

ENGINEERING INVENTIONS.

A device for feeding air to furnaces has been patented by Mr. William Thomas, of Pittston, Pa. This invention covers a special construction and arrangement of parts for a steam blower or nozzle, more especially for use in furnaces in which culm is burned, in burning which the ashpit is usually closed and air forced through a tube.

A boiler ash pan has been patented by Messrs. James C. Anderson and Frank H. Latimer, of Winnipeg, Manitoba, Canada. This invention relates to ashpans of locomotive and other boilers, and has for its object the insuring of an even draught of air and its distribution where most effective, air chambers being employed, and with them slots that can be closed, to form a tight bottom to the pans.

AGRICULTURAL INVENTIONS.

A combined cotton sweep, chopper, etc., has been patented by Mr. Thomas J. Fowler, of Birmingham, Ala. This invention covers a special construction, intended to be simple and inexpensive, and readily adjusted and controlled, for a machine to sweep or bar off the plants, chop them to a stand, and dirt or hill them at one passage along the row.

A hay stacker has been patented by Mr. Philo F. Terry, of Green City, Mo. This invention covers certain mechanism whereby the loaded carrier is drawn up the inclined track and the load is automatically discharged on the stack, the apparatus adjusting itself for the descent of the carrier for the next load.

A corn planter has been patented by Mr. Ferdinand Clemens, of What Cheer, Iowa. The seed dropping slides of the seed boxes are attached to a frame hinged to the axle, connected with the axle by a rock shaft with arms, a sliding bar and its holding spring, and a cam wheel, so the seed dropping slides are operated by the revolution of the axle and its wheels.

MISCELLANEOUS INVENTIONS.

A harness pad has been patented by Mr. Herman A. Fontaine, of Auburn, N. Y. It is formed with transverse slots for admitting a free circulation of air to the skin of the horse covered by the pad, to prevent heating and chafing.

A stocking or garment supporter has been patented by Mr. Sherwood B. Ferris, of Lakewood, N. J. This invention provides a supporter consisting of a cord with an adjustable loop at its upper end, a slide at its lower end, and a button attached to the slide by a flexible connection.

A collar button has been patented by Mr. Henry J. Geer, of Attleborough, Mass. This invention consists in the combination, with a U-shaped plate, of a spring catch, a hinged plate, and a headed stud, designed to work so the button cannot drop out of a large button hole, and cannot work loose.

A power jack has been patented by Mr. John W. Massey, of Shuqualak, Miss. This invention relates to power jacks for leveling buildings, laying flooring, rolling logs, etc., and is an improvement on a former patented invention of the same inventor in this particular line.

A wedge has been patented by Mr. Charles R. Countryman, of Sherman, Wyoming Ter. This invention consists in details of the firing devices by which the charge in the wedge is so exploded that the force is expended in splitting the log without damaging the wedge, which may be used repeatedly.

A bicycle has been patented by Mr. Harry H. Jones, of Lancaster, N. H. This invention combines with a foot lever and clutch a band connected with the foot lever, with other novel features to form a bicycle in which the driving wheel is not operated directly from the foot levers, but by intermediate clutches and straps or bands.

A sash fastener has been patented by Mr. Benjamin S. Curry, of Manatee, Fla. Combined with the casing is a pivoted lever, a pin projecting therefrom, and a spring strip with an aperture, and having its upper end bent outward and through a slot in the casing, making an improved device for holding a sash at any desired elevation.

A saw handle has been patented by Mr. Frank A. Buell, of Brooklyn, N. Y. It is a wooden saw handle with a metal bottom bridge, having in its upper surface a dovetailed groove for receiving a dovetailed ridge on the bottom of the wooden part of the handle, making a saw handle which is simple in construction, strong, and durable.

A blasting powder has been patented by Mr. Adrien Gacon, of Paris, France. This invention provides a new explosive compound, intended to have the force of dynamite, but with none of its defects or dangerous properties, the compound consisting of a mixture of nitrate of potash or nitrate of soda with sulphur, ashes, and tannin.

A saw arbor has been patented by Mr. Hyman D. Wolcott, of Wright's, Pa. It has a recessed collar and screw-threaded spindle extending therefrom, and is so made as to accurately center the saw and clamp it in a manner to prevent springing or dishing of the plate, the arbor being adapted for use in jointing machines, in which the saw must be held accurately.

An ice pick has been patented by Mr. Ethan Rogers, of Cohoes, N. Y. The blade has serrated or cutting points at one end, with a weighted head at the opposite end, and an angularly arranged intermediate shank for the handle, so that quick and effective work can be done by a light pick, and the cut ice afterward be readily broken by the tool.

A wood moulding machine has been patented by Messrs. Henry Baxter and August F. Anton, of Memphis, Tenn. This invention consists of contrivances of edge trimmers, moulding bits, and guides in a wood-moulding machine, so two mouldings can be dressed out of one strip at once, and so two strips can be dressed and four mouldings made at the same time.

A fan attachment has been patented by Mr. Albert Nawadny, of New Orleans, La. It is so made as to be readily applied to and detached from sew-

ing machines, a bent rod carrying a fan holder, a spiral spring having hooked ends, and there being a connecting wire by which the fan can be operated from the treadle.

A ticket clip has been patented by Mr. William Sorter, of Leeds, Mass. It is an approximately U-shaped piece of spring metal having curved arms, with their convexities presented toward each other to form clamping jaws, one of the arms having a spring tongue or clasp, forming an improved device for holding tickets on garments.

An automatic button fastening machine has been patented by Mr. Albert Hall, of Cypress Hills, N. Y. This invention covers an improvement on a former patented invention of the same inventor, and consists mainly in combining with the fastening device means for automatically feeding the buttons and button fastenings to the hammer.

A water carrier has been patented by Mr. James F. Fine, of Lake, Washington Ter. This invention covers a special construction and combination of parts for a self-acting traveler or carrier adapted to run upon a wire or other tram, whereby people living upon mountains may easily obtain water from the valley below with buckets.

An oiler has been patented by Messrs. John J. Leavitt and John Q. Leavitt, of Lake City, Utah Ter. It has a valve seated in its spout or nozzle, of special construction and operated in a novel way, so that the nozzle may be held downward without waste of oil, and only as much oil as needed for lubrication will be allowed to flow out at the desired spot.

A photographic camera has been patented by Mr. Walter Clark, of New York city. This invention covers a rotating lens holder combined with a camera box of special construction, with separate apertures for exposure and focusing, and fixed object glasses separate from the plate holders, whereby the removal and replacing of the plate holder is not necessary in order to obtain a focus.

An oil cup has been patented by Mr. Ezra Best, of Quincy, Ill. This invention relates to oil cups used for supplying oil to bearings of machinery within steam chambers, and provides means for utilizing condensed steam to cause the oil to flow into the delivery pipe, and to control the amount of steam supply and oil, while enabling the operator to see exactly at what rate the drops of oil are falling into the cylinder.

An agraffe for pianos has been patented by Mr. Augustus Baus, of New York city. It has two prongs, each with inclined aperture, the central axes of the apertures being on the same line, so that under no circumstances can the strings slip, and the tuning pins are relieved of a part of the strain they are subjected to in pianos of ordinary construction, and the instrument will not need such frequent tuning.

A paper hanging implement has been patented by Mr. Oscar L. Case, of Windham, N. Y. The implement first clamps by a jaw-like action one end of a strip of paper, next adjusts the strip to its place opposite to but not against the wall, then holds it at the end to its place on the wall, and finally completes the laying and securing of the strip throughout its entire length on the wall.

A hay rack has been patented by Mr. Jerome Stormer, of Moline, Ohio. This invention relates to racks which may be fastened on ordinary farm wagons to better adapt them for carrying hay, and covers a special construction by which the rack is prevented from moving back and forth on top of the wagon, and the hay is kept from clogging the wheels, the rack being readily taken apart for shipment.

A bone black oven has been patented by Mr. George Murdoch, of Brooklyn, N. Y. Combined with the furnace and ovens proper is a narrow vertical flue extending between the ovens, and small lateral passages leading upward from ovens to flues, the ovens being made with a contracted grate bottom covered with a slide, with other novel features, for making or revivifying bone black.

A time lock has been patented by Mr. Moses C. Hawkins, of Edinborough, Pa. This invention covers an auxiliary train and bolt releasing device operated by the lock spindle, and arranged to open the lock in case of accident to the ordinary time lock, the device being more particularly designed for use in connection with the time lock heretofore patented by the same inventor.

A propelling device for boats has been patented by Mr. Charles F. Smith, of New York city. Combined with a tube having a sliding sleeve on one end are wings or blades hinged on the sleeve, with various other novel features, constituting a propelling device which can be held in rowlocks or other guides on the bow or stern of a vessel, and operated by hand, foot power, or machinery.

A bottle stopper has been patented by Mr. Charles L. Morehouse, of Brooklyn, N. Y. A metal plate is made with two downwardly projecting arms, the lower ends of which are pivoted eccentrically to links that are in turn pivoted to a spring collar or band clamped on the neck of a bottle, with other novel features, constituting a bottle stopper that is simple and effective.

A unicycle skate has been patented by Mr. James B. Elliott, of London, England. A wheel with ball bearings is loosely mounted on a short shaft, on which a bar is held by a winged nut, the end of the shaft passing through a vertical slot in the bar; the front part of the skate is held by clamps, while the heel of the boot is pressed into a heel socket and a bolt snaps into an aperture in the back of the heel.

A skillet cap or cover has been patented by Mr. Frank R. Wells, of Lagonda, Ohio. It consists of a hollow body portion open at both ends, with a raised flange around the lower end of the body portion, the handle being pivoted at one end and so bent that its other end bears against the side of the skillet cap, making a pan cover which is very efficient and easily cleaned.

A door check has been patented by Mr. Charles E. Hewitt, of Brandon, Vt. It is a door stop,

with a base and means of attaching it to the floor, a head piece pivoted to the base and adapted to hold the swinging edge of the door, the head carrying a spring and tongue stop, with other special features, forming an inexpensive device for holding doors open to any desired extent.

A feathering paddle wheel has been patented by Mr. William Emmett, of Logansport, Ind. Longitudinally slotted shafts are journaled in end wheels or circular frames, and in each of the shafts a paddle or blade is held to slide transversely to the length of the shaft, the blades having stops and shoulders for automatically adjusting themselves in a horizontal position when leaving the water.

An adjustment for solar cameras has been patented by Mr. William C. Strong, of Kent's Hill, Me. This invention covers a special mechanism to afford facilities for the ready adjustment of the mirror, to cut off communication with the outside air, for adjusting the projecting lens by a pivoted lens bar, to render the slide holder readily removable, with various other novel features.

A valve cock has been patented by Mr. Henry J. H. Brooks, of Bloomfield, N. J. It is so made that if the thread in the neck wears out it can be easily replaced by another by removing a block tin core, and the edges of the valve and seat are slightly curved to cause them to fit and form a close joint, the globe being dispensed with, and the flow of steam, water, etc., not being interrupted by projections.

A feed regulator for roller mills has been patented by Mr. Forrester M. Tatlow, of Hannibal, Mo. This invention covers certain combinations and details of construction making a feeding device adapted for use on roller mills, middlings purifiers, and wherever a steady, even stream of feed is required, and is intended to operate upon the coarsest bran or the finest middlings, or upon any kind of grain.

A tenoning machine has been patented by Mr. James R. Brumby, of Marietta, Ga. This invention covers a machine which is automatic in its action, and in which both ends of the sticks are tenoned at the same time, the tenons, owing to the exact alignment of the cutters, being always exactly in line with each other, so that no further operation is necessary to fit the sticks for use.

A transportation barrel has been patented by Mr. Reuben H. Kachline, of Martin's Creek, Pa. It is made with staves connected at their side edges by tongues and grooves, and so held together by adjustable hoops that the body of the barrel can be expanded and contracted as required, so that fruit or other substances can be pressed in the barrel, or the barrel can be conveniently ventilated should that be desired.

A candle machine has been patented by Mr. Gregory Roths, of Cincinnati, O. This invention combines wick spools and tightening rollers with a candle machine, so the wick can be drawn tight previous to moulding, and also drawn through the moulded candle to save cutting off, thus effecting a saving of wick and keeping the stearine or other material free from the impurities caused by the remelting of the portion of the candle usually cut off with the wick.

A bag, pocket book, or purse frame has been patented by Mr. Louis B. Prahar, of Brooklyn, N. Y. Combined with the front bar of the frame, carrying catches, is a knob attached to the locking bar connected with the rear bar of the frame, an inclined finger connected with the front bar resting against the knob, so the bars of the frame will be forced apart by the movement of the locking bar, thus promoting convenience in opening bags, pocket books, etc.

A wheel for vehicles has been patented by James E. Deweese, of Nevada, Mo. The hub has dovetailed sockets and a removably bolted plate; the spokes are of thin spring metal, with their inner ends enlarged and their outer portions curved and sprung to re-enforce the rim, the free ends of such curved portions lapping the heels of the adjacent curved and sprung portion, making a wheel which is very strong, light, and easily repaired.

A bale ejector for baling presses has been patented by Mr. John L. Duval, of Houston, Tex. In combination with a baling press follower, trucks are provided with ropes or chains, pulleys, pulley segments having arms, and stationary arms for drawing the trucks forward, and ropes or chains, pulleys, and weights for drawing the trucks rearward, with various other novel features, whereby the bale is removed from the press by the movement of the follower.

A fire escape has been patented by Mr. Ephraim Watts, of Middletown, Pa. This invention relates to fire escapes in which a car or receptacle is fitted to move up and down a portable frame or support placed on or against the outside of a building, and covers a peculiar arrangement and combination of parts therefor, so a person may raise or lower himself to any desired position by pulling on a rope attached to the car.

A pulp grinder has been patented by Mr. William H. Howell, of Thorold, Ontario, Canada. This invention covers a special construction and arrangement of parts of a pulp-grinding mill in which the running stone is of conical form, and is surrounded by a fixed stone of corresponding shape, the runner being made with curved furrows and the stationary stone having similar furrows running in opposite directions.

A folding bath tub has been patented by Mr. John A. Throckmorton, of Sidney, Ohio. It consists of a flexible waterproof bag or receptacle with a hem at its upper edge and a rectangular frame with folding legs, adapted to be disposed parallel to the end section of the frame, the frame having side sections each composed of five jointed pieces, making a bath tub which may be easily reduced to the limits of a trunk for ready transportation or compact storing.

An oil press mat has been patented by Messrs. Alfred Jones and Thomas Blake, of St. Louis, Mo. This invention relates to wire mats used in compressors, which are hereby so constructed that the oil is prevented from lodging in the edges of the mat, thus

giving a "dry edge" to the substance being pressed, the oil is prevented from accumulating in the meshes of the mat, and the substance is restrained from spreading beyond the surface exposure of the mat.

An adjustable mirror has been patented by Mr. Stearns K. Abbott, of Charlestown, Mass., P. O. Box 100. This invention covers the use of a specially contrived frame for holding the mirror, and in which the mirror can be readily adjusted and held in any desired position, for use for either tall or short people, or for children sitting on the floor, so that mirrors of medium size may be made more useful than large mirrors are ordinarily hung.

A photographic plate or sheet holder has been patented by Mr. Erastus B. Barker, of New York city. This invention consists in a combination, with the septum of the holder, of an open hinged or swinging frame made to clamp the marginal portions of the sensitive sheet on or against the septum, with other novel features, making a device for which the ordinary plate holders used in taking glass negatives are not adapted.

A photographic paper and sensitive emulsion therefor has been patented by Mr. Thomas C. Roche, of Brooklyn, N. Y. The paper has a toothed facing of gelatine and bromide of silver, and the invention also covers a compound for facing photographic paper consisting of gelatine, bromide of silver, and a suitable toothing substance; also a combination, with a photographic emulsion of gelatine and bromide of silver, of a toothing substance, such as the sulphate of baryta.

A churn dasher has been patented by Mr. Redford W. Fisk, of Council Grove, Kansas. This invention covers a novel construction, whereby wings and ribs so act in connection with the bottom of the churn that it can be advantageously operated with a small or large quantity of cream, the rapid motion of the dasher throwing the cream against the sides of the box, and keeping it from one to four inches higher than at the center, while the butter globules float on the top of the cream and collect at the middle.

A combined metallic cap and fastener for bottles forms the subject of two patents issued to Mr. Alfred L. Bernardin, of Evansville, Ind. The cap has a pendent circular flange to embrace or cover the bottle nozzle, or otherwise a collar is adapted to fit under the neck of the bottle, and made integral with vertical strips, the lower part of the fastener being detachably secured to the cap flange by means of clips, and the invention being especially designed to be used with corks that protrude into the neck of the bottle.

A pump has been patented by Mr. Hans Mortensen, of Leadville, Col. It is so constructed as to almost balance itself, requiring only sufficient power to lift the amount of water discharged at each stroke; with two upper cylinders open at the bottom and two lower cylinders open at the top, piston rods passing through the cylinders of each pair, the top and bottom cylinders of each pair being connected with a stand pipe, and the invention covering various other novel features.

A pump guard has been patented by James B. Brown, of Hannibal, Mo. This invention covers a special construction to dispense with the usual foot roller which guides the chain of a chain pump into the lower end of the tube and guards the tube from wear, substituting therefor a device less likely to get out of order by wear and rough usage. A device for replacing pump chains has also been patented by the same inventor, the object of the invention being to re-gain chains which have been lost, and to restore the same to their proper position in the pump.

A brick machine has been patented by Mr. Andrew J. Miller, of Meadville, Pa. Among the novel features covered by this invention are a sectional arrangement of the head of the plunger to allow it to rest while the filled moulds are pushed from beneath it; a special arrangement of relief gate at the front of the press box to allow obstructions to be removed, and means for operating the gate; also in regard to the die in the press box, and in the mechanism for reciprocating the mould discharger, for regulating its stroke, and for stopping it when meeting obstructions, etc.

An improved system of building jetties forms the subject of two patents issued to Mr. Frank A. Hyatt, of Sabine Pass, Tex. According to this invention the entire jetty, except the sills and mats, is made of metal and stone, the only wood being the sills, which are completely embedded in mud, so no part of the structure can be injured by the teredo, and the metal plates are to be coated with suitable material or paint to prevent their oxidation, the whole making a form of jetty adapted for use in deep water, or where the current is very strong, and great strength in the jetty is required.

A dynamite shell has been patented by Mr. James F. Marvin, of Fort Apache, Arizona Ter. It is intended to overcome the danger from firing dynamite from guns, the projectile consisting of two parts, a head with a cavity for holding the dynamite, and a skirt forming a casing that fits easily on the barrel, so the head covers the muzzle; the design is that when the gun is fired, the air space between the powder in the bore and the base of the projectile will become so charged with expansive gases that the pressure will force the projectile forward without jar, friction, or vibration.

A child's carriage has been patented by Messrs. Eugene A. Gerbracht, of New York, and Ernest W. Gerbracht, of Brooklyn, N. Y. The vehicle is constructed with side bars connected by pivoted diagonal bars and a spring; to the side bars are attached the short axles of the wheels and the side parts of the body, the latter having a flexible connection, and the parts of the vehicle being held in place, when folded, by a fastening, the vehicle being especially adapted for folding together to take through doorways and narrow places. The same inventors have obtained an additional patent on a seat which folds with the carriage, and which, when the carriage is open for use, becomes rigid, and serves also as a lock brace to hold the various parts of the carriage in place.