

RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

HAY OR STRAW STACKER.—ROBERT GRISWOLD, Grover, Colo. This invention relates to portable machines for unloading and stacking loose hay and straw.

MACHINE FOR TOPPING BEETS.—JULIUS H. LUBERS, Fruita, Colo. The machine is especially adapted for topping beets in the field, and is designed to be drawn between rows of beets in order that it may operate on the tops of two rows simultaneously.

CORN-CUTTER.—CHARLEY O. EBERLEIN, Shawano, Wis. The device comprises a metal foot-plate having downwardly-pressed ribs and an extension-plate formed with a slot.

KNIFE FOR HARVESTERS, MOWERS, ETC.—HERSCHEL OLDHAM, Orleans, Ind. Mr. Oldham has invented a novel knife or cutter for harvesters, reapers, mowers, lawn-mowers, and like machines.

Electrical Apparatus.

PUSH-BUTTON.—THOMAS A. NATHANS, Manhattan, New York city. On a bottom plate a casing is removably held; and through the top of the casing a push-button slides.

CALL-BOX.—EDGAR E. SALISBURY, Chicago, Ill. The object of the invention is to provide a simple mechanism for connection with a telephone system, which may be employed to send a telephone call to the central station or to serve as a messenger call.

Mechanical Devices.

BARREL MACHINE.—JOHN S. WRIGHT, JR., Churchland, Va. The novel feature of the invention is a form comprising end-rims U-shaped in cross section, and intermediate rims formed with perpendicular annular flanges alternately arranged.

MOTOR TOY.—JOHN H. WHITING, Manhattan, New York city. Mr. Whiting has invented a perambulating toy in the shape of a horse. A motor and lever connections are provided for simultaneously operating the legs of one side in opposite directions, causing the animal to walk.

Railway Appliances.

RAIL-JOINT.—SILAS B. WHARTON, South Bend, Ind. The rail-joint has a sleeve engaging the bases and the webs of the ends of adjacent rails. Bolts extend through the sides of the sleeve and through the rail-webs; and a nut-lock-bar engages the sides of the bolts.

Miscellaneous Inventions.

BUDDING IMPLEMENT.—WILLIAM NELSON, Jefferson Parish, La. In the operation of budding it is the usual practice to remove a piece of bark from the tree to be budded, and then to remove a similar piece of bark from the limb of a tree bearing a fine variety of fruit.

the tree should be of the same size as the piece previously cut from the limb. In carrying out the present invention parallel blades are employed which are operated transversely of the stock to be budded and the tree from which the bud is to be removed.

AUTOMATIC VEHICLE HITCH-BRAKE.—CHARLES KITCHEN, Elwood, Ind. The invention provides an attachment for vehicle-brakes so constructed that, when the brake is fully or partially applied at the time a vehicle is to be left standing, the driving-reins may be attached to the brake-lever and the brake-beam be controlled automatically to such an extent that, while the animal is free to move forward or backward a limited distance in the shafts, an undue forward or backward movement will result in the application of the brake shoe or rollers to the wheels of the vehicle.

DISK-SUPPORTING ATTACHMENT FOR GRINDSTONES.—WILLIAM W. HEWITT, Gettysburg, S. Dak. The disk-supporting attachment comprises a post for receiving the disk to be sharpened. Inwardly-inclined rollers of different diameters support the disk, and springs coiled around the post hold the disk against the roller.

COMBINATION PIPE, CIGAR HOLDER AND CIGARETTE HOLDER.—PHILIP FISCHER, Plauderville, N. J. This very novel smoker's article comprises a body having members with connected bores of different sizes. One of the bores is designed to receive the stem of a mouthpiece or a cigar and the other bore is arranged to receive the mouthpiece-stem, a cigarette, or the stem of a pipe-bowl.

CARTRIDGE.—ANTONY BARRALON, St. Etienne (Loire), France. The invention provides a cartridge which, on the one hand, insures the indefinite preservation of the powder charge and on the other hand a complete and quick combustion of the charge, together with its casing, as soon as the shot is fired, in order to reduce the work required for firing the gun.

MICROMETER-GAGE.—ALBERT A. BRANDT, Birmingham, England. This new micrometer-gage is arranged to permit a correcting adjustment in case of deviations in the setting of the micrometer device on a beam and to permit convenient adjustment of the micrometer device in case of wear on the anvil and spindle. On the beam a main micrometer device is movable, adapted to be fastened at measured points.

PLEASURE-CANAL.—GEORGE W. SCHOFIELD, Coney Island, Brooklyn, N. Y. The invention is a pleasure device having a large waterway in a comparatively small space, the banks of the waterway being provided with scenery of an amusing character.

Designs.

GEM-SETTING.—GERHARDT G. M. F. ARTMANN, Manhattan, New York city. Mr. Hartmann has received two design patents for settings in which the gems are arranged in the one case in two parallel long side members and two parallel end members, together with chains of bead-like figures appearing within the border.

LOCK AND HINGE FASTENER FOR BOXES.—GEORGE R. SCHMIDT, Brooklyn, New York city. This novel fastener is formed of a single piece of wire which can be readily applied to a box. The simplicity of the device is its chief merit.

LEATHER FABRIC.—CHARLES D. WILLIAMS, Manhattan, New York city. The leading feature of the design consists in forming on one surface of the fabric closely-arranged, irregular and slight projections to give a stippling appearance. Channels are employed to represent veining.

SHADE-ROLLER BRACKET.—WILLIAM R. MADDERN AND EDWARD H. HIGBEE, JR., St. Louis, Mo. The body of the bracket is essentially rectangular and has at one side a bayonet-slot. Between the slot and the opposite edge of the body are two openings; and from the upper end of the opposite edge a spur projects.

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.

Marine Iron Works. Chicago. Catalogue free. "U. S." Metal Polish. Indianapolis. Samples free. Yankee Notions. Waterbury Button Co., Waterbury, Ct. For bridge erecting engines. J. S. Mundy, Newark, N. J. Hook and Eye Patent for Sale. F. J. Rappold, 12 W. 92d St., Erie, Pa.

Special and Automatic Machines built to drawings on contract. The Garvin Machine Co., 141 Varick St., N. Y. 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.

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.



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.

(8023) M. J. H. asks: 1. Can the continued use of an electric generator or small dynamo have any ill effect on a person if it is used about three times a week as hard as it can be stood? A. Yes; most certainly. Our advice to all is to use electricity only under the direction of a competent physician.

(8024) E. A. M. asks: 1. Is there a SUPPLEMENT in which I may find a description of an arc-lamp suitable for lantern use? A. Information on arc electric lights for lanterns will be found in SCIENTIFIC AMERICAN, Nos. 12, vol. 66; 11, vol. 74, and 6, vol. 75; also SUPPLEMENT, Nos. 756 and 956. Price of above, 10 cents each.

(8025) H. H. asks: Can you answer through your information department, in a general way, the proportion of gas required to run gas engines of 6 H. P. and less alone, bare of any load, to the quantity required to produce the power to run machinery attached to such engines? I have been using a gas engine (4 H. P.) some time to operate printing machinery intermittently, and with varying loads, with very satisfactory results economically and otherwise.

through your information department, in a general way, the proportion of gas required to run gas engines of 6 H. P. and less alone, bare of any load, to the quantity required to produce the power to run machinery attached to such engines? I have been using a gas engine (4 H. P.) some time to operate printing machinery intermittently, and with varying loads, with very satisfactory results economically and otherwise. But a test shows that it requires as much gas to operate the bare engine as the guaranteed quantity for 1 1/2 H. P. in the machinery. At price of gas here to run the engine continuously would cost \$100 a year, if the driving belts were removed and the shafting wholly disconnected, while the additional consumption of gas for small printing machinery, such as platen presses, paper cutters, etc., is almost nothing. That makes this power very economical for short runs, but hugely expensive for continuous work, especially where a single light machine is the chief load required.

NEW BOOKS, ETC.

VICTOR VON RICHTER'S TEXT-BOOK OF ORGANIC CHEMISTRY. Edited by Prof. H. Klinger. Translated by Prof. Edgar F. Smith. Fifth American from the tenth German edition. Philadelphia: P. Blakiston's Son & Company. 1900. 8vo. Pp. 430. Price \$1.75.

The present edition differs materially from those that have preceded it, and includes the very latest discoveries. The form of presentation is excellent and the subject matter is carefully proportioned. The great and well-deserved reputation of von Richter and also that of the editor and translator is sufficient guarantee of the adequacy and accuracy of the text. It is an admirable text-book and is one of the best chemistries we have seen.

COMMERCIAL ORGANIC ANALYSIS. Vol. III., Part 1. Tannins, Dyes and Coloring Matter, Writing Inks. By Alfred H. Allen, F. L. C., F. C. S. Third edition. Rewritten and enlarged. Revised and edited by J. Merritt Matthews, Ph. D. Philadelphia: P. Blakiston's Sons. 1900. 8vo. Pp. 589. Price \$4.50.

This volume is a chemical classic and merits unstinted praise. It deals with the properties, proximate analytical examination and modes of assaying the various organic chemicals and products employed in the arts, manufactures, medicine, etc., with concise method for the detection and determination of their impurities, adulterations and products of decomposition. These remarks apply to the whole series, and the present volume deals with such important subjects as tannins, dyes and coloring matters, also writing inks.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending

JANUARY 1, 1901,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Table listing various inventions and their corresponding patent numbers. Includes items like Advertising-rack, Air-brake, Air-compressing machine, etc.

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