

MANUFACTURING, MINING, AND RAILROAD ITEMS.

The Pennsylvania oil wells turned out 12,235 barrels a day last month. The Troy foundries are running at full blast, the demand for stoves being ahead of the supply. It takes twelve thousand tons of coal to supply the furnaces of the Glass factories on the line of the West Jersey Railroad. The rolling mills at Portland are manufacturing fifteen hundred tons of rails for the Grand Trunk Railway. The Washington Mill Company at Lawrence, Mass., is erecting a new mill for the manufacture of worsted goods. It will be two hundred feet long, seventy-five feet wide, and three stories high. A train on the Wisconsin Division of the Chicago and Northwestern Railway, is reported to have recently run fifty-one miles in forty-nine minutes, and ninety-one miles in ninety-five minutes. Over a million pounds of tobacco, on which the owners are unable to pay the taxes, are now stored in Richmond. Flouring mills in Minneapolis and St. Anthony will turn out 180,000 barrels of flour in the next two months. It is said that the New England Express Company will soon begin operations on the lines of the principal railways of the Northern States. Philadelphia does a great business in the marble manufacture. It has sixty marble yards. The manufacturers employ a large number of sculptors and carvers, and the business is very active. Both bituminous and anthracite coal have been found in the Rocky Mountains, on the line of the Pacific Railroad, close to the track. The best coal field is near Benton, in the vicinity of the crossing of the North Platte. The mail agents on the Union Pacific Railroad have been armed with Spencer carbines, with which to protect themselves against the attacks of Indians upon the mail trains, which it is feared they may make. It is said that fifteen bids for the completion of the Hoosac Tunnel were received by the Executive Council. The lowest was \$4,270,000. The parties making the bid were required to furnish securities amounting to \$500,000 which being too large to meet their views the matter remains in abeyance. An explosion occurred on the 22d ult., in Richards & Verplanck's oil refinery in Jersey City, by which two men were killed and two seriously injured. Twenty thousand dollars worth of oil was burned. The Gholiar Post mine, Nevada, has made its annual report for the fiscal year, ending May 31st, 1868. Amount of ore extracted from the mine 70,330 1/2 tons. The total quantity of ore milled was 77,954 1/2 tons. Average yield per ton, \$24 1/4; cost of milling, \$14 75; actual cost of extracting per ton, \$4 24; filling mine and dead work per ton, extracted \$3 1/2 c.; taxes per ton 2 1/2 c.; expenses at new works per ton, \$1 87; incidentals per ton, 26c. Total expenses, \$31 68. Net yield per ton, \$2 46. At the works of the Mansfield Elastic Frog Company, Hartford, can now be seen a series of railroad frogs joined together so as to form one huge diamond forty feet in length, and costing three thousand dollars. It is designed for the double track crossing of the Boston and Albany railroads near Boston, and is said to be the largest piece of this kind of work ever attempted.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

ROSSING MACHINE.—C. Gilpin and L. T. Dickinson, Cumberland, Md.—The object of this invention is to construct a simple and effective machine which shall cross the bark more thoroughly than has heretofore been done. ROSSING MACHINE.—C. Gilpin and L. T. Dickinson, Cumberland, Md.—This improvement consists in the employment of a reciprocating saw, instead of a cutting blade, to split the bark as it comes from the rollers. COFFEE ROASTER.—J. E. Edmundson, Bartlett, Ohio—The object of this invention is to produce a neat and convenient instrument for household use, for the purpose of roasting coffee expeditiously and uniformly, and without diffusing its aroma, and thereby impairing its strength. CULTIVATOR.—M. F. Lowth and T. J. Howe, Owatonna, Minn.—This invention is for its object the fastening of the cultivator tooth to the beam in such a manner that, while it remains firmly in position under any ordinary strain, it will yield when in contact with an immovable obstacle without breaking. GLASS LIGHTS.—Wm. A. Demuth, New York city.—The object of this invention is to construct a beautiful and cheap glass light for windows, lanterns, and other purposes, which shall be more ornamental and less expensive than plate glass, and which shall be less liable to damage by fracture than any other glass lights now in use. RUBRIC BLIND SLAT PLANE.—R. K. Lowe, Upper Alton, Ill.—The object of this invention is to construct a simple and easily adjustable instrument by which the slats, of which rustic window blinds are made can be cut out from the wood in an easy and expeditious manner. The instrument is so improved that the slats can be cut of different widths and thicknesses, while, if the plane becomes dull, it can be made to present a sharp edge again in a moment of time, without the necessity of removing it to the ground or sharpened. MAN POWER MACHINE.—Jacob G. Deshler, Allentown, Pa.—The object of this invention is to furnish a simple and effective machine for transmitting manpower with the least fatigue to the operator. It consists of a vibratory foot board, in combination with a crank shaft, and a pair of double pitmen connecting the cranks of the crank shaft. NEST BOX FOR HENS.—B. F. Hayward, Nebraska city, Nebraska.—The object of this invention is to provide a nest box which will close automatically when the hen gets upon her nest, and will open in the same manner when the fowl wishes to leave her nest, whereby a setting hen may be protected from annoyance from other fowls or other animals prone to annoy hens while hatching or laying. BEEHIVE.—V. Zimmerman, Morris, Ill.—This invention relates to a new and improved beehive, and it consists in a novel arrangement of hanging or suspending the comb frames, the employment of a slotted partition board, a novel moth trap, and adjustable slides. BEE HOUSE.—James Tallman, Clayton, Ill.—This invention relates to a new and useful improvement in a bee house, or hive, and which is termed the "community hive." LAMP.—J. P. McGee, Trenton, Tenn.—This invention relates to the method of fastening the burner to the lamp, whereby the use of a screw is avoided, and the process of attaching and detaching the burner is greatly facilitated. MACHINE FOR MOLDING CANDY.—E. K. Powers, Grand Rapids, Mich.—This invention relates to a new and improved machine for molding candy, and is more especially designed for molding pop-corn candy. The invention consists of an improved means for forming the candy into proper sized sticks, and then compressing the same. CONCRETE BLOCK PRESS.—O. V. Evans, Ripley, Ohio.—This invention relates to improvements in presses for making concrete blocks, whereby it is designed to provide a simple and effective machine for accomplishing the same, and it consists in the arrangement and combination of the parts constituting the same. BEEHIVE.—Geo. Eason, Lyons, N. Y.—The object of this invention is to provide a chamber for the deposit of the building cells, and that portion of the honey, on which the bees subsist, which may be readily adjusted to a capacity to suit the demands of the family, and also an improved arrangement of clear honey boxes. PROJECTILE FOR FIRE ARMS.—Charles F. Brown, Warren, R. I.—This invention relates to a new shell projectile, to be propelled by breech or muzzle loading ordnance, the shell being of that class which explodes when it reaches the mark. The invention consists chiefly in the use of a tubular fuse holder

within the lead shell, and in the use of a plunger within the fuse holder, all operating in such manner that the fuse is ignited by the charge, which propels the shell, but that it does not ignite the powder in the shell until the latter has struck its mark, the ground, or some other object.

WIND WHEEL.—Benjamin H. Goodale, Newburyport, Mass.—This invention consists in an arrangement whereby the sails are suspended from the outer ends of the horizontal arms of a vertical shaft, in such a manner that the action of the wind will open them when they have arrived at the position when it will have no effect on them by direct action, and thereafter operate on them by reaction for a considerable portion of the revolution. It also consists in an arrangement of means for furling the sails, and thereby stopping the wheel, or unfurling them to set it in motion.

PARLOR AND FIELD BALL GAME.—William H. Wilson, Providence, R. I.—This invention relates to a new game, which is partly one of skill and partly of chance. The invention consists in the use of a revolving pointer or index hand, moving over a disk on which numbers or words are marked, said index hand being either itself exposed, or having a pendant or arm which is exposed to the action of a ball thrown by the player. As the ball strikes the pointer or its arm, the same will swing around its pivot, and will, when it comes to rest, point to a figure, word, or mark, on the disk, thereby indicating the further progress of the game.

FIRE ESCAPE.—Jürgen L. Jürgens, New Orleans, La.—This invention consists of a car provided with axles made adjustable in the direction of the length of the same, and connected together by a shaft having a right and left hand screw thread, by which the said axles may be expanded or contracted as it is moved up or down inclined ways, placed outside of the building convenient to the windows of the same, to admit of the inmates of the building entering the car as it passes down from one window to another.

INSTRUMENT FOR REMOVING CORKS FROM BOTTLES.—George W. Schermerhorn, East Linton, Me.—This invention has for its object to furnish a neat, simple, cheap, effective and convenient instrument for removing corks from bottles.

PENCIL SHEATH OR HOLDER.—Samuel Ayers, Danville, Ky.—This invention has for its object to furnish a neat, simple and convenient device by means of which a pencil may be safely held in such a position as to be always at hand ready for use.

YOKE FOR HORSES AND OTHER ANIMALS.—Thomas J. Barnes, Cambridge, Ill.—This invention has for its object to improve the construction of the improved horse yoke patented by the same inventor, Nov. 5, 1867, and numbered 70,502 so as to make it more convenient and effective in operation.

HAY RAKE AND LOADER.—William H. Hitesbew, Perrysburgh, Ind.—This invention has for its object to furnish a machine, simple in construction and effective in operation which will collect or rake the hay and deposit it upon the wagon, doing its work thoroughly and well.

HORSE HAY RAKES.—William H. Cook, Bridgehampton, N. Y.—This invention has for its object to improve the construction of revolving horse hay rakes so as to make them more effective and convenient in operation than when constructed in the ordinary manner.

SORGHUM EVAPORATOR.—Jesse B. Lewis, Lincoln, Ohio.—This invention has for its object to furnish an improved attachment for evaporating pans by means of which the pan may be made self skimming by the use of which a purer and better article may be manufactured and with less labor than when the ordinary evaporating pans are used.

HEAD BLOCK FOR SAW MILLS.—W. A. L. Kirk, Hamilton, Ohio.—This invention has for its object to furnish an improved device for attachment to head blocks, by means of which the sawyer may conveniently adjust the knee in such positions that a given number of pieces of a uniform width may be cut from timber of a given thickness.

TRUCK FIRE ESCAPE LADDER.—George Skinner, Brooklyn, N. Y.—This invention has for its object to furnish an improved truck extension ladder designed especially for use as a fire-escape but equally adapted for use for any of the purposes to which an extension ladder can be applied, and which shall at the same time be light, strong, simple in construction, and easily operated.

PISTON ROD PACKING.—Samuel Lockard, Lagrange Ind.—This invention relates to an improvement in packing around piston rods of steam engines and which method is adapted to other kinds of packing.

HYDRANT.—William Kearny, Union Township, N. J.—This invention relates to inventions in street hydrants for the supply of water to fire engines or for other purposes.

METHOD OF STORING GRAIN.—R. M. Mitchell, Fort Atkinson, Wis.—This invention relates to a new and useful improvement in the method of storing grain in store houses where the grain is elevated and delivered into bins.

CAR BRAKE.—G. N. Jones, Okhosh, Ws.—This invention consists in the arrangement of a friction pulley upon the axles of each car, to which is connected by a cord a lever suitably arranged to press the brake against the wheel, when the cord is wound up on the said friction pulley. The friction pulleys are set into rotary motion by the action of cords attached to slides at the tops of the cars, which slides are actuated by a line shaft running from car to car, connected by universal joints between each car, which shaft is turned in either direction by levers and toothed segmental wheels, gearing with wheels on the shaft at the ends of each car, the lever being actuated by the brakeman.

QUARTZ MILL.—Samuel Swesey, Malta, Ohio.—This invention relates to a new and improved method of crushing and pulverizing quartz for the purpose of separating the precious metals therefrom, and it consists in providing a suitable mill with grinding stones, between which the quartz is subjected to a grinding process, and also in the manner in which the mill is constructed and the upper grinding stone is revolved and adjusted.

ROW LOCK.—P. H. Mills, Green's Landing, Me.—This invention has for its object to furnish an improved row lock to receive the oar when rowing, sculling, steering, etc., and hold it securely, while at the same time allowing it to be moved freely in any desired direction, and which shall be so constructed as not to be liable to wear or breakage, and will work without clattering, entirely doing away with splitting row locks, breaking pins, and other annoyances so common with row locks constructed in the ordinary manner.

VALVE GEAR FOR OSCILLATING ENGINES.—C. H. and D. B. Overton Dover, N. J.—By this invention a common reciprocating slide valve is used in an oscillating cylinder, the stem of the valve being connected with a circular plate or disk, which has a reciprocating motion on the trunnion, which latter has two parallel faces planed on it for the disk to travel on. The disk is encircled by a hoop working easily on it, like an eccentric hoop, the said hoop being affixed to an eccentric rod from the crank shaft. This invention supplies the desideratum long existing in the use of oscillating engines, and provides a valve gear which is as simple and free from uneven wear as the valve gear of a fixed cylinder engine.

NAIL MACHINE.—Dennis Savery, Wheeling, W. Va.—The object of this invention is to cause the griper to retract as speedily as possible. It consists of a V-shaped spring having one end affixed to the cam end of the griper and the other end clasping or bearing against that side of the cam shaft which is opposite the griper, thus holding the end of the griper against the shaft, and by its tension actuating the griper against the shaft instantaneously after the cam has passed the tappet projection on the griper.

CENTRIFUGAL MACHINE.—S. S. Hepworth, Boston, Mass.—The object of this invention is to provide a centrifugal machine in which the pernicious effect of gyration is softened by suspending the curb and arranging it so as to afford the step bearing for the shaft of the basket, thus allowing both the curb and the basket to partake of the gyrating movement, which movement is softened by means of an annular rubber roll running around in a fixed circular step, a stud affixed to a cross beam in the curb working within the roll. Other devices pertaining to the hanging of the basket shaft and to the accessory brake mechanism conduce to perfect the operation of the machine.

BABY WALKER.—Fred Geisler, Bristol, R. I.—This invention consists in the construction and arrangement of the several parts, consisting of a circular platform provided at its vertical axis with a rotating shaft supporting a curved arm, at the end of which is secured a holder for supporting the child at the waist, in a manner to admit him to traverse the circular path of the platform.

Answers to Correspondents.

CORRESPONDENTS who expect to receive answers to their letters must, in all cases, sign their names. We have a right to know those who seek information from us; besides, as sometimes happens, we may prefer to address the correspondent by mail.

SPECIAL NOTE.—This column is designed for the general interest and instruction of our readers, not for gratuitous replies to questions of a purely business or personal nature. We will publish such inquiries, however, when paid for as advertisements at \$10 a line, under the head of "Business and Personal."

All reference to back numbers should be by volume and page.

D. B., of Mass.—The art of making good furniture varnish cannot be given in a limited space. For a full account of the process we refer you to Ure's Dictionary of Arts and Manufactures.

A. D. M., of Conn.—Plaster molds for stereotyping should not be soaked with oil. A very little should be rubbed over the surface before making the cast. Use as little as you can, and touch entire surface, and the smoke will not trouble you.

S. M. D., of — How can I make permanent and varnish water color drawings? First size them with a cold solution of isinglass in water. Then varnish with a varnish made of Canada Balsam 1 oz. and 8pt's Turpentine, 2 oz. Mastic varnish is however the best. It can be obtained where artists materials are sold.

M. J. W., of Pa.—Is machinery used for laundry purposes in the putting of a finish upon linen. Answer, It is.

J. M. W., of Va.—The black dust used in making fire-proof mortar is the dust found about the forges of blacksmiths.

G. J. G., of Ga.—You may discharge the air from any part of the perimeter of a blower without affecting the blast, but the length of the pipe through which you conduct will affect it materially. The shorter and straighter it is, the better blast you will obtain.

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