that such prints are, in a certain sense, double pictures

288



ISSUED FROM THE U.S. PATENT OFFICE FOR THE WEEK ENDING OCT. 16, 1866.

Reported Officially for the Scientific American

237 Paniphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had a raff by addressing MUNN & Co., Publishers of the SCIENTIFIC AMERICAN, New York.

58,746.—TANK FOR CONTAINING AND TPANSPORT-ING PETROLEUM.—W. C. Allison, Philadelphia, Pa.

First, I claim a vat or reservoir, having an outer casing of wood and a thinpetroleum-proof linha, of metal, so suspended within the casing and detached from the sides and bottom of the same that it can readily, and without danger of rupture, yield and ac-commodate itself to any twisting or other distortion of the vessel, as set forth.

commodate itself to any twisting or other distortion of the vessel, as set forth. Second, The combination, as described, of a tank or reservoir. consisting of an outer easing of wood and a petroleum-proof liming with the frame of a car. Third, The air space between the tank and sides and roof of the car, for the purpose described. Fourth, The perforated pipes, M', or their equivalents, forming a communication between the interior of the tank and the venti-lated space, N', beneath the roof. Fifth, Cansing the nixed air and gas to pass through the perfora-tions of the ventil ator, before it reaches the external air, for the purpose described. Such, The roof, G, of the tank, with its transverse beams, q, both being covered with a petroleum-proof liming, substantially as described, and the transverse beams serving to prevent undue agilation of the contents of the tank, as set forth. SN 747 — MaCHINE FOR DENERVOR Warkerse Contents

58,747.-MACHINE FOR PEELING WILLOW.-George

58,747.—MACHINE FOR PEELING WILLOW.—George S. Anderson, Jeffersonville, Ind.
I claim the wheel, E, rollers, H, brakes, S and V, when constructed, combined and arranged to operate together, substantially in the manner and for the purpose specified.
58,748.—GEOGRAPHICAL MAT.—E. A. and A. C. Apgar, Philadelphia, Pa.
First, We claim the use for map drawing of such geometrical figures as are constructed by taking in each case some one line as a measuring thit, by means of which the lengths of other lines. Becond, We claim the trisecting and visceting of certain lines about our geometrical figures and for the purpose of determining the positions of certain prominent points along the coast lines of the comtinents, chem e or gringed with ms and desire to secure by

continents of crisinal prominent points and desire to secure by Third, We claim, as original with us, and desire to secure by letters patent, that symbolic language for maps in which dots and lines, arranged substantially as described, are used to represent ortain numbers, whicher of population of cities, or the light of isolated hills, mountain peaks, or plateaus, in fect or miles, or other units of measurement.

58,749.-SCREEN FOR GAS PURIFIER.-T. G. Arnold, New York City. claim the new manufacture of galvanized instal gas sieves, contradistinction to nngalvanized iron gas sieves, for the pur-eshercinbefore set forth.

58.750 .- EGG BEATER .- Varnum G. Arnold. Provi-

dence, R. I. I claim the combination of the cylindrical can, provided with a funnel-shaped mouth and a broad base with a "erles of cutters spirally arranged and fixed to the inside of the can, or to arim fitting inside the can.

58,751.—CARPET STRETCHER AND TACK HOLDER.

Frederick Ashley, New York City. I claim the device, for the purpose specified, consisting of the toethed bar, B, and the spring arm, F, with its notched end, G, bearing against the inner side of the notched Jaw, H, of the bar, B, and operating in the manner and for the purpose described.

58,752.—MACHINE FOR PLANTING COTTON SEED.— Nathan E. Badgley, New York City. First, I claim the construction of the base, V, and its connection with the handles. Second, The manner of constructing the draft piece, D, with its battening.

"Second, The manner of constructing the that piece, a, and fastenings. Third, The construction of the hopper with its several hoops and its attachment to the cross piece, T, as herein described. Fourth. The attachment of the cover, M, to the base and the rod, R, with its coiled spring, N. Fifth, I also claim the combination of the several parts as herein described and substantially set forth. A lexander Badlam,

58,753.—WASHING MACHINE.—Alexander Badlam Sr., San Francisco, Cal.

I claim the combination and arrangement of the water box with urved slats, a, metal dogs, EE (serving as weights), handle, E', nd dash boards, cc, the whole being constructed and arranged or joint operation, substantially as described.

58,754. — BARREL MACHINERY. — Horace Baker, Cortland, N. Y. First, I claim the annular wheel, O, and knives, O', in combina-tion with the swinging frame, P, when respectively constructed and arranged for use, substantially as set forth. Second, The combination and arrangement of the annul F, and pulley, G, for suspending and revolving the bar churn, with the guide bar, H, carrying the plane, I, and operated by an automatic feed, substantially us set forth.

58,755.— USE OF HYDRO-CARBON LIQUIDS FOR TRANSMITTING HEAT. — William C. Baker, New York City. I claim the employment of hydro-carbon liquids to circulate in heating surfaces, as and for the purposes set forth.

53.756 .- WASHING MACHINE -Hiram Barker, Au-OS/500.- Y ADDITION ADDITIONAL TO A DIAL ADDITION ADDITIONAL ADDITIONALADOTA ADDITIONAL ADDITION

58,757.-GLOBE.-Elias Bascom, New York City. or new globe, with ion with an illuminated es set forth. justable wires and end plates, i 58,758.-WOOD-TURNING LATHE - August Basse,

Quincy, III. 1 claim the arrangement of the carriage end, J2, stand, J3, and stand, K, for the purpose of supporting the cutter shaft, K', and permit it to be set and fasteneed at such a position or angle as may be desired, when constructed and operating substantially as de-scribed.

58,759.-WHIFFLETREE.-Alonzo Bell, Washing-

30, 709. — WINFFLETREE. — AIOIZO Dell, Washing-ton, D. C. I claim, as the distinctive feature of this improvement, the ap-plication of a combination swingle tree and elevis to the center of double whiftle trees whereby a direct and equalized strain is brought to bear on the center of the carriage, so that by this ap-plication or combination of movement the traces shall have free play, and equal and steady draft imparted to the centre of the car-riage, and the present continual leverage other obviated.

58,760.—IIeop Lock.—G. N. Beard, St. Louis, Mo. I claim a hoop lock formed with a rectangular slot, al, connect ing with and forming a part of curved slots, a2 and a3, substan-tially in the manner and for the

58,761.—CREASING OR ORNAMENTING LEATHER.— James M. Bent, Wayland, Mass. Iclain the revolving creaser, I, in combination with the self adjusting pressure roll, K, operating substantially as described for the purpose set forth. I also claim, in combination with the above, the lever, Q, or its equivalent, substantially as and for the purpose described. I also claim the gage, I, in combination with the creaser, I, and pressure roll, K, substantially as set forth.

58,762.—PUNCHING LEATHER.—James M. Bent,

38,762.—PUNCHING LEATHER.—Jaines M. Bent, Wayland, Mass. I claim the revolving putch, 1, with its die, E, substantially as and for the purpose set forth. I also claim, in combination with then hove, the pin, g, for clear-ing the punch, I, substantially as described. I also chain the spring, 6, or its equivalent, for the causing the die, E, to adapt itse substantially as set forth.

58,763 .- Sound Board For Planes.-Jacob Benz,

Philadelphia; Pa. r inflatter phila, ra. I claim the construction and combination of two different sound boards with transverserunning wood fibers, and prov supporting ribs and air passazes, substantially and for pose as described and set forth:

58,764.-GAS BURNER.-Hermann Berg and Andrew Blessing, Springfield, Mass. claim, I the Argand burner We claim,

58,765.—FRICTION CLUTCH PULLEY.—George W. Bishop, Stamford, Conn. I claim the arm, C, and éog. D, pivoted thereto parallel with the pulley. A, operating in combination with the sliding sleeve, E, substantially as described and for the purpose specified.

58,766.—PISTON PACKING. — James Broughton, Lambertville, N. J. First, I claim the arrangement of the body, A, hub, B, division pate, D, follower, E, fings, bb', grooved T-shaped keys, c, springs, fin the recesses, g, combined and operating in the manur and ior the purpose herein specified. Second, The grooves, a, in the keys, c, which close the joints of the packing rings, for the purpose set forth.

368,767.—LUBRICATOR FOR STEAM ENGINE.—John Broughton, New York City. I claim the combination and arrangement of the reservoir, O, and valve stem, E, having vertical openings, pp. and made to screw into the shank, B, with the nipple, F, tubular cap, G, and air chamber, k, the whole being constructed and operated sub-stantially in the manner and for the purpose set forth.

58,768.-GRINDSTONE-JOURNAL BOX.-Thomas W.

38,705. — GRINDSTONE-JOURNAL DOX.— FROMAS T. Brown, New York City.
 I clain the improved grindstone-journal box as made with the wheel-journal caps, c c c, arranged and combined with the wheel cover, C, so as to extend over and about the wheel journals, sub-stantially as and for the purpose specified.
 I also claim the arrangement and application of the duplex spring catch, E, with the projections. d d, from the cover, c, and with the sides of the box, A, as spedfied.

58,769.—METHOD OF SINKING AND TUBING WELLS. —John H. Bruin, Elmira, N. Y. I claim a tube and boring bit for sinking and tubing wells, con-sisting of a tube, A, and in ternal perforated tube, B, to the base of which is attached a spiral bit. C, and having a socket in the bottom of the tube, B, for receiving the point of the rod, D, said several parts being respectively const. ucted and combined for use, substantially as set forth. 58,770.-EGG BEATER. - Charles H. Butterfield,

I clair

Surpridge, Mass. Calm, as an improved manufacture, the glass egg beater jar as the with the contraction as arranged at or uear its middle, the e being as and for the purpose or objects as hereinbeiore set made, with the contraction as a the same being as and for the purpose or objects as heremotics of the forth. I also claim an egg beater as composed of the case contracted at its middle, as represented, and a liquid rotator arranged within the contraction and connected to the stopple of the case, by means substantially as set forth.

Boston, Mass. I claim the car-seat indicator, constructed substantially in man-ner and for the purposes hereinbefore described. 58,772.—COFFEE MILL.—Nathan Chapman, Hope-

dalc, Mass. First, I clain locking or faste gether, by making the bottom of the case, cribed. Second

scribed. Second, Iclaim making the bottom of the hopper eccentric, or the top of the case eccentric, or both, for the purpose of adjusting the top of the case to make the mill grind fine or coarse, substan-tially as described.

taily as described.
58,773.—SULKY PLOW AND HARROW. — James E. Cheasebro, Buffalo, N. Y.
First, I claim the combination and attachment of a plow to a sufky in such manner that the plow beam shall pass under the axle of the sulk y and project forward, and the plow headles proje rear of the axle and in convenient grasp of the plowman as he upon his scat, substantially as set forth and described.
Second, The combination of the gaide stirrup, B, with the silde, G, for the purpose of forming a connection of the forward end of the plow beam with the sulky, substantially as set forth.
Third, Connecting the rear end of the plow to a brace or foot board, D, projected from and in rear of the axle, for the purpose and substantially as set forth.
Fourth, The combination of a harrow, M, with the sulky, for the purpose and substantially as described.

58,774.-GLOBE VALVE.-William Chesley, Cincin-

nati, Ohio. Lelaim the construction and arrangement of the boos, d, cap. b, and plag, a, with references to the valve stem, c. for the purpose and as moreling of the.

© 1866 SCIENTIFIC AMERICAN, INC

58,775.—GOVRENOR VALVE FOR STEAM ENGINES.-

William Churchill, St. Louis, Mo. I claim, First, The arrangement of the throttle and governor valves, in the manner substantially asset forth. Second, The combination of the nut, G, stem, F, and spring, H, whereby to secure the action and regulation of the governor in accordance with the demands of power and speed.

58,776.—SETTING FENCE POSTS.—Henry W. Clarke, Newport, R. I. I claim the arrangement and application of the hollow frustum, B, it cement or head, D, and the mass of grawel, E. or its equiva-lent, with a post, A, the whole being substantially as and for the purpose set forth.

58,777. — MILL FOR CRUSHING QUARTZ. — Cum-mings P. Colby, Lancha Plana, Cal. I claim the combination of the eccentrics, B, with collars and spindles and springs, a, arranged to operate the stampers, sub-stantially as described.

58,778,-STRAW CUTTER.-Robert Conarroe, Cam-

den, Ohio. I claim, First, The combination of the eccentric, e, pin, d, and roller, d'. Second, The combination of the grooved eccentric cams, F, on the shaft, G, with the guides and frame C D, and knite, E, of a straw cutter, substantially in the manner and for the purpose set

53,779.-Weel PRESS.-Solon Cooley, Oakwood,

Mich. I claim the arrangement of the bottom board, A, the sides, B B, and ends, C U, as constructed with the follower, H, spring arms, G G, rack bars, F, and hooks, II, substantially as and for the purpose herein specified.

58,780.—SHAFT FOR RUBBER ROLLERS FOR WRING-ING AND WASHING MACHINES.—John Cram, ING AND W Chicago, Ill.

I claim constructions a shaft. A, with a series of recesses and corresponding pins or projections arranged and operating sub-stantially in the manner and for the purposes herein specified and described.

58,781.—LADDER.—Charles Croley, Dayton, Ohio. First I claim the sliding pieces. h h, connected to the ladder, A JO, 101.—LADDER.—Charles Croley, Dayton, Ohio. First, I claim the sliding pieces, h h, connected to the ladder, A and B, substantially as and for the purposes specified. Second, The combination of the projections, g g, the books, i i, and step, B, substantially as and for the purpose described. Third, The base pieces, C, the braces, D, and jointed bar, E, when constructed and arranged with reference to the ladder, B, in the manner substantially as described and for the purpose specified.

58,782.-HEATING STOVE.-E. N. Cummings, Cole-

brook, N. H. Antedated Oct. 4, 1866. I claim a stove for heating purposes made substantially as above described, its upper and lower parts, A E, being connected by serpentine fines whose openings in the upper part, E, are con-trolled by two independent campers, substantially as shown.

trolled by two independent dampers, substantially as shown. 58,783.—PROJECTILES FOR ORDNANCE.—J. M. Cur-rie, Washington, Iowa. I claim the projectile, A, with the conical point and tapering rear, having the packing ring, B, applied assiown and described. 58,784.—DEVICE FOR HANGING WALL PAPER.— James Warren Davis, Washington, D. C. I claim the roller, D, having a yielding surface, the clamping bar, E, the frame, A B C, the pivoted arms, F, the bell crank, G, and the spring rods, JM, the whole arranged and operated sub-stantially in the manner and for the purpose herein described and represented.

58,785.—MACHINE FOR HARVESTING, HUSKING AND SHELLING CORN.-D. A. Dickenson, Baltimore,

SHELLING CORN. — D. A. _ _ _ _ Md. Md. First, I claim a machine for cutting the stalks from the hill or row, separating the stalk from the ears, husking the ear and shelling it, when the different picces or parts thereof are con-structed, arranged, and or _ rated substantially as herein recited. Second, I claim combining with cutting and husking or shelling machines the arrangement of the means or parts constituting the apparatus for cutting the stalk from the hill or rows, when con-gructed and operated substantially as setforth.

58,786.—CAR WHEEL.—Wallace Dickinson, Brook-lyn, N. Y. I claim the elongated hub, H, having flanges, s s', provided with a bush, d, having cavity, c, and openings, 10 m n, and washer, w, all constructed and arranged substantially as described and for the purpose set forth and shown in the accompanying drawings. 58,787.—SRID FOR SUPPORTING BARRELS.—W. W. Doane and W. P. Burr, Brewer, Me. we claim the and arrangeme tally as specified.

Ind.

58,788.-GANG AND SUB-SOIL PLOW.-R. L. Dodge

30, 700.—GANG AND SUB-SOIL FLOW.—R. L. Dodge and E. M. Walker, Gallatin, Mo. First, We claim the construction and arrangemement of the pole, H, inconnection with the standard, I, and axle, B, so that it may be elevated and lowered, substantially as described. Second, We claim the pole, H, when hinged to the cross-bar of the frame so as to form a lever to raise the plows, in com-bination with the plow beams, E E, and plow, CC, when con-structed for the purposes and substantially as described. 28,790. Composition of the frame substantially as described.

58,789.—Composition for Walks, Pavements, ETC.-W. I claim the composition and process herein described when pplied as and for the purposes set forth.

Steam of the purposes set form.
Sk,790.—MAGAZINE FIRE-ARM. — Wm. C. Dodge, Washington, D. C.
First, Iclaim the stiding tube, B, with the spring, g, attached and stiding in the groove, h, in combination with the barrel, A, and breech frame, C, when said parts are arranged to operate as and for the purposes herein set forth.
Second, In combination with the sliding tube, B, I claim the spring catch, c, located inside of the breech frame, C, and ar-ranged to be operated from the outside, asshown and described. Third, I claim forming the chamber for the reception of the cartridges at the rear end of the tube, B, by means of the pleces, m, or their equivalents, substantially as described.
Sk,791.—STEERING APPARATUS.—F. P. Duprazy, S. M. Dumont, and John Dickason, Veray, Ind.

First, We claim the intermediate sleeve or double spiral and drnm, D E, constructed substantially as set forth for the purpose specified. Second, We claim the arrangement of the wheel, A, drum, B.

Second, We claim the arrangement of the wheel, A, drum, B, rope or chain, C, drums, E E', pulleys, D D' F, and tiller, G, for ming a progressive-power steering apparatus, as described. 58,792.-HAT BOX AND VALISE.-Zoheth S. Durfee, Philadelphia, Pa. Iclaim combining a hat box with a modification of the com-mon traveling bag or values, substantially as and in the manner described and shown in the accompanying drawings.

described and shown in the accompanying drawings. 58,793.—WATER COOLER.—John Eckert, Madison.

IIII. I claim the sheet-metal chamber, A, cast bottom, B b, and thimble, C c, the whole being combined and adapted to operate as set forth.

58,194.—INSTRUMENT FOR TRANSPLANTING PLANTS —W. C. S. Ellerbe, Camden, S. C. Iclaim an improved plant transplanter formed of a our, A. handle, C, and of a pusher, D, and rod, C, constructed and com-

bined with each other, substantially as herein described and for the purposes set forth.

58,795.-ANIMAL TRAP.-Saml. F. Estell, Richmond, Ind

I claim a rat trap in which the self-setting devices as set forth and described and placed in an apartment of said trap immedi-ately above and separate from the body of the trap, substantially as and for the purposes herein mentioned.

58,796.—VALVE FOR STEAM ENGINE.—Richard P. Estep, Cincinnati, Ohio. I claim the balanced yielding and adjustable three-winged valves, K (one or both), arranged and operating in the manner substantially as described.

58,797.-WAGON BRAKE.-H. C. Fairchild, Brook

(5) (9).- WAGON BRAKE.-H. C. FairCalid, Brook-lyn, Pa. I claim an improved wagon brake formed by combining the spring catch, F, slide, C, strars, G T and H, lever, I, hinged brake bars, E, rests, K, and stops, L, with each other and with the wagon body, A, the parts being constructed and arranged sub-stantially as herein described and for the purpose set forth.

8,798.—CORN AND CANE PLANTER.—James M. Fate, Boonsboro, Iowa. First, I claim attaching the seed-dropping device to a frame or earm. F, in combination with a transporting frame, substantially s described. 58,798

as describ

as described. Second, Iclaim the vertically-swinging beam, F, in combina-tion with a lever, G, and a treadle, H, substantially as described. Third, Iclaim the combination of the lever, K, with a suspended beam or frame, F, substantially as described. Fourth, Iclaim pivoting the forward end of the drag bar, F'. of the beam, F, to the draft pole, C, substantially as described. Fifth, I claim suspending the main frame centrally, su

58,799.—DEVICE FOR OPENING FURNACE DOORS.

Henry Fessler and Henry Maxell, Canton, Ohio.

Ohno. First, We claim the door, F. pin, a, bar, E. and shaft, C. arranged and used substantially as and for the purpose herein specified. Second, We claim the arrangement with the shaft, C. of the con-necting link, e, lever, e, foot picce, I, and spring, J. in the manner and for the purpose set forth.

in the manner and for the purpose set forth. 58,800.—PRIMING CARTRIDGES.—George A. Fitch, Kalamazoo, Mich. First, I claim igniting the cartridge at the front by means of the stem, at no combination with the accelerating charge, as shown in Fig. 1, and as herein described. Second, I claim igniting the charge at both front and rear as shown in Fig. 2, and as herein set forth. Third, I claim providing a cartridge with the stems, a and a, when arringed to act in combination, as shown in Figs. 5 and 4, for the purpose of igniting the charge at the center, substantially as et forth.

as set forth 58,801.—PUMP.—A. F. Fletcher, Athol, Mass. First, I claim the combination of the loose collar, C, with the pump barrel, A, and both with the posts, E, and all with the bot-tom plater, F, constructed and operating substantially as described and for the purphere specialed. Second, I c. alth the combination of the double rod, M M, when the parts are connected together by the staple, S, and with the pump box, G, and with the pump handle, P, constructed and operating substantially as described. Third, I claim the guides, H, for the valve applied to the lower plate of the valve box, substantially as described.

58,802.—STEAM GENERATOR.—M. Foreman, Phila

38,502.—DIEAM GENERATOR.—DI. FORMAN, I may delphia, Pa. First, I claim the tubular bolts, C, combined with and adapted to the system of spheres, A, substantially as and for the purpose hare in set forth. Second, I claim the manner described of arranging bolts in re-spect to the spheres so as to prevent the sinking of the same.

58.803.—OIL-WELL DRILL.—Charles Forster, Pitts-

58,803.—OIL-WELL DRILL.—Charles Forster, Pittsburgh, Pa.
Iclaim, First, The combination in a drilling tool of curved cutters, d having slots, e, and oblique edges, i, substantially in the manner and for the purposes above set for the set. Second, The combination in a drilling tool of the head, a, the springs, s, the plunger, b', the ratchet, r, the pawile, p, for the purpose of producing a rotary motion and communicating the same to the cutters, d, and barrel, z, the whole beling constructed and arranged substantially as and for the purposes above described. Third, The combination in a drilling tool of the abument, g, serew box, m, screw, o, and adjustable jam nut, o', used and operated substantially as and for the purposes above setforth.
Fourth, The use of the ring to collar, c', in combination with the shaft, b, of a drilling tool furnished with expanding cutters within the chamber of a well.

58,804 .- HAY RAKER AND LOADER .- J. W. Foust,

58,805.-CULTIVATOR.-John Fridy, West Donegal

Trop, Pa. I claim the construction of my adjusting bar, D, fixed in its center to the central beam, 2, and provided with a series of holes, G, for the hook bolts, E, supporting and embracing the side beams, 1 and 9, in combination with the pivots, A, when supported between the plates, P and p, in the manner and for the purpose anown and described. TABLE. - William B. Frue 58,806. - SHAKING

58,300. — SHAKING TARLE. — William B. Früe, Houghton, Mich. I claim, Frat, The undulating top, G, forming a series of con-cave troughs, substantially as and for the purpose described. Second, The agitators, h, and discharge openings, i, in the ser-eral troughs of the top, G, substantially as and for the purposes set forth. Third, The crank shafts, B and F, and links, a c, in combination with the table, G, constructed and operating substantially as and for the purpose described.

58,807,—BOILER FORGAS HEATER.—Charles Geisse Taycheedah, Wis.

Taycheedah, 1 BYCHCeOBAB, W18. I claim the combination of the heaters, A B, arranged and operating in relation to each other and to the vessel or vessels containing the fulid or other matter to be heated and to any known sppliance for the combustion of oil, coal oil, or other lin-fammable fluid, gas, or vagor, substantially apon the principle and in the assume b core labore set forth.

58,808.—STEAM TRAP.—James E. Gillespie, Boston, Mass.

I claim a steam trap constructed and applied substantially a herein set forth.

58,809.—Mode of SINKING WELL TUBE.—John Gillmore, Jr., and Aaron Wicks Gillmore, Utica, Penn.

We claim the drill, B, with the flanges, 4567, in combination in the collar, E, and the tube, D D, when the same are con-ucted as described in the aforesaid combination, for the pur-ses set forth.

58,810.—DEVICE FOR LOWERING A BOAT.—Henry Goulding, Dedham, Mass. I claim the device for the purpose specified, consisting of the stud, b. lever, d. clain, c, chain, g, and pivoted lever, h, arranged eratin as described

58,811.-RADIATING STOVE AND DRUM.-George D.

Greenleaf, Depauville, N. Y. aim the pipe, C, leading from the stove, A, and the drum, . B. place1 on the stove, and inclosing pipe, C, in combination with the partition plates, D D, and dampers, E E, all arranged substan-tally as and for the purpose specified. I further claim the partition plates, H H', in the pipe, F, forming the draft passayce, fF, and arranged with the dampers, 11', as therein as encelled and vein, as specified, and stantially as and for the purpose set forth.

58,812.—MACHINE FOR MAKING PAPER COLLARS.— Joseph W. Griswold and John Sigwalt, Jr., Joseph

shown. 58,813.—DISTILLING APPARATUS.—C. H. Hall and John Ellis, New York City. We claim, First, The arrangement of two or more retorts, A B, through which the light to be distilled passes in a thin stratum, substantially as and for the purpose degerhed. Becond, The fore, CE, in combination with the retorts, A B, and fareplace. D, constructed and operating substantially as and for the purpose set fort Third, The plees, G and the same condensing chamber, H, substantially as and for the purpose described. Fourth. The inclined condensing chamber, H, in combination with the inclined condensing chamber, H, and retorts, A B, con-structed and operating substantially as and for the purpose set the full model operating substantially as and for the purpose set forther the operating substantially as and for the purpose set the full model operating substantially as and for the purpose set the full model operating substantially as and for the purpose set the full model operating substantially as and for the purpose set the full model operating substantially as and for the purpose set full the full model operating substantially as and for the purpose set forther the purpose

Fifth The residution tank, I, with pipes, W us, in combination with one or more retorts, constructed and operating substantially as

and for the purpose described. Bixth, Passing the vaposite virough a closed vessel containing a Bixth, Passing the vaposite virough a closed vessel containing a provided with one or more discharge pipes to draw out the con-densed liquid of any desired gravity, substantially as set forth.

58,814.-GARDEN CULTIVATOR.-Joel A. Hall, Co-

b8,814.— GARDEN COLLIVATOR.
 lumbus, Ohio.
 First, I claim the cross handles or levers, E, attached to the side pleces, D D, in combination with the hoes, K K, axle, B, and wheels, A A, substantially as described.
 Second, I claim the plate, T, in combination with axle, B, for the purposes and substantially as described.

58.815.-BOAT FOR TRAVELING ON ICE.-John R. Fi

,515.—BOAT FOR TRAVELINGON ICE.—JOHN IV Halsey, Newark, N. J. 'Irst, I clam the arrangement of the geared wheels, c and d, giving motion from the crank shaft to the main shaft, in com-lation with the lifting lever, e, or its equivalents, for adjusting position of the main shaft and me dr.ving wheels, the whole erating subs

Second, The g ont of the runners, substantially as and for the purposes set rout of the transers, substantially as and for the purposes set orth. Third, Connecting the movable or swinging sleds and the stern indder with the stering mechanism, substantially in the manner escribed, so that the said fleds and shern rudder may be simedi-neously actuated by such mechanism, as and for the purposes erein shown and set forth. Fourth, The application and use, in combination with a rudder, liged as described, of a spring to act upon such rudder, and eep the same in contact with the ice, for the purposes set forth. Fifth, A steam ice boat, its several parts constructed, arranged, nd operating substantially as and for the purposes set forth. orth

58,816.—CAR TRUCK.—R. Jones Happerselt, Coates-

ville, Pa. 1 claim the inner pedestal, D, attached to the bottom of the truck, and provided with a recess, partially inclosing the upper portion of the hub, on the inside of the wheel, so as to form a socket therefor, in case of the breaking of the axie.

58.817.-Mop HEAD.-Freeman M. Hardison and

John A. Hooper, South Berwick, Me. We claim the combination of the movable wire frame, C, with the sliding ring, D. and grooved handle, A, when constructed and operating as and for the purpose specified. 58,818.—RAILROAD SWITCH.—Andrew Hartman,

Canton, Ohio. First, I claim the turning lever, J, when used with the bar, D, ails, a catch under said rails, as and for the purpose

rails, a catch under said faits, as and faits, as specific specific Second, The spring, G, when used with the rails, C C, the lever, J, and catch under the rails, C, as and for the purpose herein specified. Third, The arrangement of the levers, H and I, the rails, C C, and bar, D, with the turning bar, J, spring, G, and lever, E, for operating theswitch automatically, as well as by hand, substantial

19 as specined. 58,819.—COMBINED CULTIVATOR AND DITCHER.— Nathan Hawkes, Appleton, Me. I claim all the various parts, constructions, combinations, and arrangements hereinbefore described, for planting, hoeins, dig-ging, and ditching, except so far as the mold boards. A, the beam, B B, and ditching, except so far as the mold boards. A, the beam, C, fg. 1, are like those of the common double-moid-board plow. points. 58,837. — STOPWATER FOR OIL-WELL TUBING.— Henry Kewley, Madison, Ohio. First, I claim the spring, H, the sack, E, and the tube, F, and the fange, G, in combination with the washers, I and J, in the manner and for the purpose set forth. Second, The dogs, K K, the springs, M M, in combination with the sleeve, F, in the manner set forth. Third, The sleeve, F, the rack, E, and the washers J and I, in combination with the tube, A, for the purpose and in the manner substantially described.

double-moid-board plow. 58,820.—INSTRUMENT FOR REMOVING WIRE FROM BOTTLES.—J. S. Hazard, New port, R. I. I claim the implement herein decorhed, the same consisting of the fork-hasped bar. E. and hook lever, G. when combined to gether, substantially in the manner and for the purpose described-

58,821.—CASK AND BARREL.—Michael Hickey, Boston Mass. I claim rabbeting out the edges of the staves, and heading and filling the rabbets with a spline or skirp (glued, cemented, or otherwise), covering the joints between the staves or pieces of heading; and in combination with the epilutos, I claim the pins, glued, cemented, or otherwise, as aids in fastening the splines. I also claim the pins, between the staves, in the chime of the cask, glued, cemented, or otherwise. I claim cutting the rabbets under, and making the splines or strips dovetailing, substantially as described.

58,822.-LAMP STOVE FOR DENTISTS.-S. P. Hil-

dreth, Mount Vernon, Ohio. I claim the jackets, F, in combination with the body, B, of the ove having collars, D, and pipe, G, substantially as described, r the purpose specified.

58,823.—APPARATUS FOR MAKING VINEGAR.—Ar-nold Hoeppner, St. Louis, Mo. First, I claim the combination of a series of shallow vessels in which, by surface oxygenation, the acidification of the wash is effected.

ing öylinder, C, and hallow measuring, piston, A.
58,839. — APPARATUS FOR SEPARATING METAL FROM ORES.—Stephen R. Krom, New York City.
First, I talm in combination with the intermittent blowing means and with two or more passages for the scape of the sep-ranged as to act on the material to retard the upper strate with-out retarding the lower strate as its passes down the include, sub-statistically in the monner and for the purpose beyrs for the with-the above, the period with the shower be period with statistically in the manner and for the purpose beyrs set for the second I claim in connection with the above, the periorated bode, E and E2, arranged at discrete levels, as herein apecified, so that the material split blow second the discrete and the scandard the scandard the distinct layers on the and led and be decommanded in the ker strata and separated and led away in Indupendent streams by the gate or gates on the lower bed, as herein setforth.

which, by surface oxygChatton, the acting the set of the effected. Second, The combination of the vessels, A1 A2 A3, etc., their overflow optionings, c2, arranged at diagonally opposite ends, sub-stantially as set 'orth. Third, The separation of each vessel, A1 A2 A3, etc., into com-partments, C Cl C2, etc., the same connecting by apertuies, d, substantially as set forth. Fourth, The combination of the vessels, A1 A2 A3, etc., with shutters, f, as and for the purpose set forth.

© 1866 SCIENTIFIC AMERICAN, INC

58,824.—MANUFACTURE OF SUGAR FROM CORN.— Adolf H. Hirst, New York City. I claim, First, The application of diluted acid at an elevated temperature in the process of making starch from maize, and other cereals, for the purpose of making starch from maize, and from, substantially in the manner set forth and specificd in the first manipulation. 58.824.

289

first manipulation. The matter betrown and spectrum in the Second, Treating saccharine liquid with alumins and charcoal core or bone black combined, substantially as and for the purpose, set forth. Third, The within described process of manufacturing simp and angar from corn, or other grain, consisting of three subsequent manipulations, substantially each as set forth.

58,825.-DUST PAN.-Amelia B. Hoffman, Roxbury, ITASS. I claim the combination of the box, E, the lid, A, the inclined edge or apron, B, and the handle, D, all as and for the purpose described. Mass

described. 58,826.—ANIMAL TRAP.—John W. Hollingsworth, Seymour, Ind. Iclaim an im the rocking lid, C, the stationary cap, B, the lifting gate, L, the treadle, K, cam wheel, J, spring, L, cranks, G and E, and connect-ing rod, F, with each other, a' d with the box, A, substantially as herein described and for the purposes set forth. 59,997

58,827.-METHOD OF HANGING DOORS.-George W.

Holly, Low Moor, Lowa. I claim the arms, ft', and rods, e, arranged and operating rela-vely with the bars, CF, and door, A, substantially as described, or the purpose specified.

58,828.—ATTACHING HANDLE TO SAW.—N. Homes, Laona, N. Y. Iclaim the saw handle, B, constructed and arranged, substan-tially as described and for the purpose set forth.

-SPONGE CUP.-Eli H. Howard and Alfred 58.829.-

J. Manchester, Providence, R. I. We claim a sponge dish, constructed substantially as herein de-scribed.

58,830.-BRAIDING MACHINE.-Leveras Hull, Charles town. Mass.

towni, Mass. I claim my improved compound braiding machine, constructed manner and so as to operate as described, viz: as composed of ne carriers, A B C D E, and their gears, the race circles, I K L M t, the spring cams, i K, and the recessed and cammed plates, R H, he which being arranged as set forth.

58,831.—CARPET STRETCHER.—Henry Hungerford,

38,531.—UARPET STRETCHER.—Henry Hungeriord, New York City. I claim the arrangement of the legs, D and E, in combination with the pieces, A and B, combined and operating substantially as and for the purposes set forth. Second, The construction of the pressure foot, C, substantially as described, so that the same can be reversed in position and be adapted to take hold of or act upon carpets or cloths of d flerent kinds, as and for the purposes set forth. Third, A carpot stretcher, constructed and operating substan-tially as and for the purposes set forth. 58,832.—Hopset Barke...Chaples S. Huntington

58,832.-HORSE RAKE.-Charles S. Huntington,

58,632.—HORSE RAKE.—Charles S. Huntington, Black River, N. Y. First, I claim, as a carriage or riding attachment for revolving rakes, the detachable carriage herein described, the same being composed of—I. The wheel and the axie upon which they revolve. The reacher or draft bars by which the carriage is drawn. S. The platform bars arranged so as to manutain a horizontal po-sition during the rising and falling of the eraches and rake frame. Becond, I claim attaching the reaches and the platform bars of a rake carriage, as described, to hinge and link connections, or manner that while mortake frame is free to vibrate, and the rake head to revolve, the platform bars shall maintain their level dur-ing such vibration and revolution, substantially as described. Third, In combination with t e thills and side bars, K, of the cake frame, I claim the cross bar, R, constructed as herein de-scribed to reduling the rake and frame from the ground.

58,833.—FISHING RODS.—Russel N. Isaacs, New

York City. I claim the application to the metallic guides and tip of fishing rods an enamel, or covering of glass, porcela n, or any similar vitreous substance, to protect the line from friction and wear, substantially as described.

specified. 58,835.—HEARSE.—Melvin Jincks and F. Altmeyer, Dansville, N. Y. We claim the combination of roller, F. the bar, H. board, G. car, B. and the rails, c. the whole constructed and operating in the manner and for the purpose herein specified.

manner and for the purpose herein specified. 58,836. — MODE OF PRODUCING VARIEGATED THREAD.—Robert Kershaw, Philadelphia, Pa. I claim producing a variegated thread, by imparting to a cen-tral thread, or to a guide which conveys a lapping thread to the central thread, such a varing, irregular, internittent or rever-sing traversing motion as will cause the lapping thread to the wound on the central thread in different quantities at different points.

58,838. — ADJUSTABLE MEASURE. — Kenry Kraat, St. Louis, Mo. I claim the combination of the movable and adjustable receiv-ing cylinder, C, and hallow measuring, piston, A.

58,840.—PAINT.—Thomas C. Lamb, Chicago, Ill. I claim the application of the textile fabrics or woven cloth dycd with any dycing stuffs not fixed, to the purposes of painting the human fiesh.

oints.

-HAY RAKE-Ralph G. Lamson, Browns-58.841.-

290

ville, V t. I claim the notches, straps, J, in combination with the spring ver, H, operating with the pins, K, in the rake head, A, con-ructed and arranged in the manner and for the purpose herein

58,843.-MEANS FOR RAISING SUNKEN VESSELS W. Lane and I. N. Bolles, Baltimore, Md. We claim the combination of the spars, B, chains, A a, pontoons or casse, C, with the tubes and cocks, all operating stantially as and for the purpose specified.

stantially as and for the purpose specified. 58,843. — WATER METER AND MOTOR.—Alfred R Lawther and George F. Letz, Chicago, Ill. We claim three or more cylinders radiating from a central chamber including platons connected with a central crank secured to a rotary value or its convision, substantially in the manner and for the purpose here in set forth. We also claim three or more single acting pistons when so com-regulate and cours of water under pressure against said bistons, substantially in the manner and for the purposes herein set forth.

58.844,-COTTON-BALE TIE.-Z. W. Lee, Blakely,

58,844.—COTTON-BALE TIE.—Z. W. Lee, Blakely, Ga. I claim the metallic band, B, having the bend, b, at one end, and the loop, b', at the other end, and applied substantially in the mamer and for the purpose described. 58,845.—STOP COCK.—B. E. Lehman, Bethlehem, Pa. First, I claim the plug made open at its lower end, with a trans-verse water passage, as and for the purpose set forth. Second, I claim the studing box, D, in combination with the case, A, and plug, B, open at :s lower end, and provided with the case, A, and plug, B, open at :s lower end, and provided with the case, A, and plug, B, open at :s lower end, and provided with the constructed and operating substantially as and for the purpose set forth.

Set 19710. 58,846. — WATER WHEEL.— Adolphus Lind, San Francisco, Cal. I claum, in combination with the stoppers, H H1 H2, the stationary wheel, C, and revolving wheel. A, substantially as de-sorthed.

58.847.-

7.—IDENTIFYING MARK FOR CASKS AND BOXES –Edward A. Locke, Boston, Mass.

-Edward A. Locke, Boston, Mass. I claim a circular or other suitably shaped plate provided with identifying marks and having a lip turned down from its edge, substantially as described. I also claim the employment of a circular or other proper shaped plate provided with such lip driven into the wood at the sides of the cavity or depression in which the plate is inserted, substantially as described. I also claim combining with such attaching plate, one or more rotary identifying rings or plates, operated in connection with the attaching plate, substantially as set forth. I also claim combining with enthal defining plates or rings together, so that while held together they may be respect-ively rotated, substantially as described.

-FENCE.-Lewis E. Lockling, Perrysburgh, 58,848.

8,840.— TENGE.— Hewis E. LOCKING, Terrysonager, N.Y. I claim the combination of the standard, A, with the suspended wisted rod, C, with loops, cc, supporting the boards or rails, tc, of the panel, substantially as described. I also claim, in combination with the above, the box, E, for olding the adjacent ends of the rails, etc., substantially as de-

58.849.-JOINT FOR RAILROAD BARS.-Samuel M.

Job 349.— Solini For Information Darks.— Sainter Hr. Langley, Hudson, N. Y. I claim the rail section or connection, C. having key ways, b b, and overlsop in gene rails at their top, in combination with the Chair, B, and rails, A.A, reduced at their ends, the whole being united with keys, c, and constructed and arranged to establish the joint substantially as shown and described.

58,850.-Hose Coupling:-Silas H. Loring, Law-

rence, Mass. I chain, the expansion packing, Figs. 8 and 9, in combination with the dogs, H, and slots, C, in band, D, of Fig. 1, and the dogs, I, and slots, J, of Fig. 2, with the oval ring, L, and collar, M, for the purposes herein set forth and described.

purposes herein set forth and described.
 58,851.—CLAY-PIPE DIE. — George D. and Horace A. Goodvich, Joliet, Ill.
 We claim the improvement in the machines of any construction used for the manufacture of pipes by which a rotary or spiral motion is given to the clay or other suitable material in the pro-cess of manufacture, conslating in the die, with its revolving core detached from the fooding what and abaced upon a stationary shaft, and its funnel-starped face plate, constructed and operating substantially scherelin described and specified,

BUDSTANGIALLY BE DEFINED described and specified,
 58,852.—MARBLE-POLISHING MACHINE.—James W. Maloy, Boston, Mass.
 I claim, First, The reciprocating cylinder, B, when construct-ed and operating as and for the purpose described.
 Becond, The grooved sleeve, B, provided with a pawl, p, or its equivalent, as essertied.
 Third, The combination of an incined table or platform, H, with the cylinder B, substantially as described.
 Fourth, Change China and the means of connecting the same for joint operation, substan-tially in the manner and for the purpose specified.

58,853.—MACHINE FOR CUTTING GRANITE.—James
 58,853.—MACHINE FOR CUTTING GRANITE.—James
 W. Maloy, Boston, Mass.
 Iclaim, First, The combination of the rovolving circular disk,
 C, with the sliding portion, B, of the table, as and/or the purpose
 specified.
 Second, I claim the combination of the sliding table, B, revolving disk, C, and tool, D, when constructed and operating substantially as set forth.

1811 as set form. 54.—CARR ADE HARROW.—T. J. Marinus, James Whait and William Whait, Independence, 58.854

Iowa

We claim the harrows, G G', in combination with the wheels, A, and frame, C D D', rock shaft, F F', supporting link, H, and hains, L M N, when the several parts are constructed and ope-sted in the manner and for the purpose set forth.

58,855.—PLOW.—James S. Marsh, Lewisburgh, Pa. Iclam constructing the mold board of a turn plow with an upper extension, b, having a concave depression, a, formed in it above the highest point of entrance into the ground, substantially as described.

as described. 58,856.—REAPING MACHINE.—James S. Marsh, Lewisburgh, Pa. I claim, First, Arranging a seat, F', upon a beam which is sup-forted upon the outer end of the axle of the driving wheel, to al-low a person to ride and control the machine when a continuously tevolving combined rake and reel is mounted upon it, substan-tially as described. Second, The mode of attaching the seat beam, F, to the draft pole, in conjunction with a dorine which is applied to said beam for adjusting the hight of cut, substantially as described. Third, The combination of a circularly sweeping rake or reel with a finger beam arranged substantially as described, so that the grain at the inner divider corner can be reached by the reel arms.

Fourth, The construction of the metal frame, C, with a shoe Fourth, The construction of the metal frame, C, with a shoe C', substratially as described.

58,857. — STREET WASHER. — John McClelland, Washington, D. C. Iclaim, First, The short case, B, as constructed in combination with the stop cock, A, pipes, C and D, top plate or cap, F, and key rold, G as described for the purposes herein set fort h Second, I claim the flanges, E E, on the case, B, which covers the stop cock, A, toprevent it from being moved or lifted up by the action of the frost from the top, as described.

58,858.—CARPENTER'S BENCH.—Robert McConnell,

Johost, – Charle Mierk, Biekon, – Robert incooning, Lawrenceville, Pa. I claim, First, The beach vise consisting of the toothed slides, D E, Jaws, F, d ouble inclined parts, G and H, spring, J, armed catches, K L, bar, F, arranged and operating substantially as de-scribed for the purpose specified. Second, Holding the toothed slides by means of the toothed catches, K L, provided with arms, k'l', operating substantially as described for the purpose specified. 58 859 – VALUE, LIQUE, M. L. McCormick, New

58,859.—VAULT LIGHT.—M. J. McCormick, New

Yoy Other Walls' Light: —M. J. McCormick, New York City. I claim the adjustable plate, C, provided with openings, if, the openings, as in the plate, A, the openings, a bindle plate, A, and all arranged substantially as and for the purpose of forthe purpose.

plate, A, and all arranged substantially as and for the purpose set forth. I further claim the ledges or ribs, d d', provided with grooved or concave upper surfaces, when used in connection with the plates, A and C, substantially as and for the purpose specified. 58,860. - WOOL PRESS. - O. C. McCune, Darby

Solot. — WOLL FRESS. — O. C. MCCHIE, Darby Creek, Ohio. First, I claim the roller, L, provided with the slotted teeth, b, for the purpose of tying wool, substantially as herein described. Second, I claim, the lever, G, in combination with the roller, L lever, O, and slotted, teeth, b, substantially as and for the pur-pose described. Third, I claim thestrap, D, in combination with the roller, L, and teeth, b, substantially as herein set forth.

58,861. — Apparatus for Carbureting Air. -

58,861. — APPARATUS FOR CARBURETING AIR. — James McGeary, Salem, Mass. I claim the casing, A, for liquid hydro-carbons, in combination with the pipe for conducting the gas or air into such c sing to act upon the hydro-carbons, when such a pipe terminat s in a per-forated dome, D, substantially as and for the purpose described. I also claim the vertical tubes, G, in combination with the above, substantially as and for the purpose specified. I also claim the surromanding cylinders or casings, I and M, with the outer one, M, covered with a web. O, in combination with the gas pipe, B, terminating in a dome, D, with or without the vertical tubes, G, substantially as described and for the purpose specified.

Specified. specified. I also claim feeding the liquid hydro-carbons to the web cover-ing of the perforated cylinder at a point near the bottom of the cylinder, i, substantially as and for the purpose described.

58,862.—COAL-OIL STOVE.—E. McKinney, Clark-

58,862.—UOAL-OIL 2-ville, Tenn. I claim the ferding or supplying of petroleum to stoves or furnaces by means of water or other fuld of a greater specific gravity than the petroleum niaced in ak elevated tank or re-servoir above the petroleum chamber, and communicating with the latter in such amanter as to feed the peroleum to the fire, pan, or chamber by static pressure, substantially as described.

bia, Pa. First, I claim the grates, P and J, in combination with the sl t, its arms, e e, and link, d, or their equivalent, the whole b rranged within the sach plt of a heater, and operating subs ally as and for the purpose described,

Second, The flues or openings, m m, communicating with the ash pit and with the casing above the fireplace, for the purpose

pecified, Third, The combination of the crank shaft, I, the sliding bars, i, and the shaft, H, its arms, e e', and link, d, as and for the pur-ose set torth. Fourth, The adjustable bar, K, in combination with the lower rate or slifter, J, substantially as and for the purpose specified.

58,864.—APPARATUS FOR SUPPLYING LIQUOR TO CENTRIFUGAL MACHINES.—W. R. Meins, Bos-ton, Mass. I claim, for use with a centrifugal sugar-bleacting machine, a portable iquoring bucket having a construction substantially as described.

58,865.—HAND LOOM.—Daniel Mendenhall, Fair-

58,865.—HAND LOOM.—Daniel Mendenhall, Fair-field, Iowa. First, I claim the sliding bracket, L, with its openings and wedge, M, and the pins, v v v, all constructed and operating in the manner and for the purposes set forth. Second, The combination and arrangement of the treadles, 1, 2, 3, 4, and the sub-treadles, x x x, with the tappet cylinder, 0, and jack, 1, as and for the purposes set forth. Third, The hinged levers, m m', and tappets, n n, in combination with the batten and with the locker arm, I, head, H, cords, g g, and pickerstaff, F F, said several parts being respectively con-structed, and the whole arranged for use as described.

66.—TREE PROTECTOR. — Daniel Mendenhall, Fairfield, Iowa. 58.866.

I claim the arrangement and combination of the parts herein de-scribed, constituting a fruit-tree protector, substantially as set forth and described.

58,867. — EYE-GLASS SUSPENDER. — S. F. Merritt,

New York City. I claim, as a new article of manufacture, an eye-glass holder, consisting of theshank, A, spring hook, B, bars, C, eye, a, and pin, D, substantially as described for the purpose specified. 58,868.--FILTER.-Charles F. Mietzsch, Philadel-

bo, 50, 500. — FILTER. — Charles F. Interesch, F. Miadel-phia, Pa. I claim a filter having two or more chambers or compartments containing filtering material, so arranged in respect to each other, to an outile pipe and to a lower chamber, that the fuid to be fil-tered must passed ownward through the material in one compart-ment to the lower chamber, and then upward through the ma-terial in the other chamber to the outlet pipe without rising above the surface of the filtering material in the second chamber, as and for the purpose described.

58,869.—Sorghum Evaporator.—David T. Miller. Dayton, Ohio. claim the evaporator, constructed, arranged, and operating stamiluly as and for the purpose set forth.

58,870.—METHOD OF PROTECTING RUBBER ARTI-CLES.—J. R. Moffitt, Chelsea, Mass., and F. D. Hayward, Malden, Mass. We claim protecting the surfaces of articles made of caoutchouc or gum elastic compounds by surfacing them, substantially as set forth.

58,871.—DITCHING MACHINE.—Hiram E. Moon and

58,871.—DITCHING MACHINE.—Hiram E. Moon and Joseph Doan, Wilmington, Ohio. We claim the ditching wheel, F constructed with the cutters, if, open throats inside thereof and projecting rim, s, bounding the whole outer periphery of the wheel, arranged and operating substantially as and for the purpose herein apacificat. We also claim the closent, G, in combination with the ditching wheel, arranged and oper ating substantially as herein set forth. We also claim the closent and arrangement of the cutting or penetrating guide wheel, F, feeding rope, N, anchor, H, and spool, E, substantially as and for the purpose herein set forth. We also claim the rudder, T, provided with the bridge, t, for the purposes specified. We also claim the rudder the twisting force of the nower ap-ning and ditching wheel that the twisting force of the power ap-iled and the side draft of the manne shall counteract and nearly counterbalance each other, substantially as set forth.

© 1866 SCIENTIFIC AMERICAN, INC

58,872.-Mop Holder.-Wm. Morehouse, Buffalo

58,872.—MOP HOLDER.—Wm. Morehouse, Buffalo N. Y. First, I claim the combination of a loose and a fixed clamping jaw, the former being connected to the ferrule, B, of the latter by me ansof a hooked shark, b, substantially as described. Second, I claim the construction of a ferrule, B, upon the shark of the jaw, A, for receiving the handle, C, and also the shark of the movable jaw. A', substantially as described. Third, I claim the combination of a sliding collar, D, which is acted upon by a spring, c, with the fixed and movable jaws, A A', substantially as described.

58,873.-WOOD-BENDING MACHINE.-Charles Moyer,

Jr., Coopersburg, Pa. I claim the link, e_i in the flexible strap, C, to operate in combin-tion with the former, A_i , and roller, a_i or their equivalents, sub-antially as and for the purpose described. 58,874.—Roller for Clothes Wringers.—John

Murphy, New York City. I claim the fabric, C, mounted within the mass of gum so as to form a compound elastic roll, substantially of the character and for the purpose herein set forth.

10.1 the purposenerein set 10th.
58,875.—WHISTLE FOR STEAM ENGINE. — John Murray, New York City.
I claim the stiding sleeve, H, the girbal or levers, I K, the post, 0, and spring, P, wher in combination with the whistle of a steam or other engine, substantially as and ior the purposes described. 58,876.-CORN PLANTER.-Carlisle C. Myers, Ster-

ling, Ill. I claim the levers, F, provided with lips, g, mounted upon the utside of the tubes, f, and operating in connection therewith, and with the slides, E, as and for the purpose set forth.

58.877.—CAR BRAKE.—David Myers, Chicago, Ill. First, I claim controlling the movements of theshiding block, B, by means of oscillating levers, F, substantially as and for the pur-posesshown and described. Second, I claim operating the levers, F, by means of the arms, h, friction wheels, c, and springs, I, for 'holding the arms upon the said wheels, substantially in the manner and for the purposes specified.

the said where, substantiation is the manufacture of the show-mentioned parts methods and the combination of the above-mentioned parts with the siding block, B, and the cord, b, connected with the ap-paratus beneath the car, arranged and operating substantially as specified and for the purposes set forth. Fourth, I claim, in combination with the above, the arrange-ment of the bail, and operating substantially as and for the pur-poses shown and described. FOR the set of the set of

poses shown and described.
58,878.—MORTISING MACHINE. — Walter Naugel, Philadelphia, Pa.
First, I claim operating the rotary reciprocating cutter head, M, through the medium of the bars, L L, connected to the cutter head and cross head, K, as shown and actuated by the segment rack, H, and the pinion, I, on the shaft, J, or their equivalents, substantially as and for the purpose set forth.
Second, The attaching of the guides or ways, g g, of the bed, P to adjustable parallel bars, S S, arranged substantially as shown and described, for the purpose of adjusting the stuff. R, to be mor-tised in a proper relative position with the cutter head.

58,879.—CASTER FOR FURNITURE.—Hezekiah Nay-

58,879.— UASTER FOR FURNITURE.— IEZEKIAII May-lor, Pekin, Ill. I claim a caster in which the caster ball, B, turns on three fric-tion balls, C, which are placed in the angles of an equilateral tri-angle, turning on journals which have bearings on both sides of said balls, in recesses formed for the purpose in the top of the caster, substantially as described.

58,880.-DROP PRESS.-Joseph P. Noyes, Binghamton, N. Y.

First, I claim the arrangement of the lever catch, d, shoe, e, and rm, h, in combination ith the drum, G, crank shart, C, and ham-ner, I, constructed and operating substantially as and for the pur-ose described.

pose described. Second, The spring top, K, in combination with the lever catch, d, drum, G, and hammer, I, constructed and operating substan-tially as and for the purpose set forth. 58,881.—BEEHIVE.—W. H. Pierson, West Jersey, T11:

11. I claim the combination and rearrangement of the case, A rooved and perforated partitions, a, breeding boxes, B, with per-performing board, a¹, with perforations, c, entrance, f, box, , alighting board, a¹, tube, F, and tube, G, substantially as de-cribed as and for the purpose specified.

58.882.-EGG BEATER.-Charles Pinder, Lowell, Mass

MASS. I claim the combination with the case, A, and cover, B, of the oops or strips, C C (two or more), the latter so arranged as to ccomplish the purposes herein specified. 58,883.—CAR COUPLING.—Thos. D. Powers, Roches-

ter, Wis. I claim the sliding block, G, having the guide springs, A B, at-tached, the plyoted lever, D, with the bolt. C, atlached, and the spring catch, F, when arranged to operate as shown and described.

53,884.—Suspended.

58,885. 58,885.—DRESS GUARD FOR CARRIAGES.—George W. Raite, Cincinnati, Ohio. I claim an extensible guard or screen for attachment to car riages, substantially as set forth.

58,886 .- TOOL FOR CUTTING BOILER TUBES .- F. Ramsey and James Miller, New York City. First, We claim the combination of the shank, D, screw shaft, A, with tapering end, F, cap, J, cutters, L, and spring, N N, onstructed and operating substantially as described for the pur-ose specified.

58.887.-MACHINE FOR MAKING SPIKES.-John ().

58,887.—MACHINE FOR MAKING SPIKES.—John (). Reilley, Baltimore, Md.. First, In combination with the vertically moving dies, U and I, and the levers, W b, I claim the pivoted arms, Y c, operating sub-stantially as described and represented. Second, The gage, K, arranged in relation to the moving die, D, and the header, as described. Third, In combination with the moving die, C, adjustable for various lengths of spikes, I claim the cutter, O, arranged in ways alongside the stationary die, and operating against the plain face of the noving die akterthe iron & gripped between the dies, sub-stantially as described.

58.888.—WATER ELEVATOR.—A. O. Remington and V. R. Stewart, Weedsport, N. Y. We claim the stationary pulley, F, fitted lossely on the shoul-dered axle, B, but without lateral motion, operating in combina-tion with the sliding collar, I, and lever, L, whereby the bucket will be elevated or lowered in a line vertical to the pulley, F, in the manner substantially as and for the purpose specified.

.... COAR EXTRACTOR.—C. Rosenberry, Chi-cago, Ill. Iclaim the sliding wire, A, with its ring, B, for the purpose of losing or lossening the claw, M, in combination with the same, he whole constructed and operating in the manner herein de-ribed and specified. 58,889.-CORK EXTRACTOR.-C. Rosenberry, Chi-

JOGORU.—MEDICINE FOR HOG CHOLERA.—WIIIam M. Runyon, R. H. Haller, and D. B. Morris, Oskaloosa, Iowa.
We claim a composition of matter, or mpounded of the above ingredients or their chemical equivalents, and prepared for use substantially in the manner and for the purpose set forth.

58,891.—REVOLVING CYLINDER ENGINE.—Chas. F. Ruset, Communipaw, N. J. I claim the combination of the wheel or drum, C arranged to

-William

58,890.-MEDICINE FOR HOG CHOLERA.-

Caj I claim closing the

on suitable bearings, engines carried by said drum with evolving shafts, G. hung therein and arranged relatively to iving axis as described, planet wheels, H, and stationary ur rack or sun wheel, I, substantially as shown and de--CHIMNEY.-Cyrus W. Saladee and T. R. 58,892

58,892.—CHIMNEY.—Cyrus W. Saladee and T. R. Eddy, Newark, Ohio. First, we claim constructing chimneys for houses of hollow sections, made of fire-proof clay or other similar material, and joining or ceruchicity the same together in the manner and for the purpose substantially as shown and described. Second, We claim the manner, shown and described, of making each separate floor of the building sustain its proportion of the weight of the climney, substantially as and for the purpose speci-fied.

weight of the chimney, substances, and the precision, E, of the chimney field. Third, We claim the base, B-1, on the top section, E, of the chimney top, F, ney (Figs. 1 and 2, plate 1), for the subport of the chimney top, F, in the manner and for the purpose substantially as shown and de-sorthed.

58,893.-LAMP BURNER.-John F. Sanford, Keokuk

58,893.—LAMP BURNER,—John F. Samor, Accord, Iowa. Fir, I, Claim such a construction and arrangem ent of parts, that while they admit of the sharpening of the spure of the wheels which move the wicks, will also permit the lighting of the lamps through apertures in the cages of the burners without the neces-sity of contrivances for depressing the wicks for that purpose, abustantially as above described. Second, In combination with apertures through the cage of a lamp burner, so constructed and arranged as to admit the sharp-ening of the s prs upo the wheels which move the wick without moving or displacing any of the parts, I claim a contrivance for causing these spur wheels to engage with the wick, substantially as and for the purpose above described.

58,894.-BREAST PIN. - Lorenzo Sauter, Jersey City, N. J. Colaim the centrally pivoted shield, B furnished with openings described, and combined with the body, A, provided with utta-e ornaments, substantially as herein set forth for the purpose evided

specified. 58,895.—DISH WASHER.—James J. Sawyer, Woodstock, Conn.

First, I claim the resting lips, B, on the bottom plate, C, of the sceptacle, A, arranged to operate with the floats, G, therein, as scerbled, for the prinose specified. Second, Thercmovable false bottom, K, in combination with the ceptacle, A, as discribed for the purpose specified.

58,896.-PIANO-FORTE. - Peter Schuler, Philadel-

phia, Pa.

phia, Fa. I claim geouring the sound board of a plano between elastic or compressible bearings, ci. c3, so that one end of the same may slide between its bearings, substandally in the manner described and set forth for the purpose specified. 58,897.-WAGON-BOW FASTENING.-Amos R. Scott,

Bethel, Ohio.

Bethel, Ohio. First, I claim the upper fastening, E, and the lower fastening, F, G, K, H, L, when suif fastenings are constructed and arranged substantially as described, in combination with the bow of a wagon, for the purpose set forth. Second, Tightening the bow upon the wagon body by means of a lever and cam or eccentric, substantially as described and for the purpose set forth. S 808 - Locar Willier, Call

-Lock.—William Sellers, New York City. 58 809 L I claim the bolt, B, with the rib, f, constructed as shown in Figs. 4,5 and 6 of the drawings, and arranged to operate with the oblong source plate, g, for the purpose herein specified. 58,899.—FRUIT BOX.—John T. Severns, Burlington,

N.J. I claim, as an ewarticle of manufacture, fruit boxes, the sides of which are formed by asingle piece of thin steamed wood, hav-ing rounded corners formed by two or more internal kerfs sawed partly throngh the board and bottom, constructed and inserted substantially as set forth.

58,900. - ROTARY ENGINE. - Simeon Shorman,

100. - ROTARY ENGINE - AMOUNT A RECEIVED AND A RECE

58,901 .- RUBBER FOR DENTAL PURPOSES .- Edwin

L. Simpson, Bridgeport, Conn. I lain combining the wikin described vulcanizing compound with indiarubber, in the proportions herein named, and substan-tially in the manner and for the purpose specified. 58,902.-MANUFACTURE OF INDIA-RUBBER, GUTTA-

58,902.—MANUFACTURE OF INDIA-RUBBER, GUTTA-PERCHA, ETC.—Edwin L. Simpson, Bridgeport, Conn. First, I claim the herein-described compound of vegetable oil, sulphur and benzoin gui, prepared substantially as and for the purpose specified. Second, I claim combining the herein-described compound with india-rubber, gutta-percla, or other similar guin or guins, substan-tially as and for the purpose specified. 50,002.

58,903.—BOBBIN FOR SPINNING MACHINES.—Charles Thomas Smith, Utica, N. Y. I claim a filing bobbin, the tube or barrel of which is formed or manuf.ctured of sheet zinc, with a wooden head or flange, as above described, the bore of the barrel at its tip being made taper-ing, in the manner and for the purposes herein set forth.

ing, in the manner and for the purposes herein set forth.
58,904. — PUDDLING FURNACE. — Jacob Snyder, Wheeling, W. Va.
I claim a puddling or boiling furnace with the bottom of its boiling chamber constructed of wrought iron in a single plate or otherwise, substantially as described.
58,905.—BURNING FLUID.—George W. Spangle, Olithou Springs N. V.

58,905.—BURNING FLUID.—George W. Spangle, Clifton Springs, N. Y. First, I claim the method above described for rendering any of the products obtained from petroleum inexplosive and safe as a burning fluid, by the use of sal soda and cream of tartar, substan-tially as above described. Second, The removal of the unpleasant odor of any of the above-mentioned products, by the use of the oll of wintergreen, substan-tially as described.

Helly as described.
58,906. — WATER WHEEL. — Frederick Speck, Waynesborough, Pa.
I claim the combination of the outer and inner wheels, as constructed and arranged together, whereby the water first passing through the buckets of the outer wheel acts directly upon the buckets of the outer wheel acts directly upon the buckets of the inner wheel, substantially as and for the purpose act forth.
58,907.—SHADE FOR PROTECTING THE EYES.— James F. Spence, Brooklyn, N. Y.
First, f claim the elastic clasp or band, A in combination with the shade, B, substantially as herein set forth for the purpose specified.

specified. Second, The construction of the shade, whereby a space is left for the passage of air between the shade and the forchead, sub-stantially as herein set forth for the purpose specified.

58,908 .- SHAT AND DESK .- David I. Stagg, New

30,303.—DEAT AND DEMA.—DERVIE I. Stagg, New York City. I claim the reversible and adjustable back, C, provided at one end with the desk and seat, D, and secured between the side pieces, A A, in combination with the adjustable seat. B, between the upright side pieces, A A, substantially as and for the purpose set for U.

53,909.-MACHINE FOR CUTTING STALES IN THE FILLD.-W. F. Starnes, Macomb, III. First, I claim the roller, F, and the hocks. H, arranged as shown, to break down and surgistic the staller, as set forth.

Second, The reciprocating knife, K, operated by the crank shaft, , and the gear wheels, E and C, for the purpose of cutting the talks, asset forth. 58,910.-RAILROAD SIGNAL.-Thomas Stead, Cleve-

58,910.—RALROAD SIGNAL.—Thomas Stead, Cleve-land, Ohio. First, I claim the herein-described arrangement of the posts, A B in relation to each other, and the track, in combination with the lanterns, E and K, when constructed and operated as and for the purpose set forth. Second, I claim the wheels, G and H, and chain, G', in combina-tion with the post, B, and capstan, H', lever, I, and disk, F, when arranged and operated as and for the purpose set forth.

58,911.-PLOW. - Carlisle St. John, Keosauqua,

Joy 31. — FLOW. — CATIFIC St. John, Reconducta, Iowa. I claim a landside that may be changed end for end, on one end of which is a cutter so c. structed that the cutter may be used or not, as desired, for the purposes and substantially as described. Second, I also claim it, scorring ated plates, OI, and G2, the plate G1 being provide dwith a strap and socket, in combination with the peam, S, and b race rod, E, for the purposes and substantially as described.

-MACHINE FOR GRINDING COB AND CORN.-58.912

Solonion Stuckey, Sugar Grove, Ohio. I claim the construction of the conical cylinder and concave it their curved knives, G and H, and projections, K, go ar-anged as to cut and grind the cob and com, as herein described. 58,913.—HYDROMETER.—G. Tagliabue, New York

City. 1 claim a hydrometer having a lump of metal, or other suitable material, firmly secured to the inner surface of the bulb, substan-tially as and for the purpose described. 58,914.—Spring Bedstead.—S. H. Tift, Morrisville,

Vt. I claim the oblong box, A, as constructed with the top, C, with its permanent pins, D, straps, J, springs, E, and solid bottom, G, with its speritures, H, when arranged and combined, substantially as described and for the purpose set forth.

55,915.—LAMP-CHIMNEY ATTACHMENT.—Frederick John Tinker, Cincinnati, Ohio. First, Iclaim the eccentrically slotted collar, B C, shifting catch, D E, and nut, E, combined and operating as set forth. Second, I olaim the provision of the concavity, c, on the under side, and notches, e', on the inner margin of the catch, E, for the purpose stated.

58,916 .- DOOR GUARD .- John Tinkey, New Haven, Conn.

I claim the combination of the bolt, C, constructed with flanges, and d', so as to form shoulders on the said bolt keepers, E, con-tructed and arranged to operate substantially in the manner and or the purpose set forth.

58,917.—CHAIR.—Jacob Ungerer, Brooklyn, N. Y. First, I claim the combination of the metal trame, B, with the metallic seat, A, substantially as and for the purpose described. Serond, I claim the springs and spring pads, a, in combination with the seat, A, and chair frame, C, and operating substantially as and for the purpose set forth.

58,918.-COMMUNICATING RECIPROCATING MOTION

DO, DO, DOMMUNICATING RECIPROCATING MOTION TO PUMPS, ETC.—Isaac Van Olinida, Brooklyn, N. Y. Antedated October 5, 1866.
 I claim the forked and slotted arm, f, of the lever, E, and the slotted vertical guiding standards, I, applied in combination with each other and with type collar, r, pizs, d, and fricting rollers, i, substantially as herein set forth.

58,919.—MANUFACTURE OF SOAP.—L. H. Van Spanckeren, Muscatine, Iowa. I claim asoap compounded and prepared from the ingredients and in the manner substantially as set forth.

58,920.—SRIRT ELEVATOR.—H. A. Walter, Nor-wich, N. Y. I claim the combination of the plate, A, tube, B, valve, D, hav-ing a concave part, e, lever, f, epring, g, hood, n, shield, i, all sub-stantially operating as above described.

58,921.—SAWING MACHINE.—Charles R. Warner and Moses Bales, London, Ohio. We clai the arrangement of the guide, R. rocking block, P reversible saw shaft, N, and reversible frame, D E F, when con-structed as and for the porposes set forth.

structed as and for the porposes set forth. 53,922.—Toy WALKING FIGURE.—Robert Weir, Cohoes, N. Y. I claim combining the body and jointed limbs of a figure with a revolving axle, g, by means of crank pins, h, and wire, W, or their equivalents, in such a manner as to produce an alternate bending of the knee joints and other movements of the limbs, substantially as here in described and set forth.

58,923.—MACHINE FOR FURROWING CORN (HIOUND. —William H. Warwick, Dunlevy, Ohio. First, In combination with the vertical plates or pieces, or run-ners, I claim the slide guards, f, for limiting the depth of the fur-row, as recited. Second, In combination with said pieces or runners, I claim the fender plates, i, constructed and operating substantially as de-scribed.

scribed. 55,924.—TUBE-SHEET CUTTER.—Theodore L. Web-ster, Brooklyn, N. Y. I ciaim, as an article of manufacture, a tool for drilling metals, composed of a circular cutter and a yielding center, constructed and arranged in the manner described.

58,925.—SEWING MACHINE.—Albin Warth, Staple-

and arranged in the manner described.
58,925.—SEWING MACHINE.—Albin Warth, Stapleton, N. Y.
First, Iclaim providing the oscillating arm, which takes up the slack of the needle thread, with an oblong slot, substantially as described, so as to keep the loop of the needle thread open to let the shuttle pass twice. - econd, I claim the needle, n. provided with a slottedshank, substantially as shown in Figure 30.
Third, I claim the rectaft surfaced clamp, moving from below in opposition to the opring pressure foot above the goods, and operating substantially as described, to hold the material while the stutch is being firshied.
Fourth, I claim the nedge, on that side of the shuttle which faces the needle, substantially as and for the purpose described.
Sixth, I claim the elastic center, c', operating as described, in combination with the revolving shutle, constructed and operating substantially as and for the purpose described.
Sixth, I claim the elastic center, c', operating as described.
Sixth, I claim the elastic center, c', operating as described.
Sixth, I claim the elastic center, c', operating as described.
Sevenci, I claim the elastic center, c', operating as described.
Sixth, I claim the elastic constructed and operating substantially as and for the purpose described.
Buttin, Cialam the button, k, provided with a series of nothes in combination with the shuttle.
Fer and shuttle driver, H, constructed and operating substantially as and for the purpose described.
Thirt, I claim the burtonse escribed.
Thirt, I claim the burtonse escribed.
The substantially as and for the purpose described.
The substantially as described to allow the shuftle.
Fer and shuttle driver, H, constructed and operating substantial is as and for the purpose described.
Thirt, I claim the burtonse escribed.
Thirt, I claim the burton series of nothes substantially

58,938.—SHINGLE MACHINE. -A. M. Connett (as-signor to J. C. Moore ar ! Barah A. Connett), Madison, Ind. I claim splitting, charing, tapering and jointing 2 shingle by one operation by means of a splitter, kn (c. 1., lower stationary knife blade, Z. upost mograble knife blade, Z. and side knife blades or chleok, Ez and FZ in ecubination with suitable ford

© 1866 SCIENTIFIC AMERICAN, INC

58,926.—Apparatus for Drying Peat.—Gustavus

291

58,926.—APPARATUS FOR DRYING PEAT.—Gustavus Wersenborn, New York City.
First, I claim forming a continuous drying table, by means of the cars, D D, which can be matched together, or used separately and arranged relatively to the side walls, B, and beds, A, or their equivalents, so as to convey the guscous products of combustion from the furnace and to uffire fuseous products of combustion from the furnace and to uffire fuseous products of a combustion from the purpose herein set forth.
Becond, I claim, in combination with the above, the flaps, D', arranged to operate substantially as and for the purpose herein specified.
Third, I claim the hollow stirrer, K L, adapted to transmit the heated fluid, and to impart the heat thereof to the peat, substan-tially as and for the purpose herein set forth.
Fourth, I claim the false bottom, I, arranged relatively to the cars, D, and to the several other parts, substantially as represent-ed, so as to convey a heated fluid between them and the car bot-toms, and to allow a portion to rise through the peat in the sev-eral cars, for the purpose herein set forth.
Fifth, I claim, they on the orise through the peat in the sev-eral cars, to the purpose herein set forth.
Fifth, I claim, they on connect a series of cars with an iron pipe, or any other analogous means of transmission, so that the hot fluid may pass from car to car, and through the wet pulverized peat, either upward or downward, or through the sides, substantially the same as specified.
Styth, I claim superheating the exhaust or waste steam from an engine, and heating ar between the false bottom and the bot-tom of the cars, or on the sides, by the hot products, whether the owaste heat from a steam boiler, or of a furnace built for that pur-pose, as herein specified.
Styft, I claim the me cans fo

as and for the purpose herein at a single operation, substantially as and for the purpose herein set forth.
58,927.—RAILROAD-CAR BOX.—Isaac P. Wendell, Philadelphia, Pu.
First, I claim the combination of the oil box, E, with the box, A, and journal, B, arranged and oversating and stantially as described.
Second, I claim the combination and arrangement of the curved plate, F, with the oil box, F, and journal, B, albeinntially as described, seconder, I claim the combination and arrangement of the curved plate, F, with the oil box, F, and journal, B, albeinntially as described, so as to answer the triple purpose of an under-bearing for the journal, conducting the waste oil back into the oil box, and serving as a cover to add box to keep the oil in place, as specified.
Third, I claim the combination of the weige, A, with the box, A, and oil box, F, austeantially in the manner described and for the purpose set forth.
Fourth, I claim the elastic support, H, combined and arranged and for the purpose set of the.
S8 928 — METHOD OF UNLOADING GRAIN CARS — D

58,928.—METHOD OF UNLOADING GRAIN CARS.—D. J. Whittemore, Milwaukee, Wis. I claim unloading cars by the arrangement of means constructed and operated substantially asherein recited.

58,929.—KEEPER FOR BOLTS.—G. M. Wood, De-

catur, III. I claim the providing of the keepers of bolts with oblong screw slots, in the manner substantially as and for the purpo eset form. 58,930.-GATE HINGE.-L.E. Woodward, Cohocton,

N Y. I claim elongating the eye or pintle hole in the lug, p, so that the said hug will be all owed a longitudinal play upon the pintle, substantially as and for the purpose specified.

58,931.—MACHINE FOR WASHING ORES.—M. A. Woodside, Georgetown, Cal.

First, I claim the endless blanket, H, and revolving brush, K, hen arranged substantially as described and for the purpose set when a franged substantianty as accounted and the second, I claim the perforated feed box, I, and water pipe, J, substantially as specified and for the purpose set forth.

58,982. -METHOD OF QUARRYING SLATE .-- John E.

58,082. --METHOD OF QUARRIENC DLATE.--COHE ra Wootten, Cressona, Pa. First, I caim the quarrying of state and other like rock by the use of a circular saw or cuttercaused to revolve on a portable and adjustable frame, and arranged for operating on the rock, sub-stantially in the manner described. Second, I claim the combination of the frame, A, its adjusting screw rods with casters, a, its driving engines and ircular saw, G, the whole being arranged and operating substantially as and for the purpose described. Third, I claim the string, d, arranged on each screw rod be-tween a collar, d, on the same, and the caster, a, substantially as and for the purpose described. Secong - Wood Sawing a Macutume Isaac Allard

58,933.—Wood-sawing Machine.—Isaac Allard

38,933. — WOOD-SAWING MACHINE.—Isaac Allard (assignor to himself and R. G. Turner), Belfast, Me. First, I claim the pivoted an ular lover, J, frame, F, spring catci, o, and connecting rod, E, arranged and operating substat-tially as described, for the purpose specified. Second, I claim the pivoted vent dog, O2, rod, Q, rod, R, and toothed bar, T, constructed and operating substantially as and for the purpose specified.

58.934 .- STEAM - GENERATOR SAFETY VALVE.

58,934.—STEAM -GENERATOR SAFETY VALVE.— Horatio Anderson (assignor to himself and Geo. W. Cushing), Chicago, Ill.
 First, I claim the capsular spring, c. combined with the valve, B, the valve stem, d, and the jam nuts, h h', constructed and ar-ranged as and for the purposes herein described.
 Second, I claim the fiange, A, and stand, b, combined with the valve, B, and the capsular spring, c. constructed and arranged as and for the purposes herein specifice.

58,935.—PROCESS FOR BLEACHING FIBROUS MATE-RIALS.—Hayden M. Baker (assignor to A. M. Hastings and Alexander McVean), Rochester,

N. Y. I claim the application to the bleaching of fibrous or other sub-stances et chlorine, hydrogen, oxyg en and sulphurous acid gases in a close vessel under their own pressure while in a nascent or free state, in the manner herein described and set forth, or any other processes substantially the same, and which produce the same intended effects and regults here in described. I also claim the use of carbonic (or any other) acid under pres-sure for the purpose of decomposing chloride of lime in a close bleaching apparatus, in the manner herein described, or any other substantially the same, and which produces the same intended effects.

substantially the same, and which produces the some interact effects. I furthermore claim the application of oxygen, hydrogen and sulphurous acid under pressure in bleaching.

sulphurous acid under pressure in bleaching.
58,936.—LiD SUFFORTER.—James C. Barlow (assignor to himself and J. B. Hamilton), Brimfield, Mass.
First, I claim the jointed lid supporter attached by its ends respectively to lid and box on the adjess of their sides, constructed and arranged substantially in the manner and for the purpose set forth.
Second, I claim the manner of arranging the place and joints so that they fold up out of the way when the lid is shut down.

59,937.—MAGAZINE FIRFARM.—George W. Briggs (assignor to Oliver F. Winchester), New Haven, Conu. I claim constructing and arrai ging the tube or magazine in combination with the harrel of the arrain the carrier block, so as to be operated substantially as and for the purpose specified.

rollers, when they are all arranged together so as to operate and be operated substantially in the manner described. Insoclaim the stationary kulle blade, P, in combination with the splitter. blade, I; substantially as and for the purpose specified the splitter blade, substantially as construct to the under side of the splitter blade, substantially as constructs for the purpose speci-fied.

292

58,939.—FRUIT BOX.—W. H. Earle, Vincland, N. J., assignor to himself and G. M. Buttrick, Barre, Magg

Mass. I claim the combination with the upper corners of a box, the sides and bottom of which are made as described, of the metal corner fastening pieces, F, substantially as shown and described. 58,040.—SCHOOLBOY'S BOOKDINDER.—Thos. Good-rum (assignor to Albert T. Manchester), Provi-dence, R. I. I claim a portable book package binder, constructed and oper-ating as described, the article being substantially as herein speci-fied.

58,941.—BRICK KILN.—E. Harrison, A. Wagner and A. Nulsen (assignor to Nulsen & Co.), Cincinnati. Ohio.

nati, Ohio. We claim, First, The method substantially as described of burn-ing bricks, etc., by the contact of falling coal dust or other com-monuted fael, with a draft of air which has become heated by traversing the already burnt brick. Second, The arrangement of the continuous gallery, A B, A' B', shifting partitions or partitions, D D', and dampers, GI G2, and so forth, or devices substantially equivalent; whereby the opera-tions of pre-leating, burning and cooling are simultaneously and continuously performed, in the manner substantially according to S = 0.42.

58,942.—LANTERN.—John O. Harris (assignor to 8,942.—LANTERN.—JOHN O. MATTIS (assignor to himself and Israel S. Ritter), Reading, Pa. Iclaim the conical base, B, attached to the lower part of the lass globe, A, of the lanera, and having a fiange, C, at its lower and height for the lanera, and having a fiange, C, at its lower and lacket, F, at the top of the glass globe, A, all arranged sub-tantially as and for the purpose set forth. end norfo and jacke

 and jacket, F, at the top of the purpose set forth.
 stantially as and for the purpose set forth.
 58,943.—ELECTRIC GAS STOP Cock.—John A. Heyl, Boston, Mass. assignor to himself and George Bailey, Hudson, Mass.
 Tohim the above explained improved cut-off, consisting of the Bury del with pass.
 Tohim the above explained improved cut-off, consisting of the Bask E. Wovided with pass. 58,943.—ELECTRIC GAS STOP COCK.—John A. 11091, Boston, Mass., assignor to himself and George Bailey, Hudson, Mass. I claim the above explained improved cut-off, consisting of the stationary cylinder, G, and the rotary tube, E, provided with pas-sages, a b, arranged in them as described in combination with the ratchet, F, and the gas burner conduit, the whole being substan-tially as and for the purpose and to operate as hereinverore ex-plained.

58,944.—MANUFACTURE OF PAPER.—George W. Hurlbut (assignor to himself and Abram C. Wicker), Fair Haven, Vt. Iclaim the use of pulverized clay, slate and other suitable stone as a material in the manufacture of paper, to give it body, even-nessand finish.

as amaterial in the manufacture of paper, to give it body, evennessand inish.
58,945. — BRAKES FOR COTTON LAPPERS.—Daniel Hussey, Nashua, N. H., assignor to Richard. Kitson, Lowell, Mass.
First, Iclaim the employment of the arm, E, and pinlongear, F, in combination with the bevel gears, C and C2, and ratchet wheel, A, all arranged to operate substantially in themanner and for the purpose set forth.
Becond, I claim the gear, D, on theshaft, B, incombination with the brevel gears, C and C2, pinlon, I', and arm, E, when the said goar engages with the pinlon, J, and arm, E, when the said goar engages with the pinlon, J, and ritch wheel, H, and ritch pinlon, J, and ritch weight, L, arranged and made to operate substantially in the manner, by the means and for the purpose set forth.
Fourth I claim the econnecting rod, m, or the equivalent, in combination with the friction weight, L, arranged and friction weight, L, artanged and friction weight, L, artanged to operate substantially as and for the purpose set forth.
Fourth I claim the connecting rod, m, or the equivalent thereof, in combination with the archet wheel, H, and friction weight, L, cross lever, M, and a weight or spring, P, all arranged and combined with the pulley, I, ratchet wheel, H, pulley, I, and incition weight, L, and argented.
Seventh, claim the combination of the purpose explained.
Seventh, clai

are substantianty as and for the purpose set forth. 58,946.—CoFFEE MILL.—J. G. Lane (assignor to himself and W. J. Lane), Washington, N. Y. I elaimhaving the outermost ridge, h' of the grinding surface of case, A, solid or without being no ched and extending around the outermost ridge, f, of the corresponding grinding surface of plate. B so as to serve as a barrier to the too read liberate forms the as to serve as a barrier to the too free discharge from of the substance being ground, substantially as herein

58,947.—WOOD-TURNING LATHE.—James E. F. Le-land (assignor to H. A. Leland), New York

City. City. I claim the slide, B, carrying the material to be turned, cam or eccentric wheel, H, sliding tube, I, concentric tube, J, having cut-ters, N, when all arranged together, substantially in the manner and for the purpose described.

and for the purpose described. 58,948.—HINGE FOR MOLDERS' FLASKS.—E. C. Little (assignor to Eveline Little), St. Louis, Mo. I claim the projecting wing, b, and pintle, c, in combination with the male half of the hinge plates, and the female plate with notched corner, and is edge, d, operating together the plates whapled to leon the orrer edges of the cope and drag, substan-tially as described for the purpose specified. 58,949.—ADJUSTABLE FRAME FOR FORMING HOOP WHEN LEONER LOODER to CONSTRUCT to CONSTRUCT to CONSTRUCT LEONER AND THE LEONER (Sociement to CONSTRUCT)

SC,040.—A DJUSTABLE FRAME FOR FORMING HOOP SKIRTS.—Henry S. Loper (assignor to Collins, Peck & Co.), New Haven, Conn. Iclaimthe combination of the band block, B, adjustable upon its support, C, with the bars, D, adjustable in the band block and upon the base, substantially in the manner and for the purpose herein set forth.

58,950.—PIANO-FORTE.—Wm. H. Mason, Boston, Mass., assignor to himself and H. K. W. Palmer, Chelsea, Mass.

I claim the combination of thelever, H, and its flexile connect-ions, a a, with the two octave keys of a piano-forte. I also claim the combination and arrangement of the tongue, I, with the lever, H, its flexile connections, a a, and the two octave keys of a piano-forte.

58,951.—Son CUTTER.—Silas A. Moody (assignor to Philip E. Divine), San Francisco, Cal. I claim a series of circular blades or knives upon a shaft or axle arranged to rotate, as described, in combination with the cover, C, and seat upon the cover, substantially as described.

58,952.—INK-WELL COVER.—George Munger (as-signor to himself and J. W. Shermerhorn), New

York City. Iclaim the semicircular sockets, b orb*, in the bracket ordiskin combination with the gadgeons, a, cast solid with the cover, A, substantially as and for the purpose described. 58,953.-Mode of Sinking Well Tubing.-R. F.

Osgood, Rochester, N. Y., assignor to C. W. Kinne, Cortland, N. Y. I claim the combination of the spiral wing or wings, h, with the

shank, B, and tubing, A, operating substantially as and for the purpose herein setforth.

58,954.—EYELETED BRACE.—Samuel J. Shaw (as signor to himself, Thomas Corey, and Wm. E. C. Worcester), Marlboro', Mass. Said Worcester assigns to said Shaw his right.

to solve be and brace struck or stamped together or in connection on one piece of metal.

from one piece of metal. 58,955.—BRACE AND LACING DEVICE.—Samuel J. Shaw and W. E. C. Worcester (assignors to themselves and Thos. Corey), Marlboro', Mass. Said Worcester assigns to said Shaw his right. We claim the combination of the metallic stay as made with the lacing holes and the arrangement of the lacing so as to go through such holes or eyelets serving to fasten the stay to the upper, the whole being substantially as described, whereby such lacing is shoe while in use. C. D. C. D. C. D. C. W. C.

shoe while in use.
58,956. — CAR BRAKE. — C. W. Singer, Anderson Store, Va., assignor to himself and Abel Land, Rochester, Ohio.
Iclaim, First, The rollers, D D', in combination with the adjustable rubbers, A, and springs, K, arranged in themanner and for the purpese set forth.
Second, I clain hinging the rubbers to the truck plates or frameso as to form inclined planes, thereby allowing the rollers will move back independently on releasing the brake from the wheels, as and for the purpose set forth.
Second, I clain hinging the rubbers and plate, A, to compress the sale rubbers upon the wheels and so that sail rollers will move back independently on releasing the brake from the wheels, 38,957.—WASHING MACHINE — Josish Stubbe, De

58,957.-WASHING MACHINE.-Josiah Stubbs Deatur, Ill., assignor to himself and H. E. Foster,

Macon county, Ill. I claim the combination of the corrugated floor, K, gravitating beater, F, and closed rocking box, A B E, all constructed and arranged to operate in the manner and for the purposes set forth.

Ensura Cont(executors of E. K. Root, deceased), Hartford, Conn. We claim the employment, in combination with the shaving mechanism, of a rotary carriage or bed to which the foremost end of the switch is fastened and by which the switch is pulled or drawn by the cutters during the shaving operation, as hereinbefore described. 58,959.—KEYED MUSICAL INSTRUMENT.—Hubert C.

Baudet, Paris, France.

Latified, First, Prence. I claim, First, The locks, a', attached to and in combination , with the strings of a musical instrument, substantially as and for the purpose hercin specified. Second, I claim the friction rollers, d, in combination with the locks, a', substantially as and for the purpose herein specified. Third, I claim the combination with the rollers, d, or their equivalents, strings, a, and locks, a', of one or more driving cylin-ders, bc, and asystem of keys, f, the whole operating substantially as herein specified. 58.960.—ELECTRO-MAGNETIC ENGINE.—Auguste P.

b8,960.—ELECTRO-MAGNETIC ENGINE.—Auguste P. Berlioz, Paris, Francc. I claim, First, The shaft, F, divided into two insulated parts, turning in insulated boxes, D D', and connected to the bobbin wire or wires, t. all substantially as and for the purpose described. Second, I claim the combination of the above and the disks, G, their bobbins, I, and the rings, u u', when the wires on said bob-bins are connected to the shaft, to each other, and to the said rings, substantially as shown in Figs. 2 and 5, for the purpose specified.

rings, substantiany as shown in Age and a specified. Third, I claim the spring, o, its projection, n, and the roller, m, in combination with a fing, H. Fourth, I claim the spring, o', its projection, m', in combination

Fourth, I claim the spring, o', its projection, m', in combination with a ring, H'. Fifth, I claim the combination with two or more machines con-structed as described, when the said machines are so arranged that when their axles are coupled, by the within described de-vices or their equivalents, alike currents will be simultaneously generated in all the machines.

58,961.—PURIFYING AND SOFTENING WATER.— Servaas De Jong, Paris, France. Iclaim purifying and softening water by silicate of soda and carbonate of soda, or its equivalent, as set forth.

 58,962.—STEAM SAFETY VALVE.—William Naylor, Lorn Terrace, Mildway Park, Eng.
 I claim the arrangement, substantially as hereinbefore shown and described, in safety valves of bentlevers of the first order act-ing in combination with a spring or springs, the whole operating in the manner and for the purpose set forth. 58,963.—MACHINERY FOR FORGING PIPE JOINTS

AND OTHER ARTICLES.—James Alfred Shipton and Robert Mitchell, Wolverhampton, Eng. Weclaim the construction and arrangement of machinery or pparatus for shaping and forging metallic articles, substantially shereinbefore described and illustrated by figs. 1, 2 and 3, of our rawings.

REISSUES.

2,375.—APPARATUS FOR CARBURETING GAS.—J. F. Boynton, Syracuse, N. Y. Patented Sept. 5, 1865.

1000. I, First, In an apparatus for carbureting gas, by charging le vapors of hydro-carbon liquids, the use of wood, as a agent, to draw up the liquid and expose it to evapora

capitally agent, to traw up the injunt and expose it to evapora tion. Second, In a carburcting apparatus as above described, I claim the use of wood in combination with cotton wicking or other fibrous material, to produce the capillary action necessary to promote rapid evaporation, substantially as described. Third, I also claim so arranzing and constructing the cotton wicking or other fibrous material, and its wooden supports, that as the surface of the liquid in the carbureting vessel descends, the while increasing, substantially as described. Fourth, I also claim a combination of wood and wicking, or other fibrous material, so arranged as to form a movable frame or cage, setting into a box, and producing a compound of capillary action of porous and fibrous material, substantially as described.

2.376

6.—APPARATUS FOR CARBURETING GAS.—John F. Boynton, Syracuse, N. Y. Patented Sept. 25, 1866.

20, 1000. I claim, First, The automatic filling reservoir, D, in combina-tion with the tube, C, substantially as described. Second, The base board, H, in combination with a series of wooden pegs inserted therein, and supporting fibrous material, to produce a compound capillary action, as and for the purposes described.

wooden pegs inserted therein, and supporting horous materian, to produce a compound capillary action, as and for the purposes described. Third, I claim the wooden pegs, I, wound with cotton wicking, J, or other equivalent fibrous material to produce a compound capillary action as described. Fourth, I claim the base board, H, wooden pegs, I, and cotton wicking or other fibrous material, J, so combined, constructed and put together, as to form a movable frame or cage which may be inserted into the carbureting box and removed therefrom, to-gether, as one entirestructure. Fith, I claim securing the fibrous material at the lower end of the peg, by driving it with the peg into a perforation of the base board, substantially as described. Structed and arranged substantially as described. Seventi, I also claim so constructing and arranging said inter-pal box, K, that when set in the main carbureting box it will

© 1866 SCIENTIFIC AMERICAN, INC

divide the carbureting chamber into an outer and inner apart-ment, substantially as described. Eighth, 1 also claim constructing said box, K, withits partition walls of wood or any other porous substance which will produce capillary action.

capillary action. 2,377.—GAS BURNER FOR COOKING, ETC.—Adolph Geiss, Buffalo, N. Y. Patented Nov. 28, 1865. I claim, First, The draft and mixing chamber. A in combina-tion and arrangement with the perforated dome, D, perforated shell, e; and metallic base, A2, including gas pipe, F, for the pur-poses and substantially as described. Second, In a gas burner for cooking and heating purposes, I claim the thimble, C in combination with the wire gauze dome, D, substantially as described. Third, The combination of the thimble, C, wire gauze dome, D. apper thimble, as et forth. Fourth. The combination of the outer thimble, e, the inner and upper thimble, c. Hoom — Benjamin Oldfield Newsyk N I

as set forth.
2,378.—Loom.—Benjamin Oldfield, Newark, N. J Patented Jan. 23, 1866. Antedated Jan. 17, 1866. (Div. A.)
I claim the application to a batten of two or more shuttles for plain weaving, and one or more figuring shuttles, to operate in conjunction, substantially in the manner and for the purpose herein set forth.
2,370. Locare Data Control of the set of the s

2,379.—LooM.—Benjamin Oldfield, Newark, N. J. Patented Jan. 23, 1866. Antedated Jan. 17, 1866. (Div. B.) I claim an upright shuttle criven by rack and pinion or in any other suitable manner and which is grooved on each of its sides, and the body part of which is cut away for the quill and provided with a guard, g, substantially in the manner and for the purpose herein set forth.

2,380.—Suspended.

2,381.—METHOD OF OPERATING CUT-OFF VALVES.—
G. H. Reynolds and M. A. Hinckley, Mystic Conn., Admstr. to D. B. Hinckley, assignee of G. H. Reynolds. Patented Feb. 3, 1857.
First, I claim automaticallyshutting a cuff-off valve carried on the steam valve, so that so soon as the valve commences to close it will continue its closing motion independent of the motion of the engine, substantially as and for the purposes herein speci-fied.

ed. Second, I claim the inclined dogs, H H, arranged to operate connection with a cut-off valve, F, carriedon the steam valve, substantially in the manner and for the purpose herein set

DESIGNS.

2,494.-PAPER HANGINGS, ETC.-Charles Husband, Taunton, Mass.

Inventions Patented in England by Americans.

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

PROVISIONAL PROTECTION FOR SIX MONTHS.

2,224.-REPEATING FIRE-ARM.-Oliver F. Winchester, New Ha ven, Conn. Dated Aug. 29, 1866. 2,236.—SofTENING, DISINTEGRATING, AND BLEACHING VEGE-TARLE FIBERS.—James M. Mellor, New York City. Dated Aug. 30, 1566.

30, 1366. 2,242.—MACHINERY FOR HULLING AND CLEANING COFFEE AND OTHEE BERFIES OR SEEDS.—William V. V. Lidgerwood, a citizen of the United States, now Charge des Affsires at Rio de Janeiro, Empire of Brazil. Dated Aug. 30, 1866. 2,247.—APPARATUS FOR BORING BOILER TUBE HEADS, DRILL-ING ANGLE HOLES, OR CUTTING CIRCULAR GROOVES IN METALLIC SUBSTANCES.—Janes Miller, New York City. Dated Aug. 31, 1866.

2,264.-HOOPSKIRT.-Augustus J. Colby, New York City. Dated Sept. 3, 1866. 2,338.—STEAM JET.—David M. Nichols, New York City. Dated Sept. 17, 1865.

2,389.-FELTING OR SIZING HAT BODIES, AND MACHINERY THEREFOR.-Philip W. Somers, Danbury, Conn. Dated Sept. 17, 1866.

PATENT OFFICE. PATENTS GRANTED FOR SEVENTEEN YEARS. YEARS. MUNN & COMPANY,

In connection with the publication of the SCIENTIFIC AMERI-CAN have acted as Solicitors and Attorneys for procuring "Let-ters Patent" for *new inventions* in the United States and in all foreign countries during the past *toenly years*. Statistics show that nearly ONE-HALF of all the applications made for patents in the United States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in foreign countries are procured through the same source. It is almost needless to add that, after so many years' experience in preparing specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office. Judge Mason, formerly Commissioner of Patents, says, in a letter

addressed to us:-"In all your intercourse with the Office, I always observed a marked degree of promptness, *skill*, and fidelity to the interests of your clients."

Ex-Commissioner Holt says:-"Your business was very large, and you sustained and justly deserved the reputation of marked ability and uncompromising fidelity to the interests of your clients.

Ex-Commissioner Bishop says:-" I have ever found you faithful and devoted to the interests of your clients, as well as *eminently qualified* to perform the duties of Patent Attorneys."

EXAMINATIONS.-If an Inventor wishes our opinion in regard to the probable novelty of his invention, he has only to send us a pencil or pen-and-indix sketch of it, together with a description of its operation. For an Opinion, without examination at the Patent Office, we make no charge, but if a

PRELIMINARY EXAMINATION AT THE PATENT OFFICE is desired, we charge the small fee of \$5. This examination involves a personal search at the Patent Office of all models belonging to the class, and will generally determine the question of novelty in advance of an application for a patent. Up to this tinewe have conducted over THITEENTHOUSAND Preliminar Examinations, thus showing a more intimate knowledge of inven tions at the Patent Office than can be possessed by any other

If an inventor decides to apply for a patent, he should proceed

son or 1rm

at once to send us by express (charges prepaid) a model not over one foot in size, and substantially made. He should also attach his name and residence to the model. PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the

following being a schedule of fees:following being a schedule of fees:— On filing each Caveat. On filing each application for a Patent, except for a design. On speat to Commissioner of Patents... On application for Reissue. On application for Reissue. On filing a Disclaimer Design (three and a halfyears). On filing application for Design (fourteen years). On filing application for Design (fourteen years). On filing application for Design (fourteen years)... On filing application for Design (fourteen years)... In addition to mith these are some small seven extends to fourteen years).

- 315 - 第30

In addition to which there are some small revenue-stamp taxes Canadians have to pay \$500.

FOREIGNPATENTS.-Messrs. MUNN & CO. have had more experience than any other solicitors in this country in procuring foreign patents, and have old-established agencies in London, Paris, Brussels, Berlin, Vienna, and other large cities. Foreign business should never be intrusted to other than experienced agents.

If an investor wishes to apply for a patent, all he has to do is to write to usfreely for advice and instruction, and he will re-ceive prompt attention. If his invention contains any patentable features, he can depend upon getting his Letters Patent. All communications considered confidential. Send models and fees addressed to MUNN & CO.,

No. 37 Park Row, New York.

PATENT CLAIMS .- Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name so the patentee and date of patent, when known, and inclosing \$1 as a fee for copying. We can also furnish a sketch of any pat-ented machine to accompany the claim, at a reasonable additional cost. Address MUNN & CO., Patent Solicitors No. 37 Park Row, New York.

NEW RATES OF ADVERTISING:

FORTY CENTS per line for each and every insertion, pay-able in advance. To enable all to understand how to calculate the amount they must send when they wish advertisements published, we will explain that eight words average one line. Engravings will not be admitted into our advertising columns, except on payment of one dollar a line each insertion, and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may deem objectionable.

WANTED-THE ADDRESS OF MAKERS of Clock Cases suitable for regulators or large house clocks. Address [1*] E. N. BYRAM, Sag Harbor, Suffolk co., N. Y.

TO MEN WISHING TO SPECULATE—CAN find a good chance to buy a few valuable Patents. Call and see. No. 11 Chamber-st., Room 1. [1*] R. A. BONNER.

WANTED-A GOOD SECOND-HAND Slide Rest. Address, stating size, price, etc., G. D. C., Box 2,973, New York Post-office.

BALING PRESS FOR COTTON, etc., just pat-inted. Address C. C. CONVERSE, Inventor, 16 Wall street, New York, for information.

MACKENZIE CUPOLA FOR SALE, SIZE 18 3] BROWN, SEIBERLING & CO., Massillon, O.

SMALL MACHINE SHOP FOR SALE-Locar tion near Depot and Steamboat Landing. Enquire at Ward's hospital, foot of Center.st., Newark, N. J.

WANTED—The Agency for some valuable in-vention of General Utility. Address, with particulars, C. M. WHITE, 40 Hanover street, Portland, Me.

INCRUSTATIONS prevented, fuel and repairs saved, clean bollers guaranteed, by Winans's Incrustation Pow der, 11 Wall-st., N. Y. U years' references. Ecware of imitations.

TO CAPITALISTS.—FOR SALE— A most valuable and useful Patent on Machines for Pulling up Cotton Plants. Address 18 1] J. M. C., Post-office Box773, New York.

DROP, FOOT, HAND, AND JEWELER'S Presses Lathes, Shapers, and other Machinery. Also, one medium sized Second hand McKenzie's Blower, at Newark Man. ufacturer's Depot, O. BARNETT, Supt., & Center St., N.Y. 182*

A MECHANICAL ENGINEER WISHES A Situation as Draftsman, Assistant Manager, or Manager First-class references from Germany and England. Address 18 1] M. M., Box 1,306, Elmira, N. Y.

TO INVENTORS.—Those having Patents grant-ed, and wishing to sell State and County Rights, can find good sale for them at 11 Chambers street, Room 1. Bring your Models, 1*1 R. A. BONNER.

PORTABLE AND STATIONARY STEAM Engines and Bollers, Circular Saw Mills, Mill Work, Cotton Guis and Corton Gin Materials, manufactured by the ALBERT-SON & DOUGLISS MAURINE CO., New London, Conn. 19 tf

TO MANUFACTURERS.-

TO LET-The two floors (ground and basement), each 60x 00 feet, of building corner 38th street and 1st Avenue. If required, Steam Power provided. 1*] B. L. SOLOMON & SONS, 369 Broadway.

THE SHAW & JUSTICE HAMMER Is the Cheapest and Best in the Market. Price from \$275 upward. P. S. JUSTICE. 18 13] 14 North Fifth street, Philadelphia, Pa.

MEASURING AND REGULATING TEM-

M BASURING AND REGULATING TEA-The undersigned has an invention designed to accomplish the noive object. It has power ranging from half an quade to inteen hundred 125, M necessary. Its simplicity and durability cannot be surpaged. Hs application for various purposes unitaited. See spice in Scientific American, pages 15, 300, 230. Parties wishing to become interested can do so by addressing [8] M. V. B. BUELL, Newcastle, Del. 4

TO CAPITALISTS.—FOR SALE— A most valuable and useful Patent on Machines for Pulling A most valuable and useful Patent on Machines 101 1 units p Cotton Plants. Address 18 1] J. M. C., Post-office Box 7/3, New York.

HAMMERS! HAMMERS!! Power Hammers for all purposes, from making shoe knives to water-wheel shafts. Prices \$275 up. All Iron; run light, and take little room. P.S. JUSTICE, 18 13] 14 North Fifth street, Philadelphia, Pa.

VALUABLE AMERICAN AND ENGLISH Patents Manufactured and Sold for cash on Commission. Consignments respectfully solicited. Address KENYON & CO. 151 Broadway, New York. REFERENCES :- Dar 'el Bustinct, Ex-President Citizens' Bank, New York; H. M. We 'e, Director Broadway Bank, N. Y. 1*

MAGNESIUM LAMPS FOR THE MAGIC LANTERN; SKATING PARKS, SCENIC EFFECTS, TABLEAUX, etc. Cive a steady East, greatly superior in power and guality to the culcium Light. Price, \$35. AMERICAN MAGNESIUM CO., 18 8] SLiberty Square, Boston.

STEREOPTICONS AND MAGIC LANTERNS, with improved Lime Light, and over 2000 Artistically Colored Protographic Views on Glass—a canical Exhibition, usaily manag-ed, and slight expense. Priced and Illustrated Catalogue free by mail on application. 49 Nassau street, New York, 1*] (Of late firm of McAllister & Bro., Philadelphia.)

FOR SALE-

[30] SALL— Engine Lathe, Screw Cutting, nearly new, in perfect order. d 17 feet 5 inches, turns 13 feet 8 inches, 30-inch swing, turns 20 ches over rest, with 20-inch four-jaw chuck, large and small face ate, conter and follower rest.

217 and 219 West 26th street, New York City.

DIVIDERS, BOW PENS, DRAWING PENS Rules, Seales of Equal Intris, Tape Measures, Surveying Chains Drawing Yungr, Cases of Mathématical Instruments, etc., etc. Descriptive Pri & List sent by mail free of charge. T. H. MCALLISTER, Optician, 49 Nassaust, New York, 19] (Of late firm of McAllister & Bro., Philadelphila.)

OLMSTED'S PATENT IMPROVED SPRING TOP.—The spring cannot be set or injured by pressing upon it to expel the oil, Price for No.1, it. Machinist's size, \$3 60 per doz. Send for Circular, with price list for Copper and Brass, and other sizes of Tin. Workmanship is warranted. Illustrated in Scientific American, Oct 27. Address 18 tf] L. H. OLMSTED, Stamford, Conn.

KEEN BROTHERS—Manufacturers of Steam al kinds of Brass work. All kinds of Gages repaired promptly. Model and Pattern Making. Supplies bought on Commission. Send for Circular. REFERENCES:-U.S. Local Inspectors, N.Y. and Phila; City Inspector, Metropolitan Police Headquarters. 184*

A NDERSON & SCHERMERHORN, PATENT and Model Makers, Gearing Cocks, Valves, and Engines. Patterns of every description. Rear No. 47 Ann street, New York, second floor.

C. OSGOOD, J.

J. C. OSGOOD, Patentee and Proprietor of the "TROJAN HOSE COUPLING," Troy, N. Y. The above superior and well approved Hose Couplings are being manufactured by Messrs. W. & L. K. Gurley, at their extensive Brass Foundery, and celebrated Engineer's and Surveyor's In-any quantities, on short notice, on application made to them by letter, or otherwise. For special Rights to manufacture them, ap-plication should be made to the Patentee. Town, City, County, and State Rights to manufacture them, will be granted on liberal terms, Price of the Couplings is as low as that of any other coupling of the same material and weight. 18 2*

CHARLES GOOCH, DEALER IN MACHINISTS' TOOLS, No. 192 Main street, between 4th and 5th, Cincinnati, Ohio. в

Bangor Tools,	Pipe Tongs,
Providence Tools,	Geared Drills, Ratchet Drills,
Calipers and Dividers,	Ratchet Drills,
Screw Wrenches,	Drill Chucks,
Maydoles Hammers,	Patent Twist Drills,
Stocks and Dies,	Plug and Taper Taps, Machine Screws,
Black Lead Crucibles	Machine Screws,
Stubs's Too	ls and Files.
Orders by mail promptly	attended to. 18

NEW ANNUAL OF PHRENOLOGY AND PHYSIOGNOMY for 1867, Illustrated. Contains-How to Study Phrenology: Names of the Faculties: Thomas Carlyle: Civilization and Beauty; A Bad Head; Matrimonial Mistakes; Handwriting; Eliza Cook; Rev. James Martineau; Rev. Dr. Pu-sey; Froude, the Historian; Thiers, the Statesman; John Ruskin, be Art-Writer; Rev. Charles Kingsley; Bashfuluess-Difficence-Timidity, Cause and Cure; Ira Aldridge, the Tragedian; Society Classided. Δ capital thing-only 20 cents. Address
 18 2] FOWLER & WELLS, 389 Broadway, New York.

QUR YOUNG FOLKS:

This Monthly, begun in January. 2865, has already won the repu-tation of being "Hae best Juvenile Magazine published in any land or language." Provinent Educators, distinguished Ckrywnen of all denominations, and the Tress, generally, have commended it in the highest terms. Its contents are always thoroughly incr-esting and healthy, at once variously attractive and useful. Among its contributors are the most eminent American writers, and It is profusely illustrated from designshy the best American etists. Full-page Illustrations are now given in overy number. An ample Department of Evening Enterthoment and Correspond-ence makes Our Yourng Fortzs a household delight. Tarans: \$200 a year in advance: Three Copies, \$500, Five Copies, \$400; Ten Copies, \$1500; Twenty Copies, \$500, and a copy gradis to the person procuring the club. 171

EVERY SATURDAY!

This popular Weekly reproduces promptly for American read-ers the best and most.readable portions of European periodicals. These embrace Serial Tales, Short Stories, Essays-Biographical and Descriptive.-Poems, Sketches of Travel and Adventure, Lit-erary Intelligence, and popular papers on Science. Translations from the admirable Firench periodicals are a provincent feature. Among the authors represented in EVERY SATURDAY are many of the wheset and withties writers of Europe. EVERY SATURDAY contains weekly 40 double column large octavo pages. TERMS:-Single Number, 10 cents; Yearly Subscription, 55 00 in divance; \$400 a year to subscribers for any other periodical pub-lished by TICKNOR & FIELDS. Monthly Parts, 50 cents a number. Yearly subscription, ent or a triv Weekly Part. 17 1]

THE PRACTICAL DRAUGHTSMAN.

THE PRACTICAL DRAUGHTSMAN'S BOOK of INDUSTRIAL DESIGN, and Machinist's and Engineer's Drawing Companion; forming a complete course of Mechanical Engineering and Architzctural Drawing. From the French of M. Armengaud the elder, Prof. of Design in the Conservatoire of Arts and Industry, Paris, and MA. Armengaud the younger, and Anuofoux, Givil Engineers. Rewritten and arranged with additional matter and plates, selections from and examples of the most useful and generally employed mechanism of the day. Py William Johnson, Assoc. Inst. C. E., Editor of "The Practical and infusion, Assoc. Inst. C. E., Editor of "The Practical and ifty wood-cuts. A new edition, Legists for Thlaid Pavements, Cellings, and Balconics, Plate II. Sweeps, Sections, and Moldins, Plate II. Applications, Designs for Thlaid Pavements, Cellings, and Balconics, Plate II. Sweeps, Sections, and Moldins, Plate UI. Corring Sections, with Applications–Conventional Colors, Composition of Mixture of Colors, Plate X. Continuation of the Study of Projections, State X. Continuation of the Study of Projections–Use of Sections–Conventional Colors, Composition of Mixture of Softaces, with Applications–Conventional ato of the Study of Projections–Use of Sections–Conventional Colors, Composition of Mixture of Suffaces, with Applications–Conventional advections and Constructions and Constructing a wooden model or pattern of a coupling. Elementary applications – mails and chairs for railways, Flate XII. Rules and Practical Data–Strength of Material, Resistance to fourne, Raistance to rostice, The Intersection of Cylinders and Conses, Plate XV. The Dehneation and Development of Suffaces, with Applications is topcocks, Plate XVII. Rules and Practical Data–Strength of Material, Resistance to Gense, Plate XVI. The Intersection of suffaces, applications is topcocks, Plate XVII. Rules and Practical Data–Strength of Material, Resistance to Guestruction of a coupling. Flate NV. The Dehneation and Development of Suffaces, with Applications is topcoccks, Plate XVII. R

movements—Ine defineration of eccentries and cams, Plate XAV, Hules and Practical Data—Mechanical work of effect, the simple movers, calculation for the brake, the fall of bodies, momentum, central lorces.
 Elementary Principles of Shadows,—Shadows of Prisms, Prramids and Cylinders, Plate XX VI. Principles of Shadows, Plate XX VI. Continuation of the Study of Shadows, Plate XX VI. Continuation of the Study of Shadows, Plate XX VI. Trunciples of Shading, Plate XX VI. Continuation of the Study of Shadows, Plate XX VI. Continuation of the Study of Shadows, Plate XX VI. Continuation of the Study of Shadows, Plate XX VII. Tuscan Order, Plate XX IX. Rules and Practical Data—Pnups, the hydrostatic principles, forcing pumps, lifting and fording pumps, its charge of water through different offices, garging of a water course of uniform section and fal, velocity of the bottom of water our es, calculations of the discharge of water through overshot outlets, to determine the depth of the outlet, outlet with a spout or duct.
 Application of Shadows to Toothed Gear, Plate XXXI. Application of Shadows to Screws, Plate XXXI. Application of Shadows to Screws, Plate XXXI. Application of Shadows to a Boler and its Firnace, Plate XXXI. Application of Shadows to a Boler and its furnace, Water wheels, with plane floats, and a circular channel, width, diameter, velocity, number, and capacity of the buckets, useful effect of the water wheels, with plane floats, and a circular channel, width, diameter, velocity, number, and capacity of the buckets, useful effect of the water wheels, water wheels, with redical floats, water wheels, water wheels, detineasion Machinery, Plate XXXII. Steam doording and expansion valve Rules and Practical Data—Hydraulic mokets, turbines. Remarks on Machine Tools.
 The Study of Machinery and Sketching—Various applications and combinations: The Sketching of Machinery, Plates XXXV. State Wheels, Construction, Movements of the Distribution and Expansion Valve. Rul

The above, or any of my Books sent by mail, free of post-at the publication price. 13" My New Catalogue of Practical and Scientific Books, com-plete to Oct. 1, 1866, will be sent free of postage to any one who will favor me with bis address.

	HENRY CAREY BAIRD.
	HEART CARET DAIRD
	Industrial Publisher.
1811	406 Walnut street. Philadelphia.

SOLID EMERY WHEELS - SILICATE OR Vulcanite. 15 4*] N. Y. Emery Wheel Co., 94 Beekman-st.

TO CAPITALISTS.—FOR SALE— A most valuable and useful Patent on Machines for Pulling up Cotton Plants. Address 18 1] J. M. C., Post-office Box 773, New York.

TREATMENT OF SUGAR CANE.—The Sub-gage with parties for the sale or use of his process for extracting grup from cane, patented Aug. 28, 1866. The sirup made by my Steaming Process is considered equal to Golden Sirup, and selfs readily at the same price. With a single apparatus one man can prepare in one day enough for 75 gallons of sirup. The patent is unquestionably very valuable, and reliable parties can make favorable terms by inmediate application to 18 3°] J. C. BELL, Patentee, Pawnee City, Nebraska.

M. LANE & CO., M. DANE & CO., M. Did C Janetro, Brazil, Importers and Dealers in Ameri-car, Goods, give especial attention to the introduction of American Machinery, Agrical tural implements, etc. Having many years' ex-perience, and large connections in the various Ports and Provinces of the Empire, they are enabled to obt aim patents for, and dispose of, wilk kinds of American Machinery and Manufactures suitable to the country and elimate. Represented in New York by 19.3°; O. C. JAMES & Count

r loom; Plate I, Dupli arine engincs. Drawing Instruments.

ANUFACTURERS WANTED FOR THE "Ohio Mower and Reaper," now used by over \$0,000 farm-ere. [15 4*] J. A. SAXTON, Canton, Ohio.

SPOKE LATHES, TENONING AND SPOKE Polishing Machines, of an approved pattern, manufactured by J. GLEASON, 1030 Germantown Avenue, Philadelphia, Pa. 16 4

TELESCOPE FOR SALE. --Object Class-diplicate of Packadelphia High School Instrumen Mounting cost over \$1,200; will be sold for \$500. Aduress "W., Box 125, Bordentown, N. J. 15 4*

GROVER & BAKER'S HIGHEST PREMIUM ELASTIC Stitch Sewing Machines, 495 Broadway, N.Y. 1 tf

SHAPERS, ENGINE AND HAND LATHES. All kinds of Machinery and Gear Cutting made to order. Y7 3*1 STOCKMAR & DUVINAGE, 580 Hudson st., N. Y.

J. DONALDSON B DILLA Mills. For Mills, Terr tory, or Circular with full description of Mills, address J. DONALDSON & CO., Rockford, III. DON ALDSON'S SELF-FEEDING, DIS-harging, and Separating Hominy Mills. For Mills, Terri-

RUBBER MACHINERY WANTED IMMEDI-ately. 1 Three-Roll Callender, 40-in. face. 1 Grinding Mill, animbly Geared. 1 Fluided Washing Machine. A pply to HENIT G. TTER, 60 Fearl street, Boston.

INCRUSTATIONS prevented by Winans's In-crustation Powder. Ten years a Standard Article; no foam crustation Powder. Ten years a Standard Article; no foam-ing or corregion. Success gnaranteed; cost about ten cents daily to keep boller clean. H. N. WINANS, 11 Wall st., N. Y. 17 3*

BROUGHTON'S Compression GAGE COCKS BROUGHTON'S GR ADUATING LUBRICATORSII BROUGHTON'S GR ADUATING LUBRICATORSII BROUGHTON'S TRANSPARENT OIL CUPSI All warranted to be more simple in construction, easier to man-age and keep in order, more economical, durable and effective than any others in the market. Send for illustrated catabo gue to 1741 BROUGHTON & MOORE, 41 center st.

HAND RAILING SIMPLIFIED. 3d Edition. 500. This is the only work in the English language which has made the Art of Hand Railing perfectly intulligible to the Carpenter. The undersigned is ulterprepared to test tais avatem in the most public manner sgainst any method known to either stair builder or author in the United States for \$1000 or \$1000. 17 3] ROBT. FIDDELL, 1214 Hancookst., Philadelp 1a.

ORAUTOR IN TO BE AND LELL, AND LELL,

New York House, 17 2* GILCHRIST, PIES & SHIFMAN, 40 Broad street.

FOR ENGINE BUILDERS' AND STEAM Fitters' Brass Work, address 525*] F. L'INKENHEIMER, Cincinnati Brass Works.

TOBACCO.—FINE CUTS, SMOKING, LFAF and Lump, can be dried perfectly without shorts or crisping. In 2 to 4 hours, by BULKLEY'S PROCESS. For circulars address L.E. HOI, DEN, Case Block, Cleveland, O. (16 3*

PARIS EXPOSITION.

DR. THOMAS W. EVANS,

Of Paris, proposes to make for the

EXPOSITION UNIVERSELLE,

FXPOSITION UNIVERSELLE, To be held in Paris in 1867, a collection of material, which may serve to illustrate the surgical and sanitary history of our late war, as well as indicate the present condition of surgical mechan-ics in this country. The Exhibition will be made in concurrence with the Geneva International Committee, and the French Central Committee (for the amelioration of the condition of the wounded upon the field of battle), and will becompetitive with similar collections formed Mider the direction of other national committees. T would, therefore, call the attention of all interested in hos-pitals, hospital tents, hospital furniture, ambulances, medicine wagons, surgical instruments, or any other military of civil sur-gical appliance, to a plan which will secure for these articles or plan, or models of the same, the best possible exhibition, irree of any expense to the contributor. When articles are costly, or of peculiar interest, or are likely to e addressed, for additional information, a two. 19 William street, New York, care of George H. Mercer. 16 3⁶]

ETS, VOLUMES AND NUMBERS.

(Old and New Series) can be supplied by addressing A. B. C., Box No. 773, care of MUNN & CO., New York.

FOR WOODWORTH PATENT PLANING AND MATCHING MACHINES, Patent Siding and Re-sawing Machine, address J. A. FAY & Co., Cincinnati, O. 3 ly

Wheel for sale at the Eagle Iron Works, Buffalo, N. Y. b5 8*]

TO ENGINE BUILDERS.— Ross's Celebrated Patent Oil Cupsfor Cylinders or Engines, Brass and Iron body, Globe and Check Velves, Gage Cocks, Whistles, etc., on hand and made to order. Price list sent on ap-plication. 15 4*] Lehigh Valley Brass Works, Bethlehem, Pa.

OIL! OIL!! OIL!! PEASES Is: roved Engine Signal, and Car Oils, indorsed and Encountering and found in no other cit. It is offered to the public upon the most relative, and the order cit. It is offered to the public upon the most relative, the order cit. It is offered to the ing and barming, and found in no other cit. It is offered to the public upon the most relative, the order cit. It is offered to the and charger than any other, and the order with an effective of the several tests, pronounces it "superior to any other the any offer and Man-neged for machinery." For sale only by the Inventor and Man-metering to find the order with the the sufficiency of the set of the sufficiency of the order of the world. 2tf

HARRISON BOILER. NO MORE DESTRUCTION OF LIFE OR

PROPERTY.

The use of the above steam generator is the ONLY SAFEGUARD AGAINST DESTRUCTIVE EXPLOSION

Office of William Sellers & Co., Philadelphia, Aug. 15, 1866.

Philadelphia, Aug. ..., Dear Sir:-We bave your favor of the 9th inst., and may say in reply, that we have now had the "Harrison Boiler" in constant use in our Works for nearly two years. It has given us great sais infaction. We consider it quite as economical in the use of frield as any boiler we have used, or with which we are acquainted, and are satisfied that it is much safer than any boiler made. Jours traiv, WM.SELLERS & CO.

Philadelphia Rolling Mill, Kensington, Philadelphia, Aug. 13, 1866.

Kensington, Fulkalciplita, Aug. 18, 1560. Mr. Joseph Harrison, Jr.: Dear Sir — I will say in reply to yours of the 9th inst., that I have had one of your Boilers almost in constant use over one of my Fundaling Furnaces for over eighteen mouths, and in all that time it required no repairs, with the exception of changing a few light boils for heavier ones, and it is now running without any signs of leaking or want of repair, apparently as good as when first put up. I think I have just ground s, from the experience I have had, for recommend them as a good and safe boiler, and one that generates steam very fast. I feel condicant the' 1 get hearly double the upatity of steam from this boiler that I do from any other Pad-ding Furnace In my Mill that us two Cylinder Boilersover them. I believe the day is not far distant when they will be in general use in Iron Manufacturing establishme fits. Yours respectfully shme nts. Yours respectfully, STEPHEN ROBBINS,

Artisan Hall,611 and613 Sansom street, Philadelphia. Mr. Joseph Harrison, Jr.: Dear Sir:-We take great pleasure in testifying to the merits of your Boller, as a generator of steam, the confidence we have in its safety, its economy of fuel, and also of space for its erection. It has now been in successful operation more than a year, without the necessity of any repairs, and our confidence increases with its usc. We suit alay wy coustler it a privilege to exhibit and explain its merits to any who may wish to examine it. Respectfully, etc., (HEO, W. SIMONS, BRO. & CO.

Philadelphia, Aug. 9, 1868.

Philadelphia, Aug. 9, 1868. Mr. Joseph Harrison, Jr.: De ar Sir:-In reply to your communication respecting our opin-ion of the "Harrison Boller," we would state as follows: We have had one of your Boller inconstant use fortwenty two (22) months, during which time it has supplied steam to a 6-horse Engine, driv-ing about seven lathes and several other power tools. It is per-rectly tight and freefrom leakage; takes up less room than an or-icarry Boller; and as to its economy in thel, you can best judge for yourself, from the following statement; During the past year it has burned from 50 to 60 tons Pea Coal, each week averaging 6% to 7 days. We can truly recommend said Boller, from our own experience, assafe, rcliable, and economical. Troly yours, TAWS & HARTMAN, 1287 North Front street.

Office of the Salem Coal Company, Philadelphia, August 16th, 1866.

Philadelphia, August 1064, 1000. Joseph Harrison, Jr., Esq.: Dear Sir.-After having your cast-iron oller in use at the Collie-ry of this Company for more than a year, it gives me pleasaure to start that its operation has been very substance ry. In the im-portant point of economy of fael it is reported to be supertor to any other Boller we have in use, and as regards its attrictly front de-structive explosion, it certainly has no equal among sil the vari-ous totms of bollers that have come under my notice. Very truly. JNO. C. CRESSON, Pres't.

Germantown, Aug. 16, 1866. Mr. Joseph Harrison, Jr.: Tobar Sirt-About four months ago, we put in one of your "Har-rison Boliers" and it gives us much pleasure to be able to state that, as a safe steam generator, in its general economy in fuel, time, etc., we consider it the best Bolier now in use. Our Bolier is 50 horse-power; our Englie has a 10-inch cylinder, with a 6-inch stroke: the cost of running this, and almost always at its utmost capacity, is about two dollars per day. In fact, we consider your Bolier is excellent in its services, saile from its safeness from ex-plosen and its real economy, that we could not and would not do without it. It will airord us much pleasure to show the "Harrison Bolier" to any one who may call at our Works, where they can daily see it in gractical operation. SFI.Sith, CHOOK & CO., Manufacturer of Edge Yools, Hsunners, etc., Ar at-st., Germathown, Philadelphon. New York, August 15th, 1866.

New York, August 15th, 1866. Mr. Joseph Harrison, Jr., Philadelphia, Pa: Dear Sir:-We take pleasure in informing you that the Boller purchased from you, which we have had in use about five months, has given the best satisfaction, and has borne out ever thing you claimed form you, which we have had in use about five months, has given the best satisfaction, and has borne out ever thing you claimed form you. We consider the saving of fuel as being very kreat compared to ordinary bollers. If we had need of more steam ca-pacity, we should most certainly use your Boller in preference to any other. You are at inberty to use tills, if it will be of any ser-vice to you. <u>Jours truly</u>, UNITED STATES WATCH CO., F. A. GILES, Pres't.

UNITED STATES WATCH CO., F.A. GILLE, A.G. Pennsylvania Hospital for the Insane, Polladeiphia, Augustil, 1866. My Dear Sir:-In my annual Report of this Institution, for 1865. Istated my high estimate of your Boller, for safety, economy, and general efficiency. Additional experience has tended to confirm all that I then said, and if we required additional Boilers, for any pur ose, I should certainly recommend yours. Very truly yours. Ury truly yours. THOMAS S. KIRKBRIDE.

Jos. Harrison, Jr., Esq., Philadelphia

Philadelphia, Aug. 10, 1856. Dear Sir.-The "Harrison Boller" we bought of you, some four months ago, has given us perfect satisfaction. The Roller is pla ed over one of our heating furnaces, and in consequence of the steam pipe connections with our main steam pipe, we have no means of testing its economy in fuel. We believe it to be safer and more economical than the Crinder Boller, and have up hesitation in recommending it as aduitabily adapted for Rolling Mills. Its length, the same as the length of a heating furnace, enabled us to place it mmediately over the furnace, requiring no addition al space, thus a wolding the necessity of locating the fur-naces at an inconvenient distance from the machinery, which the ordinary Cylinder Boller requires. Very traily rours, Very traily rours, VERKAE & MITCHELL.

Philadelphia, Aug. 15th, 1866. Joseph Harrison, Jr., Esq.: Dear Sir:-Before ordering one of your Bollers, we sought infor-mation respecting them from several of our friends who we reusing them. Their testimony was of such a oharacter that we feit no hesitation in adopting it, and it has more than answered our ex-pectations. We recommend them as afe, very economical, and gasly managed; they possess fully all the advantages you claim for them

U. Very respectfully yours, L. MARTIN & CO., Manufacturing Chemists, City Office 1418 outh Wharves.

Atlantic Mills, Ellwood, Atlantic county, N. J., August 13th, 1866. Mr. Joseph Marrison, Jr.: Dear Sir:--We have had one of your Six-slab Bollers in use in our Paper Mill for five months. We consider it unequaled by any other make of boller now in use. With less than one-half the fithe t produces more and drier steam than any boller we ever u ed. 14 4]

omy in fuer, and versally popular

Daily Evening Bulletin, Philadelphia, Sept. 1, 1866.

Yours very respectfully, JAMES B. RODGERS

Daily Evening Bulletin, Philadelphia, Sept. 1, 1866. Dear Sir:--We have one of your31 Horse-power Globular, Five-Slabbed Bollers, known as the "Harrison Boller," in use now near-five months, and as as asfe, reliable steam boller, and for economy of fuel, we think it cannot be equaled. We have a ten horse-power engine, running eight hours per day, with an average saving of 50 per cent in the use of fuel overthe old-style boller. Our Enginer, Mr. George Londge, hashad over thirty years' experience in the management of boller, and he has no besitation in pronouncing the Harrison Boller the "Best" he ever worked.

Very respectfully yours, EVENING BULLETIN ASSOCIATION, 607 Chestnut-st,

Earle Stove Company, Worcester, Mass., Sept. 3, 1866.

Joseph Harrison, Jr.: Dear Sir -- Before purchasing your boiler, we examined with much care the various kinds now in use, determined to get "The Best." After eight months' trial, our experience condusively confirms the correctness of our judgment in making choice of yours. Our President (T. K. Earle), and Treasurer (Ed-ward Earle), who have in their Card Factory, one of the best of tubular boilers, are now putting in one of yours. We refer you to our Engineer, Mr. Frederick Edwards. Tulv yours,

ARLE STOVE CO., SIDNEY SMITH, Supt.

Worcester, Mass., Sept. 3d, 1866. After an experience of twenty years in running the most approv-ed boilers and engines in use, I regard the Harrison Boiler, made by Joseph Harrison, Jr., of Philadelphia, the most economical for ficel, satist, quickes working, and one that will give the steadlest motion to the engine with the least attention. EREDERICK EDWARDS, Engineer, Earle Stove Co., Worcester, Mass.

Worcester, Mass., 9th mo., 6th, 1866.

Worcester, Mass, San Bon, our, and Dear Sir:-We received your letter, and in answer will say, we are highly gratified with Bollers. The one we are using at the Earle Stove Co. has been in operation, since the first of the year, in perfect order. We have just got in operation the last work at our Card Factory, and are running it beside a Tubular of about the same capacity: so far we find a saving of about one-half by aotual measurement. Truly yours

Truly yours T. K. EARLE & CO

Alpine Mills, Howards, Center county, Pa., September 8, 1866

Alpine Mills, Howards, September 8, 1800 Joseph Harrison, Jr., Esq.: Dear Sir, -It gives me great pleasure to be able to inform you that your Boller comes up to the most sanguhacex ecta longs in fact, all that you can possibly claim for it: being economical, safe, and aspecty generator of steam. Since they were first put up in the spring (which, hy the way, was done without having a me chance on the ground, except the massay, according to your plaus, sent gratis, the first leak, trouble, or delay has yet to make its ap-pertance. Steam is keet up from 75 to 90 hbs, for wm. H. King's full Sansom street), 25 horse-power Osciliating figure, with saw dust, there being but a 3-feet ires stack 2 feet dimetter. . I am, dear Sir, yours very respectfully. PERCY H. WHI TE, Agent.

Tam, dear Sir, yours very respectfully PERCY H. WHI TE, Agent. Lincoln Mills. 8. W. cor. 25th and Spruce streets, Philadelphia, Sept. 10, 1666. Joseph Harrison, Jr., Esq.: Dear Sir.-- In reply to your letter of the 9th ult., I would acy vears, and it gives me great pleasure to state that I find it entirely satisfactory. I have head both Cylinder and Tubular Hollors In use, and have consequently been while to compare factor of them with yours. I have two of your bollers of 75 bare-factor of them with yours. I have two of your bollers of 75 bare-factor of them with yours. I have two of your bollers of 75 bare-factor of them with yours. I have two of your bollers of 75 bare-factor of them with yours. I have two of your bollers of 75 bare-factor of them with yours. I have two of your bollers of 75 bare-factor of them with and my engine is 70 horse-power. I do not require more than 56 bas of stream, but would not besidate to run up to 250 lbs. the state of 600 lbs. to the square inch. I know the state tester in my presence to 600 lbs. to the square inch. I know the Bollers. Wy neighebor, with about the same machinery using the steam for power generally, and heating his Mill with exibant steam, informs me that he burns four tuns of coal per day ander his Oylinder Boller, while I used less than two tons per day ander his Oylinder Boller, while Lue and heatied my Mill with live the ingest chard at an onger than any other kind now in mergaired, that it will last far longer than any other thind now in mergaired, that it will last far longer than any other thind now in mergaired, that it will last far longer than any other that I now have any knowledge of. Yours truly. SAMUEL W. CATTELL. Superintendent's Office, Camden and Atlantic Railroad,

Superintendent's Office, Camden and Atlantic Railroad, Camden, N. J., Aug. 21, 1866.

Very respectfully yours, G. W. N. CUSTIS, Supt.

Philadelphia, Aug.10, 1866.

Joseph Harrison, Jr., Esq.: Dear Sir.-Having charge (as administrators) of the Worsted Mills of the late Mr. Samuel Yewdall, at which the recent terri-ble explosion of a wrought-fron boiler occurred, we have decided to avoid a recurrence of such a calamity in the future, and, be-lieving your Boller to be the only one absolutely froe from danger from explosion, and at the same time cylial, if not superior, as a generator of steam, and in economy of furl, to any boller now in see. You will please accept our order, to furnish us for said Mills, two fifty horse-power Boilers, to be used separately or in conjunc-tion. By complying quickly with the above order, you will very much ofilge, Yours truly.

Yours truly, JAMES HUNTER, A Coninistrators, N. R. SUPLEE, A Coninistrators.

Rock Island Manufacturing Company, Charlotte, N. C., August 23, 1866.

Rock Island Manufacturing Company, Charlotte, N. C., August 28, 1866. Mr. Joseph Harrison, Jr.: Dear Shr.-Onr experience with your Boiler warrants us in bear-ing testimony to its superiority over any other with which we are acquainted. Ours is a 100 horse-power boiler, and drivessix sets of woolen machinery, and furnishes steam for our dyeing opera-tions, and for heating the mill. Our fuel is wood, and we use three cords per day to do all our work, whereas, we formerly used that quantity under Cylinder Bollers, merely to furnish steam for our dye house, and heating the mill. Our experience is, that in fifteen minutes after applying the firein the morning, we have on a full head of steam, and our machinery at work. We have had it in use only a few months, it is true, but we pre-some long enough to test its adaptation to our fuel and our work, and have found 'the every respect to come up to your representations. Our Boiler wasset up and put to work by a man who never had seen it done, without the the sight set difficulty. Your Boller commends itself or econ omy in fuel, and its mertis need only to be known to render it uni-versally popular. Very respectfully nours

Very respectfully yours, JOHN A. YOUNG, President.

294

It is simple, easily managed, and perfectly setc. Our Boller bleach-es the stock for, and dries one tun of paper daily, with one cord of pine wood per day. Very truly, McNEIL, IRVING & RICH.

Joseph Harrison, Jr., Esq.: Philadelphia, i.th. Ang., 18 6. Dear Sir:--I am very much pleased with the Boller you put in for me some has or team months ago. If has been in constant use-no trouble-no repairs-no stopping to clean out, and steam can be "got up" in about twenty minutes. It requires legs coal than the Cy linder Boller formerly wed here, although it is doing a great deal more work. I cheerfully recommend it as being and doing all that you claim for it. Yours very respectfully.

Mercantile Printing Rooms, Franklin Building, Philadelphia, 16th Aug., 18 6.

A TMOSPHERIC TRIP HAMMERS made by CHAS. MERRILL & SONS, 556 Grand st. York. They will do more and better work, with less p repairs, than any other Hammer. Illustrated circular in.1 particulars, sent on application. ARE SONS, 556 Grand street, New er work, with less power and Illustrated circulars, giving tf 9

ATHES, PLANERS, AND OTHER TOOLS on handand to order, from Lowell Machine Shop. STEVENSON & PEIRSON, 46 Kilby street, Boston. 6 13*]

THE NONPARIEL WASHING MACHINE.-"A First-class Machine-one that has no rival to our know send for free descriptive circular to. Send for free descriptive circular to. 0AKLEY & KEATING, 184 Water street, New York.

BALL & CO., SCHOOL STREET, WORCESTER, MASS., aufacturers of Woodworth's, Daniell's, and Gray & Wood's laners, Sash Molding, Tenning, Mortisnig, Upright and Vertical naping, Roring Machines, Servil Saws, and a variety of other Ma-ines and a raticles for working wood. Send for our Illustrated Caralogue. 151*

CHOP ROOMS AND POWER FOR RENT OF D almost any size, suitable for any manufacturing bus Tools can also be rented, all ready to work. Also, large is Shop, with Power Blast. Address the "Merrill Patent Fire Manufacturing Company," Baltimore, Md.

PORTABLE STEAM ENGINES, COMBINING The maximum of efficiency, durability, and economy with the minimum of weight and price. They are widely and favorably known, more than 300 being in use. All warranted satisfactory or no ale. Descriptive circulars sent on application. Address J. C. HOADLEY & Co., Lawrence, Mass. 1 tr

TURBINE WATER WHEELS! REYNOLDS'S PATENT SWEEPS THE FIELD! New Improvements; Low Prices; Does not Clog; Has no Com-plications of Gates or Costly Flume Works; Compact for Ship-snent; Great Water Saver. THE ONLY WHEEL THAT EXCELS OVERSHOTS! Gold Medal awarded by American Institute for Superiority. Shafting and Geering Intuished when required.

EORGE TALLCOT, Late TALLCOT & UNDERHILL, H.] No. 96 Liberty street, N. Y. 15 13*

TAYLOR, BROTHERS & CO.'S BEST YORK-sHIRE IRON-This Iron is of a Superior Quality forloco-motive and gun parts, cotton and other machinery, and is capable of receiving the highest fluish. A good assortiment of bars in stock and forsale by JOHN B. TAFT, sole agent for the United States and Canadas. No.18 Butterymerchest, Boston. 13 54-R.

WROUGHT IRON WELDED TUBE OF ALL W sizes; Upright Drill Presses; Peace's Improved Gas Pipe Screwing Machines, and all other Tools used by Steam and Gas Fitters. Also, Brass Work and rittings manufactured and forsale by CAMDEN TUBE WORKS. Second and Stevens-sts., Camden, N. J.

FUEL E&ONOMIZED AND POWER IN-ers deficient in power, or wastehil of fuel, are greatly benefited by itsattachment, as it prevents all "priming," and saves 35 per cent of nuel. Agents to manufacture wanted. Address, for cru-cular, etc. HENRY W. BULKLEY, 13 64]

MACHINES FOR SALE CHEAP.—Milling Ma-chins; Edging Machines, large size, but little used, and good as new. Built by Snow & Brooks, Meriden, Conn. Address 156*] P. HAYDEN & SON, Newmark, N. J.

RICSSON CALORIC ENGINES OF GREAT-try IMPROVED CONSTRUCTION. Ten years of practical working by the thousands of these engines in use, have demon-strated beyond carll their superiority where less than ten horse-power is required. Portable and Stationary Steam Engines, Griss and Saw Mills, Cottor Gins' Alt Pumps, Shatting, Pulleys, Grearing Pumps, and General Jobbing. Orders promptly filled for any kind of M.schinery. JAMES A. ROBINSON, 164 Duane street, cor Hudson, New York.

PRESSURE BLOWERS

PRESSURE BLOWERS. PRESSURE BLOWERS—FOR CUPOLA FUR-maces, Parge, and all kinds of iron Works. The blast from this blower is four times as strong as that of ordinary ian blavers, can taily equal to strong to black blavers, when ap-plied to invaries for belting from. They make no nose sit possess very great durability, and are made to yna informed song reality than any other blowing machine. Every blower wirranted to give entro sails, chion. Then sizes, the largest being sufficient to melt switcht blave of pig from in two hours. Price varying from will to \$43. PAN BLOWERS, from No. 1 to No. 45, for Stramships, Fom Wills, Ventilation, etc., invaniactured by B. F. STURTE-VANT, No. 73 Stubbury street, Boston, Mass. T A. FAY & CO.,

Milling, very guri J. A. FAY & CO., CINCINNATI, OHIO, Patentees and Manufacturers of all kinds ot PATENT WOOD-WORKING MACHINERY of the latest and most approved description Particularly designed for Navy Yards Sash, Bilnd and Door, Shin Yards, Wheel, Felly and Spoke, Hailroad, Car and Shing Lath, Shing Lat

Sign Larus,
 Hallouzi,
 Stave and Barrel,
 Car and
 Agricultural Shops,
 Mills, Etc.
 Warranted superior to any in use.
 Send for Circulars.
 For further particulars address
 J. A. FAY & Co.,
 Cincinati, Ohio,
 Who are the only manufacturers of J. A. Fay & Co.'s Patent Woodworking Machinery in the United States.

IMPORTANT TO MANUFACTURERS AND Inventors.-SMITH & GARVIN, No. 3 Hague street, New York, Machinists and Model Makers, are now ready to make pro-costs: for building all kinds of Light Machinery, Manuf.cturers Tools. Models, etc. Satisfactoryreference given. 728* -----

PATENTEES TAKE NOTICE.— Having midde large additions to our Works, we can add one or two machinesto our list of manufactares. The machines must be strictly first-class, and well protected. BLYMYER, BATES & DAY Manufacturers of Agricultural Machinery, Mansfield, O. 15 tf

THE MECHANICS' AND AGRICULTURAL FAIR ASSOCIATION OF LOUISIANA.

At a special meeting of the Board of Directors, held at Mechan-les' hahiure, on the 18th Inst, it was unaninously resolved that the FIRST GRAND FAIR of this Association shall take place on the FAIR GROUNDS, City of New Orleans, commencing on the 20th of November ensuing. Inventors, Manufacturers, Agriculturists, Stock Raisers, and others, from any portion of the United States. desirous of being represented in this Industrial Exhibition, can obtainfull informa-tion by addressing the others of the Association. I. N. MARKS, President. LUTHER HOMES, Sec. and Treas. C. H. SLOCOMH, 175] Chairman of Committee on Fair Grounds.

ENGINEERS, SURVEYORS, MACHINISTS? L2 Draftsmen, School Teachers, send for the Descriptive Mar al of Mathematical Instruments and Drafting Materials, a pam let of 112 pages, published and sent tree by JAMES W, QUEEN CO., Mathematical Instmt. Makers, 924 Chestnut-st., Phila. [910]

THE STEAM SIPHON PUMP IS THE MOST vet discovered, it is an independent if a value for raising water by steam yet discovered. It is an independent if a value for popular, without of order, or irrege or p. and gan be used wherever there is a steam boller, either with high or low pressure. It is an efficient if re so-gine, and the best bilge pump knows. Address STEAM SIPHON COMPANY, 9129 Bills

NDREWS'S PATENT PUMPS, ENGINES LENTRIFUGAL PUMPS, from 90 Gals. to 40,000 Gals. per minute, capacity. OSCILLATING ENGINES (Double and Single), from 2 to 250 horse-power. TUBULAR BOILERS, from 2 to 50 horse-power, consume all

TUBULAR BOILERS, from 24 of 2015 principal smoke. STEAM HOISTERS, to raise from 34 to 6 tuns. PORTABLE ENGINES, 2 to 20 horse-power. These machines are all irst-class, and are unsurpassed for com-mactness, situ pleitly, durability, and econoury of working. For descriptive paraphicts and price list address are manufacturers, W. D. ANDREWS & BRO, 3 tf No. 414 Water street N. Y

RON PLANERS, ENGINE LATHES, DRILLS, and other Machinists' Tools, of Superior Quality, on hand and L and other Machinists' Tools, of Superior Quality, on hand and misbing. For Sale Low. For Description and Price, address 241 NEW HAVES MANUF ACTURING CO., New Haven, Ct.

⁶⁶ **P**OWER-LOOM WIRE CLOTHS" AND nettings, of all widths, grades, and meshes, and of the most superior quality, made by the ClaNTON WIRE CLOTH COMPANY, Clinton, Mass.

MODELS, PATTERNS, EXPERIMENTAL order by Molestor the Patent Office, built to order by HOLSKE & KNELLAND, Nos. 628, 500, and 52 Water street, dear Jefferson. Refer to Scientific American Office. 1 H

OXY-HYDROGEN STEREOPTICONS, OXY-CALCIUM STEREOPTICONS, DISSOLVING LANTERNS, Etc., Frz. A Large Assortment of American, European, and Foreign Photograph Views for the serie 1! A Priced and Illustrated Cata-logue, contabiling 15 Cuts and 55 pages, will be sent free by Mail on application. WILLIAM V Model USER

WILLIAM V. MCALUISTER, 728 Chest. Street, Philadelphia. 21 52*

10,000 AGENTS WANTED, IN EVERY TOWN, COUNTY, and STATE, to sell Topliff's Patent Perpetual Lamp Wick. Needs no Trimming. Sample sent for 20c; two for 30c. State and Conney Rights for Sale. MURPHY & COLE, Stf] Si Newark Avenue, Jersey City, N. J.

WOODWORTH PLANERS, BARLETT'S Patent Power Mortise Machine, the best in market, Wood-working Machinery, all of the most approved styles and work-manship. No. 24 and 26 Central, corner Union street, Worcester, Mass. [17119] WITHLEHY, RUGG & KICHARDSON.

MILL-STONE DRESSING DIAMONDS SET 1 Patent Protector and Guide. Sold by JOHN DICKIN-SON, Patentee and Sole Manufacturer, and Importer of Dia-monds, for all mechanical purposes; also, Manufacturer of Gla-monds, No. 64 Nassau street, New York City. Old dia-monds reset. N. B.-Send postage stamp for descriptive circular of the Dresser. rcul: 18 2* of the Dresser.

CHARLES A. SEELY, CONSULTING AND Analytical Chemist No. 26 Pine street, New York. Assays and Analyses of all kinds. Advice, Instruction. Reports, etc., on the useful arts.

STEAM ENGINES WITH LINK MOTION Variable Automatic Cut-off, of the most approved construc-tion; Mill Gearing, Shafting, Hanger, etc. Address 9 tf] M. & T. SAULT, New Haven, Conn.

C2000 A MONTH IS BEING MADE WITH our IMPROVED STENCIL DIES, by Ladles and Prices. Addre s S. M. SPENCER & CO Brattleboro, Vt.

ENOIR PATENT GAS ENGINES—Without Boller, Fire, Coals, or Smoke, for holsting, grinding, saw-ng, pumping, and all small industries. In use five years in Paris and in London. In operation daily at HAGAN'S Holst Whend Istablishment, No. 107 Laurens street, near Prince street, New York. Manufactured at the LENOIR GAS ENGINE WORKS, No. 435 East Tenth street, near Avenue D, New York. 15 10

BULLARD & PARSONS, HARTFORD, CONN are prepared to furnish Shafting of any state of a Barge or small quantifications, in Arthrough (Contract, and State of State) and State of Stat

\$1,500 PER YEAR, PAID BY SHAW & CLARK, Biddeford, Me., or Chicago, III. [11 13*

BROUGHTON'S STANDARD OILERS !--Ask for Broughton's! They are the only really first-class Orlers in the market, and will outwear from six to twelve of any ordinary oilers. To be had at all first-class Hardware stores. Send for catalogues. If 4] BROUCHTON & MOORE, 41 Center st.

PATENT SHINGLE, STAVE, AND BARREL Machinery, Comprising Shingle Mills, Heading Mills, Stave Cutters, Stave Jointers, Shingle and Heading Jointers, Heading Rounders and Planers, Equalizing and Cut-off Saws. Send for Hulstrated List. 17 tf-C.] 282 and 284 Madison street, Chicago, fil.

 OLDING CUTTERS
 MADE TO ORDER.

 Send for circular to
 WM. H. BROWN,

 8* eow]
 44 Exchange st., cor. Union, Worcester, Mass.

CLOCKS FOR TOWERS, OFFICES, ETC., Calsa Class Dist for Burn Stating, Address 735* cow] JOHN SICERRY, Oakland Works, Sag Harbor, N. Y.

FOR PATENT SCROLL SAWS, PATENT Machines, Sash, Blind, and Door Machinery, of the latest and most improved description, address J. A. FAY & CO., Cincin-nati, Ohio.

WOOD-WORKING MACHINERY, THE SUB-SCRIBER IS ANTONIO NAME TO A STREET, THE SUB-SCRIBERISARENT IN New York for J. A.Fay & Co., C. B. Rogers & Co., Ball & Williams, Richardson, Merriam & Co. H. B. Smith, Gray & Woods, Lanc & Bodley, D. Doncaster, and all other ma ufacturers of Wood-working Machines. S. C. HILLS, No. 12 Platt street. d

MASON'S PATENT FRICTION CLUTCHES, for starting Machinery, especially Heavy Machinery, with-gatendden shock or jar, are manufactured by 6 th VOLNEY W. MASON, Providence, R. I.

6 tf VOLNEY W. MASON, Providence, R. I. WODD & MANN STEAM ENGINE CO.'S to S CELEBRATED PORTABLE STEAM ENGINES, from 4 to Shorse-power. Also, PORTABLE SAW MILLS. We have the oldest, largest, and most complete works in the United States, do regest, and most complete works in the United States, do regest, and most complete works in the United States, do regest, and most complete works in the United States, do regest, and most complete works in the United States, do regest, and most complete works in the United States, do regest, and most complete works in the United States, do regest, and the super-ror to any ever off to the state horse-power, make our Fingings the most powerful and cheapest in use and they are adapted to every purpose where power is required, and they are adapted to scriptive circulars, with price list, sent on application. 52* Utica, N. Y. Branch office 96 Maiden Lane N.Y. City.

S2000 per MONTH is MADE by AGENTS perfect in existence. Parker Sewing Machine-the most partic ohio______ _____ -----

nati, Ohio. 8 13 MPORTANT. 68 13 MOST VALUABLE MACHINE for all kinds of irregular and straight work in wood, called the Varlety Molding and Flaning Machine, indispensable to competition in all branches of wood connection, for waved moldings and planing, lacet table and others. Evidence of the supertority of these machines is the large numbers we sell, in the different states, and parties laying aside others and purchasing ours, for cutting and shaping irregul lar forms, sash work, etc. We hear there arc manufacturers infringing on some one or more of our nl a patenls in this machine. We caution the public from purchasing such. All communications must be addressed "Combination Molding and Planing Machine Company, cor. 1st ave. and 2th-s., New YOTE, where all our machines are manufactured, tested before delivery, ind warranted. Send for descriptive pamphlet. Agents solicited. 14 5*

Send for descriptive pamphlet. Agents solicited. 14 5*

PATENT POWER AND FOOT-PUNCHING PRESSES, the best in market, manufactured by N. C. STILES & CO., West Meriden, Conn. Cuttingand Stauping Dies made to order. Send for Circulars.

 Interview
 <thInterview</th>
 Interview
 <thInterview</th>
 Interview
 Interview

FOR DANIELLS'S PLANING MACHINES, Car Mortising, Boring Machines, Car Tenoning Machines Car Mortising, Boring Machines, Car Tenoning Machine ar Pluning and Beading Machines, etc., address 4 1y. J. A. FAX & CO., Cl cinnati, Ohio.

BUERK'S WATCHMAN'S TIME DETECTOR. —Important for all large Corporations and Manufacturing concerns—capable of controlling with the utmost accuracy the motion of a watchman or patrolinan, as the same reaches different stations of his beat. Send for a Circular. J. E. BUERK, P. O. Box 1057, Boston, Mass. N. B.-This detector is covered by two U.S. patents. Parties using or selling these instruments without authority from me will be dealt with according to law

WHEELER & WILSON, 625 BROADWAY N. Y.-Lock-stitch Sewing Machine and Buttonhole do. 1t \$150 A MONTH : NEW BUSINESS FOR Agents. H. B. SHAW. Alfred. Mc. [11 13*

TO BUILDERS.-Patent Rolled Plate Glass for Skylights for sale very low by E. & H. T. ANTHONY & CO., 501 Broadway, 501 Broadway, Agents of Southbridge Glass Works. 18 18*]

TO RAILROAD AND TELEGRAPH COM-PANIES.—Telegraph Circuit Breaker and Stated Apparatue. Is readily used by Conductors and Brakemen, and all undrances to trains on the road immediately telegraphed to despatcher's of-fice. Also, of great value in treating wires out upon the line. Ad dress [4 15*] ALONZO CHACE, Syracuse, N. Y.

FARRAR PLANER.—WE ARE NOW IN RE-ceipt of a Consignment of these very celebrated Planers, from the Manchester Locomotive Works, N. H., and can sell them at lower figures than they have been sold since 1863. Scald for cuts and price, STEPTOE, MOFARLAN & CO., 15 3⁴].

GODDARD'S BURRING MACHINE WORKS

GUDDARD'S BURKING MACHINE WORKS Office, No. 8 Bowling Green, New York, manufacture the Patent Steel Ring and Solid Packing BURRING MACHINES, Patent Mestizo Wool-burring Pickers, Shake Willows, Wool and Waste Dusters, Gessner's Patent Gigs, Etc. Orders respectfully solicited, and prompt attention given, by addressing C. L. GODDARD, 1 tf No.8 Bowling Green, N. Y.

TMPORTANT TO MANUFACTURERS USING STEAM FOR POWER. KELLEY & LANE'S Improved Steam Engine Governor, the only Governor that will give the same speed, with high or low pressure of steam or the Engine being light or heavy loaded—is considered by those who have used it to liave no equal, and is warranted to give satisfaction. Send for Chrcular. LAMB, COOK & CO, Proprietors Slatersville, R. I

CAN I OBTAIN A PATENT ?-FOR ADVICE Wand instructions address MUNN & CO., 87 Park Row, New York, for TWENTY YEARS Autorneys for American and For-elgn Patents. Caveats and Patents chickly prepared. The Sorex-tric American %3 a year. 30,000 Dature cases have been pr-pared by M. & Co.

Bur Beachtung jur Deutsche Erfinder.

Jut Schutzung fur Dellifuje Erfinter. Die Unterzeichneten baben eine Anleitung, bie Erfindern' bas Ber-halten angibt, um fich ihre Batente zu fichern, berauzgegeben, und verabfolgen feldte gratis au diefelben. Erfinder, welche nicht mit ber englichen Sprache bestannt fund, fonnen ihre Witthoftlungen in ber beutichen Sprache nachen. Elizien von Erfindungen mit turgen, beutlich geschriebenen Beichreibungen heitebe man zu abbrefiren au

Munn & Co., 37 Part New. New-Bort. Safebt ift zu baben:

Die Patent-Befebe ber Dereinigten Staaten, rebt ben Regeln und ber Gefdäftsorbnung ber Patent-Office and Aufeitungen für ben Erfinder, um fich Patente gu fichern, in ben Br.-Braten lovobl als in Europa. Ferner Auszige aus ben Patent-ise' sen fer meter Laitoer und barauf bezingliche Batbidtage; ebenfalls nutliche Winte für Erfinder und folde, melde hatvidten vollen. Preis 20 Els., per Poft 25 Els.

Improved Wagon and Carriage Spring. The cost of the steel-plate springs for teams and carriages, the danger of breaking in mosty weather, and their disposition to throw the weight of the wagon, and its contents, out of equilibrium, on roads which are not smooth, are objections which all who drive vehicles have noticed. The inventors of the spring herewith represented have spent years in trying to overcome these faults, and believe that they have succeeded. The spring proper is a cylinder of india-rubber attached to the body and axles by toggle joints, arms, and slides.

Fig. 1 represents a common teaming wagon, with been established at Crossness, by which this matter

The Franklin Institute.

From advance sheets of the proceedings of this ociety, kindly furnished by Mr. Henry Morton, the Secretary, we copy the following items

The Sand Patch Tunnel on the Pittsburgh and Connelsville Railroad is cut through, its totallength being 4,750 feet, by 22 wide, and 19 high. It is intended for two tracks.

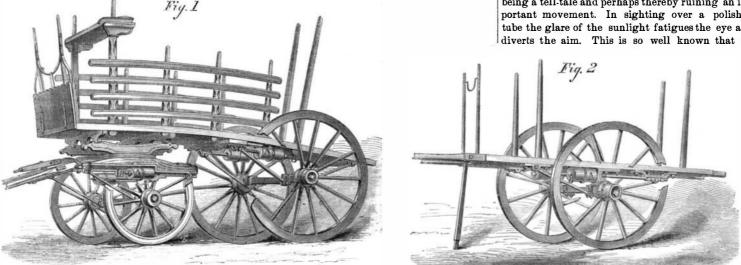
In the new system of drainage applied to London, a large amount of the sewage matter collects at a level, requiring the use of pumps to remove it. To meet this demand a system of engines, etc., have

copper in solution, which makes a brown stain on other articles but does not affect those which are gilt.

Bronzing Gun Barrels.

The Mechanics' Magazine expresses surprise to learn that the gun barrels used by our army in our late war were bright polished, instead of being bronzed. It says that the movements of the Union armies were on several occasions detected by the Confederates by the sheen of the sun or moon on the barrels, when secrecy was important to success.

It has been a matter of no less surprise to us. bright barrel has other disadvant ges beside that of being a tell-tale and perhaps thereby ruining an important movement. In sighting over a polished tube the glare of the sunlight fatigues the eye and diverts the aim. This is so well known that no



LA BAW AND CAMPBELL'S WAGON AND CARRIAGE SPRING.

the springs attached, the wheels broken away to | is raised 19 feet 6 inches, and thrown into a reservoir | true sportsman would think of polishing the barrel show their working parts, and Fig. 2 a cart with the patent springs. A A are the springs, which are secured to the body or the frame by proper clamps and staples. A rod passes through the center of the spring, furnished with an embracing cast-iron head and nut, B. The other end of the rod is of flat iron and slides on the plate, C, provided with guides, D (see Fig. 3). E is the axle to which the brace, F, is bolted, the other end of the brace being jointed to the sliding rod at C. The axle clip is pivoted to the brace, G, the other end of which is secured to the wagon frame.

Now the action of the springs can be readily comprehended. As the weight of the vehicle with its load brings the axle and springs nearer together, the spring is compressed longitudinally, A considerable motion of the axle effects but a slight movement of the springs, the tension of

ening or slackening the nut, B. A compression of the springs to the extent of one inch will give three inches perpendicular motion to the axle, and the weight of the load coming endwise on the springs, they can bear a larger proportionate strain than the ordinary steel springs, and when the wheels go suddenly down into a hole their elasticity in a longitudinal direction tends to assist in raising the load.

The inventors claim that thisspring is not required to be more than one fourth the weight of the steel spring to sustain the same load, and can be manufactured at half the cost. It is so simple in construction that it can be made by any ordinary blacksmith, and can be adjusted to any load. It is very durable, and unaffected by the frost. For light vehicles the springs can be made tapering so that they are more sensitive and easy. The improvement appears to possess desirable features which in some important particulars make it superior to the ordinary springs.

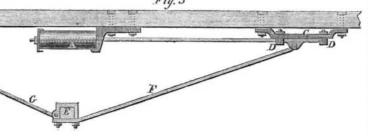
Patented by George W. La Baw and Peter F. Campbell, of Jersey City, N. J., who can be addressed as Campbell & Le Baw, box 24, as above, for State, county, and manufacturers' rights.

constructed for its reception. This reservoir covers an area of $6\frac{1}{2}$ acres, is 14 feet deep, and has a capacity of 24,000,000 gallons. It is arched over with brick work, supported on 644 piers, and is covered with earth and sod.

It is usual to discharge this reservoir into the river about half an hour before high tide, butduring heavy rains it is filled and emptied four times in the 24 hours.

The engines are four in number, each working eight pumps, which are of the usual plunger construction; their aggregate capacity amounts to

Fig. 3



which may be increased or diminished at will by tight | 29,523 gallons per minute. The minimum amount raised in 24 hours is 38,000,000 gallons, the maximum 100,000,000 gallons.

> Robert Grant, of New York City, has improved the reservoirs for the gases of lime lights by the use of iron cylinders instead of india-rubber bags. The gas is condensed in these cylinders, so that the apparatus of weights, press-boards, etc., is unnecessary. The cylinders are nine inches in diameter by thirty inches long, and weigh, when charged with gas up to thirty atmospheres, only twenty-six pounds. Each cylinder contains thirty cubic feet of gas. Nitrous oxide and carbonic acid can be held in these eservoirs in liquid form. Another improvement in the use of gases for experiments, etc., is that of making the orifice for their escape through the closed end of a tube, by means of a perforation much smaller than the diameter of the tube itself, the end of the tube being flat, or square across. This prevents the flame from running back and sometimes extinguishing the light.

> A test for gilt articles to distinguish them from those which are simply made of a gold-colored bronze, is announced by Weber. It consists in the application of bichloride (the common chloride) of

of his rifle or fowling piece. It is a remnant of the old nonsense about " the pomp and circumstance of glorious war," retained byG overnment officials, after it has been rejected by sensible people. In using a fire-arm in the sunlight, a bright barrel will heat much quicker than a bronzed one. Beside this, the work of the soldier would be materially reduced and the durability of the weapon increased, by the adoption of bronzed iron work, about the musket and rifle. The subject is one of considerable importance.



INVENTORS, MANUFACTURERS.

The SCIENTIFIC AMERICAN is the largest and most widely circulated journal of its class in this country. Each number confor a year make two volumes of 416 pages each. It also contains a full account of all the principal inventions and discoveries of the day. Also, valuable illustrated articles upon Tools and Machinery used in Workshops, Manufactories, Steam and Me-chanical Engineering, Woolea, Cotton, Chemical, Petroleum, and all other Manufacturing Interests. Also, Fire-arms, War Imple-ments, Ordnance, War Vessels, Rallway Machinery, Electric Chemical, and Mathematical Apparatus, Wool and Lumber Ma-chinery, Hydraulics, Oil and Water Pumps. Water Wheels, Etc., Rousehold, Horticultural, and Farm Implements-this latter Department being very full and of great value to Farmers and Gardeners, articles embracing every department of Popular Science, which every body can understand and which every body likes to read.

Also, Reports of Scientific Societies, at home and abroad, Patent Law Decisions and Discussions, Practical Recipes, Etc. It also contains an Official List of all the Patent Claims, a special feature of great value to Inventors and owners of Patents. Published Weekly, two volumes each year, commencing Janu

ary and July,

D		
Per	annum	
Six	months	1
Them	copies for ()ne Vear	05

Canada subscriptions,25 cents extra. Specimen copies sent free. Address

MUNN & CO., Publishers, No. 37 Park Row, New York City.

Messrs. MUNN & CO. have had twenty years' experience in procuring Patents for New Inventions. Inventors wh such business to transact can receive, free, all needful advice how to proceed.

FROM THE STEAM PRESS OFJOHNA. GRAY & GREEN.