

to the body or central portion of the mattress and lowered to a horizontal alignment with the said body-section, so that either the head or the feet of the patient or both portions of the body may be given any desired inclination.

PROCESS OF REPAIRING PIPE-LINES.—J. WELSH, Jersey City, N. J. In repairing water-pipe lines it is impossible to close off the water perfectly on either side of the point where the break has occurred, as the valves in the main are apt to have grit or sediment collect on their seats and prevent the valve from closing tightly. Water passing valves in this way progresses to the point where repair is being made and interferes with making of permanent joints. This effect is materially increased when joints are made with lead, which is flowed into the collars. This invention affords means for disposing of this water so that it does not interfere with the repairing operation.

SUPPORT FOR FLOOR CONSTRUCTION.—L. VIEZZI, New York, N. Y. In this patent the invention pertains to fire-proof floor construction; and its object is to provide a new and improved support for sustaining the filling between the beams while placing the filling in position, the support being very simple and durable in construction, easily set up, and readily taken down after the filling is in place.

SUBSTITUTE FOR WHALEBONE.—E. M. BOSSUET, 49 Boulevard Haussman, Paris, France. This substitute is for use in connection with corsets, bodices, and other articles of apparel. It comprises small longitudinal strips of cork or cork composition, felt, leather, or other like material with intercalated strips of real whalebone, imitation whalebone, or other resistant and flexible material, these strips being secured together—for example, by means of a suitable adhesive—so as to constitute blades of pieces having the dimensions of the strips of whalebone usually employed in articles of dress.

HOSE-HOLDER.—A. G. BUTTON, Denver, Col. The invention is an improvement in hose holders, especially designed for holding hose in use for sprinkling lawns and the like. Construction is simple and easily applied. By bending the points of the tripod so they extend parallel to each other and may be forced straight into the ground it is found in practice that but slight pressure is required to force the points into the ground and that the holder will not turn over, no matter how heavy the force of the water.

EVAPORATOR.—A. P. GEER, New London, Conn. This improvement relates to apparatus used on board marine vessels for evaporating salt water and condensing the vapors for the production of water fit for use in the boilers and for other purposes. The object is to provide an evaporator durable in construction, very effective in operation, and arranged to insure proper evaporation of the salt water without danger of clogging the apparatus or rendering the same ineffective.

SIGNALING APPARATUS FOR THEATERS, ETC.—T. E. MILLER, Norman, Oklahoma. This invention is in the nature of a mechanical signaling device for theaters, etc., designed to reduce to a simple, quiet, and well-organized system the transmission and execution of the various orders incident to the dropping of curtains, the setting of scenes, orders to the orchestra, dressing-room, head usher, electricians, grippers, etc., instead of having to rely upon verbal orders and the dispatch of messengers. The apparatus comprehends an operator's transmitting-board, and intermediate mechanism whereby the above results are carried out.

MACHINE FOR MAKING CHEESE.—C. H. SOUTHWELL, Smithville Flats, N. Y. The improvement pertains to a means for heating and circulating the material in cheese vats; and it consists, briefly stated, in the novel mechanism for performing this operation, in which mechanism an ejector is provided with a suction-pump adapted to draw the whey there-through, so that the steam passing through the ejector-nozzle will carry with it a quantity of whey, and the two will be admixed and discharged into the vat.

VETERINARY MOUTH-SPECULUM.—M. MCNALLEY, St. Louis, Mo. The principal object in this case is the provision of a speculum so constructed that the jaws of the animal such as a horse, or mule, may be forcibly separated and securely held in open position, so as to permit the introduction of instruments into the animal's mouth and the convenient and effective manipulation of the instruments therein. Means are provided for holding the speculum in adjusted position with such security that the accidental release of the parts of the speculum by any movement of the animal is completely obviated.

Hardware.

WRENCH.—E. ENDERS, Littleport, Iowa. The wrench is especially designed for the purpose of applying and removing what are generally known as the "never-slip" horseshoe-calks. When the jaws are fitted around the calk and the handle is moved in a certain direction the jaws will grip the calk and hold it until the handle is pulled back in reverse direction, when it will release the calk, so that the handle may be reciprocated to turn the calk one direction or the other, the cupped hook operating to tightly grip the calk and prevent any slipping of the same.

COMPOUND TOOL.—J. W. QUILLING, Urso,

Ill. This tool is designed to be used as a can-opener, tack-puller, and corkscrew, having both fixed and movable jaws for opening cans, pulling tacks, nails, etc., and also for extracting stoppers from bottles, etc. The object of the invention is to provide an efficient device in a single unitary article for performing various functions of different parts of the tool.

Machines and Mechanical Devices.

CRUSHING-ROLLS.—R. PICK, Buffalo, N. Y. In this case the invention relates particularly to rolls for crushing sugar-cane and extracting the juice, the object being to provide crushing-rolls so formed as to crush or break the cane in uniform lengths without shocks and whereby the cane will pass lengthwise between the rolls at right angles to their axes.

ELEVATOR-ENGINE.—C. W. HOFFMAN, New York, N. Y. The object of this invention, which relates to elevators, is to provide improvements in elevator-engines whereby the engine is stopped in case of accident to the machinery by shutting off the motive agent from the engine and by applying the engine-brake by the same brake-lever which normally controls the brake on ordinarily stopping and starting the engine.

CHARGING APPARATUS.—T. F. WITHERBEE and J. G. WITHERBEE, Port Henry, N. Y. In this patent the invention has reference to a charging apparatus capable of many uses, but especially designed for blast-furnaces. The main object of the invention is to insure a better distribution of the materials charged into a blast-furnace—such as fuel, ores, and fluxes—than has hitherto been attained. These inventors have patented another charging apparatus which relates to a charging device which is capable of many uses, but is especially designed for use in blast-furnaces. The principal object of this invention is the provision of a bell and hopper which can be used in connection with a modern "skip-hoist," as well as with a hand-filled furnace. A further object is to provide a bell with a variable diameter, so as to allow a varied distribution of the charge within certain limits in the furnace.

WINDLASS WATER ELEVATOR.—L. Y. RANDALL, Gaffney, S. C. The invention is an improvement in the class of water elevators in which a bucket or receptacle is alternately lowered into the water to fill and raised therefrom to discharge its contents, the same being operated by a windlass or equivalent means and having a valve which serves for inlet and outlet of water, it being operated for the latter purpose by a swinging spout which is raised as the filled bucket or receptacle reaches the limit of its rise.

SHOE-SEWING MACHINE.—J. A. RHOULT, Haverhill, Mass. In the present patent the object of the invention, briefly stated, is the provision of a new and improved shoe-sewing machine more especially designed for sewing the outer sole on to the upper while both are in their natural positions, thus requiring no turning over of the shoe after being sewed.

TYPEWRITER COVER.—J. L. RAMSAY, Lavaca, Ark. In this case the invention relates to covers for typewriters; and its object is to provide a device for this purpose which is of simple construction and which may be folded into small space. In the improvement, economy and ease of applying the device have been important considerations; for instance, the means for centering the typewriter easily with respect to the hood, which saves the metal material used in construction.

Prime Movers and Their Accessories.

LUBRICATOR.—E. A. HENRY and O. A. SNEED, Joplin, Mo. In the present patent the invention has reference to lubricators and admits of general use, but it is of peculiar service upon steam-engines and analogous motors in which it is desired that the feed of the lubricant shall have a relation to the flow of steam or of some other aeriform body.

CURRENT-MOTOR.—F. M. CUMMINGS, Lewiston, Idaho. This invention pertains to improvements in motors adapted to be operated by water-currents for driving pumps, dynamos, or other machinery, the object being to provide a current-motor of comparatively simple and inexpensive construction and in which the efficiency of power will be considerably increased over the normal power of the water-current.

Railways and Their Accessories.

BAGGAGE AND FREIGHT TRUCK.—L. BARNES, Oxford, Mich. The inventor's purpose is to provide a truck for conveying baggage to a baggage car or to receive it therefrom and which may also be used for freight and to provide the truck with one or more (usually four) elevating-sections, upon which baggage is placed, the sections being so arranged that they may be quickly and independently elevated to bring the upper portions of sections either flush with or above the floor of the car, enabling the baggage to be removed from the truck to the car or from the car to the truck with little exertion and without damage to articles.

SWITCH.—W. S. JACKSON, Hoboken, N. J. This invention refers to switches for electrical work, it being particularly applicable to those employed in connection with the trolley-wire of electric-car systems. The device is simple and convenient. Though Mr. Jackson claims the operation of the switch by a trolley, it is

to be understood that this does not necessarily apply to a contact-wheel only, but is intended to designate any portion of the supporting and conducting system which more directly cooperates with the source of current.

RAIL-TIE.—G. W. SCHELLENBACH, Sedalia, Mo. In the present patent the invention pertains to improvements in metal railway-ties, the object being the provision of a metal tie the greater portion of which is incased in cement or concrete in a manner to relieve the strains and shecks, making the concrete subject generally to compression only.

VENTILATOR FOR CARS.—H. KENNEL, New York, N. Y. One purpose of the invention is to provide means for ventilating cars or other vehicles by introducing a thorough circulation of air through the clearstory of the car, thus preventing occupants being subjected to draft, though the air is constantly replaced. The device is adapted for attachment at the ends of the clearstory which will open at the end of the latter facing the point from which the car travels and will close at the opposite end of the clearstory or that end which faces the point in direction of which the car is traveling, the two ventilators being independent in their operation, thus creating a suction to draw foul air out of the body of the car.

DUMPING-CAR.—MCKINLEY BOYLE, New York, N. Y. Mr. Boyle's invention refers to improvements in dumping-cars of that class in which the dumping is from the sides. It is the object of his invention to provide a simple and novel means to swing the door to a plane of the car-body and possibly above the top of the load, thus providing a wide opening through which the load may quickly discharge.

METAL CROSS-TIE AND RAIL-FASTENING.—C. D. PAXSON, Cleveland, Ohio.—The aim of the inventor is to provide novel details of construction for a metal cross-tie that afford great strength for a tie of minimum weight, adapt the tie to resist strain in every direction, and give it a broad bearing upon the road-ballast; and a further object is to provide a novel rail-clamping device which releasably secures track-rails in position on the cross-tie, properly spiked apart.

CAR-FENDER.—E. C. HALL, New York, N. Y. The invention refers to car-fenders, and especially to the class carried by trolley-cars or street-cars. The object is to provide a fender of simple construction which will be normally disposed in an inoperative position well beneath the body of the car, but which can be instantly sprung into operative position, so as to catch an object lying upon the track before the car.

RAILROAD-TRACK-RAIL-GAGE HOLDER AND BRACE THEREFOR.—J. H. CROWLEY, Duluth, Minn.—The object here is to provide a transverse gage-bar of an essentially T-rail form to be clamped near each end thereof upon the base-flanges of two spaced track-rails between the cross-ties whereon the track-rails are seated, the bar being inverted and the base-flanges thereon secured in contact with the base-flanges on the track-rails on their lower surfaces by novel brace-clamps and abutment-flanges secured on the end portions of the bar, whereby the track-rails are held from lateral displacement and properly gaged and the outer sides of the track-rails braced to resist load strain and lateral sway of rolling-stock.

Pertaining to Recreation.

PORTABLE SWING.—C. U. KRIEG, SR., Nashville, Tenn. The invention is in the nature of an improved portable swing for use on lawns, parks, etc., which is designed for amusement, recreation, and advertising purposes and which shall also be protected against the sun's rays and rain. Means are provided to lock the swing in many cases, as in playing games or sewing, and when elderly persons are getting in and out.

DUCK-CALL.—C. H. BITTE, Keithsburg, Ill. With a call of this kind the principal species of wild ducks—such as the mallard, pintail, widgeon, teal, etc.—may be readily called, the device being adjusted, so as to suit the species of duck being called and also so as to adapt the device to the peculiarities of the sportsman using the call.

Pertaining to Vehicles.

BICYCLE-SUPPORT.—E. H. FOSTER, Baker City, Ore. The device is simple and easily operated, holds the wheel against all possibility of movement when in use as a support, and when the wheel is being ridden is so securely fastened in place that none of the parts can become disengaged and cause accidents.

AUTOMOBILE ATTACHMENT.—H. C. UCKER, Fayetteville, Ark. The improvement refers to an auxiliary propelling means applied to motor-driven vehicles for carrying passengers or freight and adapted to be thrown into operation when the wheels of the vehicle slip or for other reasons fail to exert their proper propelling effect. The propelling device comprises a series of push-bars and means for mounting and driving them. It also comprises certain novel devices for moving the push-bars in and out of action.

WHIFFLETREE-HOOK.—W. R. BRUESKE, Wimbledon, N. D. The invention relates to a self-locking safety whiffletree-hook, but it is of such a nature that it can be applied to holding or fastening devices of any kind. The principal objects are the provision of a holding or fastening device which will be automati-

cally and securely locked when the article to which it is intended to be attached is applied, which may be readily and quickly attached and removed, and which will be absolutely safe.

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.

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