Recent American and Foreign Patents.

NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

IMPROVED SCROLL SAWING MACHINE.

Lemuel C. Pratt, New York city.—By a simple and cheap contrivance, this invention gives sufficient forward and back motion to a straight saw working on a pivot to run it in one and the same line at the cutting point, so as to cut more evenly than such saws now do. The invention is specially designed for simple and cheap saws for boys and amateurs.

IMPROVED END GATE.

Edward G. Martin, Kankakee, Ill.—This end gate for vehicle bodies is so constructed that it may be easily released at its lower edge and swung outward to dump the load, and it may be readily attached and detached. Devices are added to prevent the rear ends of the side boards from splitting, and from being forced outward by the pressure of the load.

IMPROVED CHIMNEY COWL.

Theodore C. Nativel, San Jose, Cal.—The ventilating cowl is formed of two parts or cylinder flues, one inclosed by the other. The inner part, or flue, has vertical exterior ribs which form a bearing or support for the section of the outer flue, leaving air passages between. The flue sections are beveled at their ends to form a close and strong joint, and the ribs act as buttresses for each flue.

IMPROVED WINDOW SCREEN.

Henry B. Walbridge, Brooklyn, N. Y.—This screen is composed of wire netting wound on rollers and held by clamps. It is so constructed that it may be readily applied to windows of different widths, closing the same tightly.

IMPROVED VEHICLE TOP.

Fredrich H. Jury, New York city.—A pair of jointed standards, made each in two parts, are hinged together and to the seat back and back bow. The standards being thus entirely under the back portion of the top, out of sight, make a neater and better arrangement than the projecting folded braces of the common arrangement.

IMPROVED BUNG AND VENT.

Harry B. Cornish, River Falls, Wis.—In this we have an improved bung and vent that closes hermetically the bung hole. At the same time the bung may be easily removed, and air is freely admitted through the bent device without necessitating the unseating of the bung. It is a useful device for barrels containing liquors.

NEW HOUSEHOLD ARTICLES.

IMPROVED VENETIAN SHADE.

Charles Widemann, New York city.—The new feature in this invention consists in rods which are attached to the under side of the bottom slat. By placing the end of one rod into a side staple, and that of the other rod into the socket hole nearest to it, an outwardly and sideways inclined position of the shade is obtained, which protects against the sun, while supplying at the same time the required light and ventilation. The shade is thus capable of being readily adjusted by the different devices into any desired position, and may be cheaply manufactured, as it is formed of a simple connection of slats and bands.

IMPROVED SADIRON.

Oliver Swift, Madison, Wis.—This is principally a new way of attaching the handle of a sadiron, the object being to enable the use of one handle to several irons, thus saving metal and rendering the implement more convenient to use. On the iron are two notched pins. The handle has a wooden hand piece and hollow metal arms, which when in place slip over the pins and hold them by spring catches, which engage with the notches. A wooden ring under the handle allows of the catches being freed or engaged at will. Another new feature is that the body of the iron is made of glass, which the inventor thinks offers a better smoothing surface than metal.

IMPROVED DOOR SPRING.

James M. Blood, Denver, Col. Ter.—This consists of a journaled shaft encircled by a spiral spring, and provided with a laterally projecting arm, whose outer end bears upon the door with a pressure corresponding to the power and tension of the spring. The novel feature consists in devices whereby the tension of the spring may be quickly and conveniently changed, and the action of the apparatus thereby regulated.

IMPROVED WASHING MACHINE.

Timothy Allen, Fort Madison, Iowa.—This machine contains two parallel rollers, the faces of which are grooved transversely in such a way that the projections of the one roller may enter the grooves of the other. They are geared together so that they may rotate in the same direction and with equal velocity, motion being imparted by a longitudinally corrugated roller above. The machine, it is stated, works without becoming clogged, or straining or stretching the clothes, and will allow any part of the clothes to be operated upon separately.

IMPROVED DROP-LIGHT GASELIER.

John Fox, New York city.—This invention is so constructed that, as the drop light is drawn down, the unwinding of a cord from a spool will turn a shaft and drum, coiling up a spring, the tension of which is so adjusted as to balance and support the drop light in any position in which it may be placed.

IMPROVED CLOTHES LINE REEL.

Charles L'Hommedieu, Middletown, N. Y.—We have in this an improved clothes line reel which winds up the line automatically as soon as the same is released from the post, protects the same, when applied stationary to the post, against the weather, and allows the ready taking down of the line. The whole forms a labor-saving device for household purposes.

IMPROVED SASH HOLDER.

John E. Frost and Josiah Merrill, Berwick, Me.—This is a simple sash fastener, that binds rigidly on the sash, and holds it securely at any hight without injuring it in the least. It consists in a novel combination and arrangement of two rubber-lined rollers at the ends of fulcrumed levers, which are actuated by an intermediate rubber block in the rear. Broadened rear ends serve as handles.

IMPROVED CURTAIN FIXTURE.

Fredrick Backofen, Brooklyn, E. D., assignor to himself and Isaac H. Williams, of same place.—This is a spring end which may be attached to an ordinary wooden roller, so that, in event of changing one's residence, the shade rollers may be altered at a trifling expense to suit the various sized windows.

IMPROVED YEAST COMPOUND.

Jacob Pfeiffer, Brooklyn, N. Y., assignor to himself and Paul Koch, of same place.—Mr. Pfeiffer suggests a new compound which, he states, makes a very good article, which can be kept sweet for four to six weeks in summer, and much longer in winter. It consists of cooked and mashed potatoes, hops, malt, wheaten flour, and corn starch.

IMPROVED LAMP BURNER.

John H. Fouch, Sauk Center, Minn.—In this an inclosing shell is made adjustable on the wick tube. The inner tube has several perforations for gas derived from gasoline or similar substance, and the outer tube or shell has slots made in it. The arrangement of these apertures is such that a portion of them may be closed without shutting off the gas supply of the others.

NEW AGRICULTURAL INVENTIONS.

IMPROVED NECK YOKE.

Charles Shuman, Red Oak, Iowa.—This inventor proposes a new device for connecting the neck yoke with the tongue or pole of a carriage, and which will not weaken the neck yoke, and may be readily applied. Two curved plates fit upon each other, and have eyes formed upon the opposite ends of their upper edges. They have also a tongue hole formed in their lower middle parts, to adapt them to be attached to the neck yoke to support a carriage tongue. Said hole is protected by a rubber bushing, and a bead is added to strengthen the middle part of the yoke, and to keep the device from slipping out of place.

IMPROVED ROTARY GANG PLOW.

John K. Underwood, Sauk Center, Minn.—The construction of this implement includes a kind of diamond-shaped frame having two sets of axles. Dish-shaped rotary plows are mounted on beams with the front edges inclined to the landside, to press into the ground and turn over the furrows as they rise up at the rear and throw them off. The beams swing up and down in the keepers, to be held in place and to vary their hight for regulating the depth of furrows. The driver can make any needed adjustment while sitting in his seat; and by suitable means, also, the plows are lifted up and supported above the ground when being moved to or from the field to be plowed. Plows of this description, the inventor claims, will turn wider furrows with a given force than those of other forms, and the width may be raised by inclining a caster wheel right or left, for which it is contrived, and which has a fastening device to hold it in any required position.

IMPROVED FEED BOILER.

Stark Olmstead, Brook, Ind.—The object here is to furnish a simple boiler for agricultural purposes. To this end a tube is conducted through the feed box, and is provided with a furnace at one end, while the other end is led out of the box and has a high chimney attached to it. By the heat of this tube the feed in the box is gradually heated and boiled.

IMPROVED MOWING MACHINE.

Andrew G. Gray, St. John, Can.—The novel features in this mowing machine are ingenious devices whereby the sickle bar may be operated from the driving wheels with a positive motion, and which will enable the cutter bar to be readily thrown into and out of gear with the drive wheels.

IMPROVED CORN PLANTER.

Wilson Gardner and George L. Hays, Piketon, Ohio.—This is a new and useful agricultural implement. The construction of the device it is hardly possible to describe without drawings. The novel feature in the operation, however, consists in the adjusting of a dropping device so as to bring the points of rimless wheels in line with the marks left by said wheel during a previous passage, whereby the corn is planted in an accurate check row.

COTTON SCRAPER, CHOPPER, AND CULTIVATOR.

Richard L. McClung, La Fayette, Tex.—In this, cotton planters are provided with an improved machine for scraping or barring off cotton, chopping it to a stand, and cultivating it. The apparatus is constructed so that it may work at any desired closeness to the row of plants, or at any desired depth in the ground, or for use as an ordinary cultivator. It may be made by any ordinary mechanic.

IMPROVED CORN PLANTER.

John Bryer, Wagram, Ohio.—This corn planter can be easily thrown into and out of gear, lowered to and raised from the ground, and adjusted to deposit the seed at any desired depth in the ground. All this is accomplished by new and ingenious mechanism easily operated and controlled.

IMPROVED POTATO DIGGER.

David J. Roush, Syracuse, Ohio.—By the advance of this machine two polygonal wheels carrying radially disposed curved fingers are rotated. Said fingers enter the ground and remove the potatoes, which pass to screens between the rows of fingers, where they are freed from grass, weeds, etc. The potatoes also fall upon a screen, which is vibrated to free them from clinging earth, and then pass to a receiving box, from which they are subsequently removed. Considerable ingenuity has been expended in the mechanical construction of the machine, and a number of entirely new devices have been combined.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED CAR STARTER.

August Dahler, New York city.—The object of this invention is to provide an improved device specially applicable for starting horse cars upon street railways, for the purpose of relieving the horses of the exhausting strain consequent upon the frequent stoppages and startings, the said devices being also adapted to steam railways and all vehicles of a heavy draft. It consists in the particular construction and arrangement of parts wherein a single drawbar extends from one end to the other of the car, and is maintained in a given position by symmetrically arranged springs at each end, whose tension is separately adjustable. Said drawbar is provided with two sets of beveled teeth, which engage with bevel wheels upon the axles of the car, which gear wheels are laterally adjustable thereon, so that, when the traction of the horse in starting is brought to bear on the drawbar, the gear wheels are made to revolve, which wheels, being nearly of the same diameter as the supporting wheels, will start the car so as to overcome the inertia gradually and avoid the sudden strain which is so objectionable.

IMPROVED VISE.

Alexander O. H. P. Sehorn, Murfreesborough, Tenn.—In this vise, the use of screw threads is avoided. Instead, spring jaws are arranged, with a cross bar hooking over a cam-shaped flange of a set screw, by which the jaws are instantly and rigidly adjusted.

IMPROVED MILLSTONE DRESSING MACHINE.

Gustav Heydrich, New Ulm, Minn.—This invention is designed for dressing and furrowing the face of a millstone in rapid and even manner. It consists of a series of adjustable and recessed chisels, operated by a revolving shaft, which is hung in vertically-adjustable bearing, and provided with spirally-arranged cams. The chisels are cushioned by rubber blocks that regulate their action.

IMPROVED GATE.

John A. Knepper, Delta, O.—This gate is adapted to farm and other purposes, and may be readily opened and closed and adjusted to any suitable hight without taking up space in operating. It is composed of sliding link-connected rails or sections that are raised by a cord and pulley in grooved posts, and are folded into a base box set into the ground to be covered by the top piece or plank of the gate.

IMPROVED BALE BAND STRETCHER.

James Z. Stocker, Charleston, S. C.—This invention relates to hay or cotton presses wherein the follower and platens are grooved to allow the tie band to be secured on the bale after compression but before removal. It consists in the use of a lever having a slotted catch at the end, for the purpose of tightening the bale band, the lever being suspended by a weight and provided with a claw, so that it may be elevated out of the way or drawn down when wanted.

NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.

IMPROVED BALE TIE.

Robert Stewart, Barnesville, New York.—This consists of a hook on one end of a wire band to engage a loop on the other end. The hook has a brace extending from its base along the line of the strain and terminating in an eye, through which the eye that engages the hook passes. The brace is thus supported, and the eye engaging the hook is securely kept on it. Both hook and the eyes are formed by bending the wires and twisting the bent portions, so that the tie is constructed in a simple and cheap way.

IMPROVED POCKET BOOK.

David K. Osbourn, Baltimore, Md.—This wallet or pocket book is made of one continuous blank, of paper or other cheap material, and has a central part with end flap and side extensions, and symmetrical side pieces folded in gussets and pockets, and connected at the edges. The advantages are simplicity, durability, and cheapness.

IMPROVED CIGAR MOLD.

Heinrich Voltz, Cincinnati, Ohio.—This inventor has devised an improved cigar mold that is not liable to shrinkage, warping, and other annoying features of the common glued molds, and that will readily adjust itself to any change or swelling of the sections without interfering with the shape of the cigars. The base and top molds are made of separate detachable fish sections, sliding in metallic guide frames, and are retained by strong binding springs.

IMPROVED SHIRT.

Clinton M. Ball and John C. Ball, Troy, N. Y.—This shirt has the neck band attached to the body only at back of neck opening, and the bosom attached at upper edge only to front of neck band and shirt body. This plan allows of having the shirt open at back or front, and of ironing the bosom independently of the body.

IMPROVED HARNESS BUCKLE.

Joseph C. Smither, Nicholasville, Ky.—A tapering tube is formed upon the upper or forward end of the buckle frame, and has a recess formed in the rear edge of its outer part to receive the end of the tongue of the buckle. The advantage of this is that, when the buckle is applied to the hip strap of the harness, the horse's tail, when switched, cannot catch either upon the upper end of the buckle, or upon the end of the tongue.

IMPROVED CRACKER SHOW CASE.

Casper Kroeger and Werner Kroeger, Milwaukee, Wis.—This is a detachable show or sample box, provided with a glass front, and having hooks for attaching it to the fronts of the box or case containing the bulk of the material on sale. These sample compartments are nicely painted or finished, so that, when forming the fronts of the cracker boxes, they make a handsome appearance.

IMPROVED DENTAL FILLING.

Lyman W. Sutton, Jr., Jersey City, N. J.—Dr. Sutton proposes crystallized metallic tin as a new dental filling. The metal is obtained, by a suitable chemical process, in spongy crystals, which are very plastic and condensible. The completed filling takes a fine polish, and is said to resist both corrosion and abrasion.

IMPROVED PORTABLE VAPOR BATH.

George Washington Brosius, Gallatin, Mo.—This is a box composed of a bottom board, top board, and four sides, consisting of frames covered with oiled silk or cloth; and the sides, top, and bottom are fastened together by hooks and eyes, so as to be readily put together and taken apart. Within are convenient arrangements for a furnace for vaporizing substances, and for a seat for the patient.

IMPROVED MOLD FOR CONCRETE ARTICLES.

Richard B. Lanum, Mount Sterling, Ohio.—This inventor proposes metal linings to concrete molds having loose joints to let the water escape. The object is to use metal for its smoothness and capability to make sharp angles, and at the same time to have the lining so that it will not obstruct the escape of the water, as it would if the lining were completely connected.

IMPROVED MODE OF CURING MOSS.

Peter Unsworth, Algiers, La.—This inventor suggests a new process of curing moss by immersing and boiling the same in a solution of caustic soda to which sumac, fustic, japonica, burnt umber, and copperas have been added. In this way gray moss that has been deadened can be cured in thirty minutes, but moss fresh from the tree will require about eighteen days.

IMPROVED PICKET PIN.

James D. Field, Blue Rapids, assignor to himself and J. D. Edmond, Leavenworth, Kan.—In order to construct a picket pin which may easily be inserted in the ground without the necessity of hammering, and which shall have a firmer hold when set, this inventor constructs the pin of metal, and bends the shank in spiral form. The upper end of the shank is also bent to form a handle for holding the pin while it is boring into the ground.

IMPROVED PAPER BOX.

Felix Salomon, New York city.—This invention consists in binding the edges of the paper boxes with metal strips, and soldering the top or bottom parts to the side walls. The object is to enable the boxes to resist wear better and to retain their shape longer. The inventor says that the improvement renders pasteboard boxes almost as stiff and as strong as wooden ones.

IMPROVED RECOIL CHECK FOR GUN STOCKS.

William D. Miller, Pittsburgh, Pa.—This inventor proposes to provide the butt ends of gun stocks with a device for diminishing or neutralizing the recoil. The invention consists of a fixed butt plate, in connection with a hinged, guided, and spring-acted plate. The check plate and spring break the recoil, and thus admit of a surer and steadier aim.

IMPROVED CRIMPERS' PINCHERS.

George G. Wright and George Bassett, Spencer, Mass.—Shoemakers are provided in this invention with new pinchers for use in crimping boots, which are so constructed that they may be used for operating the screw clamp for drawing down the corners of the leather, for drawing the edges of the leather into place, for driving the tacks for securing the edges of the leather, and for drawing said tacks.

IMPROVED METALLIC BURIAL CASE.

Henry M. Gray, San Francisco, Cal.—The novel feature in this invention is a handle attachment located under and against the over-shutting flange, in such manner that the lift or strain thereof is mainly sustained by such flange, and the screws relieved of it. The handles are thus made much more secure, and yet require only one or two screws for fastening them.