

Recent American and Foreign Patents.

NEW TEXTILE MACHINERY.

IMPROVED WEFT-STOP MECHANISM.

Thomas Isherwood, Westerly, R. I.—This is a novel weft-stop motion, whereby the tension of the weft against the feelers, when the shuttle flies from box to box, and during the time the latter is going back, will actuate said feelers. In the absence of the weft, this device causes the shipper to be thrown off half a revolution sooner than when the action is caused by the weft being carried against the feelers by the reed, thereby stopping the loom in the same pick in which the weft breaks. By this means both loss of time and waste of yarn will be saved, as all the picks made in fancy looms using two or more shuttles, after the break, have to be taken out by the weaver. It is also designed to be so contrived that it will not be in the way of the weaver in taking out and putting in the shuttles.

MACHINE FOR FORMING IMITATION BUTTON HOLES.

John Kenny, Dover Road, England.—This machine includes thirteen new devices, and is intended for employment by shoemakers and other workers in leather. Its object is to form a corded button-hole tag, and this is done by cutting a strip of leather into sections with slotted ends, applying a cord across the middle of each section, and so tightening the cord, and compressing the whole between dies.

NEW AGRICULTURAL INVENTIONS.

IMPROVED COMBINED CULTIVATOR AND HARROW.

Isaac P. Pickering, Table Grove, Ill.—The standard of the plow stock has a head made in two parts, bolted together for the reception of the movable teeth. The latter are pointed at one end, and shovel shaped at the other, so that either end may be employed. To form a cultivator, one, two, or more heads may be used, and four, more or less, heads may be used to form a harrow.

IMPROVED REVERSIBLE PLOW.

Myron R. Hubbell, Wolcott, Vt.—This is an improved reversible plow which is so constructed that the point of draft attachment may be changed from one side of the beam to the other by the operation of turning the mold board. The novelty is found in the mode of connecting the draft rod and mold board, which is quite ingenious.

IMPROVED CHURN.

Elias Groat, Napa, Cal.—In this churn the dasher consists of two oscillating comb-shaped frames, the fingers of which swing between each other, so as to effect very great agitation of the cream in a simple way. There is a fluted or corrugated contrivance of the fingers or beaters, which greatly increases their efficiency, and also simple and novel devices for disconnecting the shafts readily, to allow of taking out the beaters and putting them in, as is requisite for cleaning out the churn.

IMPROVED MIDLINGS PURIFIER.

Alvin F. Ordway, Beaver Dam, Wis.—The midlings are admitted to an inclined rack at the lower end of the air trunk. As they slide down this rack and so become spread out, a blast of air from beneath carries them up through a series of inclined racks in the trunk, which gives them a zigzag motion. On leaving the trunk the particles have a rotary movement, and come in contact with a vertical partition, around which the light materials pass to a fan blower, while the flour falls and escapes through a spout.

IMPROVED FEEDER FOR THRASHING MACHINES.

Alexander Washington Lockhart, Sacramento, Cal.—The feed arms rest upon the inclined feed table, and are notched at their upper edges and tapered to their lower ends. By means of eccentricities they are given a to-and-fro motion in opposite directions, so that as they move downward they will push the grain to the thrashing cylinder, but will not carry the grain with them when they move upward.

IMPROVED SEEDLINGS PULLER.

John S. Swaney, Marengo, Iowa.—To the shaft at one side of its center is attached a polygonal hub, having eight sides, to the faces of which are hinged an equal number of jaws, which are made in the form of sectors, and which together form a wheel. These jaws, as the machine is drawn along, grasp the plants and lift them up by the roots, holding the same by pressing against the rim of a wheel. Then a wedge enters between the jaws and wheel, and forces the former outward, causing them to drop the plants, which fall upon a receiver, where they are removed and bound in bunches.

IMPROVED WHEEL PLOW.

James Flow, Pilot Point, Tex.—The plow frame is arranged with one side longitudinally adjustable upon the axle, and the plow beam is slotted and so combined with guides that the plow may be gaged to take more or less land as desired.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED SLIDE REST FOR METAL-TURNING LATHES.

George F. Ballou, Pawtucket, R. I., assignor to Henry N. Fisher and John E. Whitcomb, Waltham, Mass.—The slot in the stationary part of the ordinary slide rest is usually cored out at one part sufficiently to insert the nut, which is then attached to the slide by screws after the same is in place. In the present invention the slot and also the nut chamber are extended to the end of the stationary part, so that the shank and nut can be slid into place at the same time that the slide is put on. The idea is to admit of the slide rest being easily taken off or placed in position without detaching the nut.

IMPROVED OSCILLATING JOINT FOR PITMAN CONNECTIONS.

Albert K. Smith, Nebraska, Ohio.—This is a new mechanical device of which it would be difficult to convey a clear idea without the aid of drawings. It is adapted to the connection of a pitman and the object to be moved, also to a crank pin. It is easily detachable, and made so that any slack occasioned by wear can easily be taken up.

IMPROVED PIPE TONGS.

Alexander McDonald, Halifax, Canada.—The fixed jaw, which is the larger, has a hooked end. The forward end of the movable jaw is V-shaped and corrugated. The jaw last mentioned is attached to the stationary jaw by pivoted bars, which are governed by a set screw, so that the space between the jaws may be arranged for different sizes of pipe. The construction generally is such as to secure a large gain in leverage.

IMPROVED SUCKER ROD SOCKET.

Plympton E. Jenks, Petrolia City, Pa.—This is a new instrument for extracting pieces of broken socket rods from oil wells. It terminates in a socket which fits down over the piece; then a wedge is forced down which jams the piece between it and the socket walls, enabling the fragment to be easily lifted out.

IMPROVED PISTON ROD STUFFING-BOX.

Joseph M. Searle, Stanhope, N. J.—This is a self-adjusting packing box for piston rods, and the essential feature is a conically recessed cup which, impelled by a spiral spring, acts against the natural exit of the steam. The idea is to obviate the continual screwing up of the box to prevent leakage.

IMPROVED OILER FOR CRANK WRISTS.

Charles Kurth, Chattanooga, Tenn.—A pipe leads from an oil receptacle to a bore in the crank pin. Said bore has a branch at right angles, which extends to the surface of the pin. The oil runs from the vessel into the pin, and at the lower half of each revolution of the latter escapes so that a continuous supply is furnished to the crank without necessitating the stoppage of the engine.

IMPROVED TUNNEL.

Olney B. Dowd, New York city.—This inventor proposes to construct a tunnel of narrow sections of elliptical tube, the shape being selected on account of the facility which it offers of transporting the sections to be added, through other sections already in position. He provides means for carrying the sections on trucks through the tunnel, also a means of fastening the sections and packing them, and also a contrivance for holding the cage or case employed in advance of the wall for digging out the bore from being pressed back by the pressure on the head of the case.

IMPROVED AIR VALVE FOR PUMPS.

Simon Smith and Isaac S. Collins, Mauch Chunk, Pa.—The object here is to furnish air to the pump and relieve it of strain, and to save wear on the valves, etc., by preventing pounding. This is done by a valve, suitably arranged in the plug usually inserted in the pump chamber for drawing off the water. This valve is governed by a spring, and its play may be regulated. At each stroke of the piston it rises and admits a small quantity of air.

IMPROVED CAR COUPLING.

Lewis Sibley, Ramapo, N. Y.—On one drawhead is a vertical slotted plate. The other has an arrow headed rod provided with a weighted arm attached at right angles to its axis. When the arrow head is, vertical, it easily enters the slot, the weighted lever arm being raised. Dropping the lever turns the arrow, which thus engages in the plate. The principal advantage is offered in the speedy manner in which cars can be uncoupled.

IMPROVED CAR STARTER.

Thomas Murgatroyd, St. Joseph, Mo., assignor to himself and Ferdinand Schoen, of same place.—There is a main lever provided with a hook which fits on the axle. To this lever another lever is pivoted, and this last has a forked end which bites into the flange of the car wheel, turning the same upward, and so starting the car.

NEW HOUSEHOLD ARTICLES.

IMPROVED SPRING ROCKING CHAIR.

Stephen Fallon, Brooklyn, N. Y.—This is a rocking chair minus rockers—the places of which are supplied by coiled springs which support the seat. The springs are attached to a round which crosses the pedestal, and are provided with simple devices whereby their tension may be quickly adjusted.

IMPROVED CLOTHES DRYER.

Harrison V. Osborne and Robert Hay, Trenton, Mo.—This aims at the abolition of that unwieldy article of kitchen furniture the clothes horse, and substitutes therefor a neat rack composed of bars separated by washers and pivoted upon a vertical pin, which, by a suitable bracket, is secured to the wall.

IMPROVED PILLOW.

Gardner T. Barker, Pittsfield, Mass.—This is simply a sack made in two compartments. In one, which forms the upper side of the pillow, feathers or similar materials are placed; the other and larger division is left empty, to be filled with dry leaves or sticks, the device being primarily intended as a convenience in the camp.

IMPROVED PORTABLE LUNCH HEATER.

Maria Bradley, New York city.—Mrs. Bradley offers to workmen who carry their dinners with them to the shop a simple means of keeping their meals hot, and hence rendering them much more palatable. The device is a pail divided into several compartments for various kinds of food, and containing a receptacle having a chimney for the reception of a lamp, by which the contents can be quickly warmed.

IMPROVED DOOR CHECK.

Edwin S. Grauel, Dayton, Ohio.—This is a sliding spring-acted plunger, with hinged head piece and rubber extension, that is thrown by a projecting pin into contact with the floor, and retained by the ends of the head piece locking into ratchet teeth of the casing, the rubber being drawn back into the casing on closing the door. The object is to hold the door open at any desired point, for which purpose the device seems well adapted.

IMPROVED SEWING MACHINE CASTER.

Benoni P. Pratt, Chicago, Ill.—This inventor has devised a caster combined with a simple shoe and frame, so that it can be easily clamped to the feet of sewing machines unprovided with casters. The same invention would probably answer well for chairs or any other article to which it could be applied.

IMPROVED BED BUG TRAP.

Edmund G. Watkins, Georgetown, Cal., assignor to James B. Watkins, same place.—This is a new idea for the extermination of bed bugs. Instead of poisoning them, this inventor makes a trap in which there are several cells or sections. In these dark holes the bugs are sure to congregate, and then all that remains is to remove the apparatus and treat the inmates to any form of death which revenge may dictate.

IMPROVED ASH PAN.

James M. McHelm, Carlisle, Ky.—This is an ash pan, an ash sifter, a poker, and a shelf for heating irons, all combined in one. The poker is worked by a handle from outside, which causes it to rise up between the bars. The shelf for the irons is attached to the frame which supports the ash sifter just above the ash pan, which last is in the form of the drawer.

IMPROVED CRADLE.

Joseph B. Nelbach, Utica, N. Y.—Springs keep the rockers in place upon the edges of a pedestal frame, and also hold the cradle from upsetting in case a child should attempt to climb in or out.

IMPROVED STOVE LEG.

Ira A. Lovejoy, Denver, Col. Ter.—In this device, the inventor provides a really needed improvement in the means of fastening stove legs in place, for at present, when a stove is lifted, the legs frequently fall out. In the present invention, recessed socket projections are made on the underside of the hearth plate, and into these a curved and braced tongue from the leg tightly fits.

IMPROVED SOFA BEDSTEAD.

John B. Kline, Cincinnati, Ohio.—This lounge is so constructed that it may be converted into a bedstead by pulling out the seat section, and then swinging up to the level of the latter a supplementary section which is stored away underneath. The whole takes up but little space.

IMPROVED KITCHEN CABINET.

George Holt, Minneapolis, Minn.—This is a cabinet containing receptacles for nearly everything used in the kitchen, all stowed away in the smallest space. There is an iron board, a dish cupboard, drawers for flour, etc., for spices and for cutlery—a bread board, a knife scourer, a grater, and a vegetable cutter. Besides all these, there are closets for storing large articles, and good sized drawers for table linen.

IMPROVED WASHING MACHINE.

Thomas B. Kirkwood, Dublin, Ind.—The body is hung on trunnions, to adapt it to oscillate, and thus press or squeeze the clothes between a vertical stationary dasher and fixed abutments of the box. Each side of the box works independently of the otherside, and can be independently operated. The return stroke, usually lost on ordinary machines, is utilized in this by working the garments in the second compartment. There are several other useful points which tend to adapt the machine to its especial purpose, and to economize the power applied.

NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

IMPROVED WHIFFLETREE.

Patrick McGlew, Des Moines, Iowa.—This invention obviates the necessity of giving the trace a sharp bend or twist in attaching it to, and detaching it from, the whiffletree. The trace is attached to hooks on the end of the tree, after passing through stout straps, secured to the forward side of the same.

IMPROVED PLANER CUTTER SHARPENER.

Garry Marvel, Rochester, N. Y.—In this device the cutter is fastened in jointed clamps so that it can be swayed forward and backward relatively to the stone, so as to vary its bevel. There is a weighted lever for pressing the cutter on the stone, and other useful attachments for adjusting, etc.

IMPROVED CARRIAGE SPRING.

John Fredenburgh, Greene, N. Y., assignor to himself and J. F. Smith, same place.—This is a simple torsional spring for vehicles composed of a steel rod socketed at both ends rigidly to lever arms swinging in opposite direction from each other. The effect is to create a torsional strain in the steel rod, through the separating of the lever arms.

IMPROVED MACHINE FOR JOINTING STAVES.

Benjamin Barker, Ellsworth, Me.—This machine, of which a good idea cannot be obtained without detailed drawings, is the first which has been invented for rapidly pointing machine staves with bevels and bilges perfectly proportioned to their different widths. It adds one more to the category of barrel-making machines which of late years have completely revolutionized the cooper's trade.

IMPROVED BUCK-SAW FRAME.

Porter B. Towle, Haverhill, Mass.—In this invention is given a new way of making substantial saw frames. Three nearly straight pieces of wood are joined by corner pieces of metal inserted in slots in the end, and nails are inserted through both wood and plates.

IMPROVED SLEIGH.

Robert B. Parks, of Princeton, Ill., assignor to himself and John R. Parks, same place.—We have here a sleigh made without tenons, mortises, or joints, and consequently, being free from these sources of weakness, it is without doubt a strong and substantial vehicle. The supporting frames with runners and braces are made of a single piece, either wood or metal, and are attached to the seat.

IMPROVED REIN HOLDER.

Hugh Gilmore and Joseph T. Spencer, St. Louis, Mo.—This hitching attachment is applied to the hind axle of a vehicle, and made to gear with cogs on the hub of the hind wheel, by the action of a pivoted foot lever at the front part or dash board, which causes a hitching line connected to the brake bits to be wound up and tightened, so that the horses are brought to a stop by the automatic action of the wheels on the hitching mechanism. This does away with the ordinary hitching devices, and at the same time offers a handy means of controlling runaway horses.

IMPROVED CHILDREN'S CARRIAGE.

Leonard B. Harrington, Jr., Boston, Mass.—This inventor has devised a new way of constructing the body of children's carriages so that the same is self-supporting, without the aid of ribs, stays, or frame work in the inside. This is done by an outside rib on the edges. The appearance of the body is improved, and bent wood may be used in its manufacture.

NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.

IMPROVED STENCIL PLATE.

William M. Kelle, Nashville, Tenn.—Instead of cutting of a stencil of several letters from a single plate, this inventor proposes to cut the letters on small separate plates, and then to join the latter to form words by means of overlapping grooves and spring clamps.

MACHINE FOR MIXING AND MOLDING AN IMPROVED COMPOSITION FOR ARTIFICIAL FUEL.

Emile F. Loiseau, Philadelphia, Pa.—The first invention relates to improvements in the apparatus for mixing and molding artificial fuel, for which letters patent have been granted to same inventor under date of February 17, 1874, and which was described and illustrated on page 319, vol. 29, of the SCIENTIFIC AMERICAN. The invention consists mainly in the construction of the molding or compressing cylinders with cavities connected with each other by small channels, and in arranging at the ends of the alternate rows of cavities, near the ends of the cylinders, small recesses for preventing the contact of larger portions of the metallic surface of the cylinders. The composition is fed in granulated state to the molding cylinders by a top hopper with revolving stirrer shafts.

The new composition for artificial fuel consists of coal waste, pulverized clay, and diluted rye and lime paste, thoroughly mingled in suitable proportions.

IMPROVED ARTIFICIAL LEG.

Cornelius Collins and James H. McCalla, East Melrose, Iowa.—The object of this invention is to allow the heel to turn conveniently upon the ankle joint. It consists of a cushion of rubber and hinged rods. The cushion is seated between the ankle and instep, in little recesses, preventing it from being displaced, and it is held up firmly to the ankle by one of the rods, which is permanently fastened. The foot is clamped against the cushion with the requisite pressure by the adjusting nut on the other rod. A spring of rubber, together with the cushion and the pivot, forms a very easy and efficient joint.

IMPROVED GLASS TOOL.

Thomas Carr, Rochester, Pa.—At the present time paddles and forks are used for transferring glassware, when finished, into the annealing oven; but for want of proper means for discharging the ware, they are jerked and otherwise manipulated to get the ware off and lodge it in place. To avoid this difficulty, this inventor adopts the simple expedient of combining a pusher with the glass paddle, so as to discharge the ware when placing it into the oven.

IMPROVED MEANS FOR REEFING AND FURLING SAILS.

Edward Rawley, North Union, Me.—This invention includes a triangular topsail set immediately above the gaff of a fore and aft sail. The tack of the upper sail reeves through an eyebolt on the gaff, thence up through rings on the back of the sail to a block, and thence to the deck. The idea of thus arranging this rope is to give increased support to the jaws of the gaff, and at the same time to admit of the easy handling of the topsail.