

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

CLIP.—L. STEINBERGER, Brooklyn, N. Y. This clip belongs to that kind used for suspending wires, cables, and other electric conductors.

TROLLEY.—J. H. WALKER, Lexington, Ky. In the present case the invention is an improvement in trolleys, and particularly in the means for supporting the wheel and lubricating it.

Mr. Walker has also invented another improvement in trolleys. It has for an object, among others, to provide novel means whereby to support the trolley-wheel, to prevent the wire from dropping immediately alongside the wheel, and for securing a more effective conduction of the current from the wheel and along the pole.

Household Utilities.

HOSE ATTACHMENT.—W. G. MCKAY, Leadville, Col. To prevent water and dirt collecting around a hose and to enable this article to be moved with greater ease, the inventor provides an attachable support, any number of which may be applied to the hose to raise it from the floor or from the ground in case of use on a lawn or the like.

WASHTUB.—G. V. BLACKSTONE, Jamestown, N. Y. The aim of this invention is to provide certain new and useful improvements in washtubs whereby the tub is greatly strengthened and the legs securely held in position on the tub-body to insure a firm standing of the washing-machine on the floor, and at the same time relieving the lower hoop of a portion of the strain incident to the swelling of the bottom of the tub.

FLOUR-SIFTER.—G. W. HANCOCK, Lynchburg, Va. The aim of this invention is to furnish a manually-operated device adapted to sift flour, meal or other powdered substances faster and with more ease and cleanliness than can be done by the old-style wood or tin rimmed sifters.

BED-COVER HOLDER.—F. C. BILLINGS, Macon, Mo. This invention relates to clamping devices such as shown in a former patent granted to Mr. Billings; and the object is to provide a bed-cover holder cheap to manufacture, easily applied and designed for holding the coverings securely in position and to allow convenient opening of the holder for removal of the covering.

Miscellaneous.

DISPLAY-TRAY.—J. H. SMITH, Brooklyn, N. Y. The present invention refers to store-furniture; and its object is to furnish a new and improved display-tray more especially designed for containing and neatly displaying hosiery and like articles and arranged to hold different sizes of an article of a certain price.

RIFLE-RANGE.—J. DE ST. LEGIER and E. HERBAGE, Hicksville, N. Y. The purpose of this invention is to provide a target-box so constructed that it will be quickly freed from smoke and to so construct the sight tube that the smoke will pass out therefrom almost simultaneously with the explosion, enabling the marksman to plainly read the target immediately after firing.

TRIPOD.—W. F. FOLMER, New York, N. Y. This tripod is especially designed for use with cameras, but it may be employed wherever a tripod is necessary. It is so constructed that the legs while pivotally connected with the head, preferably in a detached manner, can be quickly and rapidly spread apart and locked to the head, remaining until purposely released.

SUBCALIBER FIREARM.—G. H. GARRISON, Rockford, Ill. The claim of the inventor of this firearm is, that he provides an attachment or auxiliary means adapted to be placed in the breech of standard-gauge rifles in order to make the arm available for use in discharging cartridges of smaller caliber.

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.

THE IDEAL LAWN MOWER GRINDER.

This is an article which is as novel as it is useful. It needs no practical specialist. And the sharpening can be done in a fraction of the time formerly required.

The mower is placed upside down on two horizontal adjustable iron bars, the blade fastened to the emery wheel by a little clamp on its side, and by turning the crank now, the emery is made to revolve and slide along the lower shaft from left to right, taking out, in less than a minute per blade, every inaccuracy, making the bevel exactly uniform. The knife bar can be sharpened in the same way. The machine is guaranteed to do all that is claimed for it as above, and can also be used for grinding chisels, plane bits, etc. Its cost is \$18 and it is manufactured by the Root Bros. Co., Plymouth, Ohio.



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.

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Marine Iron Works. Chicago. Catalogue free. Inquiry No. 4380.—For contractors to drive concrete piles.

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Mechanics' Tools and materials. Net price catalogue. Geo. S. Comstock, Mechanicsburg, Pa. Inquiry No. 4386.—For manufacturers of electric plows.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt. Inquiry No. 4387.—For a machine for counting and folding sheets of manila paper.

We make novelties in all kinds of metals. Any quantities. Metal Stamping Co., Niagara Falls, N. Y. Inquiry No. 4388.—For manufacturers of fancy wood for inlaying purposes.

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Bargain, 300,000 feet seamless steel tubing, 5-16 to 2 inches diameter. The Cleveland Distributing Co., Cleveland, O. Inquiry No. 4390.—For spring motor or cheap motive power for propelling a typesetting machine.

For Machine Tools of every description and for Experimental Work call upon Garvin's, 149 Varick, cor. Spring Streets, N. Y. Inquiry No. 4391.—For makers of mail order novelties and specialties.

We have a market for all sorts of novelties and useful articles. Send circulars and quantity price. Keokuk Novelty Co., Keokuk, Ia. Inquiry No. 4392.—For the makers of the "Shorts Duplex High Speed Engine."

Crude oil burners for heating and cooking. Simple, efficient and cheap. Fully guaranteed. C. F. Jenkins Co., 1103 Harvard Street, Washington, D. C. Inquiry No. 4393.—For the address of the makers of the Universal Extractors (Messrs. J. G. Lindner & Merz, of Germany).

The largest manufacturer in the world of merry-go-rounds, shooting galleries and hand organs. For prices and terms write to C. W. Parker, Abilene, Kan. Inquiry No. 4394.—For makers of extracting apparatus for extracting oil from corn.

We manufacture anything in metal. Patented articles, metal stamping, dies, screw mach. work, etc. Metal Novelty Works, 43 Canal Street, Chicago. Inquiry No. 4395.—For machines for printing and making shipping tags from the roll.

The celebrated "Hornby-Akroyd" Patent Safety Oil Engine built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York. Inquiry No. 4396.—For firms in Chicago, St. Louis, Kansas City or Memphis, dealing in second-hand boilers, engines, lathes, drill presses and machine shop fittings.

Contract manufacturers of hardware specialties, machinery, stampings, dies, tools, etc. Excellent marketing connections. Edmonds-Metzel Mfg. Co., Chicago. Inquiry No. 4397.—For makers of chemical apparatus for extinguishing fires.

Representatives for Spain.—Hormacoea, Elorriaga & Co., Calle Libertad No. 1. Po. 10., Bilbao, Spain. Offer their services to represent American manufacturers of novelties and new patented inventions. Will handle agencies to entire satisfaction, guaranteeing best service. A 1 references furnished to parties interested. Inquiry No. 4398.—For parties engaged in making buttons from milk.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago. Inquiry No. 4399.—For manufacturers and inventors of vending machines.

Patent 730,717. Permanent fixture. Cleans chimney in two minutes. Simple, no dust, child can operate. Illustrated in SCIENTIFIC AMERICAN July 4. Will sell outright or territory. Write for particulars. J. A. Stone, Manistee, Mich.

Notes and Queries.

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.

(9089) M. H. N. asks: If a raceway measures 2 feet 6 inches deep and 5 feet 8 inches wide, and water flows at the rate of 60 feet per minute, what is the flow per hour, and what is the probable amount of horse power obtainable from a head of 18 feet? A. A flow of water 2 feet 6 inches deep by 5 feet 8 inches wide at the rate of 60 feet per minute, at a head of 18 feet, is, theoretically, equal to 28.9 horse power. About 75 or 80 per cent of this could be utilized commercially by a turbine, if the flow of water and head remain constant.

(9090) J. N. R. says: You will do me quite a favor if you will solve the following problem for me: Supposing we have a vessel with a hole in the bottom into which fits a hollow tube closed at both ends and six inches long. We will say this tube fits the hole so that no water could leak through, yet works with perfect ease. Now say we should put into this vessel four inches of water; what would the result be if the tube weighed one-fifth the weight of the water? Would the tube rise, or would it go through, or would it remain stationary? Have submitted this problem to several very "learned" men in this city, but none of them seem to "have time" to work it. They all say they could do it if they just had time. By solving the above for me and explaining why, you will confer a great favor. A. If the hole in the bottom of your vessel is round and smooth, and the hollow tube fits it perfectly and without friction, as you say, the tube will fall through the hole, whether there is water in the vessel or not, and it will take just the same force to hold it up when the vessel is full of water as when it is empty. The reason for this is that water exerts a buoyant effect on bodies which are immersed in it, by causing an upward pressure on the bottom of them. If your tube is so protected by the hole in the bottom of the vessel that the water cannot get underneath, it can have no buoyant effect. If you fill your vessel sufficiently full of water to have the water cover the upper end of the tube, the water will exert a downward pressure on the top of the tube, which should be added to the weight of the tube, in order to get the total force with which it tends to slide through the hole.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending July 7, 1903.

AND EACH BEARING THAT DATE.

(See note at end of list about copies of these patents.)

Table listing inventions with patent numbers and names of inventors. Includes items like 'Abrading tool compound', 'Adjustable extension hanger', 'Advertising device and street indicator', etc.

Table listing inventions with patent numbers and names of inventors. Includes items like 'Bicycle repair plug', 'Blackboard attachment', 'Boat torch, vest pocket', 'Boiler furnace', etc.

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