

RECENTLY PATENTED INVENTIONS.

Electrical Apparatus.

SWITCH.—JOSEPH C. DE JANISCH, Avenue des Champs Elysées 121, Paris, France. Each contact-piece of the switch is operated by means of two movable buttons which project alternately beyond the casing of insulating material inclosing the contact pieces. The arrangement of the buttons, either one of which projects when the opposite button lies within the casing, obviates any cause for hesitation in operating the switch when turning on or shutting off the current.

Mechanical Devices.

ADDING-MACHINE.—DR. PIERCE HUBERT, Louisville, Ga. The principal parts of this adding-machine are a series of rotatable disks or wheels, the peripheries of which bear numerals. Pivoted levers actuated by depressible spring-keys also bearing numerals, operate the disks or wheels. The improvements devised have resulted in greater simplicity and economy of construction and in a more trustworthy and rapid operation.

LUNI-TIDAL TELLURIAN.—THOMAS MC-DONOUGH, 913 Canal Street, Ottawa, Ill. By means of this apparatus pupils can be shown in a simple and convincing manner the cause of the tides and the phases of the moon, as well as the causes of eclipses and other celestial phenomena.

MACHINE FOR WHIPPING CREAM.—EMILIO MONTANI, Manhattan, New York city. The machine consists of a framework, in the upper part of which a countershaft is journaled, connected by belt and pulley with an auxiliary shaft journaled in the lower part. A beveled gear on the end of the auxiliary shaft meshes with a gear on a base-plate, which carries the vessel of cream. From the counter-shaft a support, which carries beaters, extends downwardly into the vessel. By means of belt and pulley, the beaters are rotated in the dish.

CHAIN-WRENCH.—WILLIAM H. BROCK, Long Island City, N. Y. In the wrench forming the subject of this invention two different units of adjustment are available, the one, as in ordinary wrenches, corresponding with the distance between the chain-pins and the other a fraction of this distance. The second adjustment is due to a novel arrangement of the hooks for engaging the chain. Thus finer adjustments are obtained than are possible with ordinary chain-wrenches.

AUTOMATIC LETTER-BALANCE.—JOSEPH C. DE JANISCH, Avenue des Champs Elysées 121, Paris, France. A series of weighing operations is automatically effected by means of weights corresponding each to a unit charge or load placed in the weighing-pan of the apparatus. The weights are so combined with an oscillating-lever that the load put upon the weighing-pan causes the successive rising of the weights until the beam is in equilibrium. This equilibrium occurs when the charge in the pan is equal to the total weight of the lifting weights and the total weight increased by a unit charge or load. Thus, whole valuations can be automatically obtained.

CONCENTRATING-JIG.—SAMUEL ORR, Leadville, Colo. The invention provides an improved concentrating-jig for treating ores as they are brought from the mines, in order to separate the ores according to their specific gravity. The float silver and float gold are carefully saved. The jig is arranged to be worked with a comparatively small quantity of water, which can be used over and over again.

EXHIBITING DEVICE.—CHARLES E. LUCKE, Kingsbridge, Bronx, New York city. This exhibiting device belongs to a class of advertising-machines which intermittently move a band or ribbon carrying the advertisements to be displayed. In such machines it has always been a matter of considerable difficulty to bring the picture or other sign into proper position. By means of a simple compensating device the inventor has succeeded in thus adjusting the position of each advertisement, notwithstanding the variation in the diameter of the roll or band of ribbon. An improvement is also incorporated in the invention, which provides a new means of illuminating the sign.

STIPPLING-MACHINE.—GUSTAV ARNOLD, Manhattan, New York city. This machine is to be used in lithography to reproduce any design made with pencil, brush, or other drawing implement. The novel features of construction are an elastic diaphragm carrying isolated stipple-points. These points are closely related to one another and extend loosely through an apertured plate so that they are kept apart.

DRIER.—JOHN WATERHOUSE, Manhattan, New York city.—The drier is an improvement upon a machine for drying fruit, meats, sand, and the like, invented by Mr. Waterhouse and described and illustrated in the SCIENTIFIC AMERICAN of June 9, 1900. The improved drier consists of a rotary tumbler through which a series of perforated pipes extend. The perforations in the pipes are located at one side and nearest the wall of the tumbler. The pipes are supplied with air, and are consecutively opened and closed. The valve of each pipe remains open as long as it is covered with the material rolling down the sides of the tumbler.

ENVELOP-SEALING MACHINE.—ALFRED HEYDRICH, Brooklyn, New York city.—The table upon which the envelop is placed to be

sealed is stationary or has a limited cushioned movement. Means for dampening the gummed surface of the envelop are provided. Sealing-rollers are moved to and from the table. By means of a gage or guide, envelops of various sizes can be sealed by the same machine. The actuating mechanism of the sealing-rollers and their carriage is so constructed that the sealing section of the envelop at the forward movement of the carriage will be received between the rollers during the return movement of the carriage in order to allow the mucilage to dissolve. But when the carriage again moves forward, the sealing-rollers are set in motion and the envelop held between them is discharged.

Vehicles and Their Accessories.

VEHICLE.—JEAN REY, Maxwell, Cal. The invention is a three-wheeled wagon especially adapted for farm and city use, and in places where a wagon and dray can be used. The wagon-bed is a platform having slats, the adjacent ends of which fit in rabbeted seats on the rear axle. At the front end of the platform is a vertically-pivoted frame. The platform, being very low, can receive its load easily and is not liable to be overturned.

BICYCLE DRIVING-GEAR.—OCTAVE ROUERT, Paris, France. The inventor has devised an elastic gearing mechanism, the different parts of which are interchangeable. Nuts, screws, and bolts are dispensed with. The gearing mechanism is based on a principle which permits the parts to be easily manufactured, and the gearing of the pinions to operate perfectly. The transmission shaft being uninterrupted and rigid, the machine is easily handled.

COUPLING FOR HAME-TUGS AND TRACES.—ORANGE A. DEAN, Toulon, Ill. The coupling is so constructed that the hame-tugs and traces can be made lighter than usual and yet to stand much more strain than when connected in the usual way. The pull on the hame-tugs is about equally divided. By means of this coupling, the trace can be lengthened or shortened through the medium of the hame-tug without punching holes in the trace.

Railway Contrivances.

ELEVATED RAILWAY.—JOHN W. GONCE, Kinderhook, Ala. The railway is particularly adapted to fill the wants of small communities. The road can be built over level or hilly country at small expense, and can be provided with either single or double tracks. A uniform tension is to be maintained in the tracks and supporting cables during the various changes of the weather,—a result achieved principally by mechanism deflecting the track laterally at intervals from a straight line and sometimes by a lengthwise pull on rails and cables.

Miscellaneous.

LAMP.—BOMONJEE DORABJEE PUDUMJEE, Charni Road, Opp. Allbless Pag, Bombay, India. The lamp is a triplex lamp which can be used with an oil light alone, with oil or with acetylene, or candle, or acetylene or candle alone. The lamp, although especially designed for vehicles, can also be used for other purposes by slightly modifying the construction.

SUSPENDERS AND SHIRTWAIST ATTACHMENT.—RALPH B. HEAD, Fairbury, Ill. When suspenders are worn over shirtwaists or shirts the effect is not pleasing. Hence, it is customary to arrange suspenders beneath the shirtwaist by providing slits in the material near the waistband of the trousers. The invention is an improved clasp for temporarily securing the suspender ends to the shirtwaist.

HOOK-PLATE FOR LAMP HOLDERS OF MINERS' CAPS.—AUDLEY H. STOW, Hunter, W. Va. The lamps generally used by miners consist of an oil-cup having on one side a spout for the wick and on the opposite side a hook for attaching the lamp to its holder or support. It is often necessary for the miner to remove his lamp and replace it quickly with one hand alone. With the hook-plates new in use such removal is very slow, owing to the difficulty of finding the proper hole with the end of the lamp-hook. The present invention overcomes this difficulty.

BASE-PLATE FOR LAMP HOLDERS OF MINERS' CAPS.—AUDLEY H. STOW, Hunter, W. Va. The first and main object of this invention is to provide a base-plate readily adjustable to any size of lamp, while also providing, incidentally, a base-plate having the strength of the usual ribbed base-plate. The lamp is thus kept from swinging, not merely sidewise, but in any direction. Waste oil is carried off very simply. The cost of manufacture is comparatively small.

GARBAGE-HOLDING ATTACHMENT FOR SINKS.—CHARLEY E. COX, 4824 Clark Street, Chicago, Ill. The attachment is a receptacle applied to the bottom of a slop or kitchen sink for the purpose of arresting grease and solid substances, while allowing water to pass freely into the waste-pipe. The receptacle is provided with a trap, so that foul odors cannot pass upward to pollute the air above the sink.

SKIRT-SUPPORTER.—ADA M. WALLACE, Princeton, Ind. The invention provides a simple supporter which is to be attached to a corset, and with which a skirt may be readily connected and held without danger of becoming detached. No sharp points liable to scratch or prick are anywhere present.

COMBINED CANE AND UMBRELLA.—RUFUS WAPLES, JR., 505 Chestnut Street, Philadelphia, Pa. As the title of the invention indicates, the inventor has combined a cane and an umbrella in one device. So compact is the construction that the cane, when the umbrella parts are folded, presents the appearance of a neat walking-stick.

LAMP-CHIMNEY CLEANER.—DANIEL S. ZEILER, Sunnyside, Pa. The cleaner comprises a handle; two hooks, oppositely-formed on a looped wire rod, the looped portion of the rod being bedded in an end portion of the handle, and a ferrule adapted to secure the wire loop on the handle. The hooks hold the sponge or cloth.

DRAINING DEVICE.—SAMUEL H. BOLLING, Ittabena, Miss. The object of the invention is to provide a new device especially designed for removing surface water, such as that of ponds, ditches and the like, to a lower stratum. The invention consists of a box provided with a perforated inlet-pipe, a like outlet-pipe, and an air-pipe.

DRIVE-WELL DEVICE.—CHARLES F. ALLEN and WILLIAM B. GROW, Hueneme, Cal. The invention provides novel features of construction which permit the free and rapid insertion of the well-casing into a vertical perforation in the ground without injury to the casing, and which will also permit the ready removal of the casing. The lower end of the well-casing is provided with a novel point which can be driven independently of the main portion of the well-casing. Thus, a vertical hole is produced of greater diameter than that of the casing, and thus the casing can be allowed to drop into the well-hole.

NOTE-PROJECTION.—JOHN KRUPP, West Hoboken, N. J. The invention relates to note-sheets or barrels for mechanical musical instruments, and provides an improved note-projector of peculiar formation, which is exceedingly strong and, therefore, not liable to bend or break.

SPECTACLES OR EYEGLASSES.—VERNER R. GATES, Sherman, Mich. Mr. Gates has devised a slip-lens holder of simple construction so arranged that when not in use it can be turned down toward the face and held substantially at right angles to the main lenses. These changes in position can be made without removing the glasses from the nose.

TOBACCO-PIPE.—DOMINGO J. G. FERREIRA, Butte, Mont. The tobacco-pipe is so constructed that a perfect draft is insured and a ready means provided for cleaning the pipe whenever desired. Nicotine is discharged merely by blowing through the mouth-piece.

FABRIC.—JOHN A. SCHARWATH, Jersey City, N. J. The fabric is to be used particularly as a roofing material or siding for buildings. Not only is the fabric waterproof, but also flexible, light and strong, and not liable to suffer deterioration by reason of changes in temperature.

CIGAR-TIP CUTTER.—CHARLES W. B. MOLONY, Bulawayo, Rhodesia, South Africa. The purpose of this invention is to provide a cigar-tip cutter, which, while effective for the purpose in hand, will nevertheless be so simple and cheap in construction that one may be applied to each cigar. Hence, when the tip of the particular cigar to which it has been applied is cut, the cigar-tip cutter can be thrown away.

SECTION-GAGE FOR JOISTS, COLUMNS, ETC.—WILHELM DOHM, Bielefeld, Germany. The gage or slide rule devised by the inventor ascertains the size of the section required for a joist designed to sustain a certain load. The gage or slide rule will show the size of the required section of the joist for any load, length of joist, and safe limit of stress.

STOP FOR CUT-OFF SAWS.—AMOS W. MILLEN, Overton, Cal. The invention is an improvement in stops or gages used in connection with saws for cutting timber into lengths for boxes or the like. The construction is such that the stop can be quickly changed for different lengths while the saw is in motion.

COLUMN.—JOSEF A. OHMAN, Manhattan, New York city. This column is to be used in the construction of fireproof buildings, the object being to make the column light, yet strong, and to enable the sections to be readily formed by rolling.

DETECTOR DEVICE FOR BOTTLES, ETC.—EDWIN J. BROWN, Oneida, N. Y. The invention is an improvement in devices for preventing the filling of glass bottles or jars with glass tops. Ordinarily such devices are part of the bottle or require some change in its shape. This invention does not affect the bottle and requires no change in its shape. After the receptacle has been used once it can be used again for the same or for other purposes. The detector device, however, can be used but once, for it is destroyed immediately by the mere uncovering of the receptacle.

TRUNK-HANDLE.—BERTNIE M. WILHITE and FRANK A. HOYT, Gordon, Neb. The purpose of this invention is to provide a handle for trunks, which when grasped by a person will not tend to crowd the hand against the side of the trunk. It will, on the contrary, spring outward, so that the trunk can be conveniently lifted and carried. This end is attained by means of a spring which runs longitudinally through the handle.

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