

RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

SOWING APPARATUS.—G. K. SPITZENBERG, Forsthaus Leuenbergerwiesen, near Eberswalde, Germany. The present invention relates to a sowing apparatus for use in forestry, agriculture, and horticulture, which is carried in the manner of a knapsack. This sowing apparatus can be used with all kinds of seed and under any conditions of ground and soil, for instance, in mountainous districts, where vehicular apparatus cannot be used.

COLTER-BEARING.—T. R. WALLIS, Dyersburg, Tenn. The invention provides an improved bearing on which the colter may be mounted to turn freely with relatively little friction. The colter disk is held by two hub sections mounted on a thimble through which a bolt passes. The bolt is fastened against the outer faces of the arms of the plow and the thimble sets between the arms, with one end squared and fitting snugly into an opening in the adjacent arm. The hub of the colter turns loosely on the thimble.

ADJUSTABLE CULTIVATOR-TOOTH.—F. G. HOAG, Battlecreek, Mich. An object of the present invention is the provision of means for securely fastening the tooth of a cultivator to the machine frame. The construction is such as to allow the holding device and the tooth to be shifted back and forth on the frame, while the tooth can be adjusted vertically without disturbing the position of the holder and thus the position of the tooth can be regulated at will.

Electrical Apparatus.

ELECTRIC INTERRUPTER.—L. G. NILSON, New York, N. Y. It is well known that in ordinary induction coils using platinum-tipped contacts in the vibrator, even with proper condensers the contact points will burn or corrode more or less. This burning or arcing not only destroys the points rapidly but gives poor results in the secondary of the coil. It is also well known if an electric connection is broken producing a spark or an arc in the magnetic field, the magnetism will have a tendency to diminish or blow out the spark. In order to produce the best results and at the same time improve the action and prolong the life of the moving parts, Mr. Nilson has provided an interrupter in which the magnetism of the interrupter itself is utilized for blowing out the destructive spark at the primary contact points.

CONTROLLER FOR ELECTRIC MOTORS.—L. G. NILSON, New York, N. Y. Improvements in controllers for electric motors particularly of the class used for electric vehicles are provided in this invention, the objects of which are to improve and simplify the mechanical construction and general arrangement, so as to cheapen the first cost, reduce wear to a minimum, have all parts easy of access, and render the operation of the whole convenient and reliable.

AMPERE-HOUR METER.—W. A. SHERLOCK, San Francisco, Cal. This ampere-hour meter will measure either direct or alternating currents of any phase or frequency. It is also intended for use as a student's watt or volt meter and for numerous electro-chemical demonstrations in school laboratories. It comprises a receptacle containing an electrolyte of a kind in which the electrical conductivity is increased by heat. A current is passed through this electrolyte for the purpose of producing gases the volume of which is measured. The resistance in the circuit is also measured and means are provided for raising the electrolyte, gases, and resistance, to a predetermined temperature.

TELEPHONE-SWITCH.—J. A. WARRICK, Sheldon, Ill. This telephone switch is provided more particularly for use on party lines. The object of the switch is to enable any two or more instruments upon such a line to be brought into use without molesting other instruments upon the same line. By this system any reasonable number of telephones may be placed in the same circuit and any subscriber may select and talk to any other subscriber without danger of eavesdroppers being able to hear what is said.

Engineering Improvements.

EXHAUST-MUFFLER.—H. N. WHITTELEY, Camden, N. J. The present invention provides improvements in mufflers for the exhaust of combustion of steam engines used in propelling launches and other vessels. The muffler is in the form of a submerged condenser so constructed as to cool and effectually condense the exhaust gases and vapors and emit the small volume uncondensed in a continuous stream.

STEAM OR VAPOR TURBINE.—H. T. LEES, Brooklyn, N. Y. Mr. Lees provides in the present invention an improved turbine adapted to be driven by steam or other vapor. The construction is simple and durable and very effective in operation. It is arranged to utilize the expansion of the motive agent to the fullest advantage to obtain an exceedingly high rate of speed at a comparatively low initial or boiler pressure.

Hardware.

WRENCH.—J. F. BARRETT, 20 South Church Street, Carbondale, Pa. A novel form of wrench is provided in this invention which may

be used in connection with a woodworker's hand brace. The improved tool has a shank for engagement with the socket of the brace and at its gripping end is provided with fingers which are adapted to be closed on a nut or a screw-bolt by turning an adjusting nut on the body of the tool.

LOCK.—L. DALTON and D. CROSS, Santo, Texas. An improvement in combination locks for doors, safes and the like has been provided by these inventors. The lock is equipped with readily operated means for holding the combination disks inactive and in position to permit a locking bolt to be freely operated by a key when so desired. This means will also permit the combination to be set so that the bolt cannot be moved by a key until the disks of the combination have been brought to proper position. The lock can thus be used either as a combination lock or as an ordinary lock.

Mechanical Devices.

DOUGH-KNEADING MACHINE.—R. I. A. MASON, Hampton, Va. This dough-kneading machine comprises a frame having a central standard on which a pan is mounted with its bottom inclining upwardly toward the center. Two tapering rollers are provided journaled respectively to bear against the upper and lower surfaces of the pan. A shifting cutter is arranged in the rear of the upper roller and is adapted to divide the layer of dough into inner and outer sections and to deliver the inner section onto the outer one.

ALINER FOR TYPE-BARS OF TYPE WRITERS.—J. ALEXANDER, New York, N. Y. Mr. Alexander's invention relates to improvements in aliners for typewriters and the object is to provide a simple, adjustable device to cause the type to strike on the paper in proper place or in proper alignment.

WELL-DRILLING MACHINE.—R. B. MOORE, Yarrelton, Texas. An improved well-drilling machine is provided by the present invention. The machine is adapted to be driven by horse power and is arranged to permit of actuating the drilling tools for drilling purposes, and to allow of conveniently and quickly raising the tools from the well whenever it is desired to sharpen or repair them.

WHEELED-SCOOP.—J. J. GYLLENBORG, Grenada, Miss. This invention which relates to wheeled-scoops has for an object to provide certain improvements in the general construction of the implements as well as in the operating means and devices for supporting the scoop.

Railway Improvements.

BRIDLE-ROD FOR RAILROAD-RAILS.—W. E. COPELAND, El Paso, Texas, and M. M. MASSEY, Alamogordo, New Mexico. This invention provides an improved bridle-rod especially designed for use in connection with track laying machines when the tracks are laid down in front by the track layer as the train moves ahead and the spikers follow, the train hands removing the rods, which are then carried ahead and again used.

COAL-TIPPLE.—F. W. WILLIS, Pratt, W. Va. The purpose of this invention is to provide an economical coal-tipple automatic in its action and so constructed that the loaded car will approach the dumping platform at an inclination downward to the same and will leave the dumping platform at a downward inclination therefrom, the rails for the loading car being at a greater elevation than the rails for the empty cars.

RAILROAD TIE OR BRIDLE.—J. G. CARLSON, Eggleson, Minn. The metallic tie or bridle herein provided consists of base or end pieces provided with transverse grooves and projections on their upper faces and an end lug or cheek piece having a beveled face adapted to engage the rail, a stretcher or cross bar provided with transverse grooves and projections adapted to interlock with the grooves and projections of the base or end pieces, and a bolt fastening for securing the stretcher and the end pieces together and to the rail.

Technology.

PROCESS FOR REFINING ASPHALTIC MINERAL OILS.—J. C. MIMS, New Orleans, La. This process of removing asphaltum from mineral oils containing a high percentage of asphaltum consists in adding to the oil a mixture of about five parts by weight of potassium bichromate to 95 parts of sulphuric acid in quantity equal to 1 to 10 per cent of the oil, allowing the asphaltum and associated impurities to settle and then washing the oil with an aqueous solution containing about 5 per cent of sodium hydroxide and 5 per cent of sodium carbonate, and then separating the purified oil from the sedimentary matter.

PROCESS OF SEPARATING PROTEIDS FROM NON-NITROGENOUS BODIES.—J. CARSTAIRS, Bradford, England. The process consists in mingling the confined nitrogenous proteid and the fat or oil with a solvent comprising a saturated solution in methyl-alcohol, of nine parts of phenyl-alcohol and one part of benzyl-alcohol, and heating the resulting mixture to the point of liquefaction.

SENSITIZED MATERIAL AND PROCESS OF MAKING THE SAME.—A. H. MIES, Jr., Bidesheim, and A. COBENZL, Bingen, Germany. In order to produce photographs on fabrics the latter are previously treated with an extract of Iceland moss and, when dry, sensitized

in the usual manner. This process, however, has the disadvantage that after a time the photographs show spots. To overcome this difficulty the present process has been invented which consists in impregnating the fabric with a solution of soluble starch, subsequently drying the impregnated fabric to render the starch insoluble and finally giving a sensitized surface to the dry starch-impregnated base.

Vehicles and Their Accessories.

FRONT FOR VEHICLE TOPS.—J. B. McMULLEN, Howard County, Md. Mr. McMullen's invention provides an improvement in fronts for vehicle-tops. A novel construction is employed which can be conveniently applied to the buggy, will serve to protect the occupants of the buggy when turned down to position for use, and can be conveniently folded up into the top of the vehicle when not in use.

AXLE.—L. G. NILSON, New York, N. Y. It is a common practice to make the steering axles for automobiles of solid forgings with forks or sockets at the ends for receiving the steering knuckles. This renders a heavy and expensive axle for the strength required. It is an object of the present invention to overcome these difficulties by providing an axle that shall be comparatively light, with sufficient strength, and so constructed that the knuckles and springs may be easily fastened in place.

NECK-YOKE.—S. J. McDONALD, Gallatin, Mo. Novel details of construction are provided in this invention which adapt this neck yoke for very efficient service enabling the proper connection of the improved device with neck yoke bars of slightly different diameters, rendering the connection between the vehicle and the neck yoke, yielding in two directions, and adapting the contact of the neck yoke ring to avoid injurious abrasion of the finished surface of a vehicle pole.

Miscellaneous.

STOVE OR RANGE.—E. BEATTY, New York, N. Y. Mr. Beatty's invention provides certain useful improvements in stoves and ranges whereby complete incineration of garbage and the like is permitted, without disturbing the burning fuel in the firebox and without causing obnoxious gases to pass into the room in which the heating apparatus is located.

FRUIT-ASSORTING TABLE.—C. D. NELSON, San Dimas, Cal. Improvements in fruit-assorting tables are provided in this invention, which are more especially designed as a means for grading oranges and lemons according to different qualities. It is now the common practice to assort oranges and lemons into three grades known as "fancy," "choice," and "standard." The present invention provides a simple machine on which this grading may be easily effected by operators stationed on both sides of the apparatus.

COMB.—J. A. CLINTON, Brooklyn, N. Y. This comb belongs to the class used by ladies for holding the hair and for ornamenting the same. The comb is provided with a series of movable teeth which co-operate with a series of fixed teeth to grip the hair and thus hold the hair and comb in place.

WELL-TUBE LIFTER.—J. NEUMEIER, La Crosse, Wis. Mr. Neumeier's improvement consists in so arranging the parts of the ordinary well-tube lifter as to permit the devices to clutch the side of a well-tube at any point along its length, or to permit them to be reversed to lift the well tube by loosely embracing the same at a point below the enlargement of the coupling section.

SOUNDING-BOARD.—SARAH W. CLARK, New York, N. Y. Improvements in sounding boards are provided in this invention which are particularly adapted to the use of violinists and other soloists playing with the piano or like accompaniments. The object is to provide a portable sounding board that may be placed where desired to give the best effect in spreading or giving force and distance to musical sounds.

ANIMAL-TRAP.—H. SARGENT, Corvallis, Ore. One of the objects of this invention is to equip a trap with a simple and efficient style of firearm adapted for service in connection with fixed ammunition, which may be automatically discharged or exploded so as to kill burrowing animals, such as gophers, moles, etc., as well as other objectionable animals. The trap is equipped with a novel tripping mechanism which may be operated by the pushing movement of burrowing animals or by the pull of other kinds of animals in the effort to dislodge bait from an element of the tripping mechanism.

HORN-FENDER.—C. W. ALLEN, Merriman, Neb. Mr. Allen provides, by the present invention, a simple means for preventing cattle from goring each other, thus overcoming the necessity for dehorning the cattle. The invention comprises an efficient guard which may be easily and snugly fitted to different kinds of horns in a manner to avoid rattling thereon.

STRAINER FOR WELL-TUBING.—J. McK. WARE, Shuteston, La. This invention comprises certain improvements in well-tubing of the class commonly known as "drive-wells," that is, tubular-wells formed by sinking into the earth a tube shod at its lower end with a piercing point. The present invention is designed to obviate objections to strainers as

now used, and to that end Mr. Ware has devised a strainer that is not liable to be disarranged while the tube is being sunk.

BOTTLE.—V. D. WHITE, Cottagegrove, Ore. An improved bottle closure has been invented by Mr. White, being in the nature of a non-refillable bottle or one in which the bottle will indicate whether it had been opened after leaving the original bottler, so that its contents cannot be counterfeited.

HORSE APRON.—J. SULLIVAN, New York, N. Y. This apron is adapted to catch and retain excrement and thereby keep a stall clean. The device is so constructed that it may be expeditiously and conveniently attached to or detached from a stall and when in position is located horizontally at a point immediately at the rear of the animal below the rump.

INVALID BED AND COMMODORE.—W. C. FEELY, New York, N. Y. The invention relates to invalid beds and commodes, and its purpose is to provide a simple and easily-operated construction of telescopic bed including a support for a commode. The commode is removably mounted and is vertically and laterally adjustable.

DESIGN FOR FABRIC.—C. E. HOWE, New York, N. Y. The design consists of the representation of a series of railway rails, and arranged at various points between pairs of rails are representations of locomotive engines, also at various points are representations of oil cans, wrenches and hammers.

BEDSTEAD.—W. A. REDDICK, Niles, Mich. This invention relates to an improvement in bedsteads preferably made of wire in which the head and foot boards fold inwardly and downwardly inclosing the bedclothing. Herefore in bedsteads of this character when packing the same for transportation it was necessary to remove the bedding before folding the head and footboards which were pivoted at the extreme ends of the frame and the legs of which projected out a considerable distance beyond the ends of the frame, thus requiring a larger packing box. These difficulties are overcome by the present invention.

ROD FOR WIRE FENCING.—A. T. DE BARY, Buenos Aires, Argentina. Certain styles of the ordinary rod or stay require attachment to the line wires of a fence by the employment of fastening wires. But this method of attaching stays is not satisfactory because of increased cost and time required to fasten the parts. The object of this invention, therefore, is the provision of a simple and inexpensive construction adapted for attachment in a manner to hold itself positively against displacement in any direction without resorting to the use of separate fasteners.

MAIL-BOX INDICATOR.—L. T. CAROTHERS, Carey, Ohio. The mail-box indicator invented by Mr. Chambers is especially intended for use on letter boxes to indicate the times of collections of the mail therefrom by the carrier or other collector. The invention also provides means whereby the times indicated on the box for the collection of the mail can be readily changed to suit new schedules.

GAS PRODUCER.—J. A. MITCHELL, Brooklyn, N. Y. Mr. Mitchell's invention relates to an apparatus for producing gas in which some important improvements have been made. The fuel is fed into the apparatus from above. The grate which has a spiral formation may be revolved to drag the ashes down into the ash-pit. A heat blast passes up through the center, acting continually on the fire to maintain combustion.

MATCH LIGHTER.—J. PROOPS and S. HILSUM, New York, N. Y. The device is arranged to enable a person to readily scratch a match for igniting the same without danger of setting fire to surrounding objects by an ignited, broken-off match-head. The match lighter is of a simple and durable construction and may be very neatly made.

METALLIC VESSEL.—J. E. CASE, Clifton Springs, and W. T. CONWAY, Canandaigua, N. Y. It is well known that pails, pans and other vessels manufactured of tin plate or sheet metal are liable to have their bottoms deteriorate through rust when placed on the ground, in a sink, or otherwise subjected to the action of moisture. This objection is overcome in the present invention by the employment of a non-corrosive material in the manufacture of the bottom.

CUSHION HEEL-PLATE.—H. F. DERNELL, Athens, N. Y. The inventor has in view the provision of a simple and cheap construction in which the metallic and cushion elements used on the heels of boots and shoes are so intimately combined and related that the cushion will remain attached to the metallic part until it is worn entirely away, and the plate and cushion will wear uniformly for a longer time than an ordinary heel or plate.

CLOTHES DRIER.—F. S. MACDOUGALL, Seattle, Wash. The present invention relates to improvements in clothes-driers and has for its object the provision of improved means adapted to allow the group of arms when adjusted to their horizontal positions to be swung in either direction from a central position, thus enabling the arms to be compactly arranged with relation to a wall or any other place where the device may be hung.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.