RECENTLY PATENTED INVENTIONS.

Engineering.

BALANCED SLIDE VALVE. — Cyrus Eversol, Springfield, Mo. This invention provides an improvement in slide valves having supplementary valves which are held on their sides and control the inlet and exhaust ports of the cylinders. By this improvement runners are arranged in grooves in the bottom of the valve and sliding on the flat top surface of the cylinder, whereby the valve is held clear of the surface, while the valves held in the sides of the slide have their outer surfaces inclined to fit on correspondingly shaped surfaces on the sides of the steam chest, centers being held on the slide for supporting the valves.

Railway Appliances.

STATION INDICATOR.—John A. Kane, Paterson, N. J. This is a device to place on railway cars to indicate the successive stations along the road, and consists of a casing in which is journaled a main shaft with radially extending arms adapted to be tripped by a station tripping device with which each station along the road is provided. The casing has a drum carrying a web bearing the names of the several stations, the names being severally exposed through a suitable opening in the case as the shaft is revolved. By an auxiliary operating mechanism the drum may be rotated at will in either direction.

SPRING RAIL FROGS.—Morton L. and Henry W. Byers, New Castle, Pa. A locking device, consisting of a simple and reliable attachment for an ordinary spring rail frog, is provided by this invention, to secure the spring rail against lateral movement until the frog is used to transfer cars from a side track to a main track, thereby avoiding the accidents liable to occur from non-support of the elastic rail of the frog. The device consists of a revolubly supported transverse rock shaft having a collar engaging the rigidly supported side rail of the frog, while a lug on the shaft is adapted to lock or release the spring rail when the shaft is rocked.

TRACK FOOT GUARD — Stephen R. Blizzard, Lincoln, Neb. This guard is designed to be placed in the wedge shaped spaces between the ends of railway frogs, and between guard rails and the main rails, and other places where a person's foot is liable to be caught. Combined with the rail frog, or the guard and the main rail, are rods passed through the rails and provided with rollers or washers and springs for pressing the rollers together, the rollers forming a barrier to the opening between the rails which will prevent the entering of a foot.

CAR COUPLING. — Thomas Courser, Lake City, Fla. This device is designed to be simple and durable in construction, self-coupling, and adapted to hold the free end of the link level to guide it easily into the opposing drawhead, and also to hold the link in a locked position to prevent accidental uncoupling. The coupling pin is preferably made in the shape of a plate having a hook on its lower end to engage the link, the front edge of the pin being rounded off, and having a rear notch to rest upon and hold the link in position, while a second rear notch is adapted to be engaged by a loop to hold the pin in a locked uppermost position. The device is adapted to be operated by a shaft having handles at its ends and extending across the end of the car.

CABLE CONDUIT COVER. — Harry Hughes, Abilene, Kansas. This is an improved covering for the conduits of cable-operated railways, by means of which the conduit will be opened by the pilot of the car, and automatically closed after the car has passed. The invention consists of a series of plates fitted to slide in angular bearings across the slot, and levers, each connected by a link with a plate, and extending in the path of the pilot at the next following plate. No springs are required to effect the movement of the plates, which is accomplished by direct and positive mechanism.

Mechanical Appliances.

SELF-ACTING MULE. — Robert Schneider, Biela, near Bielitz, Austria-Hungary. According to this invention the driving band is made to pass over a series of double grooved pulleys, of which two pulleys are loosely mounted on the spindle driving shaft, each adapted to be alternately engaged with or disengaged from the shaft. By means of this improvement the spindles may be rotated at the same speed either to the right or left, for spinning thread right or left hand as desired, and for double spinning by first spinning the material in one direction and then in the other, without changing the position of the driving belt on the several pulleys.

KNITTING MACHINE ATTACHMENT.—William Pearson, Salt Lake City, Utah. This invention relates to hoisery knitting machines, providing therefor an attachment whereby the hoisery can be readily made with double heels, double toes, and double knees. A circular cam rests on the machine table and is adjustable thereon around the carrier, there being also a vertically sliding frame or bracket carrying an auxiliary thread guide alongside of the carrier, whereby, by adjusting the cam, the auxiliary thread may be incorporated in different parts of the fabric, thus forming a double webbing tore-enforcethe fabric where desired.

ENGINE LATHE TOOL HOLDER.—Karl J. Pihl, Brooklyn, N. Y. This device is designed to take the place of an ordinary tool post on an engine lathe slide rest, to efficiently retain the cutting tools in proper position to engage the work, and facilitate the quick adjustment of a tool or its release when desired. On the lathe slide is a base plate having a rectangular groove on its upper side, while a rotatable carrier having tool holding grooves has a projection on its lower face entering the groove of the base plate, a bolt projecting through the base and carrier, there being on the upper end of the bolt a recessed locking handle and washer. The device is designed to insure the proper retention in place of lathe tools for every character of work.

VULCANIZER. — James Fergus, Philadelphia, Pa. Two patents have been granted this inventor for improvements in vulcanizers. According to the first patent the stand or base has a ring removably attached thereto provided with an upper peripheral rib and an exteriorly threaded surface, in combination with a bowl the upper edge of which is carried outward and downward, forming an under groove adapted to receive the rib of the ring, and a threaded cap adapted to be screwed upon the ring, the ring being quickly and easily removed when desired, and expansion and contraction being amply provided for. By the second patent an improved construction is provided, with means for manipulating the cover and conveniently raising it any desired distance from the upper surface of the bowl. When the bowl has been placed in its support and the article to be vulcanized has been placed in it, the cover is readily forced downward with its gasket engaging so tightly the upper edge of the bowl as to provide an air and steam tight connection.

BUTTON FLY CUTTER.—Philo B. Clark, Brooklyn, N. Y. The cutting of button fly scallops for shoes is the especial purpose for which this machine has been devised. It is simple and durable in construction, and has two or more attached swing cutters, the machine being so arranged that the clamping head may be expeditiously adjusted to engage with and bind upon an anvil block a greater or less number of flies, including the pattern, and so that the anvil block may be reduced in thickness as its surface becomes worn, and then adjusted to a proper position to receive the flies.

SAW GIN. — Joseph A. Bachman, Austin, Texas. This gin is designed to separate the cotton into parts of different quality, being adapted to do a great amount of work, and occupying but little space. By the improved construction the upper roll box is especially adapted to raw cotton and the lower one to half ginned cotton, the lint and seeds being only partially separated in one roll box, when they are delivered into another, where the operation is completed. The saws and brushes are of the usual construction, and the saws project through grates into the roll boxes, which have top and bottom openings, the seeds dropping from the lower box, to which the half ginned cotton is delivered, in the usual manner.

Agricultural.

CORN PLANTER. — Edward B. Wells, New Castle, Ky. This is an improved implement of simple and economic construction, capable of being readily manipulated to register with the last check. Its design is such that means are provided whereby the check row markers may be conveniently and expeditiously rotated by hand, while the seed drop slides may be manipulated by hand to drop at any desired point in the path of the machine. The invention consists in the novel construction and combination of the several parts.

Miscellaneous.

HOISTING APPARATUS. — John Leach, Jersey City, N. J. According to this invention the shafting and drums of the hoisting apparatus are provided with connected channels and chambers, by which a free circulation of water may be maintained, to keep the outer surface of the drums cool at all times, the rope wound on the drums being thereby prevented from the possibility of injury by heat, from the friction of winding or unwinding.

WELL SINKING APPARATUS. — Alfred O. Hiscock, Wyoma, Fla. Combined with the drill is a series of sectional drill rods or tubes, the drill operating rope being attached at the top of the rods to hoisting cables, while one or more of the cables extends at the side of the drill rods to the drill itself. The tubular drill rod sections are made of steel and wood, that they may be of reduced weight to facilitate the sinking of wells to a great depth, while the cables connecting with the drill at the bottom enable them to be easily raised should there be a break in the rods. The hollow rods also may be used to supply water to the drill.

VEHICLE. — Henry Seeman, Durham, N. C. Spring bars are secured centrally and longitudinally on a pair of side bars, and from the ends of the spring bars are suspended cranked bars, parallel body supporting springs being mounted on the cranked bars. The improvement is designed to be particularly applicable to side bar buggies, making the running gears of such vehicles light and strong, while affording ample spring action and evenly distributing load, although dispensing with the use of metallic springs. The invention also provides an improved and simple fifth wheel attachment for the gears.

WHIFFLETREE HOOK. — Charles W. Blackburn, Tombstone, Arizona. According to this device the track hook has an inner arm arranged to slide in and out in a ferrule of novel construction on the end of the whiffletree, there being a pin and slot connection between the arm and the ferrule to lock the hook in its inner and outer positions, the free end of the other arm of the hook being adapted to enter a trace eye when the hook is slid outward, and lock the trace when the hook is slid inward. The improvement affords a simple construction designed to furnish a readily operated hook which will securely lock the trace against accidental displacement.

WAGON AXLE.—Daniel R. Van Allen, Chatham, Canada. According to this invention the axle skein is formed at its inner end with a head having a flat upper face with a transverse recess and a flat lower face having a longitudinal recess, the latter recess merging into an inward incline. The improvement is designed to remove the weight from the center of the axle to the skein, to prevent breakage by heavy loads or on sudden jars. A longitudinal truss rod extends from one head of the axle to the other, and by fastening the bolster to the axle in connection with the truss rod a solid truss is formed adapted to withstand great strain.

HAY PRESS. — E. Manuel Turner, Wilmington, Ohio. The case of this press is divided by a transverse partition to form a press box in one end, in which slides a follower having laterally extending ears moving in slots, toggle levers carrying pulleys at their joints being pivoted to the ears and to the main case. Cables secured to the sides of the case extend around the toggle levers, thence inward over guide pulleys and out through the front of the case, while a cable from the follower extends over pulleys through the partition and the side of the case. The press may be operated by hand or power, the method of applying the power being very simple and efficient, and the press being designed to work well and rapidly to make a bale at one motion.

BLIND FASTENING. — Oliver Adams, Larchmont, N. Y. This is a simple device for use in connection with the usual blind latch, and consists of a small bracket attached to the inner face of the blind near the hinge, and a bar with downwardly bent ends adapted to be placed in the eye of the latch bolt and the eye of the bracket when the blind is to be locked. One or more sockets are secured on the window sill, and the blind is held open in different positions by placing one end of the bar in one of the sockets and engaging its other end with the eye of the latch bolt.

ONION SLICER.—John F. A. Edwards, Bushire, Persia. This is a machine of simple and inexpensive construction for slicing, mincing, or crushing an onion or similar vegetable or fruit, to extract the juices therefrom and prevent the escape of any of the odors. It has a dished base to receive a saucer-like receptacle, and on the base is hinged a cylindrical vessel within which slides vertically a smaller cylinder carrying at its lower end a series of transversely arranged knives, the knives passing between the bows or staples of an inner wire cage within which the onions or other articles to be minced are placed.

SIEVE —Silas G. Cooper, Minneapolis, Minn. This is a simple device especially adapted for use as a fruit sieve or strainer in preparing fruits for making jellies, marmalades, etc. A removable strainer is placed in the lower small end of a tapering vessel, and a removable sieve above the strainer, while a removable shaft is mounted in bearings in the vessel and provided with blades or paddles working on the upper face of the sieve. When the fruit is placed in the vessel, and the paddles are revolved by a crank and handle, they crush the fruit and force it through the sieve upon the strainer, the juice being collected below in any suitable receptacle.

COIN HOLDER.—Franz Michl, New York City. This is a circular casing in which is a spring-pressed plunger, the upper end of the casing being closed by a flanged cap in one side of which is a slot, while a push slide is fitted close to the under side of the cap. The holder forms a simple device for pocket use, serving to conveniently hold coins of various denominations, the uppermost coin in the holder being always held in a position to be conveniently pushed out.

NEEDLE THREADER.—William H. Lighty, Monticello, Ind. This device has a spring tapering cylinder arranged within a case, and spring tongues held within the cylinder are adapted to be extended from its tapering end and passed through the needle eye, when they open to receive the thread, which is drawn back by them through the eye by the operation of a spring within the case. The tongues are made of finely tempered steel, and operate as tweezers in pulling through the thread. This threader may be quickly and easily adjusted to a needle of any size, and it may be made in a style and form suitable to be worn as a charm on the watch chain.

JAR COVER AND CLAMP.—Frank H. Palmer, Brooklyn, N. Y. The jar has two external annular projections, one above the other, while the cover has an annular flange on the under side of which is held a packing ring seating itself on the upper projection of the jar. A bail held on the cover has downward arms and lugs extending through grooves in the lower projection and engaging its bottom. The construction is simple, yet the cover is securely held in place to render the jar air tight, while the displacement of the packing is prevented, and the can may be readily opened when desired without spoiling the packing.

BUTTON CLASP.—Francois X. Lamboley and Abraham Jacobson, New York City. This is a simple and practical device for attaching buttons to sealskin garments, though it may be used for other purposes. It consists of a U-shaped spring, the inner member of which on its inner face has a tubular loop-engaging post having a flange or lip, a catch on the outer member being adapted to be sprung under the lip by a torsional strain on the spring, while a fastening screw or pin is passed through the garment or fabric into the tubular post to secure the clasp in place.

CLASP KNIFE.—Rudolph C. Kruschke, Duluth, Minn. This knife is designed for the use of sportsmen, sailors, one-armed men, and others who frequently require a knife that can be operated by one hand. The construction is such that, by moving a sliding plate in one side of the handle, a lever is tilted to operate a spring by which the blade is thrown outward with sufficient force to engage a lug by which it will be held in open position. By another movement of the sliding plate in the handle the lug is released and the blade may be closed.

TRUNK STRAP AND FASTENING.—Joshua R. Brown, High Point, N. C. This strap is preferably formed of sheet steel, brass, or other metal, and has at one end a loop formed on a plate, a stud in the rear side of which engages a keyhole slot in the strap. At the opposite end of the strap is pivoted a hook, of such form as to give ample leverage when brought into engagement with the loop to tighten the strap on the trunk, the point of the hook being afterward engaged by a catch. The fastening is simple and inexpensive, and is designed to give great strength.

POULTRY KILLING.—George Emerson, Long Bottom, Ohio. This invention provides a device for retaining fowls while being slaughtered, consisting of a vertical tapered box having a longitudinal slot in its side, with a bridge piece extending across the slot. The fowl is dropped into the box, with its head held by the hand and carried along down outside of the slot, in position to be quickly and easily severed from the body.

WASHING MACHINE.—Nathan D. Killgore, Nickelsville, Va. The main frame of the machine has side uprights between which is supported a semi-cylindrical tub, an oscillating rubber pivoted in the frame extending into the tub. Above this rubber is mounted another rubber, which moves in slides, the the clothes being held between the two rubbers while being washed. The lower rubber is moved forward and backward by means of a handle, whereby the machine may be operated with great ease, the clothes being quickly and thoroughly washed in such a way that they are not likely to be injured.

EXHIBITOR.—William R. Garner, Galveston, Texas. An improved stand, intended especially for supporting a number of calculating tables or other sheets of information in convenient position for use, is provided by this invention. The sheets are held upon rollers of the curtain spring roller type in a casing held on an upright above a desk, in such position that the sheets may be drawn down as desired for use in commercial or other calculations.

TOY BANK.—John Murray, New York City. In addition to the receiving section of the bank, this invention provides a construction by which a series of figures are designed to move to and from this section. Means are also provided whereby one of the figures will act to deposit the money, the other figures approaching while this is being done. The special construction shown by the patent represents a colored boy trying to steel chickens from a hen coop, but a dog on one side and a man with an umbrella on the other side are starting for the boy.

NOTE.—Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send name of the patentee, title of invention and date of this paper.