

## RECENTLY PATENTED INVENTIONS.

## Agricultural Implements.

**FLAX-HARVESTER.**—D. L. WELLMAN, Frazee, Minn. Mr. Wellman has invented a flax harvester which is light, durable, simple, and effective in operation, and which will automatically cut up the ground and loosen the roots of a plant, draw them from the ground, and feed them to the rear portion of the machine, where they are received on a suitable carrier.

## Apparatus for Special Purposes.

**CARRYING AND TRANSFERRING DEVICE.**—J. H. SINNOTT, Brooklyn, N. Y. This carrying device is designed more especially for use in printing establishments. It is arranged to insure accurate piling of sheets of paper on a transferring-carriage and to facilitate the transfer of the pile from the store-room to the machine and from one machine to another without much exertion on the part of the operator.

**BONE-BLACK KILN.**—W. T. MOHR, Gladen, Penn. This kiln is more especially designed for dyeing, revivifying and decarbonizing bone-black, fuller's earth, and like materials. The kiln is arranged to relieve the material under treatment of all gases and moisture previous to its entrance into the revivifying retorts and to insure a high-grade product ready for efficient use in the purifying of sugar, petroleum oils and the like.

## Hardware.

**LATCH.**—O. H. BURDEN, Kaslo, Can. A door-latch of simple construction has been invented by Mr. Burden which may be easily applied to any door, which can be opened from the outside only by the use of a proper key, which may be quickly opened from the inside, and which is capable of adjustment from the inside to a confined, inoperative position, wherein the latch-bolt is held retractive and flush with the outside face-plate.

**CORKSCREW.**—R. RUNNALS, Westerly, R. I. This corkscrew is so constructed that it may be readily loosened in the bottle neck without the operator pulling on the corkscrew. A sleeve surrounds the corkscrew, and is designed to engage with the cork. A bar is arranged transversely in the sleeve for engaging the screw. This bar riding up the inclined plane of the screw under spring pressure will cause the cork to become loosened.

## Mechanical Devices.

**BORING AND DRILLING MACHINE.**—B. E. HERVEY, Ritzville, Wash. This boring and drilling machine is in the nature of an improvement upon a similar machine previously invented by Mr. Hervey. The present invention embodies certain features and details of construction whereby the usefulness of the machine is greatly extended.

**SELF-WINDING CLOCK.**—C. HOUR, 7 Rue St. Anastase, Paris, France. This clock is automatically wound up by means of a device which works under the sole influence of the variations in the temperature of the atmosphere, the expansive and contractive properties of certain liquids being employed for this purpose.

**FIRE-ESCAPE.**—H. VIEREGG, Grand Island, Neb. This fire escape belongs more particularly to that class which are adapted to be operated by the weight of a person descending to the ground. The device consists of a frame or block-containing mechanism whereby a cord when actuated by the weight of a person descending causes certain parts to act as a brake, thereby governing the motion.

**FIRE-ESCAPE.**—A. SFERLOZZA, New York, N. Y. This fire escape comprises a movable scaffold whereby the inmates may be conveyed to the ground. The scaffold is arranged to be raised between the windows of two consecutive flats so that the occupants may escape from the two flats at the same time, or it may happen that the refugees are located in one particular flat, while the fire may be advantageously attacked from another. In that event the scaffold may be so disposed that the firemen are free to fasten the hose lines to the plugs of one flat while the refugees are being taken from another.

## Railway Improvements.

**BRAKE MECHANISM.**—D. S. SEBASTIAN, Wallace, Idaho. The invention relates to railroad cars, street cars and other vehicles traveling on rails, and it provides an improved brake mechanism arranged to brake the vehicle to a gradual or comparatively sudden stop by applying brake power on the rails instead of on the wheels, thus preventing undue abrasion of the wheel treads.

## Vehicle Accessories and Harness.

**SULKY.**—J. B. TAIT, Highbridge, N. J. The wheels of this vehicle are so arranged as to have a lateral swinging or tilting motion with relation to the sulky axle so as to prevent side slipping of the vehicle while turning curves and incidentally to relieve the wheel of considerable lateral strain.

**OVER-LOOKING CHECK FOR BRIDLES.**—J. B. SCHMIDT, Quincy, Ill. The invention pro-

vides a neat and simple overdraw check to be connected with the crown-piece and with means of supporting the blinds of a bridle. The parts are readily interchangeable, as one part can be removed and replaced by another without inconvenience and with little or no work.

## Miscellaneous Inventions.

**LAST.**—J. D. WINCHESTER, Beverley, Mass. This invention provides a certain novel construction by which a last may be more readily disconnected from the shoe, thus avoiding the possibility of tearing or disturbing the shape of the shoe in the operation of removing the last.

**MEANS FOR DECORATING FABRICS.**—ANTOINE VÉRICEL, New York, N. Y. The invention provides an improved stencil by which the desired color of paint may be quickly applied to the fabric by an unskilled operator. Different colors may be easily and quickly applied by the successive operation of a series of stencils each embodying a part of the pattern and adapted to apply one color, the series of stencils being normally held out of the way and adapted to be brought into matching relation over the work before the color is applied.

**HOLLOW GRATE-BAR.**—T. J. PRITCHARD, Sunshine, La. Mr. Pritchard has invented a hollow grate bar which is adapted to cause thorough ventilation in the fire and to some extent act in the capacity of a smoke consumer. The bar is adapted to be placed under a boiler and is preferably connected with an air-chamber, so as to result in comparatively perfect combustion.

**HYDROCARBON-BURNER FOR STOVES OR FURNACES.**—G. A. GREENE, Rogers, Texas. In this improved burner the liquid is vaporized within a confined space by causing it to splash upon a suitable obstacle against the inner surface of a heated air-tube. This vapor combines with the heated air to form a good combustible mixture. An absorbent charge for the non-vaporized liquid is supplied to the burner and is adapted to feed fuel thereto for a short time after cutting off the fuel supply.

**NON-REFILLABLE BOTTLE.**—J. J. BENTZ, Brooklyn, N. Y. The invention relates to a means for preventing bottles being filled after their original contents have been withdrawn. The neck of the bottle is provided with a plunger valve which falls to its seat when the bottle is upright, but when the bottle is tilted the valve opens and the liquid is allowed to pass out freely.

**CUSPIDOR-RACK.**—F. F. BALL, Sonora, Cal. Mr. Ball provides a simple construction of rack which may be used for holding cuspidors in carrying the same. The cuspidors are arranged one above the other and the side frames of the rack adjusted to clamp the same.

**GREENHOUSE CONSTRUCTION.**—F. VAN ASSCHE, Jersey City, N. J. It has heretofore been a fatal objection to iron-framed greenhouses that the expansion or contraction of the iron parts subjects the glass to destructive strains. By means of this invention Mr. Van Assche interposes a yielding or spring-like connection between the iron or metallic frame parts and the glass so that the expansive movements of the iron are not communicated irresistibly to the glass.

**BARREL-HEAD FASTENING.**—E. C. SHEARS, Lakota, No. Dak. This invention relates to improvements in barrel-head fastenings and its object is to provide a head and fastening that may be removed or inserted without breaking or otherwise damaging the barrel staves and further to provide, in connection with the fastening, a means for attaching a seal.

**EXTENSION-LADDER.**—W. H. SIBLEY, Wittenberg, Canada. The ladder comprises a plurality of connectible sections whereby the same may be extended for use as a fire-escape. The construction is simple, strong and conveniently arranged, and embodies a means for elevating or lowering portions of the ladder when partially or completely erected.

**CEMENT ROOFING.**—H. BROCK, St. Paul, Minn. Mr. Brock provides cement roofing panels of such construction that opposing panels will have overlapping, interlocking connection, so that longitudinal gutters will be formed therein to promote a ready discharge of water. The panels may be securely held to the roof lathing, each by a single nail, so that a row of panels may be tied in place by a simple system of wiring applied from the inside of the structure, all fastening devices being invisible from the outside.

**PROCESS FOR TREATING FINE IRON ORES FOR BLAST FURNACES.**—A. D. ELLERS, Hoboken, N. J. The invention provides a method of compacting fine iron ores which consists in mixing the ores with pulverized slag, burning such mixtures to a clinker and maintaining the mass in constant agitation during the burning to effect the segregation of the plastic clinker into lumps; the size of the clinker may be regulated to some extent and will probably average about walnut size.

**PROCESS OF BURNING BRICK.**—J. PECK, Haverstraw, N. Y. The object of this invention is to cheapen as well as to render more effective the work of burning brick in kilns: the process consists first in subjecting the kiln to the action of a fire fed with atom-

ized oil and maintaining this fire until the kiln has been heated, and second, in stopping the oil fire and continuing the burning of the kiln by a fire fed with soft coal or other similar fuel.

**TOBACCO-PIPE.**—N. ALLISON, Hendersonville, N. C. The pipe is so constructed that it may be easily cleaned and the draft may be regulated. Conical pointed needle valves are provided at all angles for the purpose of providing this regulation. These valves are removable so that the parts may be readily cleaned. By causing the smoke to follow a tortuous passage the "biting" action which is so noticeable in ordinary straight-stem pipes is materially reduced.

**STIFF-FINISHED WOVEN FABRIC.**—A. MCLEAN, Passaic, N. J. In this invention Mr. McLean provides certain new and useful improvements in the manufacture of stiff-finished fabrics, such as buckram, whereby a very fine and beautiful appearance is given to the fabric and its body is rendered homogeneous throughout, forming a fabric of very high quality.

**GATE.**—W. D. OTT and F. L. PREBYL, Riverside, Iowa. This gate belongs to that class employed to guard a highway or passage from one enclosure on a farm to another. The invention embodies a novel and effective means for conveniently operating the gate so as to open or close it.

**OIL-WELL PUMP.**—S. W. MEALS, Waynesburg, Pa. This pump is arranged to dispense with sucker rods now employed and to permit a single operator to readily pull the valve plunger up for repairs to the valve cups and to avoid all danger of clogging up a well and consequent abandonment thereof on dropping the sucker rods, as so frequently happens in oil pumps as heretofore constructed.

**PAD FOR TREATING SHOE-BOILS ON HORSES.**—R. B. MUSGRAVE, New York, N. Y. Briefly stated the invention comprises a pad formed comparatively thick, so that when placed against the side of a horse's body, immediately behind the foreleg, the front portion will lie directly against the shoe-boil. This provides a protector for the shoe-boil when the horse lies down, the pad taking the weight of the horse and preventing pressure from being applied to the boil, also preventing the contact of the hoof and the shoe with the boil.

**BURNER FOR LIQUID FUELS.**—C. G. LUNDHOLM, San Bernardino, Cal. This burner is of the class in which the oils are atomized by a spray of steam or air previous to the combustion of the oil. The construction ensures the effective combustion of the oil and is especially adaptable for use in connection with heavy oils which have heretofore been difficult to consume.

**FOLDING COT.**—J. DAVIDOFF, Brooklyn, N. Y. Mr. Davidoff is the inventor of an improved folding cot, which is characterized by its simplicity and durability of construction. The cot is composed of comparatively few parts, is not liable to get out of order, and may be readily set up or folded into a very small space.

**GAME APPARATUS.**—D. SMITH, Griffin Corners, N. Y. The apparatus comprises a trap adapted to project a rolling target within the range of a toy gun which will throw a projectile toward the target, so that when proper skill has been developed the target may be struck by this projectile.

**HAT.**—A. L. DELION, 24 Boulevard des Capucines, Paris, France. The invention relates particularly to improvements in sweat-bands for hats, the object being to provide a simple means for so securing a sweat-band in place that it may be easily removed and a new one substituted when necessary. The purchaser may buy a number of sweat-bands with his hat and use them when desirable to keep the hat in a clean state.

**CORSET ATTACHMENT AND STOCKING SUPPORTER.**—LUCY B. INGHAM, Wilkesbarre, Pa. In this invention an inexpensive attachment for a corset is provided which when worn is well adapted for support of the abdomen and also affords a convenient and reliable means for supporting women's hose in a manner which will conduce greatly to the comfort of the wearer.

**PROCESS FOR RENDERING ALUMINIUM CAPABLE OF BEING WELDED OR SOLDERED.**—C. P. SØRENSEN, Holger Dasokes Vej Nr. 75, Copenhagen, Denmark. This process for rendering aluminium capable of being soldered consists in first heating the metal to about 300 degs. centigrade and then subjecting it to the action of concentrated soda-lye, and finally rinsing with cold water.

**PROCESS OF MANUFACTURING SHEET-METAL PIPE ELBOWS.**—E. H. SMITH, Mount Vernon, Ohio. The process consists in shaping up from a plain blank an intermediate blank having opposite longitudinally-extending and parallel semicylindrical portions provided with transverse crimps or corrugations extending to their edges and an intermediate elevated portion. This blank is bent into approximately a cylindrical form and then into elbow form whereby the preliminary crimps are flattened radially upon the surface of the elbow.

**MESSAGE-BOX.**—A. F. SHRIVER Arbuckle, Cal. The invention provides a message-box that may be secured to the outer side of an office door or other support, whereby messages may

be written on paper contained in the box and moved to a place of concealment in the box, to which access may be had by the owner or person having the key.

**BOTTLE-CLOSURE.**—G. J. ADAMS, Brooklyn, N. Y. This invention provides improvements in stoppers for packages containing toilet powder or the like and belongs to that class having two parts provided with outlet openings and arranged to rotate one part relatively to the other, so as to cause a register of the openings or to close the same. This invention aims to provide a closure of this kind in which the two perforated parts will be automatically held close together at all times, thus preventing an accumulation of powder between the parts.

**METHOD OF PRODUCING MOUTHPIECES ON CIGARETTES.**—L. H. SONDHEIM, New York, N. Y. The process relates to the production of mouthpieces on open-ended cigarettes, cigars, or cheroots, by coating or impregnating the wrapper at one end with a fluid substance which will harden on the wrapper and become impervious. Mr. Sondheim provides an improved method of affecting the application of the coating or impregnating material to the wrapper without permitting this material to enter the cigarette or to come in contact with the tobacco exposed at the end.

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