

RECENTLY PATENTED INVENTIONS.

Hardware.

TRACE-FASTENER.—W. FREELAND, Brooklyn, N. Y. The object of the invention is to provide a spring catch, which, while cheaply constructed, will be so durable as to stand the hard usage to which it is necessarily subjected. The spring is fully protected from rough usage, and cannot be struck and broken, or jarred out of place. No rivet or other fastening is required to hold it in place.

DOOR-LATCH.—I. D. BEACH, Marble Hill, Mo. In this door latch a spring-pressed latch bar, a keeper-bar and a looped handle are all formed of the same piece of wire rod, and may be combined with a rockable tripping lever adapted to work the latch-bar.

SASH-FASTENER.—W. R. ABRAMS, Portland, Oregon. This invention relates to a device for fastening window sashes adjustably together. It comprises a bolt arranged to engage the sash and controlled by a peculiarly formed lever having connection with the bolt to throw it from one position to the other.

Machines and Mechanical Devices.

MACHINE FOR TURNING IRREGULAR FORMS.—A. LEHMANN, New York, N. Y. The invention provides a machine for automatically turning irregular forms, such as tobacco pipes. A work-holding frame carries the work against a rotary cutter. A model on this frame bears against a circular disk, to which it is held by a weight. The proper form is thus given to the work which must bear the same relation to the cutter as the form does to the disk.

CLUTCH.—J. TURNBULL, Dundee, Scotland. In this clutch the advantages of friction engagements are combined with those of a positive or non-slipping drive. The invention comprises two cones fitted to slide one upon the other, one of the cones being chambered and provided with grooves in its peripheral wall. A head fits into the chamber of the cone and is provided with pivoted and spring-pressed fingers engaging these grooves. The fingers are disengaged by a ring which can be operated to slide over and depress them.

DITCHING AND DREDGING MACHINE.—C. E. WILSON, St. Louis, Mo. In ditching, the earth is scooped up by buckets hung on a large wheel lying partly in the ditch. The wheel has along its periphery a crown-gear which engages a driving pinion. Each loaded bucket as it is carried to the dumping position strikes a latch which releases a chute and throws it laterally so that the load it receives will be discharged beyond the side of the wheel. In dredging, the machine is mounted on a suitable vessel, and, owing to the chutes which are tiltable to either side, the material may be conveniently dumped into scows lying alongside the vessel.

FEEDING MECHANISM FOR SEWING MACHINES.—F. O. BERG, Spokane, Wash. The invention has for its object to provide a simple device operating to draw the stitched goods from the machine, thus leaving both hands of the operator free to feed the goods to the machine. This is done by mounting a pair of drawing rollers back of the needle, which are operated to hold the material taut.

ELEVATOR.—W. J. O'BYRNE, Catoosa, Indian Ty. The invention relates to an elevator in which buckets are employed on a traveling belt. Aprons are employed on each side of the buckets to prevent particles of stone or other material from falling between them and the belt.

RAISING AND LOWERING APPARATUS FOR MINES OR THE LIKE.—D. DAVY, Sheffield, England. The invention relates to continuously-running apparatus for raising and lowering in mines, and the improvements aim to allow longer pauses to be made by the cages at the top and bottom landing stages, for the purpose of affording more time for loading and unloading without interrupting the movement of the chains and their driving gear. The cages are suspended from slings attached to the chains. On reaching a landing point, each cage is set down and detached from the sling by which it was brought to that point, and after remaining there at rest, while the chains travel a distance equal to that between two consecutive slings, the cage is picked up again by the next succeeding sling of the series, carried to the next landing point and there deposited, to be picked up again by the next sling.

TYPEWRITER.—J. B. VIDAL, Havana, Cuba. The improvements are made in the keyboard which aim to facilitate rapid writing. The outer keys for each hand are slightly higher than the middle key, so that the little finger, thumb and other short digits, can reach the keys with as little effort as the long finger. For the fingers that are not much used, and therefore clumsy to manipulate, the keys are provided on one or more sides with L-shaped guides.

MANTLE-TRIMMER.—C. WAGNER and W. WENDLAND, New York, N. Y. The machine comprises a set of knives operating in conjunction with a mandrel for trimming the tubular fabric, one set of knives being arranged to advance and cut a portion of the fabric, and then recede a little to hold the latter in position, while the other set advance and cut the remaining portion of the fabric.

MACHINE FOR PREPARING PAPER FOR STEREOTYPE MATRICES.—R. M. SEEVERS,

New York, N. Y. The machine comprises a frame and a pot for holding a liquid adhesive in which a number of independent rollers are journaled for the purpose of carrying moving webs of paper through the adhesive. Pressure-rollers are provided for squeezing the webs together, and separate rollers feed dry webs of paper above and below the immersed webs arriving from the pot. The product is then cut by a cutting mechanism near the pressure-rollers.

Railway Contrivances.

CAR-COUPLING.—W. H. CORDILL, Grand View, So. Dakota. The object of the invention is to provide a device whereby a train of cars may be uncoupled at any desired point by turning the line of rods from either end of the train. The coupling-heads are placed inside a cylindrical draw-head provided with arms extending outwardly and forwardly, each draw-head being automatically locked to the cylinder of an opposing draw-head. When the rods connecting the couplings are turned, the coupling-heads are unlocked, thus disconnecting the car. By the turning of the rods the coupling-heads of a train are, one after another, brought under the control of the operator until the coupling is reached which is to be disconnected. Thereupon a single turn of the rod in the opposite direction unlocks this coupling and all the coupling-heads on the rod will be simultaneously returned to their initial positions.

MEANS FOR PROVIDING BRAKES TO RAILWAY VEHICLES.—J. BOWMAN, Petersburg, So. Australia. The invention is devised to provide a simple, but inexpensive arrangement for the combination of independent brakes, with a continuous and simultaneous action in railway trains, so that in the event of an accidental division of the train, the brakes are automatically applied. The brakes which are normally down are connected with the draft-rod; therefore, when it is desired to move the train it will not be necessary to lift the brakes of each truck separately, but the engine will be operated to put tension on the draft-rod of each car, thus lifting the shoes from the wheels. In going downhill or stopping, the tension on the draft-rod will be released, and the shoes will spring back onto the wheels.

LOCOMOTIVE FRONT-END COUPLING GEAR.—J. F. DUNN, Salt Lake City, Utah. Effective mechanism is provided for automatically locking the coupler in elevated position so that the accidental collapse of the coupler will not be possible. The coupler is held up by toggle arms which are operated by a piston in a fluid-cylinder. A bolt, lifted by the tension of a spring, locks the toggles in place. This bolt is so connected with the fluid-cylinder that when fluid-pressure is applied, it will first withdraw the bolt and will then act on the piston of the cylinder to break the toggle and move the coupler down.

Miscellaneous Inventions.

WASHBOARD.—W. H. MANEX, Franklin, Tenn. The washboard is curved about a longitudinal axis, the radius of the curve corresponding to the ordinary wash-tub, so that when placed in the tub the washboard will lie close to the operator. The central trough causes the water and suds to flood the clothes better and drains the water away from the sides.

SCRAPER.—D. E. PRESTON and W. H. ATKINSON, Omaha, Neb. The scrapers are used in pigs'-feet-cleaning and aim to effectively and quickly clean pigs' feet, pigs' heads and like articles, without requiring subsequent trimming with the knife, and without danger of cutting the article.

CHUTE.—W. L. McCABE, Tacoma, Wash. This invention relates to means for delivering goods by gravity along an inclined chute into the hold of the vessel, and aims to regulate the descent of the goods, so as to avoid dropping them rapidly down the incline. This end is attained by providing brake-boards which run longitudinally along the chute and may be pressed with any desired degree of force against the article which is sliding along the bottom of the chute.

QUILTING FRAME.—B. F. MURRAY, Cleveland, N. C. The quilting frame can be quickly adjusted for use, conveniently used for quilting, and compactly folded when not in use.

COMPOSITE MATERIAL.—E. C. HEGAN, Louisville, Ky. The composite material consists essentially of two layers of veneer cemented together by a coating of gypsum. The material may be bent in tubular form and used for columns in the manufacture of furniture and the like, plugs of wood being secured in the ends of the tube, and each plug formed with a central dowel pin for fastening the column in place on the piece of furniture.

WASTE-WATER RECEPTACLE AND DISCHARGE-TRAP FOR ICE-BOXES OR THE LIKE.—J. J. HICKEY, New York, N. Y. The invention provides a simple and practical means for catching waste-water that escapes from the lower portion of an ice-box. A box-like receptacle is held on the lower side of the ice-box, and an escape pipe depends from the ice-box into this receptacle. A cup covers the end of this escape pipe, which affords a water seal to prevent foul air from entering the ice-box. The water passes through a nip-

ple in the bottom side of the receptacle, into a U-shaped trap and thence to the sewer.

WASTE-WATER RECEPTACLE AND CONNECTION.—J. J. HICKEY, New York, N. Y. The waste-water receptacle has an opening in its bottom wall through which the water escapes. A screen covers the opening, comprising a cylindrical wall having openings therein and a series of tapered tongues on the upper end, which are bent inwardly to close the end.

CHAIR-TRUCK.—R. and F. E. BIGELOW, Vanwert, Ohio. The invention consists of roller attachments or wheel supports for rocking-chairs used by invalids. The truck is composed of two wheels and two axle sections which are adjustable lengthwise upon each other and provided with depressions adjacent to the wheels for receiving the chair rockers.

FACE PROTECTOR.—MARY LONGDEN, St. Oswalds, Ballingary, Ireland. The invention aims to protect persons who are exposed to the danger of inhaling poisonous gases, smoke, etc. The face protector comprises a body of flexible material having a central opening, and above the same a nose strap provided with a flexible piece of metal which is adapted to conform closely to the nose. Pieces of wire netting cover the opening and hold a sponge therein.

MEDICINE-APPLICATOR.—B. A. WASHBURN, Wickliffe, Ky. The instrument is used for applying medicine to the vagina. It comprises a tube adapted for insertion in the vagina and open at the insertable end, a cup-like medicine holder which is adapted to slide in this tube and a plunger which is operated to force out the medicine.

SCREEN FOR PAPER PULP.—S. H. TIBBETTS, Groveton, N. H. The invention comprises a means for fastening screen-plates in the cradle of a paper-pulp screen, without the aid of screws. A series of cross-bars having undercut notches, are placed in the bottom of the cradle. To these the screens are secured by retaining-bars having trunnions which fit the notches in the cross-bars, and having also overhanging upper edges which grip the lips on the under surface of the screen-plates.

TIRE.—MARY E. BROOKE, Denver, Col. The tire consists of a core having a solid tread with transverse disks or lugs spaced apart, and a casing fitting over the core. The inner lining of the casing is pressed partially into the spaces, the disks overlapping their edges, and bracing them against displacement. When applied to the wheel, the tire may be secured by a tie-rod passing through openings in the disks along the inner periphery of the tire.

ROD-SWAB.—J. O. DAUPHIN, Rat Portage, Canada. The invention aims to provide a device for effectually wiping rods which move through stuffing boxes. It consists of a circular case formed in two sections hinged together, and adapted to contain a swab. A circular spring passes around the swab, and holds it properly in engagement with the rod. The casing is arranged to be fastened to the stuffing box bolts.

MAIL CATCHER AND DELIVERER.—J. F. MILLS, JR., and C. F. FRENCH, Port Chester, N. Y. In this invention two corresponding devices are used, one on the car for catching the mail-bag suspended near the track, and the other placed near the track for catching the mail-bag suspended on the car. The devices are so constructed that the moment a bag is brought into engagement with the open gripping arms, they will instantly close, and hold the bag until purposely released. At the same time the gripping mechanism will automatically turn to a position parallel with the track.

FLIER.—J. J. MCSKER, Woonsocket, R. I. The flier is so arranged that it is much easier and cheaper to construct than those heretofore used and may be driven at a high speed so as to wind the yarn rapidly and perfectly.

METHOD OF FILLING PRESERVE-BOXES.—E. BESSE and L. LUMIN, Paris, France. The tins are first filled with the solid portion of the foodstuff. They are then submerged in an air-tight compartment filled with the liquid which is to form part of the preserve. An air-pump exhausts the air from the compartment and the tins, and the liquid flows into the tins as soon as the air re-enters the compartment. The hole in the cover is then closed by a drop of solder.

FEED-BAG.—G. L. DALE, New York, N. Y. Means are provided in this feed-bag for controlling the supply of feed to the animal. In the ordinary feed-bag the food, when partly consumed, is aggravatingly out of reach of the animal. This causes a series of frantic efforts to reach the food, such as tossing the head in order to catch the food "on the fly," resulting in considerable waste. In the improved feed-bag the oats are delivered gradually from a reservoir, by valve devices operated by the jaws of the animal while feeding.

EASEL.—C. P. MUELLER, Dallas, Texas. This easel is so arranged that the drawing-board may be readily raised and lowered or otherwise adjusted at will to suit the convenience of the artist.

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