

GREASE CONDENSER FOR PURIFYING EXHAUST STEAM.

Samuel N. Hartwell, Wollaston Hights, Mass.—This invention consists of a grease condenser, into which the exhaust steam is conveyed by an entrance pipe, and brought into contact with a condensing fluid, or with a suitable filtering material, to be mechanically purified by the impact of the oil globules with said fluid or material.

IMPROVED PROCESS OF PRESERVING FOOD.

Kennard Knott, Chicago, Ill.—No efficient and economical method of preserving fresh meat, on shipboard, has been heretofore devised and come into use. The patentee has, however, discovered that it may be preserved indefinitely, under the conditions of temperature and moisture to which a ship's cargo is ordinarily subjected. The meat to be preserved is first deprived of its animal heat in a temperature considerably above the freezing point, and then subjected to a temperature below that point, until it is frozen solid. In this condition it is placed in a case which is then closely sealed, both these operations of packing and sealing being performed in the same temperature to which the meat was last subjected. The meat case is placed in the center of the outer case, made sufficiently large to leave a considerable space between them on all sides. This space is filled with densely packed, fine, wheaten flour and the cover of the outer case then applied and secured. The flour is a most excellent non-conductor, and, after serving as such so long as the meat is required to be preserved, is in condition to be utilized in making bread, etc., the same as if it had been packed separately from the meat.

IMPROVED GLOVE FASTENING.

Frank G. Farnham, Hawley, Pa.—This relates to the hasp-staple and spring-key contrivance for fastening gloves on which a patent was granted to same inventor February 8, 1876. It consists in a cam-shaped arrangement whereby the key is maintained in the position for keeping the fastening intact; also of a device to make the pivot of a couple of points of the foundation plate of the staple, and a simple method of fastening the two prongs of the spring key together at the open end. There is also a stretching plate attached to the inside of the glove by the rivets which attach the staples.

IMPROVED METHOD OF MAKING ICE.

Bernard Hoppenyan, Hancock, Mich.—This inventor suggests a novel plan for making ice in solid blocks. During very cold weather he sprinkles water on sheets of paper prepared with resin and tallow, in order to prevent their adherence to the ice. These sheets are used as partitions, and the ice is thus formed and packed in between them.

IMPROVED CAR TRUCK BOX.

John M. Brosius, Richmond, Va.—This invention consists in extending out the lower end of the upper section of the axle box and making this extension detachable so as to furnish convenient access to the space within and allow the brass to be replaced. An inclined spout is also applied to one side of the box, and an excision made in the side face of the brass, to allow the lubricant to be poured into the box, so as easily to reach the packing. Shouldered standards are also employed in the corners of the box to support the brass above the bottom and allow ample space for the packing. There are other improvements, all calculated to render the box better adapted to its purpose.

IMPROVED BURIAL CASE.

Joseph B. Morray and Robert J. Morray, New Burnside, Ill., executors of James B. Morray, deceased.—The top portion of this burial case is formed of glass and the lower part of cement, the two being hermetically joined by tongue and groove and cement joints, also flanges and bolts. The case is particularly designed for use within a monumental cement case, and the body of the deceased can be seen through the glass top of the inner case.

IMPROVED POCKETBOOK FASTENINGS.

Louis Prahar, New York city.—Two inventions. The first consists in the combination of a flanged plate, having a notch formed in the flange at its rear end, and a latch provided with a neck at its rear end to fit into the said notch to pivot the said latch in place. The object of the second device is to lessen the cost of manufacture of pocketbook fasteners, and at the same time furnish a fastener not liable to get out of order. The rear part of the baseplate has a recess to receive an arm on the upper plate. The flange of the base plate also has an arm which passes through a short slot formed in the first arm, and thus hinges the two plates together.

IMPROVED ADDING PENCIL.

John J. White, Philadelphia, Pa.—In this adding pencil a pointer is made to turn a grooved revolving cylinder, and move an index along a scale on the case containing the cylinder. This records thereon the number to be added by pressing the pointer upward in the case a distance corresponding to the number to be added to the record. The invention includes several novel and ingenious devices.

IMPROVED LIFE BOAT.

James F. Cosgro, Santa Clara, Cal.—This consists of decks contrived in half-circular form, and fitted so that they can be readily closed over the cabins of the boat, to protect the occupants from storms and the boat from filling. There is also a hollow keel, of sheet metal, which fills with water and materially assists in keeping the boat upright.

IMPROVED BRICK KILN.

Jerome Bronkar, Zanesville, O.—This invention consists in the improvement of brick kilns by a peculiar mode of combining furnaces and chimneys with long, short, and cross flues, so that the operation of the kiln can be regulated and controlled better than as commonly arranged.

IMPROVED PORTFOLIO.

John Quenzer, New York city, and Charles Quenzer, Brooklyn, N. Y.—This portfolio is so constructed as to enable school children to carry their books, slates, etc., in a safe and convenient manner, and may be opened out for use as a writing desk without its being necessary to remove the books and other articles.

IMPROVED CAMP LOUNGE.

Anson Tottingham, Pittsfield, Mass.—This is a knock-down frame with a canvas web stretched from head to foot, over bars of different heights, to elevate the head for a pillow. The web is fastened to the cross bars by two straps attached to the canvas.

IMPROVED FOOT MEASURE.

Francis B. Smith, New York city.—This consists of a vertically adjustable heel rest, in combination with a foot plate, in which is a sliding measure and tape measure to take the measures of the foot, the said elevating heel rest being to adjust the foot more nearly in the position it occupies in the shoe. Tapes for taking the transverse measure are connected to turning studs to enable them to be shifted readily to measure over any part of the foot. The studs have a detachable pin, to be employed for fastening a sheet of paper under the sole of the foot, to be used as a record of the measures, and a kind of chart by which to gage the measures to the last.

IMPROVED PEN RACK.

William E. Thomas, Ford's Store, Md.—This device includes a pen rack and pen safe. The pen rack is supported upon a bracket formed of a bent metal rod, and constituting a fixed attachment of the desk; and the pen safe is an open-ended tube, hinged to said rod, in such manner as adapts it to be turned thereon to expose its ends for the insertion or removal of a pen. The rack receives and supports the pen while the owner or occupant of the desk frequently requires it for use; but at other times, as when leaving his desk at the end of the day, it is placed in the tube for safety.

IMPROVED ENVELOPE.

Lewis P. Hays, Donegal, Pa.—This inventor makes a margin on the right hand of the envelope to receive the stamp and enable it to be cancelled by pencilling without injury to the letter, the two thicknesses of paper forming the margin being pasted together so as to prevent the contents of the letter from entering between them. The extended margin is also designed to facilitate the opening of the letter by tearing off the end.

IMPROVED ASPERSORIUM.

Rev. James J. Dunn, Meadville, Pa.—This is an improved aspersorium or sprinkler, for holy water in Catholic churches, which may also be applied to bottles containing holy water. The sprinkler is always ready for use during service, and does not require a separate vessel containing the holy water, and a special attendant for the same. It consists of a reservoir, which is attached to the handle of the aspersorium, and provided with a neck, tube, and perforated head for sprinkling.

IMPROVED BOOT TREE.

James H. Sampson, Paris, Canada.—This consists of a lever and an adjusting screw on the wedge piece, to be used in combination with the front piece and a series of back pieces of different sizes, contrived for treeing the ankle or center and foot piece.

NEW TEXTILE MACHINERY.

IMPROVED HOSE GOODS.

Henry G. Hubbard, Middletown, Conn., assignor to Russell Manufacturing Company, of same place.—This consists in an improved hose goods, of three or more plies, in which one or more of the inner plies are without warp threads. This is claimed to give the warp threads of all the plies to resist the expansion strain upon the hose, producing a fabric lighter than when made in the usual way.

IMPROVED CLOTH-NAPPING MACHINE.

Mariene H. Whitcomb, Holyoke, Mass.—This is a machine for napping cloth, combining on one frame the wire or card napper and the teasel cylinder. The object is to have the strength of the wire or card clothing for breaking or tearing up the fibers of strong, heavy goods, for which the power of the teasel is not sufficient, and to have the teasels for finishing the nap, for which they are superior to the card.

NEW AGRICULTURAL INVENTIONS.

IMPROVED CHURN.

Alonzo L. Starkey, Elwood, Ind., assignor to himself and George M. Overshimer, of same place.—The novel feature consists of two sets of paddles revolving in opposite directions, the faces of one set being inclined so as to gather the liquid toward the center, and those of the other set to throw it back, thus producing conflicting currents.

IMPROVED COMBINED HARROW AND CULTIVATOR.

Harlin Butner, Duncan's Bridge, Mo.—This machine is adapted for cultivating corn or other crops planted in rows or drills. It is so constructed as to loosen and pulverise the soil and destroy the grass and weeds, and at the same time to open a furrow between the rows to drain off the water.

IMPROVED REAPER AND HARVESTER.

William Clawater, Liberty Pole, Wis.—The object of this invention is to furnish reapers and harvesters so constructed that they may be used either side forward, so that they may be drawn across the field, making a right-hand cut, and drawn back, making a left hand cut, without detaching the horses.

IMPROVED FENCE-BUILDING MACHINE.

Thomas J. Tally, Rockford, Texas.—This is a portable machine comprising a pile-driving apparatus, with an attachment for making the holes and driving in the posts, also a boring attachment for deep holes, and wire drums for carrying and delivering wires for the wire fence or telegraph wires.

IMPROVED CHEESE VAT.

Solomon Howe and Andrew Hill, Wegatchie, N. Y.—This consists in a lever and roller attached to the legs and front end of a cheese vat for raising and lowering the end by turning the lever, so as to bring the rollers down and lift the vat off the legs. The vats have to be raised in this manner for wheying off, and other purposes.

IMPROVED DITCHING MACHINE.

Charles Skinner and William B. McClure, Eau Claire, Wis.—This invention consists of a kind of adjustable scoop at the forward part of the framework of a two-wheeled truck, to be drawn along for cutting the ditch. It has an endless elevator at the rear of the scoop to receive the slice of earth and raise it up to a platform on which there is a kind of moldboard so arranged as to shoot the slice off obliquely upon the bank at one end of the ditch. The machine is worked by a rope and capstan.

IMPROVED GRAIN BAG.

Henry Redden, New York city, assignor to himself and John E. Walsh, of same place.—In order to secure the mouths of grain and other bags in such a way that the mouths cannot gape or leak, and which will avoid the necessity of sewing every time they are filled, this inventor proposes a novel combination of strings with the mouth of the bag and with a funnel-shaped tube.

IMPROVED MOTH TRAP.

John R. Stephens, Lone Star, Miss.—The moths pass through entrance tubes into a vessel with lid or cap. They are then attracted into a lighted box of the cap. They are thus caged and removed with the box for being killed.

IMPROVED COMBINED FORK AND RAKE.

Ernest L. Gebhardt, Milford, Pa.—The mechanical construction of this device is such that it may be readily adjusted for use as a hay fork, a manure fork, and a rake. It is strong and serviceable in either capacity.

IMPROVED FERTILIZER.

Alexander W. Rowland, Wilson, N. C.—This invention consists of an improved chemical fertilizer, designed to be used in the place of guano. It is composed of wood ashes (3 bushels), cotton seed (3 bushels), rich surface earth (20 bushels), stable manure (20 bushels), sulphate of magnesia (5 lbs.), sulphate of ammonia (30 lbs.), nitrate of soda (40 lbs.), ground plaster (75 lbs.), pure dissolved bone (118 lbs.), prepared in the manner set forth in the specification and in or about the proportions indicated, the amount thus prescribed being applicable to about five acres of land.

IMPROVED HARVESTER.

Andrew T. Nord, Fremont, Nebraska.—The object of this invention is to provide a new and improved construction of harvester, designed to adapt the implement to a more general and extended use. It consists in the peculiar construction of the framework and adjustments of the operating mechanism whereby the machine is adapted to be used either as a header for cutting off the heads of the grain, or as a harvester for cutting off both heads and stalks and for these different uses is readily convertible at will.

IMPROVED CORN AND COTTON CUTTER AND SCRAPE.

Isaac F. Harrison, Rodney, Miss.—This invention is an improvement in implements designed for scraping or cutting away the sides of corn and cotton rows or ridges, and consists in a curved or bent blade adapted to be applied to an ordinary plow and to be adjusted in position to cut away more or less of the ridge, and to be detached when required, in order to allow the plow to be used for other purposes.

IMPROVED HULLER AND CLEANER.

Jacob F. Gibson, Bryansville, Pa.—This invention consists in rotating a shaft provided with rows of tritulators, shaped like saw blades, within a perforated or slotted cylinder that is inclined and has a reciprocating or movable bottom as well as a sliding grate; also in providing the huller spout with a fan that throws a cross blast to complete the cleaning of the grain as it is discharged and passes into a receptacle prepared for it.

IMPROVED PLOW.

William I. Gossett and James P. Stark, Liberty, Tenn.—A bull-tongue plow is here adapted for use as a turn plow in gravelly land and upon hill sides. By moving the lever, either moldboard may be projected, and, by suitable devices, may be held in any position into which they may be adjusted.

IMPROVED RUSH-CUTTING IMPLEMENT.

Oliver Pickering, Needham, Mass.—This is an implement for cutting bushes, which is so constructed that it will not slip over the bushes without cutting them. It may be used as a hoe or as a scythe, and will allow the knives to be readily removed and sharpened, when required.

IMPROVED DEVICE FOR FEEDING SALT TO CATTLE.

Mathias Winterscheid and Bernard Schultes, Mendota, Ill.—This invention consists of a table with stationary top receptacle for the salt, and a conical revolving salt distributor that is adjustable to greater or less distance from the bottom rim of the receptacle, and provided with radial feed channels.

IMPROVED FARM GATE.

Andrew J. Grady, Pecatonica, Ill.—The bars are pivoted to end posts, to allow them to swing up and down. A latch is pivoted at one end to the lowest rail of the gate, while the other end works in notches on the post. This latch is provided with a side stud on which works a lever, thus enabling the gate to be raised in front and unlatched simultaneously by lifting the free end of the lever. In order that the gate may be held at varying height, the top strap is pivoted to the upper end of the posts, and to a stud working in slots of the second rail. The bottom strap is attached to an eye that slides on a pintle, the two straps being connected by the pivoted bar.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED MILLSTONE DRESSER.

Augustine Defor, Etna, Minn.—This is a contrivance for working the pick by a crank mechanism, and feeding it along at the same time in the line of the crack being made by the pick. There is also a device for shifting the pick along from crack to crack, and one for adjusting the pick handle to regulate the force of the blows.

IMPROVED WATCHMEN'S TIME RECORDER.

Augustus A. Cone, Staunton, Va.—This invention consists of the connection of one or more spurs of the main pinion of a clock train, of a forked spring and rod that govern a sliding cylinder, which communicates by a side aperture with the mouths of an entrance and exit tube. Through this a ball, thrown in by the watchman at the proper time, is conveyed to a receptacle in the clock case. The device may be attached to any clock at small cost.

IMPROVED DUMPING BOX.

Joel W. Hiatt, Iowa Falls, Iowa.—The box is rocked from its horizontal to a dumping position, for discharging the coal by a hand lever that is rigidly attached to a cog wheel which gears with a rack. Suitable stop springs lock on pins of the box to retain the same in horizontal position for filling.

IMPROVED PADDLE WHEEL.

Edward Brast and John Boger, Powhatan, Ohio.—This invention proposes to connect the buckets and arms of a water wheel centrally by a yoke, angle plate, and double angle block. This affords a strong construction.

IMPROVED FLUE CAP.

Henry McMillen and William L. Rydman, Lima, Ohio.—This invention consists of a plaster of Paris flue cap, provided with loop-shaped wire springs to retain it in the flue thimble. The ends of the wire composing each spring are fixed in a block of wood embedded in the plaster of Paris, while the point of the loop bends outward and rests against the inner surface of the thimble, where it is held firmly in place by the wire being coiled on each side of the bend. A flange around the cap rests against the outer surface of the wall.

IMPROVED GRINDING MILL.

Lewis B. McDonald, Wytheville, Va.—This invention is an improvement in the class of mills whose burrs or grinding staves are placed vertical upon horizontal shafts. The mill is adapted for grinding shelled corn or corn in the ear, for cracking or grinding wheat and other grains, and also for crushing and grinding plaster and canes. The improvements relate particularly to the construction of the breaking or crushing devices, in connection with vertical burrs; to the manner of securing the conical crusher to the runner; to the means of adjusting the bed stave, and at the same time preventing its rotation; also to the form and manner of vibrating the shoe.

IMPROVED MILL FEEDER.

John D. Mines, Moffatt's Creek, Va.—The funnel, by which the grain is discharged immediately into the eye of the runner, passes through a leather holder, so that it is protected from injury by contact with the balance iron of the stone. The holder is made adjustable on the balance iron, to enable the funnel to be set at a greater or less inclination to the axis of the runner. The improvement also relates to connecting the funnel to the mechanism for rotating it by means of a knuckle joint.

IMPROVED PRINTING PRESS.

Edward T. Dockum, New York city, assignor to himself and Thomas Dockum, of same place.—This invention consists in a lever bent at right angles, pivoted to the frame by a single bolt, and having four arms, projecting in the form of the letter X, formed upon its upper end to receive the set screws for adjusting the plates.