

MECHANICAL INVENTIONS.

A bearing for spindles of spinning machines has been patented by Mr. Albert R. Sherman, of Pawucket, R. I. This invention combines with the spinning bolster and case a ball or detachable stiff vertical supporting pin with free lateral movement, the pin or ball stepped at its lower end in the bottom of the bolster case, and the oil cushion between the bolster case and the bolster being preserved in the plane of the whirl.

AGRICULTURAL INVENTIONS.

A combined corn planter and fertilizer distributor has been patented by Mr. William Cassill, of Hamden Junction, Ohio. This invention covers improvements on a former patented invention of the same inventor, making the machine more convenient in use and more reliable in operation.

A check row corn planter has been patented by Mr. Stephen E. Williams, of Rockport, Mo. The frame is mounted on a stationary axle with rotating wheels, and hinged to it is a frame with rotating axle and fixed drive wheels, so the drive wheels can be raised from the ground; there are also hinged marker bars which can be readily raised and lowered.

A corn harvester has been patented by Mr. John E. Smith, of Wilmington, Del. The cutters are arranged to cut two rows of corn at one passage across the field, the outer cutter, or the one most remote from the team, being in advance of the inner one, there being also an evener chain for bringing the but ends of the two rows of stalks together to be bound as fast as they are cut.

A harrow attachment for plows forms the subject of a patent issued to Mr. Enoch Calvin Eaton, of Pinckneyville, Ill. An obtuse angled bar carrying teeth on its outer arm is so combined with a turn plow, another bar bent at both ends having teeth adapted to work rearwardly, as to form a harrow rigidly attached to the plow beam, to pulverize and level the soil, cutting down the high parts of the furrow slice and filling the low places.

MISCELLANEOUS INVENTIONS.

An oil filter has been patented by Mr. Daniel S. Neiman, of Fargo, Dakota Ter. It is a tank with a funnel at its upper end and a series of shelves with layers of charcoal, lime, and woolen cloth, with a steam coil surrounding the lower end of the funnel.

A hair spring regulating pin for watches has been patented by Mr. George F. Johnson, of Aurora, Ill. In combination with the regulator and its pins is a spring, so attached and arranged as to close by its tension on or against the under or exposed ends of the regulator pins.

A paper box machine has been patented by Mr. Maurice Marques, of New York city. There are male and female cutting dies, with expanding plates, and means for operating them, so the paper box may be formed of a single blank cut from a sheet of paste-board or other suitable material.

A pump has been patented by Mr. Luis G. Careaga y Saenz, of Puebla, Mexico. It is a double piston pump, with rigid piston disk and rod arranged eccentrically, with a segmental plate attached to the disk and rod, a flanged impervious rubber plate, and various other novel features.

A clock striking mechanism has been patented by Mr. Lucien Diacon, of Chaska, Minn. The object of this invention is to simplify the construction and reduce the cost of clocks intended to strike the hours and their subdivisions, as well as prevent their becoming easily disarranged.

A horse detacher has been patented by Messrs. John E. Stevenson and Joseph Forsyth, of Brighton, Tenn. This is an improved contrivance of trace hooks and means for unhooking the traces therefrom, to provide simple and efficient means of escape from the horses when they become uncontrollable.

A line throwing gun has been patented by Mr. Jeremiah Williams, of Hartford, Ky. There are side openings in the barrel about the middle of its length, and there is a cone held to turn on the barrel on which the line secured to the dart is held, the dart having a wad held on its butt end by a screw.

A distributing roller for mucilage, gum, etc., has been patented by Mr. Joseph A. Conwell, of Vineland, N. J. This invention consists of a roller with an annular groove at each end inclined inward from the rim toward the central axis, making pockets for the mucilage flowing down the ends of the roller.

A plumb bob has been patented by Mr. George Morrison, of Elmira, N. Y. In its upper hollow portion is a spring barrel gearing with a pinion on a shaft, a reel being mounted on the shaft with its periphery notched for the engagement of a spring pawl for holding the reel at any desired point.

A nut for carriage axles has been patented by Mr. Robert M. Pierson, of Mayesville, S. C. The nut is hollow, with adjustable covers for taking up the endwise wear of the axle box in the hubs of carriage wheels, and it has a locking device for maintaining the hollow nut and core in any given relation to each other.

A paperhanger's table has been patented by Mr. Lewis A. Young, of Stanstead, Quebec, Canada. This invention combines, with a frame, means for trimming the edges of the paper, for distributing the paste, and an endless conveyor belt upon which the paper is conducted after having been supplied with paste.

A chain pump has been patented by Mr. George W. Derrick, of Centerville, Ore. This invention covers a special combination of parts to lessen the friction and wear upon rubber buckets, and also to allow the well pipe to be readily cleared of sediment and the water to be easily discharged from its upper part to prevent freezing.

A circular saw lifter has been patented by Mr. William G. Baumgardner, of Filer City, Mich. It is a yoke with a handle pivoted on each of its parallel bars, with a cam lug on one side of the pivot adapting the two handles to form gripping bars, between which the toothed edge of the saw may be inserted, so as to be gripped and held firmly.

A hand truck has been patented by Mr. Joseph Annin, of Brooklyn, N. Y. The truck frame is of cast iron, with jaws cast in one piece therewith, and having parallel extensions for receiving clamping bolts, the handles having sockets or clamping jaws for securing them tightly, and so they may be conveniently attached and removed.

An automatic safety brake for horse powers has been patented by Mr. William L. Remington, of Meriden, Conn. This invention consists principally of a system of levers applied to the ordinary brake lever in such manner that a downward movement of the main horizontal lever of the system will shove forward the brake lever and apply the brake.

A safe has been patented by Messrs. John W. Johnston, of Richmond, Va., and J. H. Rogers, of Washington, D. C. An envelope is made to cover the entire safe, the envelope being wholly or partially adjustable, with means for adjusting, and an electro magnetic locking device for precluding the movement of the envelope except within certain intervals of time.

A carpet fastener has been patented by Mr. James A. Waters, of New York city. A hooked clamp plate is employed, journaled in suitable blocks or standards, and acted upon by springs, for grasping and holding the edge of the carpet, so the carpets may be held without injury and easily taken up and replaced, avoiding the use of tacks, hooks, etc.

A rope supporter for hay and other carriers has been patented by Mr. Richard Tennant, Jr., of Woodland, Wis. It is made with a pulley to receive the rope, bars, and wheels to carry the pulley, and spring catches to engage with the carrier, preventing the rope from sagging, and lessening the space traveled by the horse at each trip.

A mowing machine knife has been patented by Mr. John M. Hamblin, of South Union, Ky. This invention provides a light, strong serviceable knife bar and knives, which may be worked a long time without excessive gumming and with little power, and which will allow of a quick, easy, and accurate sharpening of the knives when dulled.

A door banger has been patented by Mr. George H. Burrows, of Somerville, Mass. It is made with a traveling bar with a longitudinal slot to receive the wheel, and long rabbits in its lower side to receive and travel upon the journals of the wheel, the improvement being especially applicable to car doors, though useful for other purposes.

A hoot or shoe polishing machine has been patented by Mr. Arthur A. Sparks, of Trenton, N. J. It consists of a frame mounted loosely on a shaft and carrying revolving brushes, which may be swung around to the work by turning the frame in vertical plane, the brushes being revolved by belts leading from a fixed pulley on the shaft.

A spoon bowl has been patented by Mr. Henry Nickolds, Sr., of Taunton, Mass. The bowl of this spoon by this construction, instead of having a sharp edge, has its margin bent outward or extended in the manner of a flange, or made with what is styled a returned edge, so it will present a more smooth and agreeable surface to the upper lip.

A pole attachment for wagons has been patented by Messrs. Alfred T. Hawk and Joseph W. Scott, of Preston, Ohio. It is made with a socket bar secured to the hounds at the forward side of the axle by clips, and a socket bar secured to the forward part of the bounds by a keeper, and properly strengthened by brace rods, so two poles can be readily applied to the wagon.

A washing machine has been patented by Mr. Merritt W. Palmer, of Holland, Mich. This invention covers certain improvements in clothes washers where the water is forced through the clothes by air being compressed in the vessel, a valve admitting air but preventing its escape, the up and down movement of the washer effectively acting to force soapy water through the clothes.

A belt clamp has been patented by Mr. Eleazer Ainsworth, of Wilmington, Del. Clamp bars are provided with convex sides facing each other, the bars having grooves in the ends increasing in depth from the outer to the inner edges, to permit inclining the clamp bars to the screw rods, the invention being an improvement on a former patented invention of the same inventor.

A marker for weather boards, flooring, and jambs has been patented by Mr. John Hamm, of Memphis, Kansas. It consists of a rule formed of two strips of wood, connected together at one end by a hinge and at the opposite end by a transverse screw, each strip having a short arm, and each side of the rule a standard with a shouldered projection, with other novel features.

A saw mill head block has been patented by Mr. Robison W. Shelbourne, of Blandville, Ky. There is a wheel with shaft gearing with the log setting shaft, a rising and falling rail adapted for contact with the wheel, an apparatus for actuating an endwise movable bar, and other novel features, to effect in an improved way the manipulation of the log in presenting it to the saw.

A cotton gin breast has been patented by Messrs. William F. Smith and William W. Adams, of Ozark, Ark. There is a suitably supported flexible breast back comprising one or more belts armed with strips upon the exterior sides, and driving wheels encompassed by the belts, with other novel features, to facilitate the passage of the cotton to the saws, prevent breaking or stopping the roll, and afford increased facility for ginning wet cotton.

A folding skeleton gun stock has been patented by Mr. Frederick Schwatka, of Vancouver Barracks, Washington Ter. The skeleton extension is pivoted to swing upon a smaller stock of gun or pistol, and arranged so that when closed it fits underneath the stock; there is also a spiral articulated construction of the skeleton stock, with fastenings for it closed and extended, securing great compactness and providing for a large extension of the stock.

A numbering attachment for printing presses forms the subject of four patents issued to Mr. Albert R. Baker, of Indianapolis, Ind. The press has an additional cylinder, with numbering heads properly mounted therein, and appropriate mechanism for operating them, the cylinder being in such relation to the regular cylinder that the numbers in the numbering heads will come in contact with the paper thereon as the cylinders revolve, with various other novel features.

A wheelbarrow has been patented by Mr. Joseph Annin, of Brooklyn, N. Y. The body can, by means of clamps, be secured to the handles at any desired distance from the wheel, and a stiff flanged brace sustains the tray in its normal shape, so the barrow can be used in carrying burning coals about gas works, melted refuse about iron works, etc. The same inventor has also obtained another patent covering an improved metal wheelbarrow tray, with two angular side and end pieces, forming a flaring body, riveted together with the bottom.

A belt fastener forms the subject of two patents issued to Mr. George W. Southwick, of Southwick, Mass. It consists of a rigid plate with prongs and eyes on both edges, the longitudinal axes being parallel with the edges from which the prongs project, so the strain is distributed over the plate in all its positions; also, if the belt begins to rip, an additional plate may be fastened on the belt, and the loops connected with the other, the object being to unite the ends of driving belts, so they need not be adjusted and tightened as often as with the usual lacing.

NEW BOOKS AND PUBLICATIONS.

AMERICAN NEWSPAPER ANNUAL. N. W. Ayer & Son, Philadelphia.

This handsome octavo of nearly a thousand pages, containing a full list of all newspapers in the United States and Canada; it also has classified lists of those devoted to special subjects, as religion, agriculture, trade, science, etc., making it an extremely valuable and convenient reference book. From these lists we see that there are in 1884, 12,713 newspapers and periodicals published in the United States, as compared with 11,966 in 1883—again of 747; while Canada shows a loss of 9. The book may in part be styled a co-operative publication, in which the various newspapers join with the Messrs. Ayer & Son in getting out a volume which will give the greatest amount of information about their business.

DYNAMO-ELECTRIC MACHINERY. By Silvanus P. Thompson. E. & F. N. Spon, London and New York.

This volume is based on the Cantor lectures of the author before the Society of Arts, in 1882, but affords a good deal more than a mere reprint of those papers, which were at once republished and widely circulated in America and throughout Europe. The present work is a review of what has been done, down to the present time, in converting the energy of mechanical motion into that of electric currents, and vice versa, a subject in the investigation of which the writer has been prominent for some years past. His papers have been read, and his judgment is highly valued, by all thorough investigators in this field.

WONDERS AND CURIOSITIES OF THE RAILWAY. By William S. Kennedy. S. C. Griggs & Co., Chicago.

This is a pleasant book for a traveler on a journey by rail, with which to while away an hour. There are few matters in it with which an ordinary engineer or an intelligent mechanic is not already conversant, but it is sometimes agreeable to refresh the memory with a book of this kind, which interests without taxing the mind.

THE BOOK BUYER.—This is the title of a very excellent monthly periodical issued by the well known publishers, Messrs. Charles Scribner's Sons, 743 Broadway. It contains the titles and prices of all the principal new books issued during the month, interesting literary information, elegant extracts from the latest and best works. It is in short a guide and summary of current literature, American and foreign. It is full of useful suggestions for readers, and merits the wide circulation it enjoys; 50 cents a year, 5 cents per copy, 38 pages.

Received.

FARLEY'S REFERENCE DIRECTORY OF THE MACHINISTS, IRON, STEEL, AND METAL WORKING TRADES OF THE UNITED STATES. A. C. Farley & Co., Philadelphia.

THE MAN WONDERFUL IN THE HOUSE BEAUTIFUL. An Allegory. By Drs. Charles B. and Mary A. Allen. Fowler & Wells Co., New York.

THE PRACTICE OF ORE DRESSING IN EUROPE. By Wheaton B. Kunhardt. John Wiley & Sons, New York.

AN IMPORTANT QUESTION IN METROLOGY. By Charles A. L. Totten. John Wiley & Sons, New York.

THE THEORY OF DEFLECTIONS AND OF LATITUDES AND DEPARTURES. By Isaac W. Smith, C. E. D. Van Nostrand, New York.

SELF-RAISED, OR FROM THE DEPTHS. By Mrs. Emma D. E. N. Southworth. T. B. Peterson & Bros., Philadelphia.

Business and Personal.

The Charge for Insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in next issue.

Cities over 10,000 population wishing cheapest, best, highest speed street railway, address Stewart & Co., 3041 Dauphin, Phila.

Darwin's "Origin of Species"; works by Tyndall, Huxley, Spencer, etc., cheap enough for all. Write for a catalogue. J. Fitzgerald, 20 Lafayette Place, N. Y.

Practical man wanted. A man thoroughly posted in the manufacture of machine and planer knives, and competent to take charge of men. Best of references required. Michigan Saw Works, East Saginaw, Mich.

For Sale. Canada patent, dated Sept. 19, 1884. The U. S. patent just issued is proving a great success. Must have funds. Will sell cheap. Henry Binley, 594 Broadway, Albany N. Y.

For Sale. A very important patent automatic turn table for horse cars. All States and Territories for sale except Louisiana. Patented Sept. 16, 1884. Apply to C. F. Bollwitt, 170 Orleans, New Orleans, La.

The Cyclone Steam Flue Cleaner on 90 days' trial to reliable parties. Crescent Mfg. Co., Cleveland, O.

For Steam and Power Pumping Machinery of Single and Duplex Pattern, embracing boiler feed, fire and low pressure pumps, independent condensing outfits, vacuum, hydraulic, artesian, and deep well pumps, air compressors. address Geo. F. Blake Mfg. Co., 44 Washington St., Boston; 97 Liberty St., N. Y. Send for Catalogue.

Blake's Patent Belt Studs, the strongest and best fastening for Rubber and Leather belts. Greene, Tweed & Co., N. Y.

Quinn's device for stopping leaks in boiler tubes. Address S. M. Co., South Newmarket, N. H.

Mills, Engines, and Boilers for all purposes and of every description. Send for circulars. Newell Universal Mill Co., 18 Barclay Street, N. Y.

Wanted.—Patented articles or machinery to manufacture and introduce. Lexington Mfg. Co., Lexington, Ky.

Brush Electric Arc Lights and Storage Batteries. Twenty thousand Arc Lights already sold. Our largest machine gives 65 Arc Lights with 45 horse power. Our Storage Battery is the only practical one in the market. Brush Electric Co., Cleveland, O.

"How to Keep Boilers Clean." Book sent free by James F. Hotchkiss, 85 John St., New York.

Stationary, Marine, Portable, and Locomotive Boilers a specialty. Lake Erie Boiler Works, Buffalo, N. Y.

Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J.

The Hyatt filters and methods guaranteed to render all kinds of turbid water pure and sparkling, at economical cost. The Newark Filtering Co., Newark, N. J.

Steam Boilers, Rotary Bleachers, Wrought Iron Turn Tables, Plate Iron Work. Tippet & Wood, Easton, Pa.

Send for Monthly Machinery List to the George Lake Machinery Company, 121 Chambers and 103 Reade Streets, New York.

Iron Planer, Lathe, Drill, and other machine tools of modern design. New Haven Mfg. Co., New Haven, Conn.

For Power & Economy, Alcott's Turbine, Mt. Holly, N. J.

If an invention has not been patented in the United States for more than one year, it may still be patented in Canada. Cost for Canadian patent, \$40. Various other foreign patents may also be obtained. For instructions address Munn & Co., SCIENTIFIC AMERICAN Patent agency, 361 Broadway, New York.

Guild & Garrison's Steam Pump Works, Brooklyn, N. Y. Steam Pumping Machinery of every description. Send for catalogue.

Nickel Plating.—Sole manufacturers cast nickel anodes, pure nickel salts, polishing compositions, etc. Complete outfit for plating, etc. Hanson & Van Winkle, Newark, N. J., and 92 and 94 Liberty St., New York.

Supplement Catalogue.—Persons in pursuit of information on any special engineering, mechanical, or scientific subject, can have catalogue or contents of the SCIENTIFIC AMERICAN SUPPLEMENT sent to them free. The SUPPLEMENT contains lengthy articles embracing the whole range of engineering, mechanics, and physical science. Address Munn & Co., Publishers, New York.

Machinery for Light Manufacturing, on hand and built to order. E. E. Garvin & Co., 139 Center St., N. Y.

Munson's Improved Portable Mills, Utica, N. Y.

Mineral Lands Prospected, Artesian Wells Bored, by Pa. Diamond Drill Co. Box 423, Pottsville, Pa. See p. 141.

C. B. Rogers & Co., Norwich, Conn., Wood Working Machinery of every kind. See adv. page 142.

Curtis Pressure Regulator and Steam Trap. Seep. 222.

Woodwork'g Mach'y. Rollstone Mach. Co. Adv., p. 222.

Drop Forgings. Billings & Spencer Co., Hartford, Conn. We are sole manufacturers of the Fibrous Asbestos Removable Pipe and Boiler Coverings. We make pure asbestos goods of all kinds. The Chalmers-Spence Co., 419 East 8th Street, New York.

Clark's Rubber Wheels. See adv. next issue.

Steam Hammers. Improved Hydraulic Jacks, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

Emerson's 1884 Book of Saws. New matter, 75,000. Free. Emerson, Smith & Co., Limited, Beaver Falls, Pa.

Cotton, Rubber, and Leather Belting. Steam Engine Packing of all kinds. Greene, Tweed & Co., 118 Chambers St., New York.

Barrel, Keg, Hogshead, Stave Mach'y. See adv. p. 237.

Hoisting Engines. Friction Clutch Pulleys, Cut-off Couplings. D. Frisbie & Co., Philadelphia, Pa.

U. S. Standard Thread Cutting Lathe Tool. Pratt & Whitney Co., Hartford, Conn.

For best low price Planer and Matcher, and latest improved Sash, Door, and Blind Machinery, Send for catalogue to Rowley & Hermance, Williamsport, Pa.

The Porter-Allen High Speed Steam Engine. Southwick Foundry & Mach. Co., 430 Washington Ave., Phil. Pa.

Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting Works, Drinker St., Philadelphia, Pa.