Joseph Brakeley, Bordentown, N. J. I claim c. mbining with a dry-klin both s condenser and an exhaust pump, substantially as and tor the purpose set forth.
77,713.—MaCHINE FOR MAKING WIRE HEDDLES FOR LOOM HARWERS, see corticed, and provided with mechanism for operating the mediation of machinery for spreading the heddle eye lengthwise, as escribed, and show the, NorthAndover e

with thenext adjacent twisters, T U, to form the twistor the eye, as explained Also, the mechanism or combination for straightening the wire during its passage into the machine, the same consisting of the curved arm, f, and its puns, m n, and the sluter, K, and its pins, o o, the whole being avranged and avrhed together and to the trame of the machine, substantially in manker and so as to operate as specified. Also, the avrangement of the latch lever, k1, and the cam, m1, with the wheel, L, its noton, 11, and the shaft, N, such latch lever, k1, being for estop-ping the wheel, L, as set forth. Also, the combination as well as the arrangement of the nipping and cut-ting levers, w x, and their operative mechanism, with the syntes, L, such op-era ive mechanism being the plate, O, at d its cams, z al, and the springs, bi cl, the stud, d], the latch, el, notches, fl g1, the lever, i, stud, ol, arm, pl, and stud, q1.

era ve mechanem being the plate, O, and its cams. z al, and the springs, or cl, the stud, ell, the latch, ell, notches, fl gl, the lever, ni, stud, ol, arm, pl, and stud, ql. A so, the combination for operating the dog. S, or moving it lengthwise on the pmion, Q2, such consisting of the cam plate, x3, and the stude, y3 z3, of the gear, a3, and in comminic on with the cam plate, x3, and its dog, S, the spring bolt, a4, and the notches, b4 c4, arranged as explained. Also, the combination of the plinion, p5, the curved rack, q5, the lever, r5, the cam, s5, and the spring, 15, or their equivalents, with the retractor, t1, combined with mechanism for twissing wire, and havins mechanism ior ope-rating such retractor in other respects. substantially as set forth. Also, the combination of the auxiliary twister, V (provided with mechan-ism for operating it as described) with the two twisters, T1, to operate to gether and with the retractor, and provided with mechanism for operating them as specified. Also, the twister, T, as composed of the head, d4, the jaws or slides, 1414, the flapped wheel f, the cammed lever or slider, K4, the stude, m4 and slota, u4n4, the whole being arranged substantially as described. Also, the combination of a spreaged substantially as described. Also, the combination of a spreaged substantially as described. Also, the combination of a spreaged substantially as described. Also, the combination of a spreaged substantially as described. Also, the combination of a spreaged substantially as described. Also, the combination of a spreaged substantially as described. Also, the combination of a spreagement of the spring, 15, or its equivalent, with the m-chanism for making the neddle, such spring, t5, or its equivalent, with the m-chanism for making the neddle, such spring, t6, or its equivalent, with the m-chanism for making the neddle as the bar, c5, being used to press the heddle down a little, as and for the purpose hereinbefore men-tioned.

a lining fabric, one of whose sides consists of a loose, sbaggy or woolly ma-terial, when such shaggy side is placed towards the upper or outside of the boot or shoe, for the purpose of securing warmth and ventilation, as speciboot or shoe, for the purpose of securing warmth and ventilation, as speci-fied. 77,718.—Condenser for Spirit Still.—Paxson Coats, Cin-

chnatl, Obio. I claim the worm, B, having its lower end, b, terminating in the reservoir, C, from which extend the pipes, E and D, the one up and the other down, in combination with the vat, A, when the same are constructed and arranged in the manner substantially as and for the purpose specified. 77,719.—MOWING MACHINE.—Marcellus V. Cumming, Win-

throp. Me. I claim, 1st, The combination of a cutting apparatus, M, a wheeled car-riage and a steam engine applied to both, so as to but them in operation un-der circumstances and substantially in manner and for the purposes as here-inbefore explained. 24, The combination of an auxiliary wheel carriage, 0, and mechanism as

in before explained. 2d, The combination of a nauxiliary wheel carriage, 0, and mechanism as described (viz. the chain, R, and wheels, S8%), or its equivalent, for revolv-ing its axie with the mowing machine, its wheel carriage and sceam engine applied to both, so as to put them in operation, substantially as and for the purposes set forth. 77,720.—BED BOTTOM.—J. D. F. Dahl, Milwaukee, Wis.

I claim the combination of the frame, B, provided with the guide rods, C, and the frame. A, with the springs. D, cords, G. and pulleys, F, all construct-ed and arranged to operate as set forth. 77,721.—HAY RAKER AND LOADER.—Matin A. Dilley, Men-

and the frame. The operate as set to the operation of the operatio

The strang of a doe bar, it, and winning within t, the several parts berging constructed and stranged substantially as and for the purpose herein speci-field. The strangement of the lever, 1, rod, a, elbow lever, t, and rod, h, with the arm, m, and lever. M. for the purpose of automatically detaching the clutch, . 3d, Thesh of t, E, provided with the arms, L m m and n, in combination with the cords, b c and d, and winding drum, H, the several parts being constructed and artanged for the purpose of elevating the hay fork de-scribed, substantially as herein set forth. 72 7290 Events of the several parts dense the several parts dense for the several parts dense to the several parts dense the se

scribed, substantially as herein set forth. 77,722.—FURNACE AND PROCESS FOR THE MANUFACTURE OF frow AND STEEL-Francis Ellershausen, Montreal, Cauda, 1 I claim, 1st, The iurnace, in its novel combination of two fire chambers, b and 1, separated by fire bridge, m, as shown in the two modifications, one chamber being a crucible fire chamber, and the other a reverbatory fire chamber, both in connection with 'be crucible, i, all working together, sub-stantially in the manner and for the purpose described. 2d, The puceus of smelting and refining metals in 'arge quantities and in short time, by the employment of a large crucible with discumptioned. 3d, The puckling of cast iron in a crucible placed in my furnace, and sur-rounded by fire, the product being cast steel, substantially in the manner described.... escribed. 7,723.—HASP Lock.—Joseph S. Elliott (assignor to himself

and A. B. Cooler), Philadelphia, P., lelaim the bolt, D operated by a spring, f, and projecting pin. i', as ce-cribed, and the tumblers, F ard G, secured within, and arranged to operate n connection with the said bolt and with each other, in the manner and for he purpose herein set forth. 77,748.—SHUTTER FASTENING.—W. J. Miller, Gettysburg, Pa. 1 claim the arrangement and combination in a shutter fastening of the pull, P, bent arm or trigger, E, rod., i, spring, i, catch, b, and place, a, with its projecting catch, operating in the manner as shown and described and for the purpose set forti.
77,749.—GAS BURNER.—Hypolite Monier, Paris, France. 1 claim, lst. The combination with a gas or other burner, such as herein described for an internally fluted cone or chimmey rest, of giass or other transparent material surrounding the same, and a cap, R, or its equivalent, the whole being constructed and arranged as specified, so that air shall past to the fame through the "nt-rior of the burner between the burner and the cone, and between the cone and the chimney, as and for the purposes set forti. -Seamless Leather Strap and Tube. - Alois Es-

chenlohr, Munich, Favaria. I claim, 1st, The method of skinning the animal and cutting out the skin, ss herein described and illustrated in fig. 1. sheet 1, of the accompanying

drawings. 2d, The method of skinning and cutting out the skin of the animal, so as to form endless belts or straps of great length, in the manner herein de-scilled, and inlustrated in fig 2, sheet 1, and bgs. 1 and 3, sheet 2, of the ac. companying drawings. 725.—CANDLE.—John Lyon Field, Kensington, Great

77,720.—CANDLE.—John Lyon Fries, Action, Hyon I and Strain. Britain. I claim a candle, having one or more ribs or projections near its lower end, substantially as and for the purpese described. 77,726.—PAN FORMER.—John Finn, Decorah, Iowa. Ante-

77,726.—PAN FORMER.—John Finn, Decorah, Iowa. Antedated April 24,1868.
Claim, 1st, Thercesses, E. and blocks, F. as herein specified.
2d. Extension block, D. and bolt and slot, J. substantially as described.
3d. Ever or cam, G. for the purpose set forth.
77,727.—MANUFACTURE OF VINEGAR.—Joseph Firmenich, Buffalo, N. Y.
I claim the process of making vinegar from 'grain and other starch producing substances as a whole substantially as herein specified.
Also, as part of the process of making vinegar, the inj-ction of steam into the digesting mass of meal or grain, as in the vats, G and Legestind.
Also, as part of the process of making vinegar, the soaking and directing.
Also, as part of the process of making vinegar, the soaking and directing.
Also, as part of the process of making vinegar, the soaking and directing.
Also, as part of the process of making vinegar, the soaking and directing.
Also, as part of the process of making vinegar, the soaking and directing.
Also, as part of the process of making vinegar, the subjection of the soaked meal or grain to the smooth squeezing mill, J. substantially as herein described.
Also, as part of the process of making vinegar, the subjection of the soaked meal or grain to the smooth squeezing mill, J. substantially as herein specific. Bitter, B. Or inter stitle and the universe to be apprecised to channels, in and there, of the cover, as specified.
77,752. — MEAT POUNDER AND ICE PICK. — George Murray, J.-. Cambridge, Mass.
1 claim as an article of manufacture a combined meat pounder. Ceaver, ice pick, fish scaler, etc., composed of a rectangular singer pit , of ast or malleable iron, A, oue side of which is covered with ponned projections, while from the other ride projects a handle, B, and having once deg. C, and end. D, sharpeved, so as to produce cutting edges, substantially as herein set forth.
77,753. — CHURN. — Esau P. Newman, New Albany, Ind.
1 claim the breakers, J J J, and steel wire springs, K K, as used in connection with the breakles, 111 I, in churring butter.
77,753. — WAGON LOCK. — Chas. No ethlich, Muscatine, Iowa.
1 claim the arrangement and construction of the argular lever, 66 / luck, and protect pawl. B, in combination with the bevet toothe i rack, A, and vibrang lever, B B, inc arrangement of the whole beig such that the pivot, c, can be ther goistron the fight of left, of claim, x, and when in one point the pawl will be firmly lock. I without the aid of ad anxilary stop, and when the sever be robustion the pawl will be unlocked, all substantially in the manner described and shown.
77,756. — UIFTING JACK. — Samuel Perry, Seatord, Dell, assister to bimedian disourd. L'outborn.
1 claim the arrangement of the standard, A, with its slotted arun C. through which masses the rack, F, and to which is pivoted aloop, d, said rack being operated by the lever, B aloss, and shown.
77,756. — LIFTING JACK. — Samuel Perry, Seatord, Dell, assister to bimsettand of which is pivoted as any claim.
1 claim the arrangement of the standard, A, with its slotted arun C. through which hasses the rack, F, and to which is pivoted as and claim.
77,756. — LIFTING JACK. — Samuel Perry, Seatord, Dell, assistrot to bimsettand down.
77,757

specifical. Also, as part of the process of making vinegar, the method of applying the sulpluric act, first with cold water and then with boiling water, and the injection of steam into the latter while adding the starch, and until it is converted into glucose, substantially as herein specified.

converted into glucose, substantially as herein specified. Also, as a part of the process, the method of conducting the vinous fer-mentation by successive additions of yeast, first weak and then strong, substantially as herein described. Also, the arrangement of the sieves, K and L, substantially as and for the purpose herein set forth. Also the gage valve, m n, for drawing off the clarified sirupy liquid, sub-stantially as herein described. Also, the construction of the acctic generator, substantially as herein set forth.

77,728.—ANKLE OR KNEE GUARD.—Henry A. Hall, Boston

Mass. I claim, as a new art. cle of manufacture, an ankle or knee guard, in which the band or belt is provided with a series of independent and separ ate feel-ers of vulcamzed rubber, constructed or formed in the manner berein shown and specified, so that each feeler shall be uniformly flexible in various directions.

ers of vulcanzed vulber, constructed or formed in the manner herein shown and specified, so that each feeler shall be uniformly flexible in various directions. 77,729.—LIGHTNING ROD.—William Hall, Dubuque, Iowa. I claim a continuous convoluted cylinder, constructed of sheet metal, wherein the sheet of which it is composed shall extend more than once around the axis in forming the cylinder, whether the same shall be con-structed over an iron wire or not, when the same is made substantially as and for the purposes here in set forth. 77,730.—I RON FURNACR.—Alexander Hamar, New York city. I claim , ist. The method, herein described, of injecting steam, super-heated steam, or hydrogen into the oven, to mingle with the gases, and in-crease their heating effect on the bot hast pipe. 34. The combination, substantially as set forth, of the hot air pipes, as and for the purpose described. 35. The combination, substantially as set forth, of the hot air pipes, as the combination, substantially as set forth, of the hot air pipes, 50. The arrangement, as set forth, of the superheating pipes, f, in the combustion chamber, and the bot air pipes. 50. The arrangement as set forth, of the superheating pipes, f, in the combustion chamber and above the air pipes, for the purpose specified. 77,731.—CLOVER SEPARATOR AND HULLER.—David M Heckes, Franklin Township, Pa. I claim the combination of the oreaking solve, f, selvera, M N, ians, 07, and delivering router, and arranged substantially as secribed. 77,732.—BEER COOLER —Nicholas Hiemens, Buffalo, N, Y. I claim a beer cooler, compased of an is creaking a open, and of the purpose stantial is a herein described. 77,733.—CLOVER SEPARATOR AND HULLER.—David M Heckes, Franklin Township, Pa. I claim the combination of the orasking device, e, elevator, G, riddle, H, conveyor, J, platform or baset, I, hulling device, k 1, severe, M N, ians, 07, and delivering router, and arranged substantially as escribed. 77,733.—CLOVER SEPARATOR AND HULLER.—David M Heckee, Franklin Township, Pa. I claim

2d. In combination with said chamber or partition, I H, and tumbler, G E F, the arrangement of the lever, C, with its hook. D, in connection with the spring bolt, B, by the pin, b, when actuated in the manner and for the purpose set forth.

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77,741.-BRIDGE.-George T. Lape, Summit, N. Y. Ante-

777,741.—BaTDOE.—George T. Lape, Summit, N. Y. Ante-dated April 28, 1868.
 I claim, 1st, The construction of sections or voussoirs, Consisting of abut-ting ends. fanges, rib, and cross plate with tongues, grooves, and dowe tails all arranged substantially as and for the purpoges specified.
 24, The construction of bridges, arches, etc. by combining a series of sections or voussoirs, and securing them to each other, substantially as here-in specified.
 77,742.—TOOL POST FOR LATHE OR PLANING MACHINE.— William H Leach (assignment to bimediand Bradford Statson). Upbridge.

in specified.
77.742.—TOOL POST FOR LATHE OR PLANING MACHINE.— William H. Leach (assignor to himself and Bratford Stetson). Uxbridge, Mass.
I claim the construction of a tool post. for a lathe or other machine, with the joint, A'B', a combination with the collar, C, and set screw, F, substantially as and for the burpose set forth.
77.743.—CASTER FOR FURNITURE.—Samuel N. Long, South Chanman, assignor to himself and Lircoln B. Bearse, Barnstanle, M ass.
I claim the combination of the sleeve.D, with the spindle. A, with the plate, B, having the groove, c, and the opennor, g, all constructed, arranged and operating as and for the purpose described.
77.744.—SAFETY HATCH.—Robert H. Martin, Staten Island, N. Y. Antedated April 25, 1868.
I claim, ist, The combination with a hatchway-boist to the several floors, or counterpoised safety guards, substantially as specified.
3.1. Providing the hoist, essantially to open in e. gnards, both in the ascent and descended.
3.2. Providing the hoist, essantially as shown and clocking safety guards to a hatchway on any or all of the fact on intermediate floors or for the hoist, essantially as shown and clocking safety guards to a hatchway and the shown and actochied.
3.3. Providing the hoist with unshippoing or back locking gear to its self-shooting bolts, for eperation at ple sure, of the latter with any one or more of the safety guards, substantially as shown and discribed.
3.4. Providing the hoist of the hoist own the backneag without stoppine at or raising any of the safety surface at the safety marks, substantially as hore in intermediate. Hones to for running the hoist up and down the backneag without stoppine.
3.7. Providing the chole of the bare on intermediate floors or for running the hoist up and down the backneag without stoppine.
3.7. ACT and the part of the bare on intermediate floors. If of the safer to the safety guards, substantially as here on the ru

 $M_{\rm H}r({\rm A})$ , Middleser county, Mass. I C.sum the combination of the stationary escutcheons, the spindle, the spindle sockets. with the shoulder, h and hayke, the tisks and the knobs, when constructed, connected, and relatively arranged sub-tantially as de-withed

77,746 -PURIFYING SORGHUM JUICE. -Wm. Matthews, Troy

77,746 — PURIFYING SORGHUM JUICE. — W m. Mattnews, 1roy Township, Ohio.
Iclaim the improved filterer berein described, composed of the vessels, b c d, or their equivalents, arranged and charged with filtering materials substantially as described.
77,747. — HUB FASTENING FOR ECCENTRICS. — Geo. W. Miller, and Julus D. Stevens, Scranton, Pa.
I claim thedies, C C, and which are secured within the bub of the eccentric, and made to claim to the shift by means of a bolt with a tapering head, or other equivalent, as and for the purpose set forth.
77,748. — SHUTTER FASTENING. — W. J. Miller, Gettysburg, Pa. Learn the strongement and combination in a shutter fastening of the pull.

forth: 20, The combination with the burner of the internally fluted glass cone and chimney seat, and the corrugated and fluted glass tu in applied to the said cone, in the manner and for the purposes shown and specifical. 77,750.—CLOTHES LINE HOLDER.—Henry Morgan, Spring-

field, Mass. claim the combination of the pulley, A, and cam, B, with the gear, c c en arranged upon a plate, C, substantially in the manner and for the pur-e shown.

pose shown, 77,751.—COOKING STOVE.—B. L. Mott, Jr., Pawtucket, R. I. I claim the combination and grangement of the arched plate, H, with the soot trawer, G, so as to divide such drawer or the chamber, E, into two con-nected or return flues, as set forth, and be movable with the spawer. Alro the combination of the lip or flunge, a, with the particle or arched plate, H, or the sum and the drawer, G, to be applied to the chamber, E, and flues, D F, of the cover, as specified.

77,752.-MEAT POUNDER AND ICE PICK.-George Murray.

I claim the composition substantially as described, and for the purpose as

1 Claim the composition substantian, as according to the ingredients explained. Iso the process hereinbefore described for compounding the ingredients of such composition, such process embracing the two operations of straining the liquor from the leaves, and subsequently obtaining, by pressure of them, one extract, not obtainable by simple infusion. 77,759.—STENCIL PLATE. - Wm. W. Potter, Buffalo, N. Y.

..., us. — GIERGID I LEATE. - WIII. W. POULET, BUILALO, N. Y I cham, lst, A slotted plave. A, attach dto the sten l plave, B, at one e while the other end is free, substantially as and for the purposes set torth 24, The combination of the slotted plate, A, stendi nate, B, the C-forr letters sliding on plate, B, and the latch, D, substantially as and for the poses described.

Also, the combination of the pinion, p5, the curved rack, q5, the lever, r5,	77,731.—CLOVER SEPARATOR AND HULLER.—David M	poses described.
the cam, s5, and the spring, t5, or their equivalents, with the retractor, t1, combined with mechanism for twisting wire, and having mechanism for ope-	Heikes, Franklin Township, Pa.	77,760.—HORSE HAY FORK.—S. H. Rhoads, Clyde, Ohio, and
rating such retractor in other respects, substantially as set forth.	I claim the combination of the oreaking device, ef, elevator, G, riddle, H.	Wm. Carroli, Hillsdale, Mich. We claim, 1st, The springs, b', in combination with prongs, E, for the pur
Also, the combination of the auxiliary twister, V (provided with mechan-	conveyor, J, platform or board, I, hulling device, K I, sieves, M N Q, tans.	pose specified.
ism for operating it as described) with the two twisters, T U, to operate to-	OP, and delivering pout, R, all arranged substantially as described.	2d, The catches, ab, and springs, cd, as constructed and arranged to oper
gether and with the retractor, and provided with mechanism for operating them as specified.	The second strate strat	ate in combination with the shart, C, for the purpose specified.
Also, the twister, T, as composed of the head, d4, the jaws or slides, 14 14.	I claim a beer cooler, composed of an ice chamber. A, having an open in.	77,761 — COTTON PLANTER.—Charles Richmond (assignor to
Also, the twister, T, as composed of the head, d4, the jaws or slides, 14 14, the flanged wheel, f4, the cammed lever or slider, K4, the stude, m4 m4, and	clinkd trough, C, formed upon the outside walls thereof, in the manner and for the purpose substantially as herein described.	Gaynor, Stiles, & Co.), Memohis, Tenn.
slots, n4 n4, the whole being arranged substantially as described.	77,733 — SCAFFOLD.—Edward R. Holzer, Philadelphia, Pa.	I claim in the a justable flanges whereby they can be separated or closed
Also, the combination of the screws, p4 p4, with the twister, T, made sub- stantially as described, the purpose of such screws being to adapt the twister		at will, for the proper distribution of seed, the separators to keep the seed disunsted, in order to distribute equally and regularly, together with the hol-
to operate on wire of different sizes.	a base, B, resting on the ground, and to cach of which is secured an adjusta-	low journals, allowing the whole to revolve and adapt itself.
Also, the application or arrangement of the slide jaw, i5, the lever, m5,	ble bracket, C, all substantially as described.	77.762 STRAW CUTTER.—James Riley, Detroit, Mich.
and its spring, u5, with the lever, d5, applied to the bar, c5, as and for the		I claim the arrangement of the sliding frame, C, with feeder, A', when used
purpose specified. Also, the combination and arrangement of the spring, fS, or its equivalent,	of the bent ends of the plates on the brackets, as set forth.	in combination with the revolving cutter, D, and hopper, L, and operated in
with the mechanism for making the heddle, such spring, when the heddle		the manner substantially as and for the purposes herein set forth.
may be resting on the inner stationary jaw of the bar, c5, being used to		77,763 PAINT FOR LIQUID COMPASSES, ETCEdward S.
press the heddle down a little, as and for the purpose hereinbefore men-	tween the va s, as and for the purposes set forth.	Ritchie, Brookline, Miss.
tioned. Also, the combination of the discharger, u5, (provided with mechanism for	21. The combination, with the heat and snoke conducting pipes and vat.	I claim the application to a compass card, or other article to be exposed to
operating it as described) with mechanism for making the headle, as speci-	of a damper, arrang, d as and for the purposes set forth.	alcohol or an alcoholic mixture, as set forth, a paint composed of one or more pigments and congulating material (such as albumen, for instance), and
fied.	77,735.—GATE.—H. Hunt, Delavan, Wis.	then, or subsequently, affecting coagulation of the vehicle, the whole being
Also the conductor, W, made substantially as described.	l'claim, 1st, The combination of the levers, R R, pulley, O, and cords, F,	substantially as and for the purpose above specified.
Also, the combination for actuating the tongue, vI, of the retractor, t1, in order to enable a headle to be removed from the retractor, and the tongue to	arranged substantially as and for the purpose set forth. 2d, The combination of pulley, O, levers, R R, pivots, I J, and cap, P, ar-	77,764.—LAST AND SHOE HOLDER.—Andrew J. Rock, Union
close upon the next succeeding pice of wire introduced into the retractor,	ranged to operate substantially as herein set forth.	Village, Va.
such combination consisting of the slider, wI, the spring, x1, the lever, m2,	77.736.—TAX UALCULATOR.—I. S. Hyatt, Rockford, Ill.	1 claim tue arrangement and combination of the adjustable bosts, C, screws D E and K, blocks, A and G, when adjusted and operate ( with the adjustable
and the cam, o2, also their combination with the retractor and its tongue.	I claim, 1st, In combination with tax table, A, constructed substantially as	jaws, J J, as herein described a d for the purposes set forth.
77,714.—HARVESTER.—Caleb Caldwell, Waukegan, Ill.	described, the shaing bar, B, operating in the manner and for the purposes	77,765.—FRAME FOR NECK TIES.—S W. Roof, New York city.
I c.aim, 1st, The double joint, T, in combination with the motion lever, R,	as set forth.	I claim the combination of the frame, A, with the clasp, made detached, as
and pitman, V, arranged to operate subst. ntially as specified.	2d, Providing the sliding bar, B, with the projections, b b, as and for the purposes set forth.	shown at B, or hinged to said frame, as see 1 at C, when the frame, A, 13 made
2d, The combination of the oscillating frame, Q Q, cam wheel, W, strap, i, motion lever, R, double joint, T, and pitman, V, all arranged as and for the	3d, Rendering the sliding bar, B, adjustable in a direction at right angles	as show, so that its end, when in use, pass up under the outer ends of the
purpose herein specified.	to the carrier, E, by means of a slot and set screw' or their equivalents, for	turn-down collar, with which it is worn, so as to hold it in its place, all sub- stantially as shown and described and for the purpose specified.
3d. The lever, a, attached to the tongue, J, in combination with the catch,		
C, chain, 23, and rod, 22, arranged to raise the front of the harvester, as de- scribed.		77,766.—SIDEWALK —Samuel I. Russell, Chicago, Ill.
4th, The arrangement of the rods, CD, brace, G, lever, E, catch, F, and	humself and A. A. Sage), Westford, Wis.	I claim. 1st, The construction and arrangement of sidewalks or other ways
shoe, B', for raising the cutter bar, U, substantially as described.	I chaim the hollow body, B, in combination with the solid steel point, A, in the construction of a harrow tooth, substantially as and for the purposes set	with frame work or supports or combined with and covered by a surface coating composed of coal tar, and grooved, substa shally as specified.
77,715.—Sewing Machine.—C. Chabot, Philadelphia, Pa.	forth. as a new manufacture.	2d. The construction and arrangement of the walk in sections, substantially
I claim, in combination with a removable and replaceable throat plate, a	77,738.—BED BOTTOM.—Blinn D. Joslin, M. D., and Reuben	as described.
push piece that fastens, unfastens, raises, and holds up said plate, substantial-	A. Newhall, North Brownyille, Mich.	77,767.—LAMP WICK.—Eilert O. Schartau (assignor to Frank
iy as an at for the purpose described. Also, in combination, with the shuttle and its bobbin, the spring, i, when	We claim, 1st, The truss, D, provided with supporting spring s, 3, when at-	S. Judd and J bn G. Powell, Philadelphia, Pa. Antenated April 28, 1868,
pivoted to swing laterally, and embossed at both of its ends, for bolding and	tached to slat, C, and operating substantially as and for the purposes de-	1 claim a wire gauze or perforated metallic case, of any shape, fastened
allowing the bobbin to be removed by the side movement of the spring, as	scribed. 2d, The combination of the trussed slats. C, with the rod, B, and hooks, J.	permanently to the top of a lamp wick, of any material, or so construe ed as to be folded on it and detached at convenience, for the purpose of guarding
also for regulating the tension of the bobbin thread by means of the set	upon the double coil spring, E, for the purpose described.	the wick from the carbonizing effect of the flame, thereay producing a clear-
screw, r, substantially as described. Also, in combination with the latch, D, the concealed spring bolt, t, for		er light and a saving of wick and oil, as herein set forth.
bolding said latch in either position, that is, open or shut, substantially as de-	77,739.—HAY SPREADER.—G. G. Knowles, Wakefield, R. I.	77,768TRANSPORTING AND ETUDING GRAIN AND OTHER
scribed.	I claim the combination of the eccentric plates, r r r, with the triangles, t t t t, and bars, K V. as and for the purpose herein described.	Pro DUCTSS. F. Schoolmaker, New York cuy. Ai tedated April 26, 1868.
77,716.—STORE WINDOW.—Henry Chamberlain, Dayton, Wis.		I claim, 1st. A close chamber or compariment reported in p. rv. us to
i claim the combination of the spring bar, A, the perpendicular bars, a b	77,740.—PADLOCK.—Frank F. Landis, Lancaster, Pa. Ante-	air and gases by a metal in me, so applied is to p rant the free expansion
c and d, the plate, C and D, of a store window, when constructed and operat- ed substantially as described and for the purpose set forth.	dated May 7,1868.	and contraction of the metal, substatually as and for the purpose specified,
	I claim, 1st, The rounded right-angled chamber or partition, I, with its wall, H, thickened and perforated, in combination with the hinged and	gen gas, when produced from the confined air, by the agency of a chemical
77,717.—BOOTS AND SHOES.— Edwin Chesterman, Boston,	winged tumbler, GE F, on its pivot, i, with a cylinder, J, revolving freely	compound and heat, without the production of carbonic acid gas, substan-
Mass., assignor to himselt and Edwin A. Eaton.	on the pin, O for the socket in the key, arranged and operated in the manner	tially as and for the purpose described.
I claim a boot or shoe, whether made of leather or other material, having	specified.	bu, Froviding an opening or inlet, in connection with an inclosed chamber

for the passage of exterior air, to maintain in the process an equilibrium of pressure within and without, for the purposes substantially as described. 77, 769, —SHAFT COUPLING FOR CARRIAGES.—Anson Searls,

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New York city. I claim, 1st, The shaft hook, A, with a recess, C, in the back'part of it, and hole for bolt, I, as set forth. 2d, The curved T head bolt, I, for the purposes described. 3d, The combination of the bolt, I, spring, R, washer, J, and nut, E, in com-bination with the hook, A, and pin, B, substantially as described and all for the purposes set forth.

77.770.—COTTON BALE TIE.—G. A. Seaver, New York city.

77,770.—COTTON BALE TIE.—G. A. Seaver, New York City. I claim the construction of the the or fastening substantially as described.
77,771.—INSTRUMENT FOR LIGHTING GAS, ETC.—Amos Shipler and Wm. T. Merzereau. Newark, N. J. We claim in combination with a standard, a movable framework supporting the corrugated lips, when the same shall be constructed and operate substantially as described, for the purposes set forth.
77,772.—TUBE WELL.—S. E. Skilling, Benton Harbor, Mich. I claim the coil spring, G. provided with the rod, H, the collars, E and I, and the nut. J. within the pipe. A, substantially as arranged and for the purposes herembefore described.
77,773.—DENTSTRY.—Edward C. Smith and David F. Wilcox, Greenwile, N. Y.

cox. Greenville, N. Y. I clarm, 1-1, The introduction of air between the surface of the mouth and the rusterial used in taking impressions for artificial bases for teeth, by means of air tupos, T t, vaire rod, V, and spring, S substantially as set for the 24, In combination with the impression cup, C, the tubes, t i, vaive rod, V, and coil spring, s, when arranged and operating substantially as and for the purposes set forth.

77,774 — SINKER FOR FISHING LINE. — William H. Smith (assignor to himself and israel Hecker). New York City. T claim making a sinker in two parts, and in such a manner that sections or disks may be added to or taken from it, for the purpose of increasing or dimunishing is weight, substantially as herein set forth. 77,775.— HOP TRELLIS.—Lorenzo D. Snook, Barrington, N. Y. I claim the horizontal poles, D and E, when supported at right angles upon the upper sections, B. of the stakes, as specified, by means of the hooks, K. and used in combination with the sectional stakes, A B, substantially as and for the pargoes set forth.

for the parpose set forth. 77.776.—SHINGLE MACHINE. – George W. Southwick and John

H. Gillet, Scott, N. Y. Antedated May 4, 1668. We claim the arrangement of the bar, N. with its grooves, P.P., through which pass the pins, S.S. said bar being operated by the lever, q, for oscillat-he bar, J. through its arm, K. substantially as and for the purpose specified [7,777.—PROCESS FOR TREATING WOOD.—Edward Spaulding; Development W.Y.

Brooklyn, N. Y. I claim the method of treating wood herein described, consisting essentially n subjecting it to sufficient pressure to change and compact the structure reparatory to the process of drying by artificial heat, substantially as set 77,778.—Construction of Blacking Box.—Thomas H.

Spencer (assignor to Charles L. Spencer), Providence, R. I. I claim a double hinge, when applied to a blacking box and cover, in con-section with a handle, substantially as described, and for the purpose set

77,779.-SAW HORSE.-Augustus Stanley, New Britain, Conn. 1 (aim the folding parts, A & C, notched or recessed across, and adapted to lock into each other, and berigidly confined at the proper angle by the aid of the screw brace, D d d', or its equivalent, substantially as and for the pur-pose herein specified. 77,780.—ROTARY STEAM ENGINE.—Albert I. Thunell and

77.780.—KOTARY STEAM DNGINE.—ADJOINT I. Induction of John M. Hedstrom, Buffalo, N.Y. We claim the arrangement of the concentric steam grooves, ff', passage or passages, g, and blank, n, when combined with the piston head, B, and steam pipes. E G, in the manner and forthe purpose specified. Also, in combination with the wing, D, thespring slide, D', withright angled packing edge, a. arranged and operature asherein set forth. Also, in combination with the valve C, the crank arm, H, connecting bar, I, rock lever, K, and cam pin, m, the whole arranged and operature as berein set forth.

set forth. 77,781.—Mode of Lettering Marble.—Jules Turel, Kendalville, Ind. I claim the process, substantially as herein described, for applying metallic

lettering to m 77,782.—K -King Bolt for Wagon.—John J. Waldron, East

77,782.—KING BOLT FOR WAGON.—John J. Waldron, East Durham, N.Y., assignor to himself, Timothy G. Palmer, and Henry Brown. I claim the socket, 1, projecting downwards from the plate, f, this at unites the perch., e. and boister or head block, d, in combination with the king bolt, i, that enters, at its upper part, said socket, 1, and is retained by the nut.o., above easil plate, f, as and for the purposes specified.
77,782.—BLOTTER.—David Walker, Newark, N. J. I claim the tholotter, in the ware and for the purposes profiled.
77,784.—BLOTTER.—David Walker, Newark, N. J. I claim the to blotter, in the ware and for the purposes pecified.
77,784.—WAXING FLOOMS.—R. B. Walker, Claremont, N. H. I claim the combination of the beswax, spermaceti, and parafile, or its equivalent, in such proportions that the whole may be reduced to powder, substantially as and for the purpose set forth.
Also, the method or process, herein described. of waxing floors, by sprinkling thereon a wasing material, when the same is in a dry or pulverized or powdered state.

wdered state. -MODE OF ATTACHING HUBS TO AXLES.-James

77,785.—MODE OF ATTACHING HUBS TO AXLES.—Jaimes Weathers, Greensburg, I.d. I claim the thimble, B, and skein, E, cast of one piece, the former provided with a flange, h, and secured to the axle, A, by means of the bolt, f, and rod, g, all combined, arranged, and used substantially as specified. 77,786.—STOVE FOR RAILROAD CAR.—E. Z. Webster, Louis-with Kg.

ville, Ky. I claim the slides, M and O, in combination with the hopper, N, for supply-ing ceal to the furnace, substantially as herein described. Also, the combination of the furnace, A, casing, H, valves, I and G, smoke and hot at flues, D and K, shides, M and O, and hopper, N, for the purpose, and substantially as herein specified. 77,787.—TRUNK LID SUPFORTER.—Samuel Wehrly, San Pression Cal.

(7), 707.— IRUNK HID GUTTORIDA.
 Francisco, Cal.
 I claim, ist, The spring, B, having a hole, a, near its upper end, for the purpose of receiving the Polint, D, substantially as described.
 2d, The catch, E, having a point, D, forméd by making a slot on its top, substantially as and for the purpose described.
 77,788.—FRAME FOR NECK TIE.—Patrick Welch, New York,

N.Y. Iclaim the neck tie frame, formed with a slot running from the upper part down thecenter of the body, for the purposes as set forth. 77,789.—CHURN DASHER.—John E. Williams and Michael

Lemon. Binghamton, N. Y. Lemon, Binghamton, N. Y. We Claim the combinution of the dasher, A. center binged valve, F. hollow shaft or dasher rod. C. and oblique openings, E. E. through the edges of the wings, all being constructed substantially as herein described and represent-ed for the purpose set forth. PUDDLING FURNACE.—John I Wil-

 77/790.—BOLLING AND I ODDALLS \_ Control to a start of a puddling or least the hollow cast iron water chill boxes, aa, of a puddling or bolling turnace, made with rounded back corners, and jan be, b, in front, substantially as and for the purpose hereinbefore described.
 20. The use of hollow water boshes or boxes, connected with a water reservoir or tank, of suitable capacity to keep up a circulation of warm water, as well between heats as when the furnace is in operation, substantially as hereinbefore described.
 21. W. Wolfe, Jacksonville, State of the substantial of the subs 77,791.—SEAT FOR VEHICLES.—L. W. Wolfe, Jacksonville,

111. I claim the arrangement of the seat, A, with the hollow concavo convex metallic corners, B B, as herein described, all constructed and used substan-tially as set forth. 77,792.—FINISHING SKINS AND LEATHER.—George T. Wood-

bury and Thomas Burch, Newark, N. J.
 We claim, 1st, A metallic or other roller, provided with such marks, promisences, and depressions as will produce, when passed over leather, under pressure, an imitation hog skin.
 2d, The means of producing an imitation of the dressed skin of a hog upon leather adapted thereto, by the use of a roller, prepared and (mployed substantially as described).

stantially as described, in, when produced by the use of a metallic or other 3d, An imitation bog kin, when produced by the use of a metallic or other roller, having engraved, indented, transferret, or otherwise prepared upon its Circumference, such marks, depressions, and projections as will secure a representation of the marks left by the removal of bristles and otherwise, when pressed upon and revolved over leather, the whole substantially as de-scribed.

FORKS.-Howell W. Wright (assignor to Reed and Barton), Taunton, Mass. I claim the within described alloy, or composition of metals, or any other substantially the same, all asand for the purposes set forth. 77,814.—LINIMENT.—Wm. P. Hamlin, Exira, Iowa. I claim a liniment, formed of the ingredients, in the p manner substantially as herein described. 77,794.—RAILWAY CHAIR.—Reuben Zider, El Paso, Ill. I claim the arrangement of the clamps, B B. and key, D, with the chair, A the several parts being constructed substantially as described, thus forming an improve railroad chair. tions, and in the 77.815.—HEMP BREAKING MACHINE.—Joseph S. Hoskins. 77,815.—HEMP BREAKING MACHINE.—Joseph S. Hoskins, Spring Hill, Mo.
1 clam, 1st. The litting frame, F F', carrying the swords, C, the swords, D, upon the frame, A, and the swords, E, upon the springs, G, secured at g to the frame, and passing beneath the rollers, B, all constructed and operating as described for the purposes specified.
24, The litting frame, F F', swords, C D, yielding swords, E, and springs, G, in combination with the whipper, Q, feed rollers, B, pawi, R, and oscillating bar, P, substantially as described for the purpose specified.
36, The whipper, Q, substantially as above set forth and described.
46, The losefilating bars, P, carrying the whipper, Q, in their forked ex-tremities, in the manner and operating substantially as above set forth and described.
5th, The puwl, R, in combination with the ratchet, T, and oscillating bar, P, operating substantially as above set forth and described. and described, in combination with the strips, G, all as and for the purpose set forth. 77,795.—CUPOLA FURNACE.—Federal C. Adams, Cincinnati, Ohio. Obio. I claim, ist, The general shape of the interior of a cupola furnace, as is de-scribeo, that is to say, gradually contracted from the bottom to a point above the tweers, and thence gradually enlarged to the top, as shown. 2d, The heating chamber. A, above the cupola, provided with openings, B, and door, C, with the base wall, H, projecting over the lining, substantially as shown. and the outer case, with the openings for the introduction and discharge of the substantially as described. 77,837.-PERPETUAL CALENDAR.-Charles T. Pooler, Deansville, N. Y. I claim, ist, A perpetual calendar, consisting of the hands, C and E, work-or respectively around horizontal and vertical rollers, substantially as here-n shown and described. in snown and described. 24. The perpetual calendar, when provided with the bands, C and E, of which the latter partly covers the former, in combination with the hinged porton, G, of the frame in which the device is held, as set forth. 3d, The band, H, and rollers, I, in combination with the device set forth in theoregoing clauses. 3d, The air heating Gnamber, F, nueer inte wait, H, and between discharge of air, substantially as described.
3th, The plate, J, in the chimney, with its smoke passages, substantially as shown, and for the purpose described.
5th, The outer case, L, forming a blast heating chamber, N, surrounding the cupola, substantially as described.
6th, The partitions, O OI O2 3, in the blast heating chamber, N, substantially as and for the purposes described.
7th, The space or chamber between the lining, E e, and the inner case, for the purpose of cooling the back of the ining, or heating the blast, substantially as described.
8th, The cupola lining, E e, composed of an iron plate or plates covered with faranzing the tweers in a cluster, as shown by, P Q R S T.
9th, Arranzing the tweers in a cluster, as shown by, P Q R S T.
10th, The arrangement of tweers, an angular or respiral line, as shown at W, for the purpose of creating a tangential or vertical blast, as described.
12th, The arrangement of tweers, having the same size at the outlet, one 77,838.—SEAT FOR VEHICLE.—Lewis Pray, Portland, Me. I claim the combination of the jump seat, A, upheld by crossed legs, a, and pivoted, as shown and described, in combination with the siding seat D, of a vehicle body, all substantially as and for the purpose set forth. 77,839.—HORSE HAY FORK.—Emanuel Raber, Lake, Ohio. I claim, in combinaton with the pivoted forks, A A, the trigger, C, hook, F, and lines or cords, g, connecting said forks with the bar, E, so that the forks may enter and hold and carry the load or charge of kay upon their tines, and drop it at the place of delivery, substantially as herein described and envented. 77,840.-FERTILIZER.-J. S. Ramsburgh, New Market, Md. xed I claim the compound for a fertillzer, composed of the lugredients, mi in the manner and proportions substantially as herein described.

above the other, in regular or irregular order, substantially as and for the purpose described.

above described. 13th, The tweers, Y Y, projecting beyond the lining toward the center of the cupola, as described. 14th, The employment, in a cupola furnace, of slotted tweers for the admission of the blast. 15th, The slotted tweers constructed with the lower part of the outer end wider than the upper part, and projecting beyond the lining, substantially as shown

where that the upper part, and projecting beyond the inling, substantially as shown. 16th, The horizontal slotted tweers, constructed substantially as shown. 17th, The upright center tweer, Z, surmounted by a can, Z', whether in-troduced through the bottom or from the sides of the cupola, substantially as described. 18th, So arranging the tweers of a cupola furnace, as to employ a greater number below than above, for the purposes described. 19th, The upper row of tweers, W W, substantially as and for the pur-pose de scribed. 20th, The combination, in the same cupola furnace, of tweers of different shapes and sizes and located above and below each other substantially as

19th, The upper row of tweers, W W W, substantially as and for the pur-pose described. 20th, The combination, in the same cupola fornace, of tweers of different shapes and sizes, and located above and below each other, substantially as set forth. 21st, The inclined supports of the cap of the center tweer, Z, for the pur-pose of introducing the blast with a vertical motion, as described. 23d, In a horizontal series of tweers applied to a cupola furnace, con-structing the inlets of unequal size, as described and the other, making some of them with the outer end of a greater diameter than the others, while the in-per end remains of the same diameter, as described. 24th, The horizontal line of tweers, R3 R2 PT S S2 and S3, increasing and diminishing, substantially as shown. 77,796.—CARRIAGE POLE TIP.—Alonzo Benedict, Albany, N, Y.

N. Y. I claim the pole tip, A B, substantially as and for the purpose described. 77,797.—SHAFT FOR VEHICLES.—William L. Blaisdell, Port

77,797.—SHAFT FOR VEHICLES.—William L. Blaisdell, Port Byron, N. Y.
I claim, ist, Thehollow foot, B. of iron or other metal, when arranged as described, for the purpose of uniting the shaft and cross bar.
24, The combination of the hook, D, and shoe, E. with the springs, e and F, and foot, B. all arranged and operating substantially as described for the purpose set forth.
77,798.—STUMP EXTRACTOR.—Isaac J. Bogert, Fayette, assign or to himself and S. C. Crosby, Manchester, Iowa.
a I draim, ist, The combination of the head block or frame, A, inclined legs, B and C, cylinder, F, and foothed wheel, G, with each other, substantially as herein shown and described and for the purpose set forth.
30, In combination with the above, the feet, N, pivoted to be lower ends of the supports. B, substantially as described, for the purpose setfort.
33, The combination of the lever. I, and hooked pawl. J, with the toothed wheel, G, substantially as herein shown and described.
34, The combination of the lever. I, and hooked pawl. J, with the toothed wheel for the purpose setforth.

77,799. - FLAME AERATOR. - C. L. Browne, Washington, D. C. Iclaim the wedge shaped bar, as a grooved on its periphery or exterior edge, and so placed on the burner that the ends or mouths of the groover are below the lowest point of combustion, substantially as and for the purposes herein described. 77,800.—SUSPENSION BRIDGE.—Edward M. Carpenter, Mid-

detown, N Y. I claim, 1st. The construction and arrangement of the frame of a bridge, of separate sections, B B and B', in combination with the wedges, F F, substan-tially as herein shown and described. 2a, T be wedges, F F, com bined with the screw rods, e, and nuts, g, substan-tially as and for the purpose bereins hown and described. 77,801.—EXTENSION FOR TABLE.—De Lance Cole, Marshall,

77,801.—EXTENSION FOR TABLE.—De Lance Cole, Marshall, 11.
1 claim the combination of the extension leafor leaves, F, provided with legs, H, dowel pins, G, and supporting bars, I, with the hinged leaf or leaves, L, and slotted side bars of the frame, A, of an ordinary table, substantially as herein shown and described and for the purpose set torth.
77,802.—WHEAT DRILL.—J. W. Davidson, Mount Auburn, Ill.
1 claim, 1st, The seat, K. when its forward end is supported upon the adjustable cross bar, C, carrying the seed tubes by the bars, M, all arranged as described, for the purpose specified.
2d, The adjustable shoes, B, when provided with short vertical tubes at their rear ends to receive the flexible tubes, D, said shoes being held in place and connected to each other by means of the cross bar, C, secured to the short tubes, all arranged as described, for the purpose specified.
77,803.—ToBACCO Purp: HCNTY G, Dayton, Maysville, Ky, assignor to Richard H. Collins, Citednasi, Onio.
1 claim, 1st, As a new article of manufacture, a bowl, D, with a perforated side, so that it can be inserted into the main bowl of apipe.
3d. A tobacco pipe, consisting of a bowl, A, without a bottom, and with a socket, B, of a removable bowl, D, which is held in place by means of the place by means of the purpose specified.
77,804.—THILL FASTENER.—Lyman Derby. New York city. 17.527.— FALLET FOR TIMEPIECE.—C. D. Mason, Elgin, inf. Iclaim the pallet block or study.
substantially as described, for the purposes specified.
77.528.—WASHBOARD.—Michael McGarry, Westfield, N. Y. Iclaim the arrangement of the spring guidts, B, and ways, b, connected by eyes. c, and bends, has nescribed, when combined with washboard, A, and rubber, C. c, as here nest forth.
77,829. — MACHINE FOR MAKING PAPER PULP. — Warner Miller, Herkimer, N. Y., assignor to National Wood Fiber Company, New York city. Miller, Herkimer, N. Y., assignor to National Wood Fiber Company, New York city. I claim, 1st, The operating of the followers, E E', or, in other words, the feeding of the wood to the grindstone, by means or springs or a lever and weight, arranged substantially as herein shown and described and for the purpose specified. 2d, The Darticular application of the springs, I K, as shown, to admit of the followers being relieved of their pressure, whenever it is required to with-draw the followers for the heseritiou of the wood to be ground. 3d, The taking of two or more screens, P P', one above the other, in a shoe Q, placed in a suitable box, N, and having a shake motion communicated to it by means of a cam, R, or its equivalent, when such device is used incon-nection with or applied to a machine formaking paper pulp, substantially as set forth.

77,804.—THILL FASTENER.—Lyman Derby, New York city. 77,304.—'IHILL F'ASTENER.—Lyman Derby, New York city. I claim, ist, The combination of the slotted bolt, C, with the ear pincos, B, whether attached to the clip, A, or jack plate, for sectring the clip upon the axie, as sometimes used, for the purpose hereinbefore set forth. 24, In combination with the slotted bolt, C, the tenoned or wedge shaped thilliron, E, having an oblong hole, F, in it, substantially as hereinbefore set forth, and for the purposes described. 34, In combination with the tenon shaped thilliron, E, having a slot  $\alpha$  hole, F, in it, the spring latch, G, substantially as described, and for the purposes forth.

F, in it, the spring laten, G, subscription, J, Strand VEGETABLES.—Gustave De forth. 77,805.—LIQUID EXTRACT FROM VEGETABLES.—Gustave De Villepoix, Abbeville, (Somme,) and Joseph Francois Bonnaterre, Paris, France. Int As a new article of manufacture, the herein described liquid

France. We claim 1st, As a new article of manufacture, the herein described liquid extract of vegetables, as and for the purpose described. 2d, The herein described process for preparing the said liquid extract of of vegetables, as and for the purpose described. 33, The combination, with the said liquid extract of vegetables, of a solu-tion of sait and sugar, substantially as and for the purpose described. 77,806.—PRESERVING THE WOOD OF COFFINS.—Jean Maurice Dufaward and Logia Clumadot Paris France

E and F, and spring. G, in combination with the sieve, H, all made and operating substantially as herein shown and described for the purpose specified.
20, In combination with the above, the support or supports, I, so arranged as to hold a barrel in an inclined position above the sieve, substantially as herein shown and described for the purpose specified.
77,833.—STONE-GATHERING MACHINE.—George N. Palmer, Greene, N. Y.
I claw, ist, The broad shoe or scraper, formed with a series of grooves or channels, and having projecting points of fingers for gathering and conveying small stones, as herein described.
2d, The shoe, D, as constructed, in combination with a series of rakes, E, with spring tetch, e. e. when secured to endless belts, F F, or chaing ear, for loos ening and picking upsmall stones from the surface of the ground, substantially as herein described.
3d, Hinging the grooved snoe or scraper, D, to the frame, A A, and controlling it by the springs, h h, in such a manner that it will adjust itself to the surface of the ground when in operation, substantially as herein described.
77,834.—MODE OF REMOVING METALLIC SCALE FROM GLASS and Molls.—Wm. P. Parrott, (Geo. Hughes, executor,) and J. J. Bordman, Boston, Mass.
We claim the employment of heat and a weak solution of sulbhuric or muriatic and fluoric acids, in marner substantially as described, for removal of the metallic oxide or scale from the molls. or from the sand or silica used for making glass.

77,806.—PRESERVING THE WOOD OF COFFINS.—Jean Maurice Dufournet and Louis Clemendot, Parls, France.
We claim, 1st, Rendering the wood indestructible, by coating it over with any antiseptic matter.
20, Covering the coated wood with metallic sheets or suitably prepared papers, so as to obtain perfect air and water tight surfaces, substantiallyas and for the purpose herein specified.
77,807.—CORN PLANTER.—John Elbertson, Kirksville, Mo. I claim, 1st, The combination of the rack. e, gear, e', plate, 1, androller, C, having one flat edge, substantially as and for the purposes forth.
2d, in combination with the parts above referred to, the slide, D, and tube, A, when all said parts are constructed and rranged so as to operate together in the manner and for the purpose set forth.
77,808.—CORN PLANTER.—W. H. Fish, Jr., Scarsdale, N. Y. I claim, ist. The valve, e, in the spout, I, when arranged in connection with the seed slide, H, so as to be operated therefrom, substantially in the manner as and for the purpose set forth.
2d, The fitting of the small front w heel, D, in an adjustable frame, E, secured to the front part of the frame, A, in the manner substantially of the manner substantially of the graphese set forth.

for the purpose set forth. 3d, The combination of the two frames, A E, when used in connection with a seed dro pping mccanism, substantially as shown and described. Deping mechanism, substantially as snown and described. WATER INDICATOR AND ALARM.—Thomas Flinn, a seed dr 77.809.

77,809.—WATER INDICATOR AND ALARM.— I HOMMAS FILM, Brooklyn, N. Y. I claim, ist, The arrangement of the rods, E and F, connected so that the upper suspended rod, F, will only be operated by the lower floating rod, when the water in the boiler is at con hich or too low a level, substantially as herein shown and described. 2d, The rod, F, when operated as described, in combination with the levers G H, and with the valve, B, all made and operating so that the valve will be opened both when the rod, F, is raised and when it is lowered, as set forth. 3d, The above, in combination with the pin, to other indicator on the floating rod, E, whereby the apparatus is provided with an index, as set forth. 77,810.—BRIDLE BIT.—WIN. S. Ford, Clinton, III.

Table and neutro actus, in maner substantiant as described, for removal of the metallic oxide or scale from the molis, or from the sand or silica used for making glass. Also, for the purpose set forth, the combination of the vessel or tray, C, with the boller, B, and the furnace, A. Also, the combination as well as the arrangement of the acid generator, E, with the boller, B, and the furnace, A, the said boller and generator being connected, as described. Also, the combination of the condenser, D, with the boiler furnace and the vessel, C, or the same and the generator, E. 77,835.—COOKING STOVE.—L. M. Parsons, Waukau, Wis. I claim, 1st, The arrangement, as berein described, of the damper, K, with relation to the air passage, G, and oven, C, whereby the supply of cold air to the furnace, A, is cut off and directed through the cynet to feince the heat in the laiter, and the supply of oxygen to the fire, as set forth. 3d, The arrangement of the alr-supply fine, G, beneath the fire fine, a, of the stove, communicating with the furnace, A, through the ash pit when the stove is used with coal, and through the arcture, f, above the ash pit when the prime when the prime and the part of a store the prime of the data by contact with the plate specified. Upper B 77,810.—BRIDLE BIT.—Wm. S. Ford, Clinton, III.
1 claim the tubes, B B, when formed as described, in combination with the bit mouth, A, and check straps, C C, as and for the purpose set forth.
77,811 —CORN FLANTER.—A. J. Going, M.D., Clinton, La.
1 claim the arrangement of the colter, D, furrow opener, E, and standard, F, with the beam, B, as herein described for the purpose specified, 'A, and C, and the colter, D, furrow opener, C, and standard, F, with the beam, B, as herein described for the purpose specified, 'A, and check straps,' C, as a standard, the constant of the colter, and the check of the colter, and the check of the combination of the feed screw with the pulley, E, band, b, bar, J, or its equivalent, all subtrapility as described.

ntially as 77,813. — CHART ROLLER. — E. L. Hagar, Empire City,

specified. 77,836.—Vote Register.—N. A. Patterson, Winchester, 77,836.—VOTE KEGISTER.—N. A. Patterson, Winchester, Tennessee. I claim, 1st, The catching strips, G, or their equivalent, substantially as shown and described, in combination with the name blocks, B, and plate, A, or its equivalent, all as and for the purpose set forth. 2d, The springs, b, attached and operating substantially as shown and de-scribed, or the equivalent thereof, in combination with the name blocks or chases, B, all as and for the purpose set forth. 3d, The springs, s, of any suitable material employed and operating sub-stantially as shown and described, in combination with the strips, G, and plate, A, or the equivalent thereof, all as and for the purpose set forth. 4th, The device, consisting of the tablet. H, strp, I, and cross piece, J, or other equivalent mechanism, constructed and operatings ubstantially as shown and described, in combination with the strips, G, and as and for the purpose 77,793.-ALLOY FOR THE MANUFACTURE OF SPOONS AND

2d, The revolving rake or picker, G, in combination with the rollers, B H, arranged substantially as and for the purpose specified. 3d, Constructing the revolving rake or picker with movable rake bars, t, arranged so as to be operated by the curved plates, u, and their own gravity substantially as shown and desc thed. 77,818.—MANUFACTURE OF WHITE LEAD.—Otto Jacobi, Phil-adelphia, Pa. I claim, ist. An apparatus for producing carbonate of lead, consisting of the furnace, A, boiler, D, converter, G, and of the perforated boxes, I t, or their equivalents, all made and operating substantially as herein shown and escribed.

|MAY 30, 1868.

their equivalents, all made and operating substantially as neren shown and described. 2d, The device set forth in the foregoing clause, in combination with the ying at apparatus, F, arranged within the converter, as described. 3d, The tipes, B and J, in combination with the converter, G, all made and operating as described, the pipes being provided with dampers, c and d, re-spectively, as specified. 77,819.—COUNTERSINK.—C. Krebs, West Springfield, Mass. I claim a countersink, having one or more bent lips, when constructed sub-stantially as herein described and set forth. 77,820.—FINGER FOR SHUTTLE STOP ROD IN LOOMS.—E. S. Lanev (assignor to himself and Enos Langy), Waterloo, N. Y.

77,820.—FINGER FOR SHUTTLE STOP ROD IN LOOMS.—E. S. Laney (assignor to himself and Enos Laney). Waterloo, N. Y. Islainey (assignor to himself and Enos Laney). Waterloo, N. Y. Islainey (assignor to himself and Enos Laney). Waterloo, N. Y. Islainey, and for the purpose specified.
77, 521.—I.AWT BUENEEL.—Gilbert Lavere, Bridgeport, Conn. Islain, ist. The combination of the central chamber, b, with the annular chamber, e, and wick tube, d, substantially as shown and described, in combination with a rest, q, the said burner being so constructed as to be lifted off irom the said rest, q, without unscrewing, all as set forth.
77,822.—FURNACE FOR BURNING FUEL FOR HEATING METals, and for other Purposes. —T.J. Leigh, London, England.
Islain and for other Purposes. —T.J. Leigh, London, England.

77,823.--VULCANITE BILLIARD BALL.-W. H. Lippincott,

77,525.-- VUCLANTE DIDDIARD DALL.-- W. 11. Dippletott, Pittsburgh, Pa. I claim forming billiard balls, and other balls of a similar nature, or for sim-ilar purposes, of successive layers of rubber, each layer being vulcanized as it is added, substantially as herein described. 77,824.--CRUTCH.--John A. Lobb, Independence, Mo. 1 claim, 1st, The hollow staff, A, in combination with the hollow bar, a, the plug, d, and the spring, e, substantially as and for the purpose set forth. 2d, The hollow 'bar, a, in combination with the plug, d, the spring, e, and the clamps, e' e''.

the clamps, e' e". 77,825.- SAW SET.-A. Lyon, W. Shumard, and J. N. Robbins, Goshen, Ohio. We claim, 1st, The chisel pointed punch, D d, so guided as to strike the teeth

t their bases only. 2d, The tapering anvil, G g, adjustable to fit teeth of different widths, as

2d, The tapering anvil, G g, adjustable to fit teeth of different widths, as explained.
3d, The combination of the anvil, G, supporting bar, I, punch, D, and stops or gages, F F', substantially as and for the purposes set forth.
77,826.—PAN FOR CONCENTRATING SULPHURIC ACID.—P. Marcelin and Joseph Saunders, Green Point, N. Y. We claim providing sulphurc acid pans with elongated, downward-extending sponts, B, for the purpose of carrying the add from the upperp art of one pant to near the bottom of the next pan below, substantially as here in shown and described. and described. 77,827.—PALLET FOR TIMEPIECE.—C. E. Mason, Elgin, Ill.

et forth. 4th, The curved spout or chuts, T, attached to the upper screen, P, when atd spout or chute is used in connection with a shoc containing two or more creens, and all arranged in such a manner as to admit of the dividing or eparating of the pulp into two or more kinds or qualities of stock, substan-ially as set forth.

77,830.—REVOLVING SPADE PLOW.—J. W. Milroy, Galveston, Ind. I claim, let, In a revolving spade plow, the hinged frame, D, operating substantially as and for the purposes set forth. 2d. The employment of one or more revolving plows or forks, arranged to operate substantially as described. 3d. The comb nation of the lower spade or forked wheels, R R, with the upper wheels, R R, gearing therein, substantially in the manner and for the purpose set forth. 4th, The combination of the frame, A, roller, H, pawl, I, and cords, v v, all arranged and operating substantially as and for the purpose specified. 77,831.—CAR AXLE BOX.—A. H. Nathans and M. Thornton, Macon, Ga.

(1031.—UAR AXLE BOX.—A. H. Nathans and H. Thornton, Macon, Ga. We claim the curbed packing, c, when arranged on the side of the plate, in the manner and for the purposes specified. 7,832.—FLOUR SIFTER.—John Novek, New York city. I claim, 1st, A flour sifter consisting of the rotating cam shaft, B, levers, D i and F, and spring G, in combination with the sives H, all made and perating substantially as herein shown and described for the purpose pecified.

-REVOLVING SPADE PLOW.-J. W. Milroy, Galves-

77.830 -

77,841.—BEDSTEAD, CHAIR, SECRETARY, AND WARDROBE.-

William Reckards (assignor to bimself and Leonard Gattman), New York city. claim, ist, The box, A, provided with a pendent binged door, C, and a ged portion, A x, asshown, in connection with the adjustable box, F, fit in A, on a rod, G, all being arranged in such a mach where the second s hinged portion. A x, asshown, in connection with the adjustable box, F, ft-ted in A, on a rod, G, all being arranged in such a manner that the box F, may be adjusted in a vertical for a horizontal positior, substantially as and

may be adjusted in a vertical or a horizontal positior, substantially as and for the purpose specified. 2d, The flaps, DD, fitted to the inner sides of the box, A, when used in con-nection with the hinged portion, A x, of the box, substantially as and for the purpose set forth inged portion, A x, of the box, substantially as and for the set for the box, F, into two compartments by means of a longitudinal partition, p, one compartment containing a mattress, G, and the other fur-pished to answer as a secretary or wardrobe, or both, substantially as and for the purpose specified. 77, 642. — FENCE POST.—I. D. Richards and H. D. Snyder, Carbondale. Pa.

Carbondale, Pa. We claim the fence post, with cast iron bottom and wood top, as herein de

scribed and for the purposes set forth. 77,843.—HORSE HAY FORK.—George M. Robinson, New Wil-

mington, Pa. I claim the combination of the bars, A and B, cutters, D D, slotted center bar, a, trip lever, f, having the notch, n, and cam surface, m, all constructed and operating together, substantially as shown and described and forthe purpose set forth.

844.—LAMP BURNER.—Wm. J. Ross, Worcester, Mass.

I JOINT. LANIT DURNER. WILL, INSS, WORCESTET, MASS. I claim, let, The spring, G, secured within the burner, in combination with the pendent nooks, h, on the cone or deflector, for the purpose of securing the latter on the ourner, as shown and described. 2d. The upright projections, h, on the lower part of the cone or deflector, in combination with the hooks, h, and the spring,G, all arranged substantially as and for the purpose set forth.

as and for the purpose set forth. 77,845.—PIANOFORTE ACTION.—Herman Seidel, Roxbury, Mass. Antedated May 2,1888. I claim the arrangement of the weight pieces, G, provided with a guide pin b, or its equivalent, with respect to the damper, E, the key, A, the frame. I, and the rest block, F, the whole being substantially as hereinbefore ex-plained.

77.846. -APPARATUS FOR MAKING CIGARS.-J. F. Shepard,

Hampton Falls, N. H. Hampton Falls, N. H. I claim the combination and arrangement of the several parts of the device viz, the hopper, A, the cylindrical tube, B, the plunger, C, the ferrule, D, the spring catCo, E, the groove in the plunger, F, and the opening G, in the bot tom of the hopper, substantially in the manner and for the purpose above set forth. 77,847.—MACHINE BELT.—T. F. Snover, Oconto, Wis. I'daim the machine belt, constructed as described, by interposing between two layers of leather, or other flexible material, a series of long itudinal wires connected by transverse textile threads, all secured together as described

Considered of the purpose specified.
77,848.—WATCH.—Charles Springer, Newcastle, Pa.
I claim the adjustable collar, D. contating the packing in the annular recess, a, incombination with the back plate, B, cap, G, and post, A, ot an or-clinary watch, as herein described for the purpose specified,
77,849.—Spring SEAT FOR SADDLES.—Robert J. Steele, Jr.,

Rockingham. N. C. I claim, 1st, The bent springs, D, forming the support for the curved seat. E. enchspring being secured at its ends to the horizontal cross bars, C C, at the front and rear end of the frame, A, as herein described for the purpose

The front and rear end of the frame, A, as herein described for the purpose specified.
2d, Forming the support for the curved seat, E, of single springs, whose front and rear curved ends are secured to horizontal cross bars at the front and rear of the franty, A, as herein described for the purpose specified.
77,850.—AERIAL NAVIGATOR.—Zaphina Stone, Kinsman's, O. I claim a balloon or aerial navigator, constructed with an upper part, A, having a flat or plane surface and an upper convex surface, and adapted to be findated with gas, and a central compartment, E, for the passengers, substantially as herein shown and described.
77,851.—LUBRICATOR.—Hiram Taylor, Cincinnati, O. I claim, 1st, Supporting ther od, D, by the lower end, c, of the hollow stem ont of contact with the fournal, substantially as set forth.
24, The notched or grooved rod, D d, attapted by reversing end for end to change or graduate the freedom of de livery of ol, as herein explanded.
77,852.—HAY AND COTTON PRESS.—Gray Utley, Charlotte, N. C.

N.C. I claim, 1st, Operating the platen, D. of a cotton or hay press, by means of the blocks, G H, having the dogs, 1i, the rods, E E, the link, L, and the levers, J J, all acting in cooperation with each other, in the manner and for the pur-poses specified. 2d, The dogs, 1i each having the arm, a, and operating in combination with the blocks, G H, rod, E, and eccentric collar, m, in the manner and for the

To block, on the set forth. 77,853.—BAIL EAR FOR PAIL.—Jonathan Walton, Brooklyn, N. Y. Antedated April 80,1868. I claim the bent wire bail ears, B, constructed as described, the two progs b b, passing through the side of the pail, A, and clinched upon the inner side and held in position by means of the staple, C, encompassing said ears below the upward projecting loop, a their inner ends also passing through the side of the pail, A, and clinched upon the inner side thereof, as herein shown and described. 72,854.—CONFRETE BLOCK PRESS.—Lawson S. Warner, Chiand desc 77,854. CONCRETE BLOCK PRESS. - Lawson S. Warner, Chi-

cago, III. I claim the spring, 8, in combination with the toggle bars, H G E and F, I claim the spring, 8, in combination with the toggle bars, H G E and F,

I claim the spring, S, in combination with the torgie bars, H G E and F, and follow bottoms, D, substantsally as shown and described for the purpose of lowering the follow bottoms to their first position, all arranged as set forth. 77,855.—PLOW.—Thomas P. Warren, Norfolk, Va. I claim, 1st, The slots, a a and a', when arranged in a vertical or inclined position in the mold board, and all extending in the same or parallel lines, in the manner and for the purposes of forth. 2d, The reversible heel iron and guide, G, when constructed so as to be em-ployed in the manner and for the purposes specified. 77,856.—ADJUSTABLE COUCH.—Godfrey Widmer, New York city.

city. I claim, 1st, A couch consisting of a canvas or other sheet, F, which is fit-ted over an adjustable frame, B C H, so that it can be stretched in either di-rection, as set forth. 2d, The eccentric rings, E E, when arranged as described, so that they serve belevate the sheet. F, to form the bead rest of the couch, when said rings are adjustable around a common axis, as set forth. 3d, The strap, I, arranged on the under side of the sheet, F, in front of the head rest, substantially as an of or the purpose herein shown and described. to are a Sd,

head rest, substantially as an of or the purpose herein shown and described. 77,857.—DEVICE FOR CLEARING PIPES.—Wm. Young, Eas-

77,857.—DEVICE FOR CLEARING PIPES.—WIM. 10418, 1045-ton,Pa.
I claim the arrangement of the tubular reamer, E, with the steampipe D, substantially assetionth.
77,858.—CAR TRUCK.—C. F. Allen, Paw Paw, Mich. Ante-dated May 9, 1868.
I claim, 1st, 80 supporting the end of a car upon a six wheeled truck that the weight shall be equally distributed upon all the wheels. by resting it upon a support over but not upon the middle axle, said support being sustained by springs placed on each side of and equidistant from the middle axle, and the whole weight being transferred to the axle through a right frame, substan-tially in the manner set forth.
2d, in combination with the beam, F, the braces, G, and swinging beams, H, placed on each side of the middle axle, and supporting upon their outer ends the side bearing blocks, N, so as to balance the weight of the end of the car over the middle faxle substantially in the manner set forth.
87 859 — FORMING 'TIGHT SEAMS IN RUBBER CLOTH.—Geo.

car over th 87.859.—

car over the middle ask, substantially in the manner setforth. 87,859.— FORMING TIGHT SEAMS IN RUBBER CLOTH.—Geo. M. Allerton, New York city. I claim the stoppers to the rivets and the lapping strips, applied to and com-bined with the jointor seam of India rubber cloth, as and for the purposesset

77,860.—FERTILIZER.—Jacob Althouse, Cross Roads, Pa., as-

signor to himself and Joseph V. Winemüller. I claim the above described composition or tertilizer, compounded in about the proportions specified, for the purpose of manufung land. Also, the process described of mixing and preparing said composition or fertilizer, substantially as described. 77,861.—WASHING MACHINE.—D. C. Baker, Buffalo, N. Y.

I claim the combination and arrangement of the slatted cylinder, B, one or more rollers, D, the series of aprons, k k, and spring roller, E, when em-ployed in the manner and for the purpose herein specified. 77,852.—SKATE.--E. H. Barney and John Berry, Springfield,

said case provided with openings, G and H, so that the said driving blades will revolve in the same direction, into whichever of the said openings the air enters, and having combined therewith and so as to be operated thereby, the spiral blades, C, upon a vertical shaft within a cylinder, B, substantially in the manner and for the purpose described. 77,868.—SHOE FOR AMALGAMATOR.—John H. Bullock, Gold Hill. Nevada.

'Hill. Nevada. I claim the combination and arrangement on the face of a shoe or grinder for amalgamators of the grooves, H H, with the supplementary grooves, I I, by which the quicksilver is taken from different points at the outer edge of said shoe, and delivered at different points at the rear of the same, to be in the way of the following shoe, substantially as described. 77,869.—ROTARY STEAM ENGINE.—Wesley B. Campbell, Ab-

ingdon, Iowa. lcläm the arrangement of the following parts: The induction pipe, A, the sa%, B, wheel, C, packing, D, valve, E, spring, F, and eduction pipe, G, sub-tantially as set forth.

stantially as set forth.
77,870.—DEVICE FOR BOILING AND STIRRING FRUIT.—M. G. Collins, Baltimore, Md. Antedated May 8, 1868.
I claim in a fruit-butter stirrer the detachable frame, C, with hds, M, constructed and arranged as described, provided with the flanges, E F, and supporting the posts, G, having the shafts, H, upon one side of the vertical stirrer, K, as herein shown and described.
77,871.—HEATING RAILROAD CARS.—A. C. Crary, Utica, N.Y. Lolaim the separate steam generator M on the locomotive heated by the

11,011.— HEATING KALLROAD CARS.—A. C. CHATY, UHCS, N.1. I claim the separate steam generator, M, on the locomotive, heated by the waste beat of the smoke or of the exhaust steam, for the purpose of heating the trainof cars, and constructed substantially as herein described. Also, in combination with a separate steam generator, M, constructed as ab ove specified, the use of pipes, O, H and I, in the manner as herein set forth and described. Also, in combination with a separate steam generator, M, and pipes, O, H, and I, as above specified, the use of universal or compound joints, in the man-ner substantially as herein set forth and described. 77 S72 — A DIUGENBLE. SDRA — Edward Deetz, Philadeunhia

77,872.—ADJUSTABLE SOFA.—Edward Deetz, Philadelphia,

Pa. I claim, 1st, The rounded and notched rear portion of the end frame, A, of the sofa, in combination with the end frames of the back, hinged to the body and provided with spring bolts adapted to the notches on the said rounded portions of the frames, A, all as set forth for the purpose specified. 2d, The above, in combination with the within described cords and putleys, by which the spring bolts at the opposite ends of the sofa, may be operated simultaneously as described.

37,873.—CHURN.—Wm. C. Douthett, Rochelle, Ind.
37,873.—CHURN.—Wm. C. Douthett, Rochelle, Ind.
1 claim, It, The provision in a courn operating mechanism of a weighted arm, F, applied substantially as and for the purpose described.
2d, The combination with the arm, F, of the ball, fl, and jaws, f2 f2, substantially as set forth.
3d, The combination of the bent or twisted blades or wings, J J, with the disk or dasher, B substantially as and for the purpose set torth.
4h, In a ch um, the herein described mechanism, by means of which a complete rotary movement of the churn dasher is produced, while it shall at the same time be caused to rise anti all, as herein set forth and described.
77,874.—ALLOY FOR METALLIC ROOFING.—Levi S. Enos, Almond, assignor to Nathaniel Sweet, Alleghaay County, N. Y.

mond, assignor to Nathaniel Sweet, Alleghany County, N. Y. I claim the above described compound, when made substantially in the manner and for the purpose specified.

manner and for the purpose specified. 77,875.— RIGGING FOR JIB SAILS.— Frederick Fillingham, Ithaca, N. Y. I claim the construction, arrangement and use of the jib sprit or boom, for the purpose of moving and adjusting the jib sail to any point on the star-board or port side of the bowsprit and vessel, as and for the purposes de-scribed.

-DECORATING WALLS.-James C. Finn (assignor to 77,876.-11,510.—DECORATING WALLS.—James of Film (assigned to himself, Willam Howell, and Charles A. Duy), Philadelphia, Pa. I claim the decorating of walls with a material composed of veneers or ornamental papers, mounted on musica, stiff paper, or other fabric, when the said material is tacked at the edges only to the walls, and when the joints between the pieces are covered by moldings or headings forming part of the decoration, all substantially as and for the purpose herein set for the decoration of the decoration of the purpose herein set 77.877.—Mortising Machine.—D. L. Gibbs (assignor to R.

77,877.—MORTISING MACHINE.—D. L. Gibbs (assignor to R. Balik Go.). Worester, Mass. I claim, ist, The combination, with the chisel spinale, the pinion or seg-ment geat thereon, and the pawl, a, and ratchet, f, of the bell crank lever and its toothed segment, actuated by stops, m n, in the manner described, so the cam, I and spiring, N, ior completing the movement of the spindle, subtantially as and for the purposes shown and described. 2d, The combination, with the bell crank lever and its toothed segment, aranged to operate the chiel spindle, as specified, of the friction spring, H. ledge, o, and stops, p. substantially in the manner and tor the purposes shown and described. I be logarded to the spindle of the friction spring, H.

enown and described. 77,878.—GRAIN BINDER.—J. F. Gordon, Kalamazoo, Mich.

11,010.—URAIN BINDER.—J. F. Gordon, Kalamazoo, Mich. I claim, ist, The bindingarm, H, capable of adjustment in the direction of the length of the grain, in combination with an automatic twisting device, substantiallyas and for the purposes described. 2d, The shafts, G 62, in combination with the binding arm, H, substantially as and for the purposes set forth, 3d, The arrangement of the cam wheel, J, forked lever, I, pitman, f, and lever, n, for giving a vertical vibrating motion to the arm, H, substantially as described.

as destribed.

riving an intermittent motion to the twisting device, A3, substantially as described. 8th, The combination of the reciprocating rake, T, hinged weighted lever, S, stoppin, 13, and guide, U, all arranged and operating substantially as de-

scribei. 9th, The employment of the jointed arms, tt2, stop pin. t3, and hook. t4, or equivalent devices, in connection with the connecting rods, S S2 e e2, where-by the rake is held at rest for a specific period, every time it completes its motion toward the binder, substantially as and for the purpose explained. 10th, The tension device, consisting of the arms, H4 h5 h6, and spring, h4, applied and operating substantially as and for the purpose explained. 11th, The combination of crank lever, e. rod, e2, arm, t, or its equivalent, slotted lever S, and pitman, S2, for the purpose of imparting a reciprocat-ing motion of the rake, substantially as a described. 72 870.

ing motion of the rake, substantially as described. 77,879.—STUMP EXTRACTOR.—Jesse Havens (assignor to humself and George Palmer), Auburn, N.Y. I claim the differential cylindrical shaft, D, tackle block, G, and the rove, C, in combination with the trame, substantially in the manner and for the purposes herein shown and described 77,880.—CARRIAGE SPRING.—W. B. Higgins, San Francisco,

Cal. I claim the combination of the springs, DD, with the wooden spring, A, o form the connection of the same with the body of the carriage, substan-ially as described. (7, S81. CHISEL HANDLE.—Robert V. Hilton, John G. Web-observed Harry B. Wheeler Largell May. 1998. 77

ster and Hiram E. Wheeler, Lowell, Mass. We claim the handle, C, plug, A, elastic rings, B B. and cap, E, construct-ed and arranged in the manner and for the purpose as described, 77,882.—ELECTRO PHONETIC TELEGRAPH.—Royal E. House,

ed and arranged in the manner and for the purpose as described, 77,882.—ELECTRO-PHONETIC TELEGRAPH.—Royal E. House, Binghamton, N. Y. I claim, ist, The use of the reflector, shaped and proportioned in accord-ance with the principles described, and for the purposesset forth. 2d, The respective arrangement and combination of the reflector and sounding head, as discribed. 3d, The combination of the reflector with sounding head and limiters, as described, and for purposes set forth. 4th, Hinging the distance through which the permanent magnetic force shall move. 5th, The use of a set of deflecting magnetized neadles, constructed as de-scribed, and relatively arranged as described, for purposes set forth. 6th, Constructing the axial aperture of a deflecting needle helix, as de-scribed, for the purposes set forth. 7th, The use of a set of deflecting magnetized neadles, constructed as de-scribed. and relatively arranged as described, for purposes set forth. 7th, The combination of a deflective needle helix, constructed with an axial aperture, as described, ior the purposes set forth. 7th, SaS.—SLEEPING CAR.—George W. Hunt, Hopkinton, Mass. 1 claim the berth leaf or shelf, d, when hung by links, f, in such manner that it may be swing up and locked against the foot, or swing down and locked in position to form the berth, substantially as shown and described. 7th, Set.—CULINARY APPARATUS.—George B. Isham, Burling-ton Wr

I claim, ist, A loop carrier. U, constructed substantially as described, and operating in conunction with an eye-pointed needle and a loop holder, W, to produce, from the needle thread, the stitch, ig, 15, in the manner set forth. 2d, A needle, a, and loop holder, W, in corubination with an adjustable oop holder, U, the whole being constructed and operating substantially as and for the purpose specified.

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and for the purpose specified.
 77,890.—CURTAIN FIXTURE.—Ira Kinman, Freeport, assignor to Sarah Kinman, Stephenson courty, III.
 I claim the reversible crank handle, h. and angular catch, g, in combination with the roller, B, and arranged to operate as set forth.
 77,891.—PREVENTING HOGS FROM ROOTING.—John D. Kirk-

patrick, Urbana, Ohio. I claim the within-described instrument, consisting of the bandles, A A' B, provided with inclined side pieces, h h, substantially as and for the purpose set forth.

77,892.—BEEHIVE.—E. I. Kline, Kirkville, Iowa.

set forth. 77,892.—BEEHIVE.—E. I. Kline, Kirkville, Iowa. felam a beehive, combining in its construction the following elements, viz: first, a base, A, coustructed with a diaphragm. A', spout, B, and open-lies, C; second, a section, D, with slats at E; third, the double rlass plates, F; fourth, the section, G; fifth, the glass plate, H; aud, sixth, a cap, I said base, and cap being composed of glazed earthenware, and the parts being arranged substantially as described. 77,893.—FisHING APPARATUS.—Joseph Koehler, N. Y. city. I claim, ist, The trigger lever, d, applied substantially as specified, in com-bination with the spring jerk, the parts receiving the fishing line, as set forth. 37, The swinging arm, h in combination with the trigger lever, d, and jerk spring, c, substantially as and for the purposes set forth. 4th, The spring hook d, formed of the arms, 14, extending from the coil. 15, and terminature in the reverse hooks, 16, so that the books can be opened by pressing the strong, 14, toward each other, as set forth. 77, S94.—Bitrick MACHINE.—Win O. Leslie, Philadelphia, Pa, I claim, ist, The combination of the pug mill or mixing tub, G, with the chamber, g', having the plunger, I, working mold charler, W in constructed and arranged to operate substantially as sand can be and earlier with the spring, c, and the reciprocating mold carriage with the darmaper, J, and the reciprocating mold carriage and Q, when arr ranged as shown and described, for the purpose of imparting to the mold carriage a reciprocating motion, as set forth. 77, 595.—MACHINE FOR DRESSING STONE.—William O. Leslie, Philadelphia, Pa. Lotaim the combination of the wheel, A, having the cutters attached, Lotaim the combination of the wheel, A, having the cutters attached, I claim the combination of the wheel, A, having the cutters attached, I claim the combination of the wheel, A, having the cutters attached, I claim the combination of the wheel, A, having the cutters attached, I claim the combination of the wh

ranged as shown and described, for the purpose of imparting to the mold carriage a reciprocating motion, as set forth.
77,895.—MACHINE FOR DRESSING STONE.—William O. Leslie, Philadelphia, Pa.
I claim the combination of the wheel, A, having the cutters attached, with the table. B, provided with the rack, a, and the shaft, m. provided with the rable. B, provided with the rack, a, and the shaft, m. provided with the rable. B, provided with the rable. B, provided with the rable. B, subject whith general substantially as described.
77,896.—CYLINDRICAL PLATE PRINTING MACHINERY.—G. F. Lewis, Philadelphia, Pa., and F. D. Stuart, Washington City, D. C. We claim, 1st, Apolying whiting or other material, as a detergent, to the vinder, in a solid form, by means of boards, il 12, and springs, 1, or equivalents, whose and ruly as described.
3d. The buff, G, applied to the detergent roller, F, substantially as and for the purpose described.
3d. The application of gas to heat the printing cylinder and the ink rollers, by means of pipes, b, passing through said rollers, and provided with burners or jets, bl 10, substantially as described.
77, S97.—HARVESTER.— L. J. Leyburn, Lexington, Va.
I claim, 1st, The shifting device, f, constituting an auxihary to the cam, J, restored and sature wille the reels and rake continue to revolve, substantially as set forth.
ad, The combination of the vertically and bourd stabel frame, A3, with the rock shaft. S, and the inner and outer supporting wheels, D and d5, substantially as described.
3d, Thesegmental toothed frame, E, provided with a size of a lever, and provided with the actor frame, A3, said frame having the axis of a lever, ad standing ad depressing the draft frame A3, said frame having the axis of a lever, ad standing as described.
3d, Thesegmental toothed frame, E, provided with a size of a lever, and substantially as described.
3d, Thesegmental toothed frame, E, adapted for

The dependence of the problem of the process of the p

77,901.—SKATE.—AChille F. Milgeon, wolcoutville, assignor to Union Hardware Company, Torrington, Conn. I claim 1st, The metallic brackets, g.g. each formed with an elongated hole receiving the tongue at the end of the runner arm, into which said tongue is riveted, so that said brackets shad as Tpicces across the arms of the run-ner, and are united to the sole plate by the screws or rivets, o, as set forth. 2d, The clamps, k. I, in combination with the screw, m, that passes through the flange of the clamp, l. and through a threaded hole in the runner, fitting said screw, m, so as to confine the boot sole by the clamps, k l, in the manner specified.

11,302.—MANUFACTURE OF PACKING FOR STEAM ENGINES, ETC.—Wm. H. Miller, Philadelphia, Pa. I claim the process above described, or its substantial equivalent, whereby the combination of dry powdered and dry fibrous material may be secured from the effects of water or condensed steam. 77,903.—CAR BRAKE AND STARTER.—C. D. Moody, St. Louis, Mo., assignor to himself and Horace Billings, Beardstown, Ill. Antedated April 28, 1868. I claim the combination and arrangement of the wheels Data

April23, 1868. I claim the combination and arrangement of the wheels, B B' and D, with the axie, A, and the spring, C. as described and set forth. 77,904.—COMPOSITION FOR REFINING AND TOUGHENING IRON. Joint H, Nolf (as: genorto hims: if and John D. Williams), Philadelphia, Pa. I claim the treatment of i fon during the process of puddling with a compo-sition consisting of the within described ingredients or their equivalents, in the manner and for the purpose described. 77,905.—CUTTING AND FORMING BLIND "HOOK BLANKS."— Galen Orr. Needham. Mass.

Galen Orr, Needham, Mass. I claim making blind hook blanks by cutting plate metal to the shape here-

77,906.-HAND FORK.-Fred'k. W. Palmer, West Richmond-

77,906.—HAND FORK.—FIGER. W. LAMMER, wille, N.Y.
relaim a hand fork substantially as described, for the purposesset forth.
77,907.—HORSE HAY FORK.—Nelson Palmer, Albany, N. Y.
I claim the spring catch, k, in combination with the bail, E, and roller, i, for the purpose of holding the ball, e, in position, or releasing if, at pleasure.
77,908.—MACHING FOR WIRING BLIND SLATS.—George Pancake. Harrisburg, Pa.

7,908.— MACHING FOR WINNESS 2000 cake, Harrisburg, Pa. I claim, ist, Feeding the stap less to the driver, W, by means of the wheel, b, aid wheel being constructed and operating substantially as described. 2d, The staple supplying incline, a, in combination with the feeding wheel, and driver, W, arranged to operate in the manner and by the means substan-nally as set forth.

-REVERSIBLE KNOB LATCH .- John E. Parker, Meri-

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specified. 77,902.—MANUFACTURE OF PACKING FOR STEAM ENGINES,

<ul> <li>Treprint and many problem of the purpose stering of the</li></ul>	more rollers, D, the series of aprons, K K, and spring roller, E, when em-	77,883.—SLEEPING CAR.—George W. Hunt, Hopkinton, Mass.	11,000 One RASIBLE KNOB DATCH. JOHN E. I arker, Meri-
<ul> <li>Meas most in the product of the product of the point of t</li></ul>	ployed in the manner and for the purpose herein specified.		den, Conn.
<ul> <li>We assume the second sec</li></ul>	77,852.—SKATE.—E. H. Barney and John Berry, Springheid,	that it may be swung up and locked against the root, or swung down and	to be raised from the late b holt an bestially as shown.
<ul> <li>bit is addressele with the scale of the purpose specified.</li> <li>bit is addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale with the scale of the purpose specified.</li> <li>c) addressele with the scale of the purpose specified.</li> <li>c) addressele with the scale with</li></ul>		locked in position to form the berth, substantially as shown and described.	2d. In combination with the above the fixed guides, d d, for guiding and
<ul> <li>and op and in the hole in the hole of the spread and for the purposes specified.</li> <li>24, A skate baving the point or projection, i, torned upon the toe of the runner specified.</li> <li>24, A skate baving the point or projection, i, torned upon the toe of the purposes specified.</li> <li>24, A skate baving the point or projection, i, torned upon the toe of the purposes specified.</li> <li>26, A skate baving the point or projection, i, torned upon the toe of the purposes specified.</li> <li>26, A skate baving the point or projection, i, torned upon the toe of the several parts of a culinary apparatus.</li> <li>26, The purpose specified.</li> <li>27, 884. — CULNARY APPARATUS. — George B. Isham, Burling, the held for the purpose specified.</li> <li>27, 895. — FINISHING LEATHER. — August Bertram, New Alban, a differe combination of the mandrel, or its equivalent, for other for the proof.</li> <li>27, 895. — FINISHING LEATHER. — August Bertram, New Alban, a disciplination of the same sa ecosmilished and the proving specified.</li> <li>27, 895. — POWER INDICATOR. — N. P. Bowsher, Ligonier, Ind. 1 taim, its, The porting the same sa ecosmilished and the proving specified.</li> <li>27, 895. — WICK TO CATOR. — N. P. Bowsher, Ligonier, Ind. 1 taim, its, The porting the same sa ecosmilished sub-the several parts of the same specified.</li> <li>27, 895. — WICK TO CATOR. — N. P. Bowsher, Ligonier, Ind. 1 taim, a the proper statistication of the same specified.</li> <li>27, 895. — WICK TO CATOR. — N. P. Bowsher, Ligonier, Ind. 1 taim a notice compose of the automatic of the diak, for a distributed and parts. In combination of the same specified.</li> <li>27, 895. — WICK TO CATOR. — Henry D. Brown, Tip. 1 and the secore and the several parts of the secored and specified.</li> <li>27, 895. — WICK TO CATOR. — Henry D. Brown, Tip. 1 and the secore specified.</li> <li>27, 895. — WICK TO CATOR. — Henry D. Brown, Tip. 1 and the secore of the secored sh</li></ul>			
<ul> <li>del and operating substantially as described.</li> <li>a) A skate having the purposes specified.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>b) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>c) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>c) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>c) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>c) A skate having a concave bottom, with the chamiler of the vertex lenses.</li> <li>c) A skate having a concave bottom, with the state lenses lenses.</li> <li>c) A skate having a concave bottom, with the state lenses lenses.</li> <li>c) A skate having a concave bottom, with the state lenses lenses.</li> <li>c) A skate having a concave bottom, with the state lenses lenses.</li> <li>c) A skate having a concave bottom, with the state lenses lenses.</li> <li>c) A skate having a concave bottom.</li> <li>c) A s</li></ul>	button socket therein, and the threaded neck, r, and operated by means of the	prece, a linged crosswise at the top of the car, and folding up and locking	3d, The arm. G, co. structed so as to form a seat for the spring on the spin-
<ul> <li>24. A skete baring the polit or projection, t. tormed upon the toe of the number specified.</li> <li>27. Best - CULINARY APPARATUS George B. Isham, Burling T. Best - Line and Provide distantially a described and for the purposes specified.</li> <li>27. Best - CULINARY APPARATUS George B. Isham, Burling T. Best - Line and Provide distantial a state of the several parts of a culinary appearum. A substantially a described.</li> <li>27. Best - Power Ixburget Det Control (19. State and provide distantial) a described.</li> <li>27. Best - Power Ixburget Det Control (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide distantial (19. State and provide distantial) a state and provide dist</li></ul>			
<ul> <li>runner, substantially se described.</li> <li>A. Askate having a concave bottom, with the colamiters of prevend side.</li> <li>A. Askate having the mack set is a concave bottom, with the colamiters of prevend side.</li> <li>A. The base of steeling to a skate, having the mack set into socket all the purposes at form.</li> <li>A. Askate having the mack set is a concave bottom, with the colamiters of the purpose set form.</li> <li>A. Askate having the mack set is a concave bottom, with the constant set of the purpose set form.</li> <li>A. Askate having the mack set is a concave bottom, with the constant set of the purpose set form.</li> <li>A. Askate having the mack set is a concave bottom, with the constant set of the purpose set form.</li> <li>A. Askate having the mack set is a concave bottom, with the constant set of the purpose set form.</li> <li>A. Askate having the mack set is a concave bottom, with the constant set of the purpose set form.</li> <li>A. Askate having the mack set is a concave bottom, with the constant set of the purpose set form.</li> <li>A. Askate having the manner of fastening the hind legs of the sheep have set index on the divide colar set is a concave set of the concernent of the purpose set index on the purpose set index</li></ul>			
<ul> <li>3d. A skate having a concave bottom, with the chambered or beveled sides, and method and a second or beveled side and method and the purpose specified.</li> <li>4d. The heef fastening to a skate, having the purpose specified.</li> <li>4d. The heef fastening to a skate, having the purpose specified.</li> <li>4d. The particular construction of the outside A, with its detachable bottoms, S and State having the purpose specified.</li> <li>4d. The particular construction of the unstelf A, with its detachable bottoms, S and D, all as herein described and for the purpose as set forth.</li> <li>4d. The particular construction of the unstelf A, with its detachable bottoms, F and D, all as herein described and for the purpose as set forth.</li> <li>4d. The particular construction of the manner of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the manner and combination of the diat, S.</li> <li>4d. The particular construction of the specified.</li> <li>4d. The particular construction of the diathe specified.</li> <li>4d. The particular construction of</li></ul>	runner, substantially as described and for the purpose specified.	11,001. O'DIMANT MITANATOS. GOOIGO D. ISHam, During	77,910.—MACHINE FOR THREADING SCREWS.—Wilbur F.
<ul> <li>The state is a state in a balance is a state in a balance in the back state in a balance is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in a balance in the state is a state in the state istate is a state in the state is a state in the state</li></ul>	3d, A skate having a concave bottom, with the chamtered or beveled sides,	I alam lat The combination of the several parts of a culine re apparetus	Parker, Meriden, Conn.
<ul> <li>hole in the heat bills of an in the battler source at heat bills over and the battler in a battler with a battler wit</li></ul>			1 claim the combination of the mandrel, or its equivalent, for rotating the
<ul> <li>and state, the bitting 12 and stem by low fix low cache to be larged on the particular construction of the outside. A, with its detachable bottoms, for the purpose as set for the particular construction of the outside. A, with its detachable bottoms, for the purpose as set for the particular construction of the outside. A, with its detachable bottoms, for the purpose as set for the purpose as the purpose the purpose as set for the purpose as the purpose the</li></ul>	4th, The heel fastening to a skate, having the neck, x', the button, h2, the		screw blank and the guide, R, with a chasing tool and mechanism for im-
<ul> <li><sup>b)</sup> protect, N.</li> <li><sup>c)</sup> rolles and combination of the sheep second in the arrangement in pumpipes of the automatic escape values, and statistic escape value, and well escape value value the value escape value val</li></ul>	hole, m2, in the heel plate, C, and the hole, m, in the button socket, all of the	9d The next on a construction of the outside A with its detachable bot	parting to the said tool a movement of translation along the body of the
<ul> <li>77,863.—FINISHING LEATHER.—August Bertram, New Albar, To Burn rendering leather water proof, when the same is accomplished substantially, as described.</li> <li>77,863.—POWER INDICATOR.—N. P. Bowsher, Ligonier, Ind. Telam a buckle composed of two frames, one sliding upon the other, and stranged with a thumb rest, or its equivalent, gubstantially as described.</li> <li>77,864.—POWER INDICATOR.—N. P. Bowsher, Ligonier, Ind. Telam a buckle composed of two frames, one sliding upon the other, and stranged with a thumb rest, or its equivalent, gubstantially as described.</li> <li>77,864.—POWER INDICATOR.—N. P. Bowsher, Ligonier, Ind. Telam a buckle composed of two frames, one sliding upon the other, and stranged with a thumb rest, or its equivalent, gubstantially as described.</li> <li>77,865.—WASTE VALVE FOR PUMP.—Geo. E. Brettell, Roch-telam shield plate, A, for smoothing irons, provided with the olion of the purpose beerinspectied.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip-telam of the internation with the slide, statistantial as a described, and tor the purpose.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip-telam of the skin from with ligs. as blown and described, and tor the purpose.</li> <li>77,867.—Automatic Car VENTILATOR.—Isaac Buckingham (assignor to himself and oliver the science) and the manner of tastening the hind legs of the sheep by means of a strap of the sheep by means of a strap of the science of the science of the strap of the science of the state of the science of the scie</li></ul>	same snape, the button, 02, and stem having upon its lower end the larger		blank subtantially a described
<ul> <li>Toylind integrate the water proof, when the same is accomplished sub- stantially as described.</li> <li>Tokin rendering leas ther water proof, when the same is accomplished sub- stantially as described.</li> <li>Tokin rendering leas ther water proof, when the same is accomplished sub- stantially as described.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and in paraged with a thumb rest, or its equivalent, gubstantially as described.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and in paraged with a thumb rest, or its equivalent, gubstantially as described.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and in paraged with a thumb rest, or its equivalent, gubstantially as described.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and sliding rest.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and sliding rest.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and sliding rest.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and sliding rest.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and sliding rest.</li> <li>Tokin a buckle composed of two frames, one sliding upon the other, and sliding rest.</li> <li>Tokin a buckle comparison control the purpose steal and the discribed.</li> <li>Tokin as and tor the purpose steal and protect rest.</li> <li>Tokin as and tor the purpose steal and the scribed.</li> <li>Tokin as and tor the purpose steal and tor the purpose stantially as active the scribed.</li> <li>Tokin as and tor the purpose steal the stantial the stant and as the transponent here in short the stantial the stant and the the manner there is stantially as described.</li> <li>Tokin as and tor the purpose steal the stantial the stant and the scribed.</li> <li>Tokin as and tor the stant and the the ma</li></ul>		77 885 — BUCKLE — Joseph H. James (assignor to himself and	177 Old Her DEP AND DEPOND COMPONED COMPONE
<ul> <li>Tolaim 2 backle composed of two frames, one sliding upon the other, and arranged with a thumb rest, or its quivalent, justant and combination of the dial, sponteer, restart, mc colled spring, spatch mc colled</li></ul>			11,511.—HAIR DIE AND DRESSING COMPOUND.—George F.
standially as described. The water product with a first or the second product of the product of	ny, ind.	Talatura hushina anno an da étama étama an all'duna unan 41 a séhara an d	Peckham, M. D., Gratton, Ohio.
<ul> <li>77,864.—Power INDICATOR.—N. P. Bowsher, Ligonier, Ind. I claim astication of the dial. Sponter, P. shaft, m. coiled spring. X, oulley, K. cord, I, pulley, J, arm, G. and sidnar coilar, P. of the ball governor, D. E. B. D. the several parts bergen specified.</li> <li>77,865.—WASTE VALVE FOR PUMP.—Geo. E. Brettell, Roch. T. Iclaim asterie described, and to ret purpose specified.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip. brown, Ning. Coins., M. Scheman, C. Schem, M. B. Constructing the blades or wings of ascrew propeller with the solut of out row with the solue of the sing arching the shafe of the shafe of the shafe of the solution. The combination of the dial standard the intervent the sking construction and described, and to ret purpose specified.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip. brown, Tip. Spreading the shafe of the shafe</li></ul>		arranged with a thumb rest, or its equivalent, substantially as described.	tions substantially as herein described
<ul> <li>Totam, set, the result atracgement and combined in Softes, Juliey, J. arm, G. and combination of the purpose of the automatic escape valve, substantially as herein specified.</li> <li>Tr,865.—WASTE VALVE FOR PUMP.—Geo. E. Brettell, Roch-estront.</li> <li>Totam set and east between the amoner hand escribed, and tor the purpose of the automatic escape valve, substantially in the manner herein shown and described, and tor the purpose of the substantially as berein described.</li> <li>Totam set and purpose of the substantial as so the automatic escape valve, substantially in the manner herein shown and described, and tor the purpose of the substantially as berein described.</li> <li>Tr,865.—SHEARING CHAIR.—Henry D. Brown, Tip-break and purpose soft at any set of the substantially as berein described.</li> <li>Totaliam set and pins, as shown in the drawings.</li> <li>Totaliam set and pins, as shown in the drawings.</li> <li>Tr,867.—AuromArtic CAR VENTILATOR.—Isaac Buckingham</li> <li>Tr,867.—AuromArtic CAR VENTILATOR.—Isaac Buckingham</li> <li>Tr,867.—AuromArtic CAR VENTILATOR.—Isaac Buckingham</li> <li>Tr,867.—Burger the substantial legs of the sheep by means of the substantial as sheen in the drawings.</li> <li>Tr,867.—Burger the substantial legs of the sheep by means of the start or the substantial legs of the sheep by means of the construction of the purpose store of the start or the substantial start or the start or</li></ul>		77.886.—Shield for Smoothing Iron.—William J. Keep.	77 019 MACHINE FOR STORING DING Trumon Dings and
<ul> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim a shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim shield plate, A, for smoothing irons, provided with the oblog</li> <li>I claim shield plate, A, for smoothing irons, provided with the shield, constructed and operating</li> <li>I claim shield plate, A, for smoothing irons, provided with the shield, constructed and operating</li> <li>I claim is the manner and is</li></ul>			The should be sh
and sliding collar, F, of the ball governor, D, E, B, E, D, the several parts be- ing arranged in the manner and for the purpose specified. 2d, The combination of the power indicator with a grain separator, sub- stantially as and for the purpose herein specified. 77,865. — WASTE VALVE FOR PUMP.—Geo. E. Brettell, Roch- ester, N. Y. I claim the arrangement in pump pipes of the automatic escape valve, sub- stantially in the manner herein shown and described, and for the purpose set for th. 77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip- ton, lowa. Antedated April 25,1868. I claim constructing the blades or wings of a screw propeller with twore of bolter attached to three steried. 77,867.—AutomMatic Car VENTILATOR.—Isaac Buckingham (assigner to himself and purpose stored in the drawings.	nontar B shaft m colled spring b puller W cord I puller I arm G		
<ul> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner and for the purpose specified.</li> <li>ing arranged in the maner arrangement in purpoper specified.</li> <li>ing arranged in the maner described, and operating so as the proving ratchet, can wheel, follows. Anted ated April 25,1388.</li> <li>ing arrange and pins, as shown in the drawings.</li> <li>ing archarded April 25,1388.</li> <li>ing archarded April 25,1388.</li> <li>ing archarded to throw out the side of the sheep and prevent and prevent arranged and prevent and the inner curves and prevent and the inner curves and prevent arrange and prevent and the inner curves and pre</li></ul>	and sliding collar. F. of the ball governor D E B. E D, the several parts be		
<ul> <li>74, The combination of the power indicator with a grain separator, substantially as inferin specified.</li> <li>77,865. — WASTE VALVE FOR PUMP.—Geo. E. Brettell, Rochestrant ally in the arangement in pump pipes of the automatic escape valve, substantially in the manner herein shown and described, and tor the purposes for the automatic escape valve, substantially in the manner herein shown and described, and tor the purposes for the incredients herein described, that the fugitive color shall lie in the arangement in pump pipes of the automatic escape valve, substantially as herein described, that the fugitive color shall lie in the observation of the intermittently revolving ratchet, cam wheel, serving levers, and cut-off shaes, with the slide, B, substantially as berein described.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip-ton lie and set lie and set lie and the shae of the biaster attached to throw out the side of the sheep and prevent the side of the sheep and prevent the side of the sheep and prevent the drawings.</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham in the drawings.</li> <li>77,889.—SEWING MACHINE,—Oscar C. Kerr, Philadelphia, as shown in the drawings.</li> <li>77,889.—SEWING MACHINE,—Oscar C. Kerr, Philadelphia, as there in described of the pain or more loops, b, as herein described, on event of the sealt nose to the boy to whole the is applied to the salt nose to the boy to whole the radius of the process and prints.</li> </ul>	ing arranged in the manner and for the purpose specified.	shank, B, for connecting a holder with the shield, constructed and operating	
<ul> <li>stantially as and for the purpose herein specified.</li> <li>77,865. WASTE VALVE FOR PUMP.—Geo. E. Brettell, Roch- ester, N. Y.</li> <li>I claim as printing arevenue or postage stamp or check requiring cancella stantially in the manner herein shown and described, and for the purposes</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip ton. lowa. Antedated April 25,188.</li> <li>77,888.—SCREW PROPELLER.—John E. Kennedy, New Or i claim oscillating racksfor sheep shearing the ind legs of the sheep by means of stars and pink, as shown in the drawings.</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Snace Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Snace Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTI</li></ul>	2d, The combination of the power indicator with a grain separator, sub	substantially as herein specified.	stantially as described, and operating so as at the proper time to deliver the
<ul> <li>77,865.—WASTE VALVE FOR PUMP.—Geo. E. Brettell, Koch- ester, N. T.</li> <li>1 claim so printing arevene or postage stamp or check requiring cancella, stantially in the manner herein shown and described, and tor the purposes stantially in the manner herein shown and described, and tor the purposes stantially in the manner herein shown and described, and tor the purposes stantially in the manner herein shown and described, and tor the purposes tor, I.o.wa. Antedated April 25,188.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip- by braces, with a holster attached to throw out the side of the sheep and prevent the skin from wrinkling.</li> <li>2d. Also, the manner of fastening the hind legs of the sheep by means of staps and pins, as shown in the drawings.</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall). Soymour, Conn.</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Shace Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Shace Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>76,887.—Sensum G MACHINE,—OScar C. Kerr, Philadelphia,</li> <li>77,867.—Shift and W. Randall, Soymour, Conn.</li> </ul>	stantially as and for the purpose herein specified.	77.887.—Postage and Revenue Stamps.—Miner Kilbourne	
<ul> <li>Tester, N. Y.</li> <li>I claim 50 printing a revenue or postage stamp or check requiring cancella, the third of the intermittently revolving rationality as berein described, and tor the purposes for the automatic escape valve, sub-stantially in the manner herein is shown and described, and tor the purposes for the ingredients herein described, that the fugitive color, substantially in the manner described.</li> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip, ton, lowa. Antedated April 25,1868.</li> <li>1 claim constructing the black or wings of a screw propeller with the outer curves shall be drawn upon a radius equal to be valve, substantially in the manner of drastening the hind legs of the sheep by means of straps and pins, as shown in the drawings.</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,889.—SEWING MACHINE,—Oscar C. Kerr, Philadelphia, as there in described of the part of the scale pose to the boyl to wibit a substantially as herein described, the sheep of the said nose to the boyl to wibit as the scale do the scale pose to the boyl to wibit a substantially as herein described.</li> </ul>	77,865.—WASTE VALVE FOR PUMP.—Geo. E. Brettell, Roch-		
I claim the arrangement in pumpipes of the automatic escape valve, sub- stantially in the manner herein shown and described, and tor the purposes set for th. 77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip- ton, lowa. Antedated April 25,188. I claim oscillating racksfor sheep shearing chairs, adjusted and tastened by braces, with a holster attached to throw out the side of the sheep and prevent the skin from wrinkling. 2d, Also, the manner of fastening the hind legs of the sheep by means of stars and pins, as shown in the drawings. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assigner to himself and H. W. Randall). Surmour, Conn.			
<ul> <li>Staturation in the manner inferent shown and described, and for the purposes for the inferentiation of the purposes for the inferentiation of the purposes for the inferentiation of the purposes of the inferentiation of the purpose of the inferentiation of the purposes of the inferentiation of the purpose of the inference of the inferen</li></ul>		tion, with a non-tugitive color, and also with a fugitive ink or color, com-	spring levers, and cuton sinces, with the side, b, substantiarly as berein us
<ul> <li>77,866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip ton, lowa. Antedated April 25,1868.</li> <li>77,888.—SCREW PROPELLER.—John E. Kennedy, New Orleans, with a holster attached to throw out the side of the sheep and prevent the skin from wrinkling.</li> <li>76,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham</li> <li>77,889.—SEWING MACHINE,—Oscar C. Kerr, Philadelphia,</li> <li>77,889.—SEWING MACHINE,—Oscar C. Kerr, Philadelphia,</li> </ul>	startially in the manner herein shown and described, and for the purposes		
77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall. Seymour. Conn.	set for th.		
ton, lowa. Antedated April 25, 1888. I claim oscillating racksfor sheep shearing chairs, adjusted and tastened by braces, with a holster attached to throw out the side of the sheep and prevent the skin from wrinkling. 2d, Also, the manner of fastening the hind legs of the sheep by means of straps and pins, as shown in the drawings. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and I). Seymour, Conn.	77.866.—SHEEP SHEARING CHAIR.—Henry D. Brown, Tip.		alobe valve, substantially in the manner described
I claim oscillating racksfor sheep shearing chairs, adjusted and tastened by braces, with a holster attached to throw out the side of the sheep and prevent the skin from wrinkling. 2d, Also, the manner of fastening the hind legs of the sheep by means of straps and pins, as shown in the drawings. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall). Suymour, Conn.		77.888.—SCREW PROPELLER.—John E. Kennedy, New Or-	
by braces, with a bolster attached to throw out the side of the sheep and prevent the skin from wrinking. 2d, Also, the manner of fastening the hind legs of the sheep by means of straps and pins, as shown in the drawings. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall). Seymour, Conn.			grooved hub. C. as described and set forth.
2d, Also, the manner of fastening the hind legs of the sheep by means of straps and pins, as shown in the drawings. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall). Seymour, Conn.	by braces, with a holster attached to throw out the side of the sheep and		
straps and pins, as shown in the drawings. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assigned to inner curves upon a radius three times the length of the radius of the said outer curves, substantially as herein described for the purpose set forth. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assigned to inner curves, substantially as herein described for the purpose set forth. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assigned to inner curves, substantially as herein described for the purpose set forth. 77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assigned to inner curves, substantially as herein described for the purpose set forth. 77,889.—SEWING MACHINE,—OSCAR C. Kerr, Philadelphi, bucking to holding the said nose to the bowl to which is application is a possible of the said nose to the bowl to which is application in the combination with a detachable nose for bowls and other arti- classing the said nose to the bowl to which is application in the said nose to the bowl to which is application in the said nose to the bowl to which is application in the said nose to the bowl to which is application in the said nose to the bowl to which is application in the said nose to the bowl to which the said nose to be bowl to which the said nose to the bowl to which the said nose to be bowl to which the said nose to be bowl to which the said nose to the bowl to which the said nose to be bowl to which the bowl to which the said nose to			
77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall). Seymour. Conn.			
77,867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham (assignor to himself and H. W. Randall). Supriour, Conn. (77,889.—SEWING MACHINE,—Oscar C. Kerr, Philadelphia, jband, for holding the said nose to the bowl to which it is applied, substan	straps and plus, as shown in the drawings.	and the inner curves upon a radius three times the length of the radius of the	
(assignor to himself and H. W. Randall), Suythour Conn. 77,889SEWING MACHINE, USCar C. Kerr, Philadelphia, band, for holding the said nose to the bowl to which it is applied, substan	77.867.—AUTOMATIC CAR VENTILATOR.—Isaac Buckingham		
l claim the arrangement of the driving blades, D, within the case, F, the ' Pa. Ant dated May 4, 1868. ' i tially in the manner and for the purposes herein skown and specified.	(assignor to himself and H. W. Randall), Suymour, Conn.	77,889.—Sewing Machine,—Oscar C. Kerr, Philadelphia,	band, for holding the said nose to the bowl to which it is applied, substan
	l claim the arrangement of the driving blades, D, within the case, F, the		

350

77.916.—CAN OPENER.—Charles F. Ritchel, Chicago, Ill.

1 claim the can openet made of one piece of sheet ustal, as described, pro-vided with point, D, and blade, E, both arrang, a and operating subs. antially as herein shown and specificat. 77,917,—Gas BUNNIR—Wm. H Rodgers, Brooklyn, N. Y.

77,917,-GAS DURALK - W H. H. HOUGELS, DIOURLYH, K. L. I caim, Ist, the erck, c, formed with the gas ways 2, 4, and 7, in combina-tion with the opening, 3, and pipes, 5 and 6.10 supply gas to the chamorer, f, and jet, k when the jet, e, 19 extinguished, the parts being arranged and act-ing substantially as and for the purposes set forth. 25, The resultating servery or cock, 8, in combination with the jets, i and e, at and for the purposes set forth. 77,915,-11 ANNEES LOOP.-Geo. W. Rowland, Salem, Oregon.

1 claim a winged inctallic loop for attachment to harnesses, constructed to operate surstantially as described. 77,919.— Moz. WRINGER.—Hugh B. Rorke, California, Mo.

Anted and the state of the stat

77,920.—MACHINE FOR TREATING THIDES.—HEHMANN HOVEN Lous Rover, San Francisco, Cal. We claim, Ist. The vertical shaft, B, with a slot, B', and set serews, b b, said shaft baving a forward and and back motion, substantially as and for the purpose described. The prise or rollers, C c, set in the rings, D and D', rogether with the grooved weight, I, substantially as and for the purpose described. 77,921.—SoldERING FURNACE.—Geo. O. Sanderson, Boston, assigned to himself and E. D. Goodrich, Cambridge, Mass.

77,921.—SOLDENING FULNACE.—Geo. O. Sanderson, Boston, assignor to himself and E. D. Goodrich, Cambridge, Mass.
15. The last, The fattement tube: A D E, when made and arranged substantially as described and for the purpose set forth.
78. The cato indication of the purpose set forth.
79.922.—A PPARAT US FOR HANDLING IRON IN ROLLING MILLS. Ethas Sanford, Meriden, Con.
I chain the par, C, with the value at a double jointed lever, by which it is carried around and over the value are not an infratter of the part of the proper set forth.
77.923.—A PPARAT US FOR HANDLING IRON IN ROLLING MILLS. Ethas Sanford, Meriden, Con.
I chain the part, C, with the value, a, attached, and its peculiar construction, with the perfection at the upper roll, and presented to the main in front of the machine, substantially as beering pecified.
77.923.—K a GULATING AFD DISPENSING MECHANISM.—Socrates Scholta, Fruidence R. L. Antedated March 20, 1860.
I cham, 1st, Causing the motion derived from any knd of governor, as tremsmitted in on system of el-valions and depressions, operating onder the action of a governor, transmitted in annother direction, substantially as described.

action of a gorthes, transmitter in sectors, or one above the other, in connection with a guard operating to produce a corresponding change in the elevation of the catches, substantially as and for the purpose specified, in any regulating or dispussing increasion.
add The continuation of several elements, consisting, first, of a dispensing point of the purpose there on point point of the purpose specified in a present of the several elements, consisting, first, of a dispensing point of the purpose specified of a several elements, consisting first, of a dispussion point point of the several elements consisting first, of a dispussion point point of the several elements and third of an opnosing point point of the several elements and the several elements of the several elements are the several elements of the several elements of the several elements are the several elements of the several e

nating or dispensit an economican. Sd. The combination of soveral elements, consisting, first, of a dispensing device : .econd. of a vibrating bar or lev r; and third, of an opposing point, placed in connection or comilation with any governor or elluer indicator of a device change in the action of a machine, to operate substantially as

described. 77,924 — GRAIN DRILL.—Jacob H Shreiner, Camp Hill, Pa. claim, i.t., The peculiar construction of the foot, B, substantially as and the purpose-herein set forth and described. foi

24, The combination of the root, B, cutter, O, and boot, A, substantially herein show o. Sd, The cutter guard, E, substantially as and for the purpose set forth. 4th, The combinator and arrangement of the teed pipe or boot, A, cutter gustd, E, brace, D, cutter, C, fort, B, and chare, d, substantially as herein set forth and for the purpose specific. 77,925. – MACHINE, FOR MAKING DRAIN PIPE.—Robert Skin-

ner, Sas Francisco Cal. I claim. 1st, The follower, G, constructed with slots, G' G', and the curved openings, F F. in which it sites, it combination with the stationary core, E and rug, N, suistantially as and for the purples set forth. 2d, In combination with the adover chaimed apparatus, the steam jacket, J for heading the same, and the material worked thereby, substantially as de scribed

77.926.—CHURN —J. C. Slaughter, Crumpton, Md.

17.920.—UHURN — J. U. Slaughter, Crumpton, Md. I claim, 1st, A casing, A, contracted in diameter near the bottom, in com-bination with a series of revolving blades, arranged nearer together at the lower than a: the upp r end of the casing, for the purpose set forth. 2d, The frame. G. lawing blades, m, extending across the same, and hung to the shaft, C, in respect to its blades, n, as and for the purpose specified. 77,927.—FOXING AND SOLING BOOTS.—Alfred G. Smith, Mar-other W. W.

athon, N.Y. Iclaim, as an improved article of manufacture, a foxing or fronting and bins for boots and shoes, constructed separately from the work to which it is to be applied, substantially as and for the purpose set forth. 7,928.---Mica SURING-FAUCET. James D. Smith (assignor to 77.928.-

(7,925.— MickaSURING-FAUCET.—James D. Smith (assignor to Arthor P. Emery), New York city. I claim, lst, The c-mbinston, with a rotary measuring and drawing device, C, arranger in the campor, B, of the funcet, A, and turned from the outside by trank or bandle, G, of the funcet, A, and turned from the outside and the sub tabulary as shown and described. 2d, The dial, P, hung for independent action, as described, and for free ro-tation with the wheel, N by which it is driven by inctional gear with the lastor, through a spring or springs interposed between said wheel and dial, essentially as specified.

atter, through a spring or springs interposed between said wheel and that, sescutially as specified.
77,929.— DOUBLE STEAMER FOR TIN WORK.—Charles F. Spauleine, St. Johnsbury, Vt., assignor to bimself and E. D. Goodrich, Camb idge, Mass.
Calm, is, 'the carrying disk', F, the shaft, D, and crank, E, when com-inear with the compressing disk', H, operating substantially as described, and essential 77,929.-

other with the compressing task, H. operating substantially as described, and for the purpose set orth. 24. The nuclear band, G, in combination with the disk, F, substantially as described, and for the purpose set forth. 30, The standard, K, pivot, K', in combination with the brace, N, substan-tially as and for the purpose set forth. 4th, The combination and arrangement of the lever, M, shaft, I, sliding standard, J, and standard, substantially as described, and for the purpose

77,930.--DITCHING MACHINE.-George H. Stevenson, Wash-

ington, Omo. I claim the construction of a spade that will cut a ditch ready for tile, thirty es deep, without the use of any other instrument, and is useful for dig-post holes and many other useful thinks, which is done by the movable piece and peculiar shape of the blade and lips attached thereto. 77,931.-BOOT AND SHOE LAST.-James H. Swain, San Fran-

cisco. Cal. I chain the projection or flanse, C, or its equivalent, on the face of the last, substantially as and for the put pose specifies. 77,932. – PUDDLING AND BOILING FURNACE.—William Swin-

77,932. — PUDDLING AND BOILING FURNACE. — William SWIII-idelt, Alexhenv City, Pa. I claun, ist, A bottout plate for a puddling or boiling turnace, cast with a series of grooves in or along its lower surface, in which to arrange a series of water pipes, substantially as and for the purposes herenbefore set forth. 24, The use of a series of in burk water chills, a', when a rranged in grooves cast in the lower face of the bottom plate of a boiling or puddling furnace, substantially as and; for the purposes herenbefore by furnace by a ledge or rim, c, oir the upper face of the bottom plate, and extending around in it the outside line of the boshes, substantially as and for the purposes hereinbefore expressed.

outside in sort the obsides accounting a set of the set of the set of the bottom 4th, Jointing the boshes of a puddling or boiling furnace to the bottom plate and to each other by ribs, es os snaped as in connection with lips, c', to form a dove an joint, substantially as and for the purposes set forth. 5th, Making chill faced boshes tor puddling or boiling furnaces, by casting them against a metalic chill, substantially as and for the purposes hereinbe-

Antriated May 2, 1868.
I claim the composition her in specified, prepared as set forth.
77,939.—CHUHN DASHER.—E. B. West, St. Anthony, Minn.
I claim, 1st. The arrangement of the arm, N, and stationary paddle, O, as specified, and for the purpose set forth.
24, The combination of the stationary arm, N, and its paddle, O, with the movable arm, M, their paddles, and the plate, A, all constructed and operated as specified.
77, 941.— Dependent P. Mayoo Stationary Device Stationary Device Stationary Stationa

ter as specified. (310.—Portable Music Stand.—Daniel M. White, Mal-77.940.-

77,940.—PORTABLE MUSIC STAND.—Dafilet BI. White, Brander, Mass. I claim so arranging a convertible cane and music stand that when closed to form a cane, said canesh-il consist of the hinged legs, B B, and the tube, A, said parts being adapted to enclose the rod, D, and folding rack, C, and, when arranged as a music stand, the legs, B B B, shall be extended to support the tube, A, and the rod, D, and Irame C be adjustably supported on the lat-ter by means of the spring, S, substantially as described. 77,941.—TUBE W BLL.—William H. White, Lynn, Mass. I claim the combination, with a well tube, A, of the movable strainers of induction tubes, applied and operating substantially as described. 77,942.—PORTABLE FENCE.—Thos. B. Wickham, Granville, Ohio.

Ohio. Iclaim the manner of locking and supporting the panels by the double brace and clamp, B B, in combination with the stakes, D D, and lock, C C, all substantially arranged as set forth in the foregoing specifications. 77,943.—PLATFORM CAR STAKE HOLDER.—Wm. J. Willits,

Detroit, Mich. Antestate April28,1868. Lician, J.-, The ann, J. cams, N. N. collar, H. staple bolts, F F, etc., clamp, E. Lician, J.-, The ann, J. cams, N. N. collar, H. staple bolts, F F, etc., clamp,

Vt. I claim the combination of the bolt headed journals, C C, when attached to the rotating cylinder, F, from its interior, and used with the pivoted blocks, J J, in the man er as specified.

### REISSUES.

2,925.—COVERING WHIPS.—Chas. C. Pratt, Westfie.d, Mass., assignce by mesne assignments of Gamaliel King. Patented June 18, 1897. Division 1. I. Chain, 184. A water proof coating, consisting of the combined ingredients

I chain, ist, it water proof coaring, consisting of the combined ingretelents for an shown and (ascribed.
 2d, The application of the dissolved caoutchouc with or without the lead and onl, to a whip, substantially as and ior the purposes shown.
 2,926.—COVERING W HIPS.—Uhas. C. Pratt, Westfield, Mass., assignce by mesne assignments of Gamaliel King. Patented June 18, 1867. Division 2.

Division 2. I claim, 1st, The covering of the body of a whip with an inner braiding, 4, substantially as shown and described. 24, The combination of the inner and outer braidings, 4 f, with the varnish or coatings, c e, all applied in the construction of a whip, substantially as shown and described. 2,927.—MACHINE FOR POLISHING BUCKLES.—Emanuel An-

shown and de-cribed. 2,927.—MACHINE FOR POLISHING BUCKLES.—Emanuel An-arews, Williamsport, Pa, assignee of Robert G. Pine. Patented April8, 1855. 1 claim,1st, The combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for sait holder, and springs to bear the article against the revolving wheel with a yielding pre-sure, substantially as before set torth. 24, The combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, substantially as before set torth. 33, the combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, substantially as before set torth. 34, the combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, substantially as before set torth. 34, the combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, guide to limit the movement of the article towards the polishing wheel, and pattern for the article, substantially abefore set forth. 541, The combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for the holder, guide to limit the inovement of the article towards the polishing wheel, and pattern to the article combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for the holder, spring, guide, and pattern. substantially as before set forth. 34, the combination of the following instrumentalities, viz., the revolving polishing wheel, holder for the article, shaft for the holder, spring, guide, and pattern. Substantially as before set forth. 34, the combination of the following instrumentalities, viz., the revolving

years. I claim the combination, in a loom, of the harness frame and cords with the treadles and treadle cams, constructed and operating substantially as de-scribed.

scribed. Also, the treadles and the movers or cams, combined, constructed, and ar-naged so that by reversal of the cams upon the shaft, a reversal of the movements and retentions of the harness frames is produced, substantially as herein set forth. Also, in a cam loom having upright treadles or harness levers strung to the hereins have on frames and victuated by a single set of cam wheal the ar-

Also, in a case in four mark, and actuated by a single set of cam wheels, the ar-rangement of the fullerum shaft of the harness levers directly over or with-in the vertical plane of the cam wheels, substantially as described. 2,929.—CORSET SPRING.—Francis L. Barnes, New York city, administratrix of the estate of Samuel H. Barnes, deceased. Patented July 17, 1866.

July 17, 1896. I claim a corset spring, consisting of the parts, B, provided with pins, b, and slotted springs, B2, riveted as shown, and having suitable clasps, C, and headed rivets, D, and of form corresponding to the body of the wear-r, con-structed and operating in the manner and for the purpose herein represented and described. and described

2,930.—PAPER FILE.—Henry E. Woodbury, Washington, D.

2,930.— L'APER F'ILE.—Henry E. Woodbury, Washington, D. C. Patented August 8, 1854. I claim the box or compartment document file, consisting of a box part, A, and spring of springs, C, at us back, so as to give a flexible or yielding character to the platen, all constructed and operating substantially as herein essentied. 2,931.—HARVESTER.—Jacob V. A. Wemple, Quincy, Mich. I claim, 1st, A separating rod or finger, W, automat.cally interposed, for separating the falling grain from that which is being discharged from the platform.

Separating the taring grain from the winter to be the standard grain of the second standard s

# DESIGNS.

3,019.-IMITATION BRAID FOR BONNETS, ETC.-Samuel A

Blake, Miford, Conn. 3,020 to 3,032.—BRACKETS.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven Conn. 3,033.—CARD IE-CEIVER.—F. W. Brocksieper (assignor to

Sargent & Co.), New Haven, Conn. 3,034.—MATCH SAFE.—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn. 3,035.—MEDALLION.—Garret Erkson, Brooklyn, N. Y.

of July next.

the candles suspended above such mold, substantially as herein described

|MAY 30, 1868.

and set form. 3nd set for a lateral direction up to, or against, or under the tips of the can less 4 mawn or elevted from the static large set form. 3nd set for a lateral direction up to, or against, or under the tips of the can less 4 mawn or elevted from the static large show, and there up to there up come in contact with the tips of the said candles in such munner as to centur the candle wick in the said molds, and at the same time hold the said candles to us suspended ouring the operation of filling the cooling thereof, and until the wick is cutor sivered between the said suspended and molded can-des in and stationary candle molds, substantially as here in described and set forth.

: dies in said stationary candle molds, substantially as herein described and set forth. 4th, i claim a vertical stationary candle mold, constructed with an inner and annular shoulder, h', and with an ourer surrounding shoulder, c, and with a server and nut at or near the 'lower and there of, in the manner and ior the Durposes substantially as herein described and set forth. 5th, i claim the contraction of the lower end of the vertical stationary can-dle molds, so as to form an inner annular shoulder, in the manner and for the purposes substantially as herein described and set forth. 5th, i claim the mode, substantially as herein described and set torth. 8th, i claim the mode, substantially as herein described and set torth, for attaching to, and combined with the lower end of the vertical stationary can-dle molds, having an outer surrounding shoulder, c, and the bottom plate, B', of the surrounding water box, so as to make the same water tight and firm therein, in the manner and for the purposes substantially as herein de-scribed and set forth.

scribed and set forth. Th, I claim the employment of the shovel blade cutter, J, or any equiva-lent therefor, and the passing of the same between two rows of the wicks of the vertically suspended candles, so as to cut or sever the two rows of the said wicks, in the manner and for the purposes substantially as herein de-scribed and set forth.

RarLROAD CARS.— B. J. La Moth, New York city. Letters Patent No. 10,721. Dated April 4, 1854. Reissue No. 360. Dated March 18,

Patent No. 10,721. Daved April 7, 1987. 2007. 1856. I claim the construction of the frames of railroad cars, substantially in the manner and for the purposes specified. SEWING MACHINE.—Samuel J. Parker, Ithica, N. Y. Letters

SEWING MACHINE.—Samuel J. Parker, Ithica, N. Y. Letters Patent No. 10,757. Dated April 11, 1854. I claim that combination that secures to me the relative position in which I place the needle's eye to the movementor the material or feed motion/and and the position of the shuttle and its race resulting therefrem, when the nee-dle is straight and the table on which the material to be sewn is horizontal, said relative position meaning the longitudinal axis of the shuttle and its race at right angles to use feed motion, and the consequent position of the needle's ye therefrom, so that the line drawn through theneedle's eye, when in the act of passing the center of the material sewed, shall coincide with the line of ited motion, no the at right angles therewith, and this for the pur-pose of rendering the exhibit more nearly straight and perfect than it other-wise would be, the combination and purpose substantially as described. HEATING SKELPS FOR THE MANUFACTURE OF WROUGHT IRON TURES —James McCarty. Reading, Pa. Letters Patent No. 10,747.

HEATING SKELPS FOR THE MANUFACTURE OF WROUGHT IRON TUBES -James McCarty, Reading, Pa. Letters Patent No. 10,747. Dated April 3,1854. 1 claion the new movie of operating, as described, viz., heating the skelps in a furnace constructed substatually as herein set forth, with raw coals as their, whose combustion is maintained by a blast of air forced into the furnace under pressure, as set forth. VESSELS FOR HOLDING LIQUIDS. Julia M. Colburn, Balti-mona M. administrative for Largen Stimpton decaded Lotters Dated

VESSELS FOR HOLDING LIQUIDS.—Julia M. Colburn, Balti-more, M., administratix of James Stimpson, deceased. Letters Patent No. 11,819. Dated Oct. 77, 1854. Antedated April 17, 1854. I claim the employment of a chain or string attached to the handle and lid of a pitcher, as described. TREATING CANE FIBER FOR PAPER AND OTHER PURPOSES. Benj. A. Lavender, Halifax, N. C., and Kate Lowe, Baltimore, Ma, ad-ministratux of Henry Lowe, deceased. Letters Patent No. 10,722. Dated April 4, 1854 We claim breaking down woody fiber of cane and other like plants, and dissolving the gummy and other foreign matters therefrom by means of mu-riatic or sulphuric acid. of the strength of 10° Baumé, or thereabout, prepar-story to making hemp f. Jobagging, rope, paper pulp, etc. in themanner sub-stantially as set forth. ratic or suppiric acid. of the strength of 10° Baumé, or thereabout, prepar-ator to making hemp forbagging, rope, paper pulp, etc. in themanner sub-stantially as set forth. MACHINERY FOR LAYING ROPE.—Stephen Bazin and James A. Bazin, Canton, Mass. Letters Patent No 10,323. Dated April 25, 1854. We claim stapting the machinery for forming both hard and soft corrage by means of the ring, g, so actuated by the circular plate, i, and its rollers may to revolve, or hold statonary, as alove set forth, as to form an extra twist in the rope when desirable, by giving an additional revolution to the bobbin frames, as above described. We also claim an improvement in the movable crane, the same consisting in forming is of a bent shape, with the right angular binged arm operating as above described, so as to feed the rope in a direction parallel with the axis of the winduit reel. We also claim stroching the rope after its laid, by means of the double pulley, r b, with grooves of different dismeters, as above set forth. COFFFEE POT.—James Buell, New York city, executor of Jas. MacGregor, Jr. deceased. Letters Patent No. 10,732. Dated April 11, 1834. I claim having the pot where the teaor coff c is orepared at light, and so regulating the heat that is applied to the heating of the same that a small periode while the teap review is being passed through in the other, by which means the heat is extracted and ar-ting and solve. And Nay 2, 1854. Reisens 06. 1014. Dated July 17, 1860. AIR ENGINES.—Philander Shaw, Boston, Mass. Letters Pat-ent No. 10,868. Dates May 2, 1854. Reisens 06. 1014. Dated July 17, 1860. Again and shape while the cold air from the torce pump is passed through in the other, by which means the heat is extracted from the start and smoke and transferred to the cold air for the tore support of combustion with a tight as abve est of cold air for the tor is support to combustion with the furnace is of cold air for the tor is support to combustion with a tight as by respared to the safe for the sysset of a por-MACHINERY FOR LAYING ROPE.-Stephen Bazin and James

fiel. In combination with the Grounderentially close collinder, A, and screen forward extension, C, the adjustable ring or cover, K, essentially as shown and described.

and described. 3d, The arrangement, within the conductor, F, of the distributing apron, H, for op, ration in conjection with the c-lind, r, A, provided with lifters, and set horizontal, or the reabouts, as herein set forth.

77,936 .- LAMP SHADE .- Gustav Wedekind, Philadelphia, Pa.

t claum, in combination with the radial braces for supporting the shade on the chims y, the raised elhows on said braces, to support the shade and pre-yers to tron, shaking about, substantially as and for the purpose described. -BED PAN ATTACHMENT FOR INVALID BEDS .- Sam'l

G. Welling, New Bockelle, N.Y. Jelaim the movable elastic seat piece, in combination with the pipe and pan, substantially as and for the purposes set forth.

Areth against a metanic chill, substantially as and for the purposes hereinber fore set forth.
 77,932. — USCILLATING RUBBING MACHINE FOR MEDICAL USES. — OSCILLATING RUBBING MACHINE, the said and the said rabber at the said of the purpose set forth.
 3.4 and operated by any suitable mechanism, substantially as set forth.
 3.4 the combination, with the rubber, A, and rod, C, of the crank, G, and or cance, S, properiv connected with the frame, or councens, properiv connected with the frame, or an analysis and for the purpose set forth.
 3.4 thay and a pointing, it for the said rubber A to work the purpose set forth.
 3.4 thay and a pointing, it for the said rubber A to work the purpose set forth.
 3.4 thay and a pointing, it for the said rubber A to work the purpose set forth.
 3.4 the prince, N. H. SENSING MACHINE. — Joseph W. Thorpe, Milbitary and the purpose set forth.
 3.4 the prince of the said rubber of the solution of the circumferentially case of circumset and solution with the prose set forth.
 3.4 the combination of the circumferentially close credited and solution with the prose solution tor th

1898. I claim attaching the propeller, secured to a short shaft which passes throws in the runder to its main or driving shaft, by a universal joint placed between the storn post and the runder, by which attachment the propelleris moved interally with the movement of the rund r. APPARATUS FOR MOLDING CANDLES.— Willis Humiston, Troy,

N. Y. Letters Patent No. 10,730. Dated April 4, 1854. Reissue No. 2,190. Dated March 6, 1866.

Dated March 6, 1866. I claim, 1st. The employment of the wick stretcher, E, so arranged and combined with the machine, having vertical stationary candle molds interein that the candle wick within such molds shall be uniformly stretched or strain-ed before the material is run or poured into such molds, and the triction or strain be removed interfrom before the candles are drawn or ejected from such molds in a vertical direction, substantially as berein described and set forth.

forth. 2d, I claim the stretching or straining of the candle wick in each and every of the vertical stationary candle molds contained in the candle mold machine, at and by one continued or simultaneous operation, when the said wick ex-tends from spools or bobbins below said molds upwards. into and through the center thereof, and from the lower or tipend of such molds to and into

Jarah W. Reed, administratrix of the estate of Cheeney Reed, deceased, and Jane E. Mould, administratrix of the estate of Brooks K. Mould, deceased, of Chicago, Ill., having petitioned for the extension of a patent granted to the said Cheeney Reed and Brooks K. Mould the 8th day of August, 1854, for an improvement in ventilating railroad cars, for seven years from the expiration of said patent, which takes place on the 8th day of August, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next.

ton, D. C. Letters Patent No. 10,847, dated May 2, 1854. I claim the improved manufacture of whole or half sets of porcelain or mineral tech, substantially as described.

EXTENSION NOTICES.

Alexander Hay, administrator of the estate of M. C. A. Mellier, deceased, ot Philadelphia, Pa., having petitioned for the extension of a patent granted

to the said Mellier the 26th day of May, 1854 (said patent was also granted in

France Aug. 7, 1854, and in England Oct. 26, 1855), for an improvement in making paper pulp, for seven years from the expiration of said patent, which takes place on the 7th day August, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next. Albert G. Safford, of Boston, Mass., having petitioned for the extension or a patent granted to him the 8th day of August.1854, for an improvement in applying springs to windowsashes, for seven years from the expiration of said patent, which takes place on the 8th day of August, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day

Jacob Senneff, of Philadelphia, Pa., having petitioned for the extension of a patent granted to him the 13th day of January, 1852 and additional im-

provement granted thereon the 20th day of July, 1852, toran improvement in metallic heddles, for seven years from the expiration of said patent, which took place on the 13th day of January, 1866, this application having been authorized by act of Congress, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next.



## Inventions Patented in England by Americans.

[Compiled from the "Journal of the Commissioners of Patents."]

# PROVISIONAL PROTECTION FOR SIX MONTHS.

910.-PPEPARING IRON ORE FOR SMELTING, AND FURNACES THEREFOR.-Alois Thoma, New York city. March 17, 1868.

1 096 .- SEWING MACHINE.-Geo. Rehfuss, Philadelphia, Pa. March 31, 1868 .

1,109.-COTTON GIN.-Joseph H. Adams & Coombs, New York city. April

1, 1983. 1.212.—MODE OF VENEERING PAPER, CLOTH, LEATHER, ETC.—Samuel W Huntington, Augusta, Mo. April 11, 1963.