

IMPROVED COMBINED PRESSER FOOT AND THREAD CUTTER FOR SEWING MACHINES.

John M. Stamp, Washington, D. C.—The various forms of thread cutters heretofore applied to the presser feet of sewing machines have proved objectionable, for various reasons, chief among which are a too complicated and expensive construction, and such a location or arrangement as renders them inconvenient in use. The object of this invention is to provide a presser foot with a thread cutter, which shall be so constructed as to obviate these and certain other objections; and to this end a vertical cutter is attached to or formed on the left hand side of the presser foot, near the toe or front end thereof. The device is cheap, simple, and conveniently located.

IMPROVED AIR MOTOR.

Benjamin F. McKinley, New Richmond, Ohio.—This invention relates to a novel construction of an engine to which has been applied the name of "thermainator," the same being designed to utilize the alternate pressure and partial vacuum produced by the alternate heating and cooling of the same body of air. It consists mainly in the combination with a working piston moving in a cylinder, of a cylinder made entirely of woven wire, without a shell or case, operating consecutively with the working piston, and located in a chamber communicating with the cylinder of the working piston and between the working piston and the surface through which the heat is applied.

IMPROVED BALE TIE.

Willis Wilkinson, Charleston, S. C.—This invention is formed of a wire having a hook formed upon one end, to receive and support the other end when the band is under strain.

NEW AGRICULTURAL INVENTIONS.**IMPROVED FEEDER FOR THRASHING MACHINES.**

Jesse W. Dozier, Nashville, Tenn.—This invention relates to an improvement in feeders for thrashing machines by which the quantity of grain supplied to the cylinder is automatically regulated.

IMPROVED SEED PLANTER.

Peter Kranz, Arago, Neb.—This seed planter is so constructed that it may be adjusted to operate as a self-dropper or as a hand dropper, and may be adjusted to drop the hills at different distances apart, and to drop any desired amount in a hill. The frame of the rear part or carriage rides upon the axle, on which the wheels revolve, and their rims are made wide, and are concave to adapt them for covering the seed. To the inner sides of the wheels are attached pawls, which engage with the teeth of the ratchet wheels attached to the axle, so that the wheels may be made to carry the axle with them when desired. The forward ends of the side bars of the frame are connected with the rear cross bar of the frame of the forward part of the machine by clevises and eyebolts or other suitable hinges. To the rear corners of the forward frame are attached the seed hoppers, to the bottoms of which are attached ring plates upon which a dropping wheel rests and rotates, and in the rear part of which is formed a slot for the passage of seed from the dropping wheel to the conductor spout. Through the center of the dropping wheel is formed a hole to receive the upper end of the spindle, which passes down through, and is swiveled to, the bottoms of the hoppers. When the machine is adjusted as a self-dropper, the dropping wheel must be keyed, or otherwise rigidly secured, to said spindle; but when adjusted as a hand planter, the said dropping wheel may be allowed to revolve loosely upon the said spindle.

IMPROVED COTTON CLEANER.

Amos J. Lee, Lineburg, Ala.—This apparatus consists of a kind of long trough or case, with a bottom of longitudinal slats or grates, and sides of vertical or inclined grates or slats, in which trough is a shaft having paddles arranged obliquely and in spiral rows around the shaft for beating the cotton out, and at the same time feeding it along from the end in which it is supplied to the end for discharging it, the same being a very efficient contrivance, which does not clog or twist the material; but the paddles generate a considerable amount of wind, which drives out all dust and dirt through the openings between the slats.

IMPROVED MANURE WAGON.

Jason W. Town, South Woodbury, Vt.—This wagon has its bottom formed of parallel bars arranged sufficiently closely together to prevent escape of the manure while being transported to the field, and yet at such distance apart as will allow the discharge of the manure when the bars are rotated. In using the wagon, it is loaded and drawn to the place where the manure is to be spread. A lever is then operated to throw wheels into gear, so that, as the wagon is drawn forward, rollers may be revolved to pulverize the manure and work it out through the bottom of the wagon, spreading it evenly over the surface of the ground.

IMPROVED PORTABLE FENCE.

Strander Crum, Macon, Mo.—This invention relates to certain improvements in portable wooden fences; and it consists in jointed A-shaped frames combined with bars arranged upon the outside of one of the inclined sides of the frames, so as to alternate with each other, together with a binder which is arranged parallel with one of the stakes of the frames, and upon the outside of the bars so as to hold them in place, which binder is fastened below by a pin driven in the ground, and above by a pin driven into the stake.

IMPROVED METHOD OF ATTACHING HARROW TEETH.

Christoph Schottler, Greenville, Wis.—This invention consists in fitting the tooth, which is long, tapering, and with a square transverse section, into a similarly shaped vertical groove on the side of the harrow beam. The tooth passes above and below through holes in the ends of a semicircular metallic strap, which is keyed on the side of the beam opposite the tooth by a key of the shape of half a frustrum of a cone.

NEW MISCELLANEOUS INVENTIONS.**IMPROVED SKATE.**

John A. Dodge, Amherst, Nova Scotia.—This invention is a skate so constructed that it may be easily and quickly attached to, and detached from, the boot of the skater, and when attached will be securely held.

IMPROVED COMPOSITION PASTE FOR FLY PAPER.

John Ralston, Greenville, Pa.—This improved sticky fly paper paste is put up in boxes, so that it can be spread upon paper by the user, will always be fresh, and it is claimed, much less expensive than the ordinarily prepared paper. The invention consists in a paste, formed of flaxseed oil (but various other oils may be used), Venice turpentine, and rosin.

IMPROVED FRUIT DRYER.

Andrew M. Mortimer, Salt Lake City, Utah Ter.—This is an improved apparatus for drying fruit in the sun, so constructed that the fruit may be easily covered and protected in stormy weather. The dryer may be conveniently adjusted into such positions as will best expose the fruit to the sun's rays.

IMPROVED HARNESS PAD.

Hibbard R. Ridgley, George A. Nelson, and William H. Bushnell, Haysville, Ohio.—The rim which forms a part of the pad has an offset, provided with imitation stitches, giving it the appearance of having been stitched together.

IMPROVED HARNESS SADDLE.

P. S. Carroll, Louisville, Ky.—This invention consists in making each side of the back strap of two parts, the upper one of which is fastened to the saddle tree and flap, and to an inner stay or spring by the terret screw, which is secured inside by a nut. The two parts of the back strap, on each side, are joined by a metallic fastener provided with rivets on its under surface, and a ring on its lower end: the former securing it to the upper part of the back strap, saddle flap, and inner stay or spring, the latter for the attachment of the lower part of the back strap.

PACKING CASE FOR CRACKERS AND CONFECTIONERY.

Joseph Garneau, Sr., St. Louis, Mo.—This invention consists of a main case and a sample case, the latter being provided with a transparent side, of glass or other improved material, and being detachably connected to one side of the main case by an extension thereof at the bottom and the cover, the sample case corresponding in length and breadth with the side of the case.

IMPROVED REED ORGAN TREMOLO.

Henry L. Pierce, Easton, Pa., assignor to himself and Samuel Trumbore, of same place.—The first part of this invention consists in an arrangement of a propelling wheel having curved blades, and a governor consisting of a piston attached to a valve in such a way that the pressure of air acting on the piston controls the jet of air which propels the wheel. The second part consists in a cut-off of peculiar construction, which is rotated by the propelling wheel. The vacuum in the organ bellows is more or less perfect, according as more or fewer exertion is made on the pedals or blowing lever, or as more or fewer of the keys are opened. Under these circumstances the piston acts as a governor, maintaining a uniform rate of speed. When the tremolo attachment is in use, the entire current of air which goes into the bellows may be allowed to pass through it, or by an arrangement of stops the tremolo may be made to affect certain portions of the reeds. The cut-off breaks the current of air twice at every revolution. The advantages claimed are that the governor maintains a uniform rate of speed whether the air passes into the bellows with greater or less force. The curved veins in the propelling wheel insure a positive and uniform action. The cut-off, by stopping the inrushing current of air at small intervals, produces the tremulous effect which is so necessary to the complete rendering of certain kinds of music.

IMPROVED HEATER FOR CARS, ETC.

Milton W. Hazelton, Chicago, Ill., assignor to himself and Anson W. Eggleston, of same place.—This heater consists of two cases of metal or other suitable substance, placed one within the other, so as to form a space between them, except at the top, which is filled with asbestos or other non-conducting material, and is charged with hot balls or other form of metal, for heating the car or other room by radiating the heat contained in the said objects; and in the top of the heater is a register, and in the bottom an opening for allowing the air to flow in to be heated and be discharged at the top, by which the heat may be given off more or less rapidly, according to the volume of air allowed to pass, which can be regulated at will by the register. The register may be in the inlet passage, if preferred. The heater is designed mainly for cars and carriages; but it may also be used for heating rooms, temporarily, in hotels. The hot balls will be supplied to the cars at the stations, and may be introduced through a door in the top or side, as preferred. For street cars the heater will preferably stand on the floor like a stove; but for railway cars it may be let down from the floor, and the balls may be put in at one side or end under the floor of the car.

IMPROVED ICE CREAM FREEZER.

David J. Rogers, Bardstown, Ky.—This invention has reference to that class of ice cream freezers which consist of a can pivoted upon a step in the bottom of the tub or pail, and are adapted to be rotated to effect the freezing without any internal stirrer. The present improvements consist in the particular construction and arrangement of a rim attached to the tub, which holds the can in an upright position, and also in the construction and arrangement of the handle.

IMPROVED PEANUT ROASTER.

Jean Esposito, New York city.—This peanut roaster is provided with a hot water chamber, arranged vertically in the case above the draft passage, and between the roaster and storage chamber. The peanuts are transferred, after being roasted, directly to the storage chamber, to be sold in warm and nice state, without keeping them too long in the roasting drum, to become dry.

IMPROVED CAMP KETTLE.

Antoine Alexis Gervais, Paris, France, assignor to A. Gervais & Co., of same place.—This invention is designed, says the inventor, to remedy the defects of camp kettles in present use, which in fair weather require about three hours, at least, for making soup, and this only by a considerable expenditure of fuel, while in rough weather the fire is liable to be extinguished. By the improvement a considerable saving in fuel is insured, and much less time is occupied in cooking, whatever may be the state of the weather. A number of these kettles may be combined so as to have two, three, or more draft chimneys with a single tunnel running beneath the whole series of kettles, which are placed over a trench made in the ground.

IMPROVED BILLIARD CHALK AND BALL HOLDER.

Rafael Martinez, New York city.—This cue-chalking attachment for billiard tables consists of a little case for holding the chalk, combined with a billiard ball holder, the case having one end contrived to open and close for putting in and adjusting the chalk, and having one or more holes through the side for inserting the cue tips against the chalk. A stud or key prevents the chalk from turning while the case is closed. The case is attached to the table at any place, so that the player can at any time chalk his cue tip without taking the chalk in hand, also without scattering it on the floor.

IMPROVED POCKET KNIFE.

Amos W. Coates, Alliance, Ohio.—This invention relates to an improvement in pocket knives of the kind ordinarily used by boys; and it consists, as a new article of manufacture, in a pocket knife having a blade extended beyond the handle and formed with a knob of metal upon the end thereof to prevent accidental injury resulting from the careless or thoughtless use of the knife.

IMPROVED MANUFACTURE OF LIME AND CEMENT.

Uriah Cummings, Buffalo, N. Y.—This invention relates to the manufacture of lime and cement, so that neither too high nor too low a temperature may be employed, and consists in blowing with a force pump air and hydrocarbon into the furnace simultaneously, so as to bring them in contact with the stone when at a red heat and subsequently, thus producing a perfect combustion, a great economy of fuel, and a more uniform as well as a better article.

IMPROVED SADDLE.

John T. Gathright, Louisville, Ky.—This invention consists essentially in providing the tree of a gentleman's saddle with attachments for horns and a supplementary seat, the former fitting over the pommel of the same, and being strengthened by the necessary re-enforcements. These attachments may be so constructed as to be used with gentlemen's saddles of any shape and style.

IMPROVED CORSET.

Catharine A. Griswold, New York city.—The object of this invention is to improve the corset for which letters patent have been granted to the same inventor, under date of July 4, 1871, No. 116,585, that the same may be made available for imparting better carriage to the upper part of the body, and prevent, by strengthening the back and bracing the shoulders, the inclination to stoop and contract the chest.

NEW HOUSEHOLD INVENTIONS.**IMPROVED MOP HOLDER.**

John W. Cabbage and John Alexander, Gallipolis, Ohio.—In this device the handle has a wire secured to it and bent twice at right angles, with arms that pass through holes in the ends of a plate or clamp bar. The arms of wire or clamp rod are bent inward as well as upward, and their ends are attached to a socket. Through the latter passes the end of the handle, the socket being secured thereto by a hand screw. The cloth is placed between the middle part of the clamp rod or frame and the clamp bar, the handle being then inserted in the socket or sliding head, and its end pressed down against the clamp bar. This clamps the cloth very securely between the bar and rod, while, the clamp screw being then tightened, the parts of the mop head are locked together.

IMPROVED CLOTHES DRYER.

Orlando B. Lee, Greenville, Conn.—This invention consists in the peculiar devices which are used in holding the sides of the frame together, the object being to furnish in a clothes dryer such connections for the top or sides of the parts of the dryer as will permit them to be readily attached and detached.

IMPROVED WRITING DESK.

Jerome M. Keys and Homer J. Taylor, Tecumseh, Neb.—This invention is a writing desk for business purposes, having greater capacity for the space occupied, and being more convenient for use than the desks as ordinarily made. It consists of a case of hexagonal form, or any equivalent form will do, with a writing table in each alternate side, which slides out and in, and has pigeon holes and other repositories on the back part to be brought forward for convenience when the table is pulled out for use, the said tables being closed in with circular covers. Above the case is a tower of similar form containing two or more revolving book racks, one above another, for convenience in taking down and putting away the books.

IMPROVED EVAPORATOR FOR REGISTERS.

W. R. Fowler, Baltimore, Md.—This invention consists in moistening hot air as it passes into an apartment from a furnace or stove by causing it to pass through strips of absorbent material more or less saturated with water. The absorbents are endless pieces of fabric, held by opposite rolls and dipping into the water being spaced by ring grooves in the top roll. The invention is equally adapted to any form or location of register, by means of an attachment, open at bottom so as to enclose with a lid the ordinary floor register, and provided with a rear opening to correspond with that of the evaporator.

NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.**IMPROVED SLED.**

James L. Brannock and James A. Cleveland, Antioch Mills, Ky., said Cleveland assignor to said Brannock.—This invention is an improved runner for sleds and sleighs, which saves a great deal of the time and trouble necessary to put in the ordinary sole or runner. It consists of a separate curved front part that is connected to the main body of the runner in rigid manner.

IMPROVED EXTENSION STEP LADDER.

Wilhelm H. Bitter, Fort Howard, Wis.—In this invention, the several parts of a step ladder are made of such form that, while it may be used as a step ladder in the ordinary way, it may also be unfolded and extended, and used as an ordinary ladder. It is composed of three sections, two of which are capable of extension by sliding one upon the other, and a third section, which is hinged to one of the sliding sections, which is capable of unfolding, the whole being provided with hooks for uniting two or more ladders.

IMPROVED MACHINE FOR SAWING LATHS.

John W. Calkins, Avoca, N. Y.—This invention consists of a mandrel carrying a number of saws, separated the required distance by washers, and a frame for supporting the same, with a friction roller, placed in the table, over which the saws run. The advantages claimed for a board grooved or formed into a series of connected laths are that it may be more rapidly applied to the walls and ceiling of a building, that it produces a more solid wall and ceiling, and that it does away with sheathing.

IMPROVED PLASTERING TOOL.

Asa A. Howe, Ulysses, Pa.—This invention consists of a kind of box with open top and hinged bottoms, and also guides on two sides, the said bottom being two smooth steel plates, which overlap each other at the uniting edges, and are raised toward the upper side of the box to make a cavity in the lower side, which is filled with mortar to spread on the wall by sliding the tool along the wall, and at the same time pressing the bottom by a handle attached to one of the parts, so as to force the mortar on to the wall, and spread it smoothly as the tool moves along. The handle is adjustable along the brackets, according to the leverage it is desirable to employ in pressing the plaster on the wall.

IMPROVED SHAVINGS SEPARATOR.

Elijah Brown, New York city, assignor to himself, Eben Peek, and Gilbert J. Bogart, of same place.—This invention is for separating the finer from the coarser shavings made in planing mills and other woodworking machines. It consists of a screen hung in an inclined position upon two sets of swinging arms, and provided with a divider or frame carrying a number of cross wires a short distance above the screen. The screen is arranged to take motion from a crank driven by any convenient power, and the divider is arranged to move with the screen, but through a greater space, constantly shifting its position in relation to the screen.

IMPROVED STENCH TRAP.

John Peter Schmitz, San Francisco, Cal.—This is an improved construction of stench trap, designed more particularly for wash basins and sinks, but applicable also to general use. It consists mainly in combining with the ordinary water trap a subadjacent flap trap, or weighted valve, which remains closed until its weight is overbalanced by the greater weight of water, when it opens automatically and allows the water to escape; by means of which arrangement the bubbling up of sewer gas through the water trap is prevented by relieving the water trap from the pressure of the same.