

ENGINEERING INVENTIONS.

A station indicator has been patented by Messrs. Hans Helland and Franz Matzow, of Houston, Texas. This invention covers a novel construction and combination of parts in an apparatus to indicate to be passengers of railway or street cars when a car is approaching, standing at, or leaving a station, giving also the distances, and other desired data.

A car coupling has been patented by Mr. Samuel I. Fields, of Cherokee Nation, Indian Ter. Combined with the drawhead is a longitudinal pivoted locking bar having an outer hooked extremity, an angle lever being pivoted to the locking bar, and a spring-actuated link pivoted to the drawhead at one side of and parallel with the locking bar, the coupling being attachable to an ordinary link and pin drawhead.

A sweeper for railways has been patented by Mr. George P. Campbell, of New York City. Its construction is such that, with much snow over the track, an advance hinged mould board is lowered, where the bulk of the snow is thrown off, while the sweeper may be advanced from either end, the construction being strong and simple, and making a sweeper that can be conveniently and expeditiously handled.

AGRICULTURAL INVENTION.

A churn has been patented by Mr. Claus Duecker, of New Holstein, Wis. It is made with a rotary, barrel-shaped body, hung upon trunnions, the dasher being placed diagonally across the body, whereby the agitation of the cream is very effective, causing it to be churned to butter in a very short time.

MISCELLANEOUS INVENTIONS.

A frying pan or similar utensil forms the subject of a patent issued to Emma L. Farrell, of Brooklyn, N. Y. The invention consists of a frame in which a pan is held to revolve as desired, the frame of the pan being held stationary, and its body revolved over the fire.

A music holder has been patented by Mr. James E. Eastlack, of Philadelphia, Pa. It is independent of the rack on the instrument or music stand, and has a divided, broad, firm hold on the music, being designed to be carried in the pocket and be especially useful to players who have to perform from home.

A tail for kites has been patented by Messrs. Charles W. Burgess and William F. Fleharty, of Norwalk, Ohio. The invention consists of a disk held centrally on the tail rope and supported by guy ropes fastened to the tail rope and to the outer edge of the disk, making a tail which adjusts itself according to the velocity or pressure of the wind.

A screw-cutting die has been patented by Mr. James M. Carpenter, of Pawtucket, R. I. It has a vertical split at one side, a tapering hole parallel with the face of the die, with its walls in the meeting end formed by the split, and a tapering pin located in the tapering hole, making a simple means for expanding a screw-cutting die which requires only slight manipulation in making the adjustment.

An inhaling apparatus has been patented by Mr. Henrik C. F. Stormer, of Christiania, Norway. This invention combines a spray tube, with a lamp for causing a current of heated air, a receptacle for a medical solution, and an atomizer, whereby the solution, as sprayed, will have its liquid evaporated, and the dry particles only will be conveyed onward.

A nasal respirator has been patented by Mr. Joseph C. Locke, of Point St. Charles, Montreal, Canada. It consists of tapering tubular perforated shells, to conform to one's nostrils, and filled with fibrous air-filtering material, and is provided with fastening devices whereby it may be easily and securely applied and readily removed.

A postal date holder has been patented by Mr. Elias C. Walker, of Calmar, Iowa. The casing has two circular concentric series of type spaces, and a revolvable cover having two apertures corresponding with the type spaces, an auxiliary cover being adapted to close either one of its apertures, the device making a cheap and efficient holder for interchangeable dates.

A lock for bicycles has been patented by Messrs. Turney H. Gongware and Edwin K. Hanley, of Elmira, N. Y. It is a lock at all times attached to the bicycle in position for use, in such manner as to constitute an ornament, and is constructed so that, when the rider dismounts, he may apply a brake on the rubber tire and turn a key, keeping the brake in contact with the tire.

A toy race track has been patented by Mr. William N. McManus, of New York City. This invention provides a novel construction and mechanism designed to afford a simulation of a real race, in which a number of miniature figures will be carried about a circular race course, and after a number of times round will be projected forward by an impulse to the finish line.

A lifting jack has been patented by Messrs. Lawrence E. and Patrick Murphy, of St. Paul, Minn. The device is light in construction, with few and simple working parts, permitting of its being easily oiled, and is designed especially for railroad work, providing for an increased extent of movement of the lifting bar in response to the movement of the operating lever.

A machine for sharpening and gumming saws has been patented by Mr. John Mealey, of Fairville, New Brunswick, Canada. It is for use on circular saws of all sizes, the construction allowing the saw to be placed at any desired angle in relation to the grinding wheel, and readily moved forward or backward, while both the sharpening and gumming can be rapidly and effectively performed.

A gate has been patented by Messrs. Andrew J. Powell and Marion G. De Crow, of Newark, Ohio. This invention covers a novel construction of

tilting and swinging gates, designed to be cheap, durable, and efficient, for farm use, the gate being one which can be conveniently held in raised position or just sufficient to permit the passage of small stock, or swung on its hinges.

A fence post has been patented by Messrs. Silas J. Saxon and William H. James, of Colfax, Washington Ter. This invention relates to posts having a metallic foot piece to enter the ground, with a socket to receive and support the post, a thin metal tube being driven into the lower end of the wooden body of the post, and forming a light but strong extension thereof, making a durable attachment.

A combined clod crusher and roller has been patented by Mr. Oliver C. Look, of Collinsville, Ill. It has two or more rollers, so arranged by means of a flexible joint as to readily adapt themselves to the irregular surfaces of the ground, and the construction is such that the machine may be first used to crush the clods in a section of ground and afterward adapted to act as a roller to smooth and pack the same.

A window screen fixture has been patented by Mr. Edmund H. Ambler, of Beatrice, Neb. It consists of a set of disconnected and rabbeted bushing strips adapted to fit in the grooves in which the sashes slide, to adapt any window to receive a screen of the usual construction, which shall not interfere with the raising or lowering of the sash, but may be conveniently taken out and replaced for opening and closing the blinds.

A ticket printing apparatus has been patented by Mr. Gideon B. Massey, of Mamaroneck, N. Y. This invention covers a novel construction and arrangement of parts in an apparatus for the printing, dating, and consecutive numbering of tickets, and at the same time to preserve a record of the number of tickets sold from the point of sale to any given point upon the line, and also to preserve a record of each ticket as it is sold.

SCIENTIFIC AMERICAN BUILDING EDITION.

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3. A residence at Richmond Hill, N. Y., lately built, at a cost of ten thousand dollars. Perspective and floor plans.
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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 next issue.

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The Sewall Safety Car Heater has been gaining ground rapidly of late, and has now been adopted by the Pullman Car Company, of Illinois. The following letter, giving this information, was received here Wednesday:

Chas. B. Strout, Secretary and Treasurer Sewall Safety Car Heating Co.:

Dear Sir—Yours of the 2d instant just to hand, and in reply would say: Our general superintendent wrote to the Sewall Car Heating Co. some time since commending their coupler fully; and I am authorized to say that the company, after using the three different couplers ordered, have adopted the Sewall coupler and are using it on all Pullman cars heated by steam.

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Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J.

The Holly Manufacturing Co., of Lockport, N. Y., will send their pamphlet, describing water works machinery, and containing reports of tests, on application.

Lockwood's Dictionary of Terms used in the practice of Mechanical Engineering, embracing those current in the drawing office, pattern shop, foundry, fitting, turning, smith's and boiler shop, etc., comprising over 6,000 definitions. Edited by a foreman patternmaker. 1888. Price, \$3.00. For sale by Munn & Co., 361 Broadway, New York.

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NEW BOOKS AND PUBLICATIONS.

RAILROAD, TELEGRAPH AND STEAMSHIP BUILDERS' DIRECTORY. New York: The Railway Directory Publishing Company.

This is a volume of nearly 400 closely printed pages of alphabetically arranged lists of U. S. manufacturers of railroad materials and supplies, locomotive and car builders, telegraph and electrical materials and plant, and is calculated to be especially useful to those seeking trade in these lines.

MODERN SHOT GUNS. By W. W. Greener. New York: Cassell & Co. Pp. 192. Price \$1.

This book gives a great variety of information such as sportsmen are generally asking of gunmakers—the essential differences between different kinds of barrels, coming from their methods of manufacture, explanations of many kinds of lock mechanism and how they practically work, particulars of leading types of modern shot guns, with numerous diagrams showing results of practice under given conditions, and full illustrations under each heading. The book will well repay the careful consideration of the scientific sportsman, and cannot fail to be of great value to the amateur at every step, from the purchase of his gun to the acquirement of a good degree of skill.

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