

RECENTLY PATENTED INVENTIONS.

Mechanical Devices.

DRILL-CHUCK.—WILLARD H. MERREL, Oneida, N. Y. To provide means whereby a drill or like tool may be firmly held in place to prevent it from turning in the jaws, this inventor provides a chuck whose body-portion has a transverse seat. Two jaws slide toward and from each other in this seat and meet at the center of the chuck.

MAGAZINE BOLT-GUN.—JOHN H. BLAKE, New York city. The fire-arm patented by this inventor is capable of being used either for single or for magazine firing, a simple and easily operated cut-off being provided, by means of which the magazine may be brought into or thrown out of action as desired, the magazine when not in action remaining in the gun.

WEIGHING AND FILLING APPARATUS.—JOSEPH E. J. GOODLETT, Memphis, Tenn. In this invention we find means for filling receptacles with liquids, for delivering a predetermined quantity of the fluid, and for cutting off the delivery automatically.

Railroad Appliances.

COMBINED DUST-GUARD, CAR-AXLE LUBRICATOR, AND HOT-BOX INDICATOR.—JAMES S. PATTEN, Baltimore, Md. The dust-guard provided for in this invention has, connected with the axle-box, a curved supporting spring whose convex portion bears upon the bottom and outer end of the axle-box and whose extended outer end rests upon the bearing of the journal, whereby the dust guard is elastically held in place.

CAR-COUPLING.—HERMÉNILDE and AIME LOISELLE, Winnipeg, Canada. The purpose of this invention is the provision of a simple and effective car-coupling, which shall couple cars automatically when they come together, which shall not come apart accidentally nor cramp and bind in turning curves and which shall be adapted to couple cars having the ordinary construction of draw-bar and the ordinary link and pin coupling.

CAR COUPLING.—VALENTINE ERBACH, Scranton, Pa. This coupler is of the knuckle-type and is so constructed that it will be of less dimensions than ordinary knuckle-couplers, will not present any unnecessary side projections and will be simple and durable.

BICYCLE SADDLE.—LOUIS P. WELLMANN, Union, Hudson County, N. J. This saddle is made to form a flexible seat which may yield with the motions of the rider and which may be adjusted in width. The saddle has two independent seat-portions each with a depression of irregular shape in its upper face, which depression is adapted to fit the body.

SASH-FASTENER.—LEWIS H. BOWMAN, Walla Walla, Wash. The purpose of this invention is the provision of a fastener which shall lock a sash in any desired position without rattling and which shall make a tight joint between the sash and casing.

one end beneath the sill and having an arm lying flush with the sill when the window is locked, and a link connecting the lever near its bend with the other end of the first-named lever. The pivots on the hand-lever and its connected link are nearly in line when in locked position, the center pivot being sufficiently at one side of the center line to hold the parts locked.

SNAP-HOOK.—CHARLES F. FRANCISCO, Lakeside, Cal., and EUGENE E. SHAFFER, San Diego, Cal. This invention has for its purpose the provision of a simple, cheap, and efficient snap-hook which remains firmly in locked engagement with the ring or buckle to which it is coupled. The snap-hook comprises a frame portion having a hooked portion and three cross-pieces, of which the first two are at the lower side, with an open space between them, the third cross piece being arranged at the upper side and between the first two cross-pieces.

HARNESS ATTACHMENT.—WILLIAM R. PHILLIPS, Pomona, Cal. The attachment provided for by this inventor may be applied to any harness, and is arranged to hold the lines in proper position so as to prevent entanglement with other parts or with the horse's tail. The attachment comprises a loop having at one end means for securing it to a strap and having its rear member split or separated to form an opening for the entrance and removal of a line and provided with lugs for engaging apertures in the strap to which the loop is attached.

PIPE-COLLAR.—EDWARD J. MALLEN, New York city. This pipe-collar is made with a body plate constructed in removable sections. Clamping plates are adjustably and removably held in the body plate and are made of spring-material. End clamping plates are mounted to slide in engagement with a central clamping-plate, each clamping-plate having a pipe-receiving opening and divided at a portion in its surface. This division extends from the pipe-receiving openings to the outer edges of the plates. The device is applicable to all kinds of pipes and will not mar the appearance of a ceiling or wall.

Designs.

HOSE REEL SPOOL.—HARRY E. DONNELL, New York city. This design consists of a hub from each end of which extend spokes arranged in pairs, the inner end of the spokes of a pair being separated and the outer ends being joined and terminating in a circular rim. The inner end of one spoke in a pair, joins the inner end of the adjacent spoke of the next pair.

GAME-BOARD.—WILLIAM B. GILES, New York city. In this design, the surface of a game-board is divided into two parts or fields, with a groundwork of contrasting colors and with a series of disk-like figures, the color of one series of figures differing from that of another.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for 10 cents each. Please send the name of the patentee, title of the invention, and date of this paper.

NEW BOOKS, ETC.

LOGIC, DEDUCTIVE AND INDUCTIVE. By Carveth Read, M.A. London: Grant Richards. 1898. Cloth, 12mo. Pp. 323. Price £0.6.

This work more definitely separates logic, pure and simple, from all other studies, and especially from psychology and metaphysics. It is, in fact, a concise and comprehensive textbook of logic, the mastering of which is made more easy by the aid of questions that are introduced as an appendix.

ELECTRO-DYNAMICS—THE DIRECT CURRENT MOTOR. By Charles Ashley Carus-Wilson, M.A. London and New York: Longmans, Green & Company. 1898. Cloth, 16mo. Pp. 298. Price \$1.75.

The aim of this volume is to apply the principles of electro-dynamics to the direct current motor. As it is a work intended for the enlightenment of electrical engineers, the author takes it for granted the reader is familiar with the use and design of motors; but he in the main avoids all technicalities, hoping thereby to render the volume useful to engineers generally.

THE CURE OF WRITER'S CRAMP AND THE ARM TROUBLES OF TELEGRAPHERS AND BALL PLAYERS. By S. H. Monell, M.D. New York: J. B. Taltorall. 1898. Pp. 49. Paper 8vo. Price 50 cents.

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The charge for insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue.

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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.

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Notes & 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.

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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.

(7472) W. H. M. writes: In the May 15, 1897, issue of your paper, you have an interesting article on a toy calorific engine. You state that they are simple and reliable; that they have been known for years. This being the case, allow me to ask you why small and light ones of from 1 to 4 horse power have not come into general use for running fans, launches, etc.? There must be some drawback, and for the benefit of several of your readers here, please state it in the Notes and Queries. A. The calorific engine is rather heavy for the power produced, and has never seemed successful in very small powers—although largely in use for domestic pumping. For power purposes, the explosive motor, which is of much less weight in proportion to power, has almost displaced the calorific engine.

(7473) J. H. W. L. says: Will you advise me what is a good tonic to prevent hair from falling out of the head?

- A. Quinine sulphate..... 20 grs. Tincture of cantharides..... 2 fl. drms. Fluid extract of jaborandi..... 2 " Alcohol..... 2 fl. oz. Glycerine..... 2 " Bay rum..... 6 " Rose water—enough to make..... 15 "

The quinine is dissolved in the alcoholic liquids by warming slightly, then the other ingredients are added.

TO INVENTORS.

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AUGUST 2, 1898,

AND EACH BEARING THAT DATE.

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