

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

**TROLLEY.**—L. LEUBENBERGER, Van Ness, N. Y. The invention relates to a trolley intended for use on electrical railway cars; and it comprises the arrangement on the pole of a pivoted harp carrying at one end the main roller and at the other end or end portion two guide-rollers, which are arranged to move toward and from each other and to carry the wire between them and which are held in active position by a spring.

**SIGNAL APPARATUS.**—C. B. GUNN, Collinwood, Ohio. In the present invention the improvement relates to a device for indicating low pressure in a fluid-pressure system—as, for example, an air-brake line for a railway-train—and for giving signals from the cars of the train to the locomotive. Although capable of other uses these are the principal objects for which the invention is designed.

Of Interest to Farmers.

**STANCHION-OPENING DEVICE.**—E. O. BERGH, Beloit, Wis. The inventor provides an effective construction whereby one or all of the stanchions may be simultaneously opened, but wherein the stanchions are independently closed. He provides means for automatically throwing a stanchion when unlocked to an open position, the open stanchion at that time being carried out of the influence of its locking device until purposely brought to a closed position, thus preventing the stall from being accidentally closed before the cow has left it.

**TOOL FOR BUDDING.**—H. C. WHITE, Valdosta, Ga. There is provision in this invention for a tool or implement which is easily manipulated and arranged to enable the operator to correctly gage and engirdle the tree, twig, limb, or branch to detach the bark portion carrying the bud without injury to the chit or eye of the bud and to allow of viewing the bud during the girdling operation.

**BAND-CUTTER AND FEEDER FOR THRESHING-MACHINES.**—H. T. MCCORMICK and S. E. MCCORMICK, Winchester, Ky. The Messrs. McCormick have made an invention in the nature of a novel band-cutter and feeder for threshing-machines designed to receive the bundles of grain on wing-shaped tables projecting laterally on each side of the throat of the threshing-cylinder and to feed these bundles under cutters which sever the bands that bind the bundles and then discharge the several bundles into a chute through which they are fed to the threshing-cylinder.

Of General Interest.

**BOTTLE-WASHING BRUSH.**—C. K. VOLCKENING, New York, N. Y. In this instance the invention relates to improvements in brushes employed in bottle-washing machines and in which the brush proper consists of rubber; and the object of the invention is to provide a novel and simple means for expanding the brush so as to engage all parts of a bottle interior and thoroughly clean the same.

**PROCESS OF TREATING PRODUCTS CONTAINING VANADIUM, MOLYBDENUM, TITANIUM, AND TUNGSTEN.**—H. L. HERRENSCHMIDT, Le Genest, Mayenne, France. In this patent the invention pertains to a process of treating ores or products containing vanadium for the purpose of obtaining vanadic acid or the vanadate of any metal, as well as alloys of vanadium with certain metals—such as nickel, iron, copper, etc.—in definite proportions. The process is equally applicable for the treatment of ores or products containing molybdenum, titanium, or tungsten.

**APPARATUS FOR FORMING CEMENT TANKS.**—J. T. DONAHOO, Edgar, Neb. This patent covers an improved form of a tank-forming apparatus previously patented by Mr. Donahoo. It comprises a fixed sectional cylindrical wall and an inner wall concentric with the first and arranged to move with a central mast mounted to turn. In connection with these an additional device for shaping the bottom portion of the tank is employed, said shaper being secured to the mast near the bottom, and means are provided for rotating the mast and with it the inner wall and bottom shaper.

**WRENCH.**—L. G. EGGER, Buffalo, Iowa. In the present patent the invention has reference to improvements in wrenches of the type having a sliding jaw, an object being the provision of a wrench of this character that will be simple in construction and so constructed that the movable jaw may be quickly adjusted.

**FLOATING CURRENT-WHEEL.**—P. M. WARREN, Nyssa, Ore. Mr. Warren's invention pertains to that class of wheels known as "floating current-wheels," in which the wheel floats on the surface of a running stream of water and is anchored to some stationary object, so that the current passing under the floating wheel will rotate the same and through a connection with the axial shaft will furnish power for any desired purpose.

**PEN-WIPER.**—R. ADDISON, New York, N. Y. The principal object of the inventor is to provide a convenient device in which the wiping-surface may be readily renewed. The wiper may be cheaply manufactured and its base inserted under a desk-pad, ink-well, or any object to maintain it securely in an upright position and convenient for the user. It may be secured to the desk by means of tacks

passing through openings in the base. It is not necessary to employ both hands when cleaning a pen.

Hardware.

**WRENCH.**—J. MUNRO, New York, N. Y. The invention pertains to wrenches having a fixed and a movable jaw; and its aim is to provide a new and improved wrench arranged to permit quick, convenient, and minute adjustment of the movable jaw relative to the fixed jaw and to provide a long range of movement for the movable jaw to allow engaging large and small articles with firm gripping power.

Household Utilities.

**PULLEY CLOTHES-LINE.**—J. ROBERTS, New York, N. Y. The purpose of the invention is to provide a pulley-line and support therefor, the line being so arranged as to extend from a post, for example, to opposite sides of a window or other opening, the said line being practically in four strands, two outer strands in parallel order and two inner strands which converge at their meeting ends or where they are connected with a transverse member, all of the said strands being adapted to freely pass through suitable blocks or sheaves, each strand moving simultaneously with the others.

**WATER-CLOSET BOWL.**—M. D. HELFRICH, Evansville, Ind. Particularly the siphon-jet style of bowls is improved by this invention. In operation the jet will be so discharged as to avoid any splashing, and the inventor is able to construct a jet-pipe of sufficient size to re-seal the closet-bowl, and thereby do away with the costly, noisy, and otherwise objectionable resealing mechanism in the tank, and at the same time avoid any exposure of the jet-pipe at the sides of the bowl.

**CLEANING APPARATUS.**—H. L. DORT, New York, N. Y. The aim in this invention is to provide a cleaning apparatus arranged to readily loosen dust in a carpet or other article, to suck the dust up and discharge it at a convenient place outside the room, and to permit using the apparatus on the carpet or other article without disturbing the position the article has while in regular use—as, for example, a carpet fastened to or a rug lying on a floor.

**ALARM DEVICE.**—T. N. DERBY, Roundlake, N. Y. One purpose of the inventor is to provide an economic alarm device adapted for attachment to the knob or door spindle of a door, whereby when the spindle is turned an alarm will be immediately sounded, and which is also adapted for use in connection with window-sashes and the like, one device being utilized for both the lower and upper sash.

Machines and Mechanical Devices.

**MAGAZINE COIN-CONTROLLED MECHANISM.**—H. MEYER, New York, N. Y. Mr. Meyer's object is to provide a mechanism for use on self-playing musical instruments, vending-machines, and other coin-controlled mechanisms and devices arranged to allow a person to place a number of coins into the coin-chute for the coins to successively start the machine and keep it going until the coins in the chute are exhausted.

**LABELING-MACHINE.**—F. C. FISHER and P. PERDUE, Muncie, Ind. One object of the inventors is to automatically feed the article to be labeled across a suitable gum-applying device, whereby it receives a strip of gum at the portion where the ends of the label come, and thereupon to pass the gummed article into engagement with a label that will be thereby caused to be wrapped around the article, with the ends of the label lying at the gummed portion.

Prime Movers and Their Accessories.

**BOILER-CLEANER.**—T. J. PASCOE, Norway, Mich. The intention of the improvement is to provide a boiler-cleaner which is simple and durable in construction, readily applied to any kind of a water-tube boiler, and more especially designed for boring out the scale in the tubes to render the tubes perfectly clean in a comparatively short time.

**DRY-PIPE HEAD.**—H. G. CORYELL and J. E. STREPHENS, Marietta, Ga. The invention pertains to improvements in heads and valve mechanism for dry pipes in locomotives for controlling the passage of steam to the locomotive steam-chest, an object being to provide in a head a valve designed to be operated from the outside of the locomotive so that the steam may be quickly cut off from either one of the steam-chests should breakage or other accident occur to one of the chests. The valve is so arranged that it will be self-adjusting to its seats.

Railways and Their Accessories.

**TRIPLE VALVE.**—J. B. PURDY, Hilo, Hawaii. In this case the invention relates to a triple valve for fluid-air-brake systems, by means of which the auxiliary reservoir may be recharged almost instantly with the restoration of the normal train-line pressure, thus allowing any number of brake applications to be made in rapid succession and without the delay which ordinarily takes place owing to the time required to recharge the auxiliary reservoir in the brake systems as now applied.

**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 & CO.

Marine Iron Works. Chicago. Catalogue free.

**Inquiry No. 6813.**—For manufacturers of machinery for working brass.

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

**Inquiry No. 6814.**—For manufacturers of cash registers for tradesmen.

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

**Inquiry No. 6815.**—Wanted, a mill with chilled burrs to grind iron or soft steel thread cuttings or small chips.

Perforated Metals, Harrington & King Perforating Co., Chicago.

**Inquiry No. 6816.**—For manufacturers of "peat" pressing and drying machinery.

Adding, multiplying and dividing machine, all in one. Felt & Tarrant Mfg. Co., Chicago.

**Inquiry No. 6817.**—For manufacturers of small iron buildings, such as are used for dwellings; also dog and chicken houses.

Commercially pure nickel tube, manufactured by The Standard Welding Co., Cleveland, O.

**Inquiry No. 6818.**—For manufacturers of spring motors.

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

**Inquiry No. 6819.**—For manufacturers of nickel-copper alloys.

Braze Cast Iron. See our advertisement in this paper. The A. & J. Mfg. Co., 9 S. Canal St., Chicago.

**Inquiry No. 6820.**—For manufacturers of tantalum wire.

I sell patents. To buy them on anything, or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.

**Inquiry No. 6821.**—For manufacturers of artificial camphor.

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

**Inquiry No. 6822.**—For manufacturers of shoe-pegs made of wood.

Gut strings for Lawn Tennis, Musical Instruments, and other purposes made by P. F. Turner, 46th Street and Packers Avenue, Chicago, Ill.

**Inquiry No. 6823.**—For manufacturers of forcing and draining pumps.

We manufacture iron and steel forgings, from twenty pounds to twenty-five tons. Crank shafts of all varieties. Erie Forge Company, Erie, Pa.

**Inquiry No. 6824.**—For manufacturers of dumb waiters for houses.

Sheet metal, any kind, cut, formed any shape. Die-making, wire forming, embossing, lettering, stamping, punching. Metal Stamping Co., Niagara Falls, N. Y.

**Inquiry No. 6825.**—For manufacturers of any kind of amusement devices operated by dropping a coin in a slot.

WANTED.—An engineer experienced in the design, construction and use of gasoline motors for automobiles. Address Pope Manufacturing Company, Hartford, Conn.

**Inquiry No. 6826.**—For the manufacture of rubber top (for mouth piece), which is inserted in top of a tobacco sack, called "Squeeze it."

WANTED.—Colonial silverware. Any one wishing to sell any authentic silver made in this country during the eighteenth century, please communicate with C. A. M., Box 773, New York.

**Inquiry No. 6827.**—Wanted, small drive punches suitable for making felt and pasteboard wads from 1/4 to 1 inch in diameter by 3/2.

You can rent a well equipped private laboratory by day, week or month from Electrical Testing Laboratories, 548 East 50th Street, New York. Absolute privacy. Ask for terms and facilities.

**Inquiry No. 6828.**—For manufacturers of wooden gears for clocks.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, wood fiber machinery and tools. Quadriga Manufacturing Company, 33 South Canal Street, Chicago.

**Inquiry No. 6829.**—For manufacturers making composite seats of wood fiber.

Space with power, heat, light and machinery, if desired, in a large New England manufacturing concern, having more room than is necessary for their business. Address Box No. 407, Providence, R. I.

**Inquiry No. 6830.**—For manufacturers of sheet aluminum.

WANTED.—First-class wood-working machine hand. Must be able to read blue prints, and lay out work. Address, by letter only, F. M. L., Room 29, No. 28 Park Row, N. Y.

**Inquiry No. 6831.**—For manufacturers of calcined magnesite which has been calcined in an electric furnace.

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. 6832.**—For manufacturers of pill-making machines.

WANTED.—A first-class Machine Shop Foreman; a man who is capable of producing work at the lowest possible cost. Must be a man of ideas and capable of hiring and handling men. Reliability first consideration. Steady position with opportunity to advance. Factory at Waterloo, Iowa. Address Manufacturer, Box 73, New York.

**Inquiry No. 6833.**—For manufacturers of machines to make very fine powders of roots, drugs, seeds with swifts.

The SCIENTIFIC AMERICAN SUPPLEMENT has published a practical series of nine illustrated articles on experimental electro-chemistry by N. Monroe Hopkins. The SUPPLEMENT numbers in which these articles are to be found are 1509, 1511, 1513, 1515, 1517, 1519, 1521, 1523, 1525. Each SUPPLEMENT costs ten cents by mail. Munn & Co., 361 Broadway, New York.

**Inquiry No. 6834.**—For manufacturers of machines to make lozenges, tablets, etc.

Splendid opening for a high-grade mechanical engineer, who has had a broad experience in managing machine shops, the manufacture of machinery, engines and metal specialties. Applicants must be in prime of life and now employed. Preference will be given to applicants who have had modern scientific training in mechanical schools of high standing. Unqualified references will be exacted. All communications received will be regarded as strictly confidential. Address Mechanical Engineer, Box 773, New York.

**Inquiry No. 6835.**—For manufacturers of machines to make various sized envelopes.

WANTED.—The patents or sole agency for Britain and France, of new machines and articles used in the Brewing and Allied Trades. Highest references given and required. State best terms with full particulars to "Wideawake," care of Streets Agency, 30 Cornhill, London, England.

**Inquiry No. 6836.**—For manufacturers of cardboard cartons for various sizes of phials.

TECHNICAL GRADUATE.—Five years' experience handling men, contracting and draughting general machinery and electrical work. Will change for permanent position where definite opportunity for promotion exists. Best reference. Age 25 years. Bayard S. Stewart, 1530 N. 20th Street, Philadelphia, Pa.

**Inquiry No. 6837.**—For manufacturers of machinery for a creamery.



HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication. References to former articles or answers should give date of paper and page or number of question. Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn. Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same. Special Written Information on matters of personal rather than general interest cannot be expected without remuneration. Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of price. Minerals sent for examination should be distinctly marked or labeled.

(9629) C. M. H. asks: Could you give me simple method for treating cloth or paper for making barometer, the kind that changes color—pink for rain, blue for fair? A. A formula which recently appeared for the so-called color barometer is as follows: Cobalt chloride, 30 parts; sodium chloride, 15 parts; calcium chloride, 4.5 parts; gum arabic, 7.5 parts; water, 45 parts. Soak cloth in this solution and dry. The solution absorbs moisture from the air, and so changes color. The cobalt chloride is the substance which changes color by moisture. The cloth is not a barometer in any proper sense, but a hygrometer, since it shows the presence of moisture in the air, and not the pressure of the air.

(9630) W. H. asks: Kindly inform the writer the correct way to express 1905 in Roman numerals, as I saw it recently written MDCCCXV., and remarked that it should be written MCMV. I was told that either way was right. I thought not. This date is for a proposed building, and will be criticised if wrong. A. There are two ways of writing many numbers in the Roman notation, one by addition, the other by subtraction. Both are very ancient. Inscriptions upon milestones dating a hundred years before Christ give the subtractive mode of writing, such as IV. four, IX. nine, and so forth. The additive method was, however, much more usual, four I's four, VIII. nine, and so forth. The subtractive mode of denoting numbers was always rare as compared with the additive method of writing them. MCMV. and MDCCCXV. are equally correct for the date 1905, but the longer way was the more common way of expressing the number.

(9631) A. A. G. says: Will you please answer in your notes and queries column the following? The subject under consideration is this: During last summer I constructed a dwelling house, known as a brick-veneer structure. To place the flue for the furnace I was compelled to place it toward the southwest of the building, and project it out from the veneer wall, its entire length of thirty feet, so you see it is exposed to the wind its full height. The smoke opening in the flue is 8 x 12 inches and well plastered on the inside. The furnace is connected to the flue with 14 feet of 8-inch iron pipe. The fuel used is wood, and the furnace has been in operation the past winter only. Now the trouble is this: Creosote began coming to the surface of the brick at the top of the flue, and has extended half way down to bottom, and spreading to the brick-veneer wall, that is attached to the chimney. The surface of the brick look as if they were soaked in water. What is the cause? What will stop it? Will the creosote destroy the stability of the brick and mortar? A. It is almost impossible for us to suggest the cause of your trouble from the description that you give. If the combustion of your wood in the furnace were absolutely complete, you would have no trouble from creosote. We do not believe that the creosote will injure the strength or stability of the brick or mortar.