

## RECENTLY PATENTED INVENTIONS.

## Of Interest to Farmers.

**STALK-CUTTER ATTACHMENT FOR PLOWS.**—R. B. HUMAN, Chickasha, Okla. The improvement pertains to a stalk cutter attachment for plows, and the object is to produce a device which is simple in construction and which can be conveniently attached to plows of ordinary construction. The construction enables the level of the device to be adjusted with respect to the plowshare.

**HAY-COCKING MACHINE AND HAY-LOADER.**—G. L. HOLLIDAY and I. S. HAWKS, Curtis, Wis. The object of the invention is to produce a machine which will operate in a simple manner to form cocks from the hay, and which can be used as a loading device for placing the hay in wagons. It relates to harvesters and especially to hay-making machines.

**COTTON SEPARATOR AND CLEANER.**—R. H. PURNELL, Rosedale, Miss. The present apparatus is designed primarily as an improvement on the previously patented invention of the same inventor. The improvements now patented are devised with a view to more effectually separate the stalks and trash from the cotton and expeditiously deliver the cotton to receiving sacks. The compact arrangement of devices serves to effect two distinct separating operations before the cotton is delivered to the sacks.

**CHURN.**—P. B. CUPP and K. N. EVERETT, Van Wert, Ohio. More especially the invention relates to churns having a plurality of dashes movable in different directions, and arranged to be manually operated. It is simple and durable and inexpensive to manufacture. An object is to provide common means for operating the dashes in different directions. Still further to provide manual means operable in a substantially horizontal plane for driving the dashes, these being so constructed that they may be operated either in the same or in opposite directions to one another.

## Of General Interest.

**RUBBER-DAM HOLDER AND CUTTER.**—A. B. PRENTIS, Bandon, Ore. In operating the dam, when it is desired to remove a portion from the roll, a rod is turned to loosen the swinging yoke, to permit the dam to be drawn thereunder, until a suitable length has been withdrawn. The rod is now turned to clamp the dam, and a block is moved, thus cutting off the withdrawn portion of the dam.

**COLLAPSIBLE CRATE.**—ILA V. HOLLOWAY, Monument, Col. When empty this improved crate can be knocked down and folded together, thus occupying small space for shipment. It is easily set up and when set up forms a strong and substantial crate. The undercut portions when used, permit of dispensing with certain nails or screws, since the overhanging portion of the ends retains the slats in place.

**PERFUME-VAPORIZER.**—E. J. KEEFER, North Manchester, Ind. The object of the invention is the provision of a vaporizer, more especially designed for use in stores and other places, and arranged to enable a customer or other person to test the odor of the fluid, and thus be in a position to make a selection of the goods with the greatest accuracy.

**METALLIC DOOR.**—A. H. BOBB, New York, N. Y. The purpose here is to provide a construction of metallic doors, one wherein comparatively few parts are employed, which parts are capable of being quickly and conveniently assembled, and wherein also the metal composing the door can expand and contract to a proper extent.

**APPARATUS FOR MIXING GAS AND AIR.**—E. DANKELMANN, 6 Helgoländer Ufer, Berlin, Germany. The inventor employs separate suction and forcing dampers for the gas and air respectively to make provision against excessive pressure in the service pipe for causing the flow of the admixture through a circulation conduit, thus remedying evils which might arise from fluctuations in pressure. In employing back suction or return conduits their efficiency may be increased by providing them with special suction valves so that upon each stroke of the suction apparatus two inlets of gas or air on one hand and for admixture of gas and air on the other are opened, but are closed during forcing operation.

**APPARATUS FOR MASSAGING THE VAGINAL WALLS, ETC.**—J. E. AMENT, Indiana, Pa. One purpose of the invention is to provide a device especially adapted to replace a prolapsed uterus without touching the organ with either hands or instruments, to medicate the afflicted parts, to exercise the walls and broad ligaments, and to assist in breaking up adhesions.

**PLASTER-BOARD.**—J. J. RYAN, New York, N. Y. A purpose here is to provide a plaster board, the outer face whereof is fire-proof and semi-plastic, enabling a nail to be driven through the same to a point below or within the fire-proof semi-plastic material, so that the semi-plastic material may be troweled hard and smooth when desired.

**NON-REFILLABLE BOTTLE.**—M. ECKER, New York, N. Y. In this patent the invention relates to non-refillable bottles and its object is to provide a bottle of this class which cannot be refilled, and which is constructed without employing metallic parts or valves. Extreme simplicity and effectiveness in operation are the principal objects.

**HOLDER FOR THERMOMETERS.**—LUCY R. EDWARDS, Jacksonville, Fla. This holder for

a clinical thermometer is such as used by doctors and trained nurses in taking temperature. In hospital wards it is frequently necessary that the thermometer used for taking temperature should be used exclusively by a patient, and that the implement should be kept in an antiseptic condition. The object is to provide a holder having means for holding thermometers in a disinfected or antiseptic condition.

**UTERINE SUPPORTER.**—G. BECK, Jersey City, N. J. The purpose of the invention is to provide means for introducing the device in an expeditious and painless manner, which means can be conveniently manipulated by the patient; and also to provide means for preventing loss of the device should it possibly slip from the parts, which latter means are also employed for removing the device when so desired.

**STEP-LADDER.**—E. ROWE, Indiana, Pa. This improvement pertains to step ladders, and the object is to produce a ladder having the rungs or steps thereof braced in such a way that their strength is materially increased, and to produce an arrangement whereby the side pieces of the ladder are relieved of strain in the vicinity of the steps or rungs.

## Hardware.

**THREAD-CUTTER.**—N. ZOGG, New York, N. Y. In the present patent the invention is designed to provide thread cutting taps and dies with lead cutters, adapted to readily start a thread in a nut, bolt, or similar object, without the friction and effort incidental to thread cutters of ordinary construction.

**FLOOR-JACK.**—H. T. SPEDDEN and E. M. SPEDDEN, Chewelah, Wash. The invention pertains to jacks used for forcing the tongues and grooves of floor boards together while laying and securing them upon joists, studding or ceiling timbers, and the object is to provide details of construction for a jack, that adapt it for service as a means for forcing together and holding flooring in place, before nailing such boards on the frame of a building or other structure.

**CLEVIS.**—T. J. DAVIS, Harding, S. D. The invention relates more particularly to clevises used in connection with plow beams, whiffletrees, drags, and the like. The object is to provide a clevis having a removable clevis pin, which can be easily detached or placed in position, and in which the pin is resiliently held in position to lock it against accidental displacement.

**SLIDING-DOOR FASTENER.**—G. M. INGEBLO, Veblen, S. D. An object of this invention is to provide a fastener for use with sliding or rolling doors and the like, which is extensible to permit its adjustment for use with doors of different thicknesses, and which is operable from both the outside and inside of the wall in which the door-way is located. Means provide for preventing entrance of cold air, and the door from warping.

## Heating and Lighting.

**DIRT-RETAINER FOR GAS-NOZZLES.**—H. STUSSMANN, 144 Alte Jacobstrasse, Berlin, Germany. The invention has for its object a dirt retainer for gas nozzles, which more especially in the case of inverted gas burners, prevents dirt or impurities contained in the gas pipes from reaching the nozzle and stopping this latter. Among several advantages the retainer is readily interchangeable or dismountable so that all the parts may be cleaned without difficulty.

**LAMP-SHADE HOLDER.**—J. CRUKSHANK, Shamokin, Pa. The holder is especially adapted for use in connection with an incandescent electric light. In the common form it is customary to provide a plurality of radially-disposed screws movable into and out of engagement with the shades, but in this all screws are eliminated, all hooks which take their place are moved simultaneously, and a single movement of a single operating member serves for the operation of all of the gripping members.

## Household Utilities.

**EGG-STRAINER.**—H. J. WALZ, Buffalo, and J. W. BUTLER, Hermitage, N. Y. One object in this instance is the production of an inexpensive and effective egg-separator in which provision is made to discharge bad eggs from the device, and also eggs having their yolks broken previous to reaching the point where the white of the egg is strained or separated from the yolk.

## Machines and Mechanical Devices.

**FEEDER.**—F. M. MOTT, Douglas, Ariz. Ter. The feeder is more especially designed for feeding ore and other materials to stamp mills and other machinery or devices, and arranged to permit of governing the amount of the material fed according to the capacity and working of the stamps, to insure proper reduction of the material without danger of choking the mill by overfeeding.

**COVER-FASTENING MEANS FOR USE ON WASHING-MACHINES.**—P. A. FOLK, Spokane, Wash. In operation the machine will wash any fabric from the finest lace to the heaviest clothing without tangling, tearing, or otherwise injuring them. When the clothing and water are placed in the machine and the latter is revolved the water and clothing will not revolve with the machine but will remain at the bottom of the drum, where it will be thoroughly rubbed and agitated.

**FEEDING DEVICE FOR NAIL-MACHINES.**—J. S. PYPER, Keeseville, N. Y. The device is intended especially to be used in connection with machines for pointing horseshoe nails. The inventor's object is to produce a device which will operate effectively to present the nails to the pointing mechanism in the proper position.

**STENCIL-PRINTING MACHINE.**—L. W. VON BEHREN, Evansville, Ill. This invention relates to machines for reproducing, which are employed for the purpose of making fac-simile duplicates of typewritten or other autographic matter from paper or other stencils which have been coated with substances impervious to ink, and from which portions of the substances have been removed by the impact of a type face as in writing upon a sheet in a typewriter, or by traversing the surface of the sheet with the point of a stylus or the like.

**THREAD-HOLDER.**—J. ROSENBERG, New York, N. Y. The invention is an improvement in thread holders more particularly adapted for factory sewing rooms. The object primarily is to provide a device, in which the thread is conveniently accessible for sewing purposes but which cannot be unauthorizedly displaced from the holder or stolen.

**TIRE-UPSETTER, PUNCH, AND SHEAR MACHINE.**—J. F. BADGER, St. Louis, Mo. The object here is to provide a powerful and efficient tire upsetter for upsetting or shrinking tires on the wheels of vehicles, either hot or cold, and which also shall be capable of performing the work of shearing, punching, etc. The machine is a very economical one for the wheelwright, since it embodies the functions of several machines in one and takes but little floor space.

**SLICING AND CORING ATTACHMENT FOR PARING-MACHINES.**—J. F. KOHLER, New York, N. Y. A purpose here is to so construct the attachment that it can be readily applied to certain machines in a manner to constitute a fixed part thereof, and further to so construct and apply it that it will operate in perfect harmony with operative parts of said machines, to produce in one continuous operation the paring, coring, and slicing of an apple, and the discharge of the core from the fork of the machines upon which the apple is supported during the paring.

**SAUSAGE-MACHINES.**—F. MATHEYER, New York, N. Y. The machine fills or stuffs the meat into casings, and is provided with a plunger reciprocating in a cylinder containing the meat, the plunger after starting the machine completing a full stroke for discharging the meat and then returning it to starting position to permit refilling of the cylinder, the movement of the plunger being positive, thus requiring no attention, and enabling the attendant to devote his time to the application of the empty casings and the removal of the filled casings.

**SODA-WATER FOUNTAIN.**—B. SPINELLI, New York, N. Y. The objects of the improvement are to provide a working arrangement for drawing syrup or other liquid from a container and pouring it in a glass or other vessel, without opening the refrigerating chamber or other compartment in which the container may be inclosed; and, to provide an accurate measuring device.

## Prime Movers and Their Accessories.

**MOTOR.**—O. PEPPER, San Francisco, Cal. The object of the inventor is to provide a device whereby the movement of water can be utilized for generating power. Further, to provide a motor serving for the utilization of wave or other movements of bodies of water to produce power, and having means for directing the waves to augment their effect upon the motor. It automatically adjusts itself to varying tide levels.

## Railways and Their Accessories.

**RAIL-FASTENING.**—A. NEWELL, Guadalajara, Mexico. The intention in this case is to produce a device which, if subjected to jars or vibrations, will operate to clamp a member such as a rail, and maintain the clamping force with the same or greater intensity by the vibration or jar to which the parts are subjected. It is adapted more particularly for use in connection with metal ties for holding railway rails thereon.

## Pertaining to Vehicles.

**TRANSMISSION-GEAR.**—P. HAYWARD, Hanging Rock, Ohio. The invention relates to transmission gears, Mr. Hayward's more particular aim being to provide a construction for general use. The improvement further relates to a form of transmission gear especially suitable for road vehicles, and comprising means for reversing the motion of a revoluble driven member.

**DOUBLE-TREE AND LINE-HOLDER.**—W. A. WILLIAMS, Lexington, Okla. The invention provides a line holder for use in connection with draft trees, so the line will not become entangled in the trees. A bar is provided which ranges longitudinally above the trees, the ends of the bars having base members which are secured in place by the bolts that secure and pivot the single-tree to the ends of the double-tree; an additional support for the bar is provided by a central upright, the foot of which is secured by the belt that secures and pivots the double-tree to the tongue.

**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.



## HINTS TO CORRESPONDENTS.

Full hints to correspondents were printed at the head of this column in the issue of August 8th, or will be sent by mail on request.

(10845) H. H. says: Kindly tell me whether a Wimshurst machine can be used for wireless transmission. A static machine such as a Wimshurst machine can be used for wireless telegraphy to a degree, by attaching one terminal to the aerial and grounding the other terminal. Of course, a condenser, Leyden jars or plate, must be used with the machine to develop any power at all in the spark.

(10846) C. W. F. says: Will you please solve through the Notes and Queries the following problem: A man wishes to plant 19 trees in his garden and to have them in 9 straight rows and have 9 trees in each row. A. We confess that we do not know how to get 19 trees in 9 straight rows so as to have 9 trees in each row, and in this hot season we cannot draw on our small reserve of gray matter to try to solve the puzzle.

(10847) R. Y. A. says: Can you tell me how to build an inexpensive septic tank to take care of all the drainage of a house in the country that will work perfectly? There is a blue clay soil with gravel streaks in it. A. The septic tank system of sewage disposal involves a process the suggestion of which was revolutionary only a few years ago, making use for the purifying of sewage of the very putrefying agents which in previous systems were as far as possible avoided. An effective use of the system equally involves careful study in the design, so that the anaerobic or putrefactive and aerobic or nitrifying chambers are properly balanced and separated, so that it is rather a "large order" to give you offhand and by letter full instructions how to build such a system "that will work perfectly" and with no particulars as to the quantity of sewage to be treated. We can confidently recommend the Cameron Septic Tank Company of Monadnock Block, Chicago, who have made a special study of this system, or if you desire something simpler in the way of sewage disposal, special articles in our SUPPLEMENT Nos. 387, 469, 1121, and 1450 give some valuable information on methods of sewage disposal for farms and isolated houses. We shall be glad to advise you further as to details upon which any of the above information is insufficient, but the subject as a whole is too large for treatment by letter.

(10848) C. M. K. says: If a horseshoe magnet is held close to but not touching a soft iron wheel, will it act as a brake or check on the motion of the wheel? Would the effect be the same on a hard steel wheel? If the magnet acts as a check, would the effect increase or decrease with increased speed of wheel? A. If a horseshoe magnet is placed so that a disk of metal revolves between its poles, the magnet acts as a brake upon the rotating disk. This is the method employed to regulate the rotation of the works of a recording wattmeter. The rotating disk has a current of electricity produced in it by the lines of force of the magnet, and this current flows in such a sense as to oppose the rotation. The more rapid the rotation of the disk, the stronger is the action of the magnetic brake. There would be no difference in his respect between the metals excepting what their electrical resistance would produce. The effect upon copper would be the greatest. The result is not due to magnetic attraction, but the Foucault current set up in the disk.

(10849) J. T. S. says: I have experienced a peculiar phenomenon, which I do not quite understand, and which I am curious to know would be experienced by any one. I was looking at the sun with my naked eyes for a few seconds; then I closed my eyes and put my hand over them, when gradually a luminous spot would appear before them. In the center and at its inception this spot is a glowing yellow, gradually spreading out into magnificent purple, red, deep blue, and sometimes terminating in a large field of green. I am unable to make out whether this is seen objectively or subjectively. The phenomenon sometimes varies in the order of the colors and their distinctness. Will you kindly explain this experience? A. The colors you have seen after exposing your eyes to a very bright light are due to the shock given to the retina by the light. They are wholly subjective, since you see them with the eyes closed, and are more or less persistent or enduring according to the length of time the eye is exposed to the bright light. It is easily possible to injure the eyes very seriously by such exposure to the direct rays of the sun, if it is to any degree prolonged. After such a shock to the retina, one may see images of the sun upon any surface or wall at which the eye is directed. It was by gazing long and repeatedly at the bright image of the sun's light seen through a prism that Sir Isaac Newton saw these colors moving about after his eyes as he looked from one object to another, and he gave the name "spectrum" or ghost to the appearance. We have since known the color of the rainbow as a spectrum of the sun's light.