

ISSUED FROM THE U. S. PATENT OFFICE FOR THE WEEK ENDING APRIL 23, 1867.

Table with 2 columns: Fee description and Amount. Includes 'PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees—'.

Pamphlets 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 gratis by addressing MUNN & Co., Publishers of the SCIENTIFIC AMERICAN, New York.

- 63,980.—ATTACHING KNOBS TO DOOR LATCHES.—Wm. H. Andrews, New Haven, Conn.
63,981.—GOLD SEPARATOR.—Gideon Aughinbaugh, Portland, Oregon.
63,982.—MACHINE FOR GRINDING THE SURFACE OF MARBLE OR STONE.—John A. Bachman, Lambertville, N. J.
63,983.—BROOM HEAD.—Hiram Barker, Aurora, Ind.
63,984.—VALVE GEAR.—E. M. Bates, East Rochester, Ohio.
63,985.—SPRING FOR BED BOTTOMS AND OTHER PURPOSES.—L. M. Bates, Newark, Ohio.
63,986.—ICE PITCHER.—Geo. H. Bechtel, Philadelphia, Pa.
63,987.—MODE OF PREPARING COFFEE FOR TRANSPORTATION.—Thos. H. Berry, Lynn, Mass.
63,988.—WINDOW LATCH.—Albert Bingham, Newtonville, Mass.
63,989.—CHURN.—A. H. Brainerd, Rome, N. Y.
63,990.—BRICK PRESS.—Rufus Brunson, Chicago, Ill.
63,991.—TINNERS' FIRE POT.—James B. Cary, Millersburg, Iowa.
63,992.—BORING TOOL.—John C. Chapman, Cambridgeport, Mass.
63,993.—BED BOTTOM.—Hezekiah M. Clark (assignor to himself and E. A. Kelsey), West Meriden, Conn.
63,994.—BREWING ALE.—Carleton Clifford (assignor to himself, A. W. Lake, and J. P. Saunders), Adams, N. Y.
63,995.—LINIMENT.—Lucian B. Cram, Weathersfield, Vt.
63,996.—CONNECTING LINKS AND HOOKS.—Robert Creuzbauer, New York City.
63,997.—WOOD-BENDING MACHINE.—John A. Dann (assignor to himself and Wm. F. Dann), New Haven, Conn.
63,998.—BED BOTTOM.—John Danner and Samuel Danner, Canton, Ohio.
63,999.—LAMP.—Joseph Davis, Jr., Templeton, Mass.

- such tube in course of its application and after the insertion of the cotton or filling being expanded as explained.
I also claim the lamp, as constructed, with the tube-receiving recess as explained.
I also claim the improved lamp as constructed with the expandible tube and the receiving recess therefor, and as having a mass of cotton or fibrous material arranged in its reservoir and about such tube, as set forth.
64,000.—APPARATUS FOR REGISTERING GAMES OF BILLIARDS.—G. W. Earl and James H. Hawley, Kalamazoo, Mich.
64,001.—PLANE IRON.—Wm. H. Eckert, Syracuse, N. Y.
64,002.—GRAIN ELEVATOR AND DUMPING APPARATUS.—M. Eldridge and F. A. Reed, Alexandria, Va.
64,003.—HAY LOADER.—Wm. H. Elliot, New York City.
64,004.—HAND CARD.—George J. Ellis, Troy, N. Y.
64,005.—WINDLASS.—Richard H. Emerson, Fond Du Lac, Wis.
64,006.—TOOL HANDLE.—Luther H. Farnsworth, Hudson, Mass.
64,007.—LOW-WATER INDICATOR.—Lorenzo Fulton, Edinburg, Ind.
64,008.—SHIFTING RAIL FOR CARRIAGE SEATS.—Frederick Baumgartner, Brooklyn, N. Y.
64,009.—SHEEP RACK AND SHELTER.—Dexter Gray, Upper Sandusky, Ohio.
64,010.—TOP PROP FOR CARRIAGES.—R. S. Grummon, Newark, N. J.
64,011.—APPARATUS FOR BOILING, COOLING, AND FERMENTING MALT LIQUORS.—Thomas Haigh, Liverpool, England, and Robert Adam Robertson, Philadelphia, Pa., assignors to E. F. Prentiss, Wm. D. Philbrick and Wm. J. Parsons.
64,012.—BLAST FURNACE.—David U. Hendrickson, New York City.
64,013.—FAN.—Lucian Hill, North Brookfield, Mass.
64,014.—OILER.—Gardiner L. Holt (assignor to himself and James M. Thompson), Springfield, Mass.
64,015.—SHOE.—George Houghton, Hudson, Mass.
64,016.—SELF-ACTING EYELET BATTEN.—Silas Land, Philadelphia, Pa.

- 64,017.—STANCHION FOR CATTLE.—James Manley, Hope, Me.
64,018.—FASTENING OF WIRE OR WIRE ROPE TOGETHER.—Matthew F. Maury, Liverpool, Great Britain.
64,019.—MANUFACTURE OF AERATED WATERS.—George McCoy, New York City.
64,020.—TOY.—John McMahel, Hamilton, Ohio.
64,021.—STEAM GENERATOR.—Truman Merriam and A. G. Allen, Waterloo, Wis.
64,022.—BUTTONHOLE FOR PAPER COLLARS.—Joseph Merwin, New York City.
64,023.—EXCAVATOR.—John Milroy, Edinburg, Great Britain.
64,024.—JOINT FOR CARRIAGE-TOP BRACES.—F. B. Morse, New Haven, Conn.
64,025.—STEAM GENERATOR WATER GAGE.—George T. Parry, Philadelphia, Pa.
64,026.—BOILER FEEDER.—George T. Parry, Philadelphia, Pa.
64,027.—SMUT MILL.—Dan Pease, Floyd, N. Y.
64,028.—COOLING MILK.—Watson Peck, York, Ill.
64,029.—MACHINE FOR ROLLING DOUGH, CRUSHING SUGAR, ETC.—Gustavus Perkins, Burlington, Vt.
64,030.—WHIFFLETREE HOOK.—S. M. Perkins, Morrison, Ill.
64,031.—WEATHER STRIP.—Jacob S. Peterson, Springdale, Ohio.
64,032.—METHOD OF REMOVING BUILDINGS.—Thomas W. Prather, Iowa City, Iowa.
64,033.—FILE-CUTTING MACHINE.—Alexander N. Redman, Charlestown, Mass.
64,034.—FARM GATE.—John H. Reinhart, McKay, Ohio.
64,035.—MACHINE FOR MAKING NAILS.—Samuel G. Reynolds, Bristol, R. I.
64,036.—CAR BRAKE.—J. W. Rice, Springfield, Mass.
64,037.—MACHINE FOR MAKING WOODEN PINS.—George Rowe, Worcester, Mass.
64,038.—MACHINE FOR MAKING BOOK COVERS.—Marshall Rumrell and Robert H. Rumrell, Brooklyn, N. Y.
64,039.—CHIMNEY HOLDER FOR LAMP BURNERS.—Thomas Ryder, Providence, R. I.
64,040.—CAR BRAKE.—James Sheward and George A. Stenberg, Dunkirk, N. Y.

vehicle where the axle revolves in combination with a cog-wheel to produce a slow motion under a high speed, and face plate forced upon the face of the cog-wheel as described herein, for the purpose set forth.

64,041.—SIDE BOARD FOR TRESHING MACHINES.—Ballard C. Smith, Ashland, Ind.

First, I claim the jointed side board, constructed of light sheet metal or other material hinged at E, E', with permanent end, D, and movable end, C, by means of which all effects of winds are avoided on the stacker, substantially as set forth for the purpose set forth.

Second, I claim the spring, F, and catch, G, for the purposes of keeping the sections, A and B, in line, and for displacing the said sections when operated by cords, H, substantially as and for the purpose set forth and shown when stacker is attached to machine in the usual manner, by rod, M.

64,042.—WEATHER STRIP.—George W. Smith, Strasburgh, Ohio.

I claim the hinged strip, a, in combination with spring, k, and metal strip, c, constructed as described, and the whole arranged as and for the purpose set forth.

64,043.—STEAM ENGINE PISTON.—J. Y. Smith, Pittsburgh, Penn.

First, I claim the central groove, a, provided with the apertures, n, for admitting the steam or other material to the under side of the rings, substantially as shown and described.

Second, The combination of the ring, c and e, with the flanges, A', and plate, b, or their equivalents, when arranged and operating as and for the purpose set forth.

64,044.—SEAT AND BACK.—Mortimer L. Smith (assignor to himself and J. W. Houghton), Detroit, Mich.

I claim the combination of the straps, C, C', back, E, E', seat, A, G, G', and frame, H, D, all arranged as and for the purpose described.

64,045.—GUN HARPOON.—Robert E. Smith, Provincetown, Mass.

I claim the head, A, B, grooved to receive the pivoted barb, C, and cast in one piece with the shank, D, the latter being provided with the elastic guard, E, and the wire line, F, all constructed and operating substantially as described, and for the purpose set forth.

64,046.—KNOT INDICATOR FOR KNITTING MACHINE.—John F. Steward, Plano, Ill.

I claim the arm, C, with the knot grasper, B, hammer, D, and the spring, E, in combination with the bell, A, constructed and operating as herein described.

64,047.—COMPOSITION FOR PRESERVING EGGS.—P. J. Stouffer, Uniontown, Penn., assignor to himself and Henry White.

I claim the composition for preserving eggs, substantially as set forth.

64,048.—BEDSTEAD FASTENING.—George Sugg and W. Metz, Chicago, Ill.

We claim as a new article of manufacture the bed fastening, consisting of the plate, A, constructed as herein described, and used in combination with the plate, E, provided with the arms, O, with the enlarged heads, L, as herein set forth.

64,049.—MACHINE FOR FELTING HATS.—James Walber, Washington, D. C.

First, I claim the combination and arrangement in a machine for felting hat bodies of two or more pairs of rollers, having a rotatory movement, when each successive pair revolves with a diminished speed, all substantially in the manner and for the purpose set forth.

Second, The combination as above of two or more pairs of rollers, whose diameters so vary that the circumference of each successive pair shall revolve with diminished speed, substantially in the manner and for the purposes herein set forth.

Third, The combination in a felting machine of a series of pairs of rollers, each pair of which has a lesser velocity than the preceding pair, with a series of pairs of rollers having a uniform velocity, as and for the purpose herein described.

Fourth, The combination in a felting machine of a series of rollers supported in a fixed frame, but each having an independently lateral play in its bearings in the line of its axis, substantially as and for the purpose herein described.

Fifth, Imparting a lateral reciprocating movement to the rollers of a machine for felting hat bodies by means of cams on the ends of said rollers, or their journals, bearing against suitable cam surfaces when each of said rollers has free play independently of the others in the line of its axis, all substantially in the manner and for the purpose set forth.

Sixth, The use of a series of hollow rollers in a felting machine with suitable steam pipes for introducing steam into the same when said rollers revolve successively with a diminished speed, substantially in the manner and for the purpose herein set forth.

Seventh, The combination of a reversing roller, placed centrally in front of the last pair of rollers in a felting machine, with an auxiliary roller placed over the same, to bear thereon, and operate conjointly therewith, substantially in the manner and for the purpose herein set forth.

Eighth, The combination of a single endless chain and toothed wheels, with two series of rollers in a felting machine, substantially as and for the purpose herein described.

Ninth, The combination of suitable springs, with the sliding journal boxes of the driving shaft, and with an endless chain working thereon, all substantially as and for the purpose herein set forth.

64,050.—HAY STACKER.—Samuel Jacob Wallace, Keokuk, Iowa.

I claim a portable hay stacker having the several parts thereof constructed, arranged and combined as and for the purpose set forth.

64,051.—SPOOL HOLDER FOR SEWING MACHINES.—William Wheaton (assignor to John F. Lee, Jr.), Brooklyn, N. Y.

I claim the cylinder, A, spring, s, or its equivalent, screw, c, horizontal plates, d and e, combined and operated in the manner and for the purpose set forth, and shown in the accompanying drawings.

64,052.—STEAM ENGINE PISTON.—Jerome Wheeler, Worcester, Mass.

First, I claim the combination of stay bolts, E, E', E', with a piston head, substantially in the manner herein described.

Second, A piston constructed with an oblong hole or aperture through its center, to receive the piston rod, substantially as and for the purpose described.

Third, The slot in the piston rod, B, when used for the purpose of relieving the nut in the manner substantially shown and described.

64,053.—NEEDLE WRAPPER.—John William Whitfield, New York City.

I claim a needle wrapper, composed of a sheet of fabric, combined with a series of thread loops to hold the needles to the fabric, substantially as set forth.

64,054.—SELF-OILING JOURNAL BOX.—John Whitlock, Birmingham, Conn.

I claim in combination with a shaft or journal, having a wheel, disk or ring attached to that portion that revolves in the journal box, and with distributors for carrying the oil over the shaft or journal the vertical end passages, and horizontal passages leading from said ends back to the recess or reservoir, for the purpose of making a self-oiling device, substantially as described.

64,055.—ROTARY HARROW.—Albert H. Acken, Griggstown, N. J.

I claim the frame, A', when constructed as described, in combination with the jointed teeth, B', center pin C', and draft rod D, all arranged and operating as specified.

64,056.—LAMP BURNER.—J. B. Alexander, Washington, D. C.

I claim the wick-holder, composed of the corrugated plates O and P, with their turned edges, and indentations, K, K', K', K', K', K', and the slot, G, substantially as and for the purpose set forth.

I also claim, in combination with the above described wick-holder, the device for raising and lowering the wick, substantially as and for the purpose set forth.

I also claim the device, L, M, for filling the lamp fountain with oil, in combination with the burner, substantially as described, and for the purpose set forth.

64,057.—MACHINE FOR CULTIVATING COTTON.—William Altick, Dayton, Ohio.

First, I claim the arrangement of the shaft, C, with its clutch and bevel wheel, with the pinion, T, shaft, W, and wheel, N, provided with its adjustable hoes, the several parts being constructed and used as and for the purpose specified.

Second, Adjusting the arms, O, O, in the wheel, N, by means of their grooves and the pins, b, b, substantially as and for the purpose specified.

Third, The bar, H, upon which the plows or cultivator teeth are secured, used in connection with the grooved plates, a, a, rockshaft, k, with its arms and lever, J, substantially as and for the purpose specified.

64,058.—MODE OF TREATING FLAX.—Albert F. and John H. Andrews, Avon, Conn.

First, We claim treating it by the aid of the endless double network arrangement of rollers "G H", and to the tank substantially as and for the purpose herein specified.

Second, We claim, in combination with the above, subjecting it to the action of the pressure roller, J, arranged as represented.

Third, We claim the alternate application of warm and cold water, substantially in the manner and for the purpose herein described.

Fourth, We claim the treatment in the soluble protein solution obtained from ground beans or other equivalent, substantially as specified.

Fifth, We claim the treatment with the chloride of sodium, or its equivalent, after the treatment with the alkali before the bleaching, substantially as herein specified.

Sixth, We claim the employment of metallic chlorides in the bleaching bath substantially as and for the purpose herein specified.

Seventh, We claim blowing steam, K, K', K', K', K', K', through the interstices, after the material to be bleached has been immersed in a solution containing chloride of lime, whether this solution is prepared in the ordinary manner, or as above described.

Eighth, We claim the use of alkaline solutions after bleaching, substantially as and for the purpose herein specified.

Ninth, We claim the treatment with urine, in connection with the treatment with soap, substantially as and for the purpose herein specified.

Tenth, We claim the treatment with cider or equivalent vegetable acid solution at the termination of the process.

Eleventh, We claim the use of atmospheric air forced through the flax, in connection with an alkaline solution, saturating the flax, as a bleaching and disintegrating agent, substantially as herein specified.

64,059.—RANGE AND AIR HEATING FURNACE.—William H. Armstrong, New Brunswick, N. J.

I claim the arrangement of the cooking range it appurtenances, A, B, C, F, G, fire, H, chambers, I, M, N, at passages, E, E', water back, D, and auxiliary pipe, O, as herein described, and for the purpose specified.

64,060.—QUARTZ CRUSHER.—Robert Bailey, Idaho City Idaho.

First, I claim the construction of the rotary mortar bed enclosed within the case, A, made of blocks of rock, b, b, forming inclined planes of irregular dimensions on their inside surfaces combined with cast iron dies, c, c, fitted in and secured to them, arranged and applied as and for the purpose herein described.

Second, I claim the cubical stamp, d, in combination with the revolving mortar bed constructed and operated together in the manner and for the purposes herein set forth.

64,061.—CULTIVATOR.—Jacob Bergen, Canton, Ohio.

I claim, The arrangement of the crank axles, D, D, with the levers, H, spring, d, and guides, I and J, substantially as and for the purpose specified.

64,062.—WINDOW SHADE.—Adolph Binner (assignor to himself and John Leuzinger), Muscatine, Iowa.

I claim a window curtain or shade composed of round sticks of wood connected together, substantially as described.

64,063.—CLOTHES LINE.—J. W. Bliss, Harford, Conn.

I claim a clothes line of cord, leather or wire coated with india-rubber, or gutta-percha to protect the same from the weather, all as and for the purpose specified.

64,064.—LUBRICATING JOURNAL BOX.—Samuel F. Bond, Worcester, Mass.

I claim a self-lubricating journal box constructed substantially as described with a chamber or chambers forming oil reservoirs along either side of the journal and also provided with lower supply apertures and their upper inner edges made to form scrapers or cleaners for removing surplus oil and to return it to the reservoirs essentially as herein set forth.

64,065.—FRUIT DRYER.—John K. Boswell, Richmond, Ind. Antedated March 16, 1867.

I claim, First, The revolving triangular heater, D, arranged as and for the purpose set forth.

Second, The shield, b, when provided with apertures and arranged substantially as herein shown and described.

Third, The combination of the furnace, N, when provided with tube, i, or its equivalent, the revolving triangular heater, D, when provided with tube, j, or its equivalent, and the chimney, K.

Fourth, The sliding panel, C, substantially in the manner and for the purpose described.

64,066.—CHILD'S TOY.—Lucy Broad, St. Louis, Mo.

I claim the combination of the figures, C1 C2, with the circular plate or race track, C, and with the actuating machinery as described and set forth.

I also claim the bell, B' in combination with the other parts as described and set forth.

64,067.—CARRIAGE THILL COUPLING.—J. J. Brown, Madison, Wis.

I claim, First, The bar, A, provided with the vertical arm, B, for attaching the button independent of the clip or band substantially as and for the purpose set forth.

Second, Making the socket for the reception of the packing and bolt between the front side of arm, B, and the front curved end of A, as shown and described.

64,068.—ROTARY STEAM ENGINE.—S. H. Brown, New York City.

I claim, First, The abutment or valve, E, constructed as described and pivoted so as to vibrate in either direction, substantially as and for the purpose specified.

Second, The semi-cylindrical reversible stops, I, in combination with the hinged abutment, E, annular rims, a, and piston wheels, C, with pistons, D, all constructed and operating substantially as and for the purpose set forth.

64,069.—BRICK MACHINE.—John W. Burns, Henry, Ill.

I claim operating the plungers, I, I, through the medium of the shaft, F, connected by arms and links to vertical racks, G, pinions on segments, H, provided with arms, c, and the arm, E, on shaft, C, all being arranged substantially as herein shown and described.

Second, The arrangement of the mud mill, A, plungers, I, I, and molds, J, substantially as herein set forth.

Third, The feeding of the empty molds to receive the clay, and the discharging of the filled molds from the press by means of the racks, N, and pinions, O, substantially as shown and described.

64,070.—STEAM SAFETY VALVE.—Thomas H. Burridge (assignor to himself and G. C. Fabiam), St. Louis, Mo.

I claim the levers, E, F, constructed and arranged in relation to each other and valve substantially as and for the purpose set forth.

64,071.—DRAW BAR FOR LOCOMOTIVES.—D. C. Cannell, La Fayette, Ind.

I claim a draw bar, A, provided at one end with V-shaped recesses b, one at each side with a link, B, fitted in it and working within the recesses, substantially in the manner and for the purpose set forth.

64,072.—VALVE FOR STEAM ENGINES.—Charles E. Case, Xenia, Ohio.

I claim the valve, C, and spiral pin, H, constructed and arranged substantially upon the principle and in the manner herein set forth.

64,073.—SHOEING HORSES.—Pierre Charlier, Paris, France.

I claim the method herein described or attaching the shoe to the hoof of a horse or other animal by letting said shoe into a recess cut into the edge of the hoof, substantially in the manner and for the purpose set forth.

64,074.—WINDOW SASH FRAME.—Edwin Clark, Lancaster, Pa.

First, I claim the inclined tongue, d, and corresponding groove, c, on the pieces, b and b', respectively of a window sash, substantially as and for the purpose set forth.

Second, The projections, d', on the inclined tongue, d, slots, c1, springs, d2, and eyes, c2, on the pieces, b and b' respectively, of a window sash, substantially as and for the purpose described.

Third, The eyes, g, on the strips, g, and pins, j, passing through the same and the window frame, substantially as described.

Fourth, The tongue, d, strip, g, and corresponding groove in the frame, A, substantially as and for the purpose specified.

Fifth, The above described mode of removing and replacing window sashes from frames, substantially as and for the purposes specified.

64,075.—LANTERN.—P. J. Clark and Joseph Kintz (assignors to Samuel S. Clark), Meriden, Ct.

First, I claim the guards, D, any suitable number constructed each of one piece of wire bent or doubled, attached to the cap, B, and arranged so as to retain the glass globe, F, substantially as set forth.

Second, The connecting of the lower end of one of the guards, D, to the base, A, to form a finger or bolt, c, with a catch or fastening, e, secured to the base, A, to catch over the lower end of the guard which is in line with it, substantially as shown and described.

64,076.—CORN PLANTER.—John Clairidge, Pancoastburgh, Ohio.

First, I claim the steel plow, H, when constructed and attached to the shank, I, substantially as herein described and for the purpose set forth.

Second, The combination of the slide bars, M, the inclines, F' or equivalent arms or levers, D' and valves, B' with each other and with the plow frame, E, substantially as described and for the purpose set forth.

Third, The combination of the circular valve, I' with the seed reservoir, T, hopper, S, and sliding bar, M, substantially as herein described and for the purpose set forth.

Fourth, The combination of the upwardly projecting pins, J' with the valves, H' or I' and with the seed reservoir, T, substantially as herein described and for the purpose set forth.

Fifth, The combination of the vertical stirring shaft, K' having horizontal arms with the seed reservoir, T, hollow shank, L, and with the sliding bar, M, substantially as described and for the purpose set forth.

Sixth, The coupling, G, when constructed substantially as herein described and for the purpose set forth.

Seventh, The combination and arrangement of the seed reservoir, T, hopper, S, arms, V, levers, W1, W2, and connecting rods, A1 A2, with each other with the sliding bar, M, and with the plow frame, E, substantially as herein described and for the purpose set forth.

Eighth, The combination of the lever, O and P, and sliding bars, M, with each other, with the plow frames, E, and with the frame, A, of the planter, substantially as described and for the purpose set forth.

Ninth, The combination of the cords, X', pulleys, B2 shaft, V' ratchet wheel, V, pawl, Z, bevel wheel, U' and foot wheel, S', with each other, with the plow frames, E, and with the frame, A, of the planter, substantially as herein described, and for the purpose set forth.

Tenth, The combination of the lever, P' slide bar, N' and bent lever, M' or equivalents with each other with the slide bars, M, and with the frame, A, of the planter, substantially as described and for the purpose set forth.

Eleventh, The combination of the shovel plow, I, and strengthening rods, N, with each other and with the flanged lever end of the hollow shank, L, substantially as described and for the purpose set forth.

Twelfth, Constructing the hollow shank, L, with a double convex head, l1, cast upon its upper end and a projecting flange, l2 and arms, l3, upon its lower end, substantially as described and for the purpose set forth.

Thirteenth, Placing the seed reservoir, T, directly above the hoppers, S, and cutting away the side of said hoppers, substantially as described and for the purpose set forth.

64,077.—FEEDING MECHANISM FOR CARDING MACHINES.—William Clissold, Duddridge Works near Stroud, Eng.

First, I claim the combination with the inclined reciprocating bars, B, of the reciprocating comb bars, F, and rods or pressers, K, for the purpose of discharging the wool or other fibrous material from the feeding box.

Second, The combination with the reciprocating comb bars of pressing rolls, F', for delivering the wool or other fibrous material to the preparing machine in the form of a bat or sheet.

64,078.—ROLLS FOR YARN DRESSING MACHINES.—Benjamin R. Cotten, Lewistown, Me.

I claim a dresser roll having a metal coated surface, substantially as set forth.

64,079.—PAPER FILE.—Lewis B. Covert, Chicago, Ill.

I claim the file or binder formed of the cover, a, and slides, b, in combination with the perforated clasps, c, as and for the purpose specified.

64,080.—POTATO DRILL.—John Croco, Holmesville, Ohio.

First, I claim the disks, F, F', constructed and arranged in combination with the guide or tension pulley, J, and pulley, H, for the purpose and in the manner set forth.

Second, The disks, F, F' hopper, L, in combination with the tube, E, and shovel, K, as and for the purpose described.

64,081.—EXERCISING CLUB.—John L. Dibble, New York City.

I claim the metallic cylindrical shell, A, A, and the central rod, D, D, D, arranged and combined with the blocks, B, B and C, C and adjustable weights, F, F, the whole forming an exercising club, substantially as herein described and set forth.

64,082.—CARRIAGE FOR CHILDREN.—Alexander Dick, Buffalo, N. Y.

First, I claim a carriage body formed and constructed of wire, substantially as described.

Second, In combination with a carriage, a seat made adjustable, substantially as described.

Third, The arrangement in a carriage of the springs, W, W, and D, D, substantially as described.

64,083.—HORSE HAY FORK.—L. M. Doudua, Elmira, N. Y.

I claim the tube, A, and sleeve, E, in combination with the spring, F, tines or teeth, C, lever, G, and link, H, all arranged to operate in the manner substantially as and for the purpose specified.

64,084.—CARPET WADDING.—Thomas H. Dunham, Boston, Mass.

I claim a wadding or fabric, having an adherent border or selvedge formed of the sheets of paper that project beyond the edges of the batting, and attached to each other as herein specified without the use of gum or other adhesive substance, substantially as described.

64,085.—GAME REGISTER.—John Enright, Louisville, Ky.

I claim the construction and arrangement of the arm, G, working loosely on shaft, d' having tooth, E, upon its inner end and provided with the double pawl, H, spring, P, indicating finger, T, its lower end working through the slotted segment, K', attached to the frame, A, toothed wheel, D, toothed sector, J, bearing the indicating finger, L, springs, O, O, I, and indicating fingers, F, substantially as herein shown and described.

64,086.—CULTIVATOR.—Oliver Ethier, Mount Union, Pa.

I claim the combination of the guide blade or rudder, D, placed on the rear of the projecting center beam, B, and the handles, C, C, attached to the cross beams, a, b, arranged and operating substantially as and for the purpose herein described.

64,087.—CAR SPRING.—James W. Evans, New York City.

I claim the spiral surface grooves, c and e, for the reception of the terminal coils of the spring cast in the bottom of the box, A, and head of its cover, C, or in any other cast metal bearings provided for the spring, substantially as herein specified.

64,088.—TICKET FASTENER.—Samuel B. Fay, Franklin, Pa.

I claim the loop wires, D, twisted and crossing each other for the purpose described, as a new article of manufacture.

64,089.—NICKING SCREW HEADS.—Edward B. Fish, Glen's Falls, N. Y.

I claim a nicked screw provided with a cavity, b, in its head, substantially as specified.

64,090.—AIR HEATING APPARATUS FOR STEAM BOILER FURNACES, ETC.—Addison C. Fletcher, New York City. Antedated April 18, 1867.

I claim the air passage passages, E, extending transversely across and through the smoke pipe, chimney flue or exhaust pipe for the whole or nearly the whole length of, and in combination with the jacket, D, surrounding the said pipe, chimney or flue, substantially as and for the purpose herein specified.

64,091.—RIDDLE FOR SAND WASHER.—D. L. Furnier, Ros-traver, Pa.

I claim a hollow screen or riddle, revolving on an axis with one portion always immersed in a vessel through which a stream of water constantly flows, when said riddle receives the earthy sand into its interior at one end and discharges the coarser particles over a tall chute at the other end, as set forth and described.

In combination with a hollow revolving riddle, constructed substantially as described, and revolving in a water trough, B, the chute, M, and stirrers, N, N, for the purposes set forth.

In combination with a hollow revolving riddle, constructed substantially as described, the web, P, and tail spout, L, for the purposes set forth.

In combination with a hollow revolving riddle, constructed substantially as described, the wings, O, O, upon its outer side, to agitate and remove the sand from the trough, as set forth.

The combination of the hollow revolving riddle and bed frame, A, provided with the trough, B, and waste chute, C, constructed and arranged as set forth and described.

64,092.—CARPET LINING.—William Fuzzard, Chelsea, Mass.

I claim as a new article of manufacture, a carpet lining, constructed of silk paper, pasteboard, or a sized textile, or other suitable fabric, bent, corrugated or folded, to affect the result, substantially as herein set forth.

64,093.—HAY AND COTTON PRESS.—Joel Garfield, Grotton, Mass.

I claim, in combination with the follower, the grooves or ways at the ends of the press and their sliding pins, the vertical ratchets and their double set or sets of pawls and the toggle levers, when so arranged that an intermittent progressive movement is imparted to the follower by their co-operative movements, substantially as set forth.

I also, in combination with the follower, the hinged frame, d, by which the follower may be swung up to leave the press open, substantially as set forth.

64,094.—STREET PAVEMENT.—George W. Grader and Matthias H. Baldwin, Memphis, Tenn.

We claim interlocking the sections of the frame, A, by means of the protecting flanges, c, on every alternate corner of each section, fitting into a recess, b, under the corner of the opposite section, thereby preventing the pavement from settling or getting out of line, as herein shown and described.

64,095.—COMBINED FENCE AND GATE.—C. S. S. Griffing, Geneva, N. Y.

I claim the panel, G, arranged as described, and in relation to the panels, A, A, and braces, B, when combined so as to form a gate and panel, jointly, in the manner and relatively as specified.

64,096.—FRUIT GATHERER.—Jacob B. Haines, Millersville, Pa.

I claim the arrangement of the fingers, A, lever arms, E, in combination with the coiled springs, D, all surrounding a rigid shaft, B, centrally aligned to the top of the pipe, R, and also connected with the horizontal and vertical bows, I, K, the latter connected by cross curves, L, M, N, operating jointly in the manner and for the purpose specified.

In combination with the specific frame work, I also claim the use of a sleeve or bag, N, elastic bands, O, buttons, P, actuating wire, F, cord, H, and handle, S, all arranged and operating in the manner and for the purpose set forth.



64,171.—FENCE GATE.—W. F. Veber, Perrysburg, Ohio. I claim the gate, A, as constructed in combination with the joints or pivoted post, G, as and for the purposes set forth.

64,172.—CORPSE PRESERVING CASE.—Joseph S. Waterman, Roxbury, Mass. I claim providing the ice chamber, B, with a yielding top or cover for the purpose set forth. I also claim forming a passage from the corpse chamber to an ice chamber placed above it, substantially as and for the purpose specified.

64,173.—FOLDING CHAIR.—N. Waterman, Toledo, Ohio. I claim the combination of the seat, G, and legs, B, D, whereby the back legs, D, fold on the front legs, B, and the seat, G, passing through between the side pieces, C, above the round, I, fold on the hind legs, D, of the chair, substantially as described for the purpose specified.

64,174.—CHECK HOOK REIN HOLDER.—David C. Watson, Manchester, N. H. I claim the mode herein described to secure check reins in the hook, as shown by stem, C, pin, D, tube, B, tube, A, and spring, E, which may be made of wire or rubber.

64,175.—SPRING BED BOTTOM.—Dexter P. Webster and Hermon W. Ladd, Philadelphia, Pa. First, We claim the detachable frame herein described, the same consisting of the side pieces, B, with dovetail brackets, C, and the cross pieces, D, with dovetail ends constructed and operating, substantially as and for the purpose specified. Second, The plates, C, constructed as described, in combination with the cross pieces, D, substantially as and for the purpose specified. Third, The removable sectional tubular cushions, G, applied to the coils of the springs, substantially as described for the purpose specified. Fourth, The pendant hooks, A, constructed as described, in connection with the bedstead frame, A, supporting the slat-bearing frame, substantially as described for the purpose specified.

64,176.—MACHINE FOR SHAPING METALS.—Morris Wells, Williamsburg, N. Y. First, I claim the combination of springs, d, with the cross bar supporting the clamp, G, substantially as and for the purpose described. Second, The link, K, fitted closely between the cross head, J, and crank, L, and operating in combination with the die, F, and punch, I, substantially as and for the purpose set forth.

64,177.—SLEIGHS.—Nathaniel T. Whiting, Lawrence, Mass. First, I claim the combination of the hollow cross bar, A, the slotted slide, B, and pin, E, when constructed and arranged to operate substantially as and for the purpose set forth. Second, The combination of the slotted shaft-irons, F, the springs, C, and slotted hooks, A, a, z, when arranged to operate substantially as and for the purpose set forth.

64,178.—ORE WASHER.—John Wicks, Greenland, Mich. First, I claim the combination of the separator, B, silice pit, J, baffle, H and their connections, the sieves, c c c c, and hutch, K, all for the purposes and substantially as described. Second, I also claim the walking beam, N, connecting rod, S, in combination with the hutch, K, substantially as described. Third, I claim the baffle, M, in combination with the slime pit, J, for the purposes described. Fourth, I also claim the baffle, G, in combination with the hutch, K, substantially as described.

64,179.—ILLUSORY DECAPITATION.—James C. Withington, Brookline, Mass. I claim the effigy composed of figures 1 and 2, constructed and arranged substantially as herein shown and described for the purposes specified.

64,180.—CLOTHES WRINGER.—John Young, Amsterdam, N. Y. First, I claim the scarf, F, when applied to the upper shaft, B, of clothes wringers in the manner herein shown and described and operating as set forth. Second, I claim, in combination with the gear, F, the cone or center, G, and pin, d, arranged as described, when used in connection with a gear, c, as specified.

64,181.—METHOD OF SPRINKLING LIQUIDS IN REFINING SUGAR.—Helem Merrill, Brooklyn, N. Y. I claim diffusing the water or other cleansing or bleaching agent in a finely divided state by means of a current of air or other elastic fluid, substantially as described.

64,182.—DISCHARGE FOR CENTRIFUGAL MACHINES.—Helem Merrill, Brooklyn, N. Y. I claim the stationary and removal scrapers and receptacles, by which a centrifugal machine may be discharged when in motion, substantially as described.

64,183.—FEEDER FOR CENTRIFUGAL MACHINES.—Helem Merrill, Brooklyn, N. Y. I claim a hopper constructed substantially as described for the purpose of delivering and distributing a uniform layer on the sieve of a centrifugal machine, while in motion.

64,184.—SEWING MACHINE.—Monroe Stannard, Hartford, Conn. First, I claim operating the feed wheel of a sewing machine by means substantially such as described, so that it shall always, when in action, have the ordinary intermittent motion, it may, in addition, have, or not have, at the option of the operator, a positive rising or falling motion for each progressive action of the wheel, for the purpose set forth. Second, The employment in a sewing machine of the adjustable vibrating lever, N, or its mechanical equivalent, with the rock shaft, P, arms, q, s, connecting bar, r, cam, t, or their mechanical equivalents, for holding the feed wheel, and for giving to it an alternately rising and falling movement, substantially as described.

Second, A furnace grate bar in which the cross bars are alternately connected at their ends, substantially as set forth, to strengthen said cross bars and prevent the scraper dropping in between said bars, as set forth.

Third, A furnace grate bar in which the surface of the longitudinal bar is on the same level as the top of the cross bars, as set forth, so that said longitudinal bar will aid in supporting the scraper.

Fourth, Furnace grate bars in which there are longitudinal air spaces between the bars and parallelogram air spaces transversely of the bars, substantially as set forth.

2,574.—MACHINE FOR CUTTING HOOPS.—Martin Reed, Rochester, N. Y., assignee of John Thompson. Patented Nov. 17, 1863. I claim, First, The combination of the irregular-shaped knife, D, with the automatically adjusting rest, C, and adjustable gage, a, as and for the purpose set forth. Second, The employment of the knife, D, constructed with one or more offsets in its cutting edge, as described, and for the purpose set forth. Third, The combination of the wheel, E, the spring saw, d, and clutch, f, or their equivalents, with the rest, C, as and for the purpose set forth. Fourth, I claim an improvement in manufacture of hoops, the cutting of the hoop from the edge of the plank by a cut alternately in a bevel line and in a right line to the side of the plank, or in alternate bevel lines.

2,575.—COMPOSITION FOR ROOFING AND OTHER PURPOSES.—Rees B. Smith, Mount Pleasant, Ohio. Patented July 31, 1866. I claim the composition, for roofing and other purposes, consisting of the ingredients in about the proportions described.

2,576.—BRACE FOR BRIS.—N. Spofford, Haverhill, Mass. Patented Nov. 1, 1859. I claim, First, A bitstock constructed with a tapered socket transverse to the arm or portion of the stock in which it is formed, and said arm slitted along its center line, so as to divide said socket lengthwise into two equal parts to form an expanding socket, substantially as and for the purpose described. Second, The slitted socket, A, constructed with the inward projections or lips, d, at its larger end to close over the shoulders of the bit shank for the purpose of retaining said shank with the socket when clamped substantially as set forth. Third, Arranging the socket, A, of a brace with a slot, a, as described in combination with a thumb screw, D, and slips or projections, d, or their equivalents, substantially as and for the purpose set forth.

RE-ISSUES.

DESIGNS.

2,572.—CARRIAGE WHEEL.—John Raddin, Lynn, and George W. Chipman, Boston, Mass., assignees of John Raddin. Patented June 13, 1865. We claim a wheel having combined directly with the spokes thereof elastic cushions or blocks of rubber applied to or in the line of the spokes as to receive the strain exerted between the axle and the tire of the wheel, and having also means for relative adjustment of the spokes and cushions. Also, The specific constructions described, and shown in the several spokes represented in figs. 1, 2, 3, 4, 5, and 6.

2,573.—GRATE BARS.—Lorenzo B. Tupper, New York City, assignee of Daniel Lasher. Patented Sept. 11, 1860. First, I claim a furnace grate bar having a series of parallelogram openings running crosswise of the bar, substantially as set forth.

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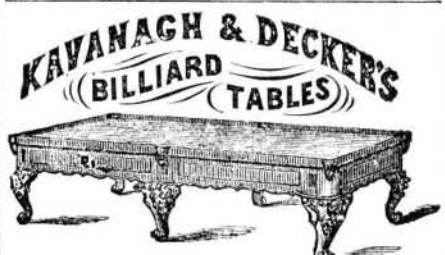
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At the experimental firing of the 20-inch gun at Fort Hamilton, March 15th, the charges used were, first shot, 125 lbs.: second shot, 150 lbs.: third shot, 175 lbs.: fourth shot, 200 lbs.: mammoth powder. This gun was fired at a constant angle of 25°. Gen. Rodman's pressure plug was used in getting the pressures. An examination of the record will show that from some unknown cause the amount of pressure of the third discharge exceeds that of the fourth, although 25 lbs. less powder was used. At the same time the range is 2,827 yards less. The same irregularity may be observed between the second and third shots. Future experiments may explain these va-

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The following is the record of the firing:—

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By plotting, the Ranges are—First shot, 6,144 yards—difference, 34 yards; second shot, 6,860 yards—difference, 58 yards; third shot, 6,828 yards—difference, 58 yards; fourth shot, 8,001 yards—difference, 49 yards.

Times of Flight.—First shot, 36 seconds; second shot, 26 seconds; third shot, 27 seconds; fourth shot, 27 seconds. Length of base line, 2,310 yards.

Pressures (Maximum).—First shot, 21,000 lbs. per square inch; second shot, 21,000 lbs. per square inch; third shot, 25,000 lbs. per square inch; fourth shot, 21,000 lbs. per square inch.

Recoils.—First shot, 8 feet (no sand); second shot, 85 inches (sanded); third shot, 10 inches from counter hurter (sanded); fourth shot, 7 feet 5½ inches (sanded).

Time of loading, running into battery, elevating, and priming, 8½ minutes.

—Army and Navy Journal.

**Wheels on Pavements.**

One of our correspondents recommends for the preservation of pavements, wheels with large faces. He thinks there should be a law compelling every truck to have wheels of eight-inch face, and every stage and express wagon wheels of six-inch face. This would preserve the pavements and keep them level. He says he has three ox carts, two with wheels of six inches and one with wheels of eight inches of face, and his meadows are never cut up in ruts. One of these eight-inch wheels will outlast four of two-inch face, and the tires of three-eighths-inch iron never wear out. There should be no disk to these wide-faced wheels and no "gather." The spokes should be double.

SELF-ACTING TOOLS FOR WORKING WOOD are of a comparatively modern existence. They have been, in many important instances, originated in America and brought to this country, where they have undergone a complete reconstruction and alteration of design, their main principles and mode of action being preserved, but the framework and gearing of the machines have received a certain amount of strength and solidity which, as a rule, was not to be found in the original tools imported from America. The circumstances which are most favorable to the invention and employment of wood-working machinery are cheap wood and dear labor. The power of production of wood-working machinery, and the speed with which machine work is completed in this branch of industry, have no equal in practical mechanics. The application of this class of machines in Europe, and in this country (England) particularly, is rapidly increasing; and although the construction of wood-working machines is carried on by a very limited number of firms only, the trade is a growing and important one as a whole.—Engineering.

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The first inquiry that presents itself to one who has made any improvement or discovery is: "Can I obtain a Patent?" A positive answer can only be had by presenting a complete application for a Patent to the Commissioner of Patents. An application consists of a Model, Drawings, Petition, Oath, and full Specification. Various official rules and formalities must also be observed. The efforts of the inventor to do all this business himself are generally without success. After a season of great perplexity and delay, he is usually glad to seek the aid of persons experienced in patent business, and have all the work done over again. The best plan is to solicit proper advice at the beginning.

If the parties concerned are honorable men, the inventor may safely confide his ideas to them: they will advise whether the improvement is probably patentable, and will give him the directions needful to protect his rights.

We (MUNN & CO.) have been actively engaged in the business of obtaining patents for over twenty years—nearly a quarter of a century. Many thousands of inventors have had benefit from our counsels. More than one-third of all patents granted are obtained by us.

Those who have made inventions and desire to consult with us, are cordially invited to do so. We shall be happy to see them in person, at our office, or to advise them by letter. In all cases they may expect from us an *honest opinion*. For such consultations, opinion, and advice, we make no charge. A pen-and-ink sketch, and a description of the invention should be sent, together with stamps for return postage. Write plainly—do not use pencil nor pale ink; be brief.

All business committed to our care, and all consultations, are kept by us *secret and strictly confidential*. Address MUNN & CO., 37 Park Row, New York.

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Many valuable patents are annually expiring which might readily be extended, and, if extended, might prove the source of wealth to their fortunate possessors.

All the documents connected with extensions require to be carefully drawn up and attended to, as any failure, discrepancy, or untruth in the proceedings or papers is liable to defeat the application.

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If the device has been patented, the time and expense of constructing models, preparing documents, etc., will, in most cases, be saved by means of this search: if the invention has been in part patented, the applicant will be enabled to modify his claims and expectations accordingly.

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My stream is a very light one, and everybody told me it was useless to try a Turbine in place of an Overshot with so little water. When the wheel came they all pronounced me a fool, or insane; that so small a wheel could not turn around, much less drive a millstone.  
I told them to wait and see and they would change their tune. Some fifty men had come in to see me start up, and I wish you could have been here to hear their different opinions.  
First I started up with one run of stone, and off she went like a thing of life, then after a little I put on two runs; off she went again, and has run beautifully ever since. They all gave it up, and pronounced it the most wonderful wheel they ever knew. The Turbine uses no more water than the Overshot did, and gives decidedly more power.  
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