

## RECENTLY PATENTED INVENTIONS.

## Bicycles.

**STAND FOR BICYCLES.**—FREDERIK C. V. ARP and SÖREN C. JENSEN, Blegdamsvej 8, Copenhagen, Denmark. The cycle-stand is hinged to the front fork and is arranged to be brought down forward of the front wheel so as to support the bicycle when desired and thus enable it to be held in an upright position. When the machine is to be ridden, the stand is folded alongside the front fork.

## Railway Appliances.

**LOCOMOTIVE-BOILER.**—JOHN J. REGAN, Jersey City, N. J. The steam-boiler comprises an external shell and an internal shell disposed longitudinally therein and eccentrically thereto, and forming a water and steam compartment surrounding the internal shell. The internal shell is divided into a primary combustion-chamber, an auxiliary combustion-chamber and other chambers which are equipped with independent sets of smoke-flues. As the water circulates in the chambers and around the auxiliary combustion-chamber it is evident that a very quick generation of steam takes place without loss of fuel. Hence the greatest economy in fuel consumption is obtained with an extremely rapid generation of steam.

**ELECTRIC SHIFTING DEVICE FOR RAILWAYS.**—HENRY S. ESCH, Manhattan, New York city. The device is designed for use on trolley lines in connection with an improvement for an automatic track-switch which Mr. Esch has invented. The present invention provides an improved shifting device for moving the switch-point from an open to a closed position, or vice versa, whenever successive electric currents are sent to the device, and for causing an approaching car either to continue on the main line or to pass from the main line to a branch line.

**RAIL-JOINT.**—JOHN C. FURMAN, Strattanville, Pa. The invention relates to means for coupling together the continuous ends of rails in such a manner as to provide a strong, solid joint, which can be laid either upon the ties and spiked thereto, or placed between the ties without spikes; which strengthens the track and keeps the rails always firm; which entirely dispenses with bolts and nuts; and from which the rails can be easily detached.

**SWITCH.**—JOHN C. FLINT and MAURICE S. DEAN, Anaconda, Mont. It is a primary purpose of this invention to lengthen the life of a switch-point and to prevent the wheels climbing the switch-point when a switch is located on a curve. The switch has a switch-rail, the point of which extends beyond the ends of the opposite lead-rail; a head-rod for the switch and lead-rails and having an extension for connection with extension point; and a turn-buckle in the extension for lengthening or shortening it.

**AUTOMATIC TRACK-SWITCH FOR ELECTRIC RAILWAYS.**—HENRY S. ESCH, Manhattan, New York city. This improved switch is completely under the control of the motor-man to enable him to run the car in the desired direction. A frame provided with a bow-shaped channel receives a short portion of the trolley wire and maintains a bow-shaped loop therein. A contact-plate is located in the loop in alignment with the general direction of the trolley-wire and insulated therefrom. An electrode connects the contact-plate with electrical mechanism for operating the switch, another electrode being the trolley of the car. The attachment always stands in proper position for engagement by the trolley-wheel without jar or jerk, as the under side of the attachment is in alignment with the trolley-wire. As this underside also conforms to the shape of the groove of the trolley-wheel, the attachment cannot slip over nor the trolley-wheel jump off.

## Metallurgical Improvements.

**ORE-CONCENTRATOR.**—RICHARD R. LEE, Pinos Altos, New Mexico. A circular pan is provided with a central revolving vertical shaft bearing radial arms which carry scrubbing-brushes that travel upon the bottom of the pan. The trough is made rigid end to end and its inner end is directly hinged to the bowl, so that while it may be lifted out of the way it never becomes clogged at the joint.

**APPARATUS FOR TREATING GOLD ORES.**—VINCENTE PAZOS Y SACIO, Yauli, Tuctu, Peru. The apparatus comprises a receptacle for holding the mercury and the ores; an electrolytic vessel adjacent to the receptacle and communicating therewith; and a porous cup located in the vessel. An annular plug fits tight between the porous cup and the vessel by which it is contained. Separate electrolytic fluids are held in the porous cup and the vessel; and electrodes are located in the cup and the vessel. By means of this apparatus gold is extracted from its ores upon a large scale and the chemicals used are regenerated.

**APPARATUS FOR EXTRACTING GOLD AND CONCENTRATING ORES AND METALS.**—WILLIAM F. HEATHMAN, Santa Ana, Cal. The object of the invention is to concentrate ores, metals, and gold-bearing sands of every character, with the result that the product of such concentration may be reduced to a small but valuable compass, that a more marketable product is obtained, and that such metals as are embedded in the rock are saved. The in-

vention is based upon the well-known principle of physics that the times occupied by different bodies or substances in falling through water are dependent upon their relative specific gravities and that a body of greater density will acquire a corresponding velocity.

## Printers' Appliances.

**GAS-CONDUCTING DEVICE FOR LINO-TYPE MELTING-POTS.**—GEORGE H. MESSEBOLE, Brooklyn, New York city. In order to dispense with the use of rubber hose to supply gas to the burner of the melting-pot, the inventor employs metal piping so connected with the melting-pot as not to interfere in the slightest degree with the movement of the pot to and from the mold-wheel.

**CASTING-BOX.**—LEO GROSSMAN, Brooklyn, New York city. The object of Mr. Grossman is to provide a casting-box arranged to permit the casting of a number of stereotypes at the same time, so that a large number are produced quickly by the same machine. The novel feature of the casting-box is a cylindrical core which engages a number of drags. The cores are connected with the drags in alternation. As the metal is poured into the drags the plates are cast; and when this has been done the cores swing out of their drags and into adjacent ones, additional plates being cast, while the previous recast plates are removed from the top surfaces of the cores.

## Traps.

**BAIT-GUN.**—OLIVER J. DE ROSHEY, Iron Mountain, Mich. The gun is intended to kill wolves. The construction is such that a cartridge is placed in the barrel and held in position by means of a breech-block carrying a needle. The trigger mechanism is provided with a bait-holder. The hammer is released practically as soon as the bait is touched.

**ANIMAL-TRAP.**—EDWARD MILLS, Jacksonville, Ill. The trap is designed to catch animals of any kind. In construction it comprises a cage, a door tending to close, and a peculiarly-arranged device normally holding the door in open position and released by the animal to permit the closure of the door.

## Mechanical Devices.

**CIGAR-TUCK CRIMPER.**—JOHN HAINES, Manhattan, New York city. The lighting end of cigars of a certain class and workmanship have been manually crimped or tucked to distinguish them from others, and more effectually to combine the parts at the end to be lighted. This invention is a simple and regularly operated machine which crimps cigars more effectively than by hand, and which also tends to straighten the tucked or crimped section of the cigar during the tucking or crimping process.

**DEVICE FOR REMOVING BURRS FROM WOOL.**—LEOPOLD OFFERMANN, Lepsic, Germany. The device comprises a burr-removing roller having a series of spaced, toothed rings, between which are arranged bars similar to grate bars and depressed relatively to the teeth at those points where the wool is taken off from a feeding roller. Other portions of the bars adjacent to a barrier are extended beyond the teeth, so as to carry the burrs contained in the wool out of the reach of the teeth and cause them to be retained by the barrier, whereupon they can be removed by a clearer.

## Tools and Hardware.

**DEVICE FOR FASTENING METAL OR WOODWORK TO STONE.**—THOMAS E. HICKS, Bronx, New York city. Mr. Hicks has provided means for securely connecting various articles made of wood or metal to stone-work. Devices of this class are frequently called "expansion bolts." It has been Mr. Hicks' aim to provide a construction which can be readily applied without any danger of injury to the stone, thus avoiding a drawback found in the employment of the expansion bolts generally used.

**CLOTHES-LINE PULLER.**—GEORGE W. DIEPOLD, Long Island City, Queens, New York city. The pulley comprises a single piece of wire which is run through the longitudinal opening of a cylindrical handle, and the ends twisted together in such a manner as to form a hook and a fork to engage the line. The device enables one quickly to draw the line in or out for hanging or removing clothes.

**DREDGING UTENSIL.**—JONATHAN DUNGAN, Prospect Park, Pa. The invention relates to a class of utensils employed for dredging all kinds of granular, ground, or powdered substances—such as salt, pepper, spices, sugar, flour or the like. The utensil comprises a hollow body having an annular flange on its inner surface. On this flange a perforated inner lid is seated. An outer cap piece is adapted to cover the inner lid. The lid and cap-piece have perforations which can be opened or closed by rotation of the cap-piece. The cap-piece is detachably held on the hollow body. The utensil protects its contents from dust, dampness, and atmospheric impurities, and preserves in full strength spices, salt, or pepper.

**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.

## Business and Personal Wants.

**READ THIS COLUMN CAREFULLY.**—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry.

MUNN &amp; CO.

Marine Iron Works, Chicago. Catalogue free.

**Inquiry No. 1908.**—For manufacturers of all kinds of heating and lighting devices.

For hoisting engines. J. S. Mundy, Newark, N. J.

**Inquiry No. 1909.**—For manufacturers of machinery used in cement works.

"U. S." Metal Polish. Indianapolis. Samples free.

**Inquiry No. 1910.**—For manufacturers of broom-making machinery.

WATER WHEELS. Alcott & Co., Mt. Holly, N. J.

**Inquiry No. 1911.**—For manufacturers of heating furnaces.

Stencil Machines.—A. J. Bradley, 101 Beekman St. N. Y.

**Inquiry No. 1912.**—For a gas, electric or gasoline generator of about 1½ horse power.

Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

**Inquiry No. 1913.**—For manufacturers of electric motors for attaching to ordinary sewing machine stands.

Glass paper-weights for advertising. Write for prices. Lobmiller Co., Wellsburg, W. Va.

**Inquiry No. 1914.**—For manufacturers of dynamos.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

**Inquiry No. 1915.**—For manufacturers of a machine for making bricks out of sand by pressure.

Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.

**Inquiry No. 1916.**—For the present address of the Cryderman Coupling Co.

For sheet metal stampings and novelties try Standard Stamping Co., Seventh and Hudson, Buffalo, N. Y.

**Inquiry No. 1917.**—For brass balls for valves 1 inch and more.

Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.

**Inquiry No. 1918.**—For manufacturers of hand laundry machinery.

Are you looking for anything in bent woodwork? Write Tucker Bicycle Woodwork Co., Urbana, Ohio.

**Inquiry No. 1919.**—For manufacturers of pressed fiber boxes or telescopes.

When you want everything printed on any particular subject write to U. S. Press Clipping Bureau, 153 La-Salle Street, Chicago.

**Inquiry No. 1920.**—For manufacturers of envelope-making machines.

Special and Automatic Machines built to drawings on contract. The Garvin Machine Co., 149 Varick, cor. Spring Streets, N. Y.

**Inquiry No. 1921.**—For manufacturers of acetylene gas outfits for lighting purposes.

Manufacturers of patent articles, dies, stamping tools, light machinery. Quadrix Manufacturing Company, 18 South Canal Street, Chicago.

**Inquiry No. 1922.**—For manufacturers of calendars or posters for advertising purposes.

Mile a Minute Bicycle Driving Mechanism. Patented Dec. 17, 1901. Patent now for sale, terms reasonable. C. V. Wold, 488 Hicks Street, Brooklyn, N. Y.

**Inquiry No. 1923.**—For manufacturers of steam turbines.

Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.

**Inquiry No. 1924.**—For manufacturers of cotton-seed oil mill machinery.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.

**Inquiry No. 1925.**—For makers of canning machinery.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. By mail, \$4. Munn & Co., publishers, 361 Broadway, N. Y.

**Inquiry No. 1926.**—For manufacturers of knitting machinery for stockings.

WANTED—Patent articles of merit to manufacture and place on the market. Will buy or pay royalty. Give full particulars. Address Sidney Folder Co., Sidney, Ohio.

**Inquiry No. 1927.**—For manufacturers of foot power grinding machinery.

PARTNER WANTED.—Will give joint interest in valuable patent for repairing pneumatic tires. Simple and effective. B. J. Piquet, Box 3, Woodbury, Nassau County, Long Island.

**Inquiry No. 1928.**—For dealers in mirrors and tilting.

EXPERIMENTAL MACHINE SHOP.—We are not using our shops at present. Well equipped with lathes shaper, woodworking machinery, etc. Will rent use and power very low. Fine place for automobile work. Billings Clapp Co., Boston, Mass.

**Inquiry No. 1929.**—For manufacturers of spice mill machinery.

Send for new and complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broadway, New York. Free on application.

**Inquiry No. 1930.**—For dealers in drilling rigs.

**Inquiry No. 1931.**—For manufacturers of aluminum rods.

**Inquiry No. 1932.**—For the manufacturer of the Belvidere carpet stretcher and tacker.

**Inquiry No. 1933.**—For a second-hand screw-cutting lathe, foot or countershaft, 9 inch swing, 3 feet or 4 feet bed.

**Inquiry No. 1934.**—For dealers in all kinds of electrical apparatus.

**Inquiry No. 1935.**—For eastern parties who enamel cast iron kitchen utensils.

**Inquiry No. 1936.**—For manufacturers of gum and candy slot machines.

**Inquiry No. 1937.**—For dealers in disk talking machine records.

**Inquiry No. 1938.**—For parties to make incandescent mantles.

**Inquiry No. 1939.**—For traction engines for hauling 40 tons of material over roads of not more than 5 per cent. grade, at 6 miles per hour.

**Inquiry No. 1940.**—For makers of carpet and rug looms.

**Inquiry No. 1941.**—For wholesale dealers in "Japanese Cat eyes" used in jewelry, especially the colored kinds.

**Inquiry No. 1942.**—For manufacturers of kerosene oil launches.

**Inquiry No. 1943.**—For parties to cast electromagnets.

**Inquiry No. 1944.**—For a lace-making machine.

**Inquiry No. 1945.**—For parties manufacturing cloth cheese heads.

**Inquiry No. 1946.**—For the present address of the makers of the "Button Ram."

**Inquiry No. 1947.**—For parties engaged in drop forging and stamping sheet steel.

**Inquiry No. 1948.**—For manufacturers of small boilers and boiler heads 12 inches in diameter.

**Inquiry No. 1949.**—For manufacturer of telephones suitable for private use.

**Inquiry No. 1950.**—For dealers in stereopticon slides.

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January 14, 1902,

AND EACH BEARING THAT DATE.

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