

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.

OCTOBER NUMBER.—(No. 36.)

TABLE OF CONTENTS.

- 1. Elegant plate, in colors, of a suburban dwelling costing eight thousand five hundred dollars. Floor plans, sheet of details, etc.
2. Elegant plate, in colors, of two cottages costing twelve hundred and sixteen hundred dollars, respectively. Sheet of details, floor plans, etc.
3. A residence at Richmond Hill, N. Y., lately built, at a cost of ten thousand dollars. Perspective and floor plans.
4. A dwelling for three thousand five hundred dollars. Floor plans and perspective.
5. Villa at Fontainebleau—M. E. Brunnarius, architect. Cost, eight thousand six hundred dollars. Floor plans and perspective.
6. View of the new Protestant church at Lyons, France. Cost, eighty thousand dollars.
7. Page of engravings showing the house at Stratford-on-Avon in which Shakespeare was born—Anne Hathaway's cottage, near Stratford-on-Avon—Trinity Church, Stratford-on-Avon, where Shakespeare is buried—The residence of Mary Arden, the mother of Shakespeare—Old Elizabethan house, Stratford, showing the domestic architecture of the time of Shakespeare.
8. The chancel, Holy Trinity Church, Stratford-on-Avon, showing the Shakespeare memorial bust and tablet, and the stained glass window, the gift of American visitors.
9. A suburban villa lately built at Sound View Hill, Long Island Sound, near New York. Perspective view and floor plans. Cost, five thousand eight hundred dollars.
10. Design for a cottage by S. W. Whittemore, architect, Brick Church, N. J. Perspective and floor plans. Cost, three thousand five hundred dollars.
11. A Queen Anne cottage in Rochelle Park, New Rochelle, N. Y., costing five thousand six hundred dollars. Plans and perspective.
12. An English double house of moderate cost. Perspective and floor plans.
13. Design for the Duquesne Club House, by Heins & La Farge, architects, New York.
14. Miscellaneous contents: A new regimental armory, New York City.—Ventilating pipes.—National Zoological Park.—Lime from oyster shells, showing pit for burning shells.—Roman road construction.—Beauty of the larch.—Sewage disposal in Great Britain.—Orchids, illustrated.—Test of fire-proof wire lathing.—A clematis porch illustrated.—Some ways of using the Virginia creeper, illustrated with 3 figures.—Feeding coal to the fire.—Wood that will not blaze.—Fall of a stone church tower.—A ruined city in Texas.—Loofah as a substitute for sponge.—A California farm.—Defects in plumbing in the Maine Insane Asylum.—An improved reversible shaper, illustrated.—Improved hand and foot power saws, illustrated.—Practical hints on disinfection.

The Scientific American Architects and Builders Edition is issued monthly. \$2.50 a year. Single copies, 25 cents. Forty large quarto pages, equal to about two hundred ordinary book pages; forming, practically, a large and splendid MAGAZINE OF ARCHITECTURE, richly adorned with elegant plates in colors and with fine engravings, illustrating the most interesting examples of Modern Architectural Construction and allied subjects. The Fullness, Richness, Cheapness, and Convenience of this work have won for it the LARGEST CIRCULATION of any Architectural publication in the world. Sold by all newsdealers. MUNN & CO., PUBLISHERS, 361 Broadway, New York.

Business and Personal.

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.

Adopts the Sewall Car Heater.

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. GEO. H. GRAY, General Ticket Agent.

Pays Well on Small Investment.—Stereopticons, Magic Lanterns, and Views illustrating every subject for public exhibitions. Lanterns for colleges, Sunday schools and home amusements. 152 page illustrated catalogue free. McAllister, Mfg. Optician, 49 Nassau St., N. Y.

Rotary veneer basket and fruit package machinery. I. E. Merritt Co., Lockport, N. Y.

For Sale—Patent 341,175. Best dust pan made.

Small capital wanted to start good paying business. Address H. S. L., P. O. box 773, New York.

Wanted—Solid brass eagles for ornament. W. T. Y. S., No. 22 Market St., San Francisco, Cal.

Wanted—An experienced mining captain to superintend a quartz mine in Central America. Must understand mining contracts and all general business pertaining to mine work. One speaking Spanish preferred. Address, stating references and terms, Plata, care Daily Financial News, 31 and 33 Broad St., New York.

Canadian manufacturing firm want patented article to manufacture in Canada. One now being manufactured in United States preferred. Address G. H. A., P. O. box 773, New York.

Will sell or manufacture in partnership wrought iron grindstone hanger patent. D. O'Leary, San Bernardino, Cal.

All books, app., etc., cheap. School of Electricity, N. Y.

Just Published—Elements of Electric Lighting, including electric generation, measurement, storage, and distribution. By Phillip Atkinson, A.M., Ph.D., author of Elements of Static Electricity. 200 pages; 104 illustrations. Price, \$1.50. For sale by Munn & Co., 361 Broadway, New York.

Iron Planer, Lathe, Drill, and other machine tools of modern design. New Haven Mfg. Co., New Haven, Conn.

Pratt & Letchworth, Buffalo, N. Y., solicit correspondence relative to manufacturing specialties requiring malleable gray iron, brass, or steel castings.

Supplement Catalogue.—Persons in pursuit of information of any special engineering, mechanical, or scientific subject, can have catalogue of contents of the SCIENTIFIC AMERICAN SUPPLEMENT sent to them free. The SUPPLEMENT contains lengthy articles embracing the whole range of engineering, mechanics, and physical science. Address Munn & Co., Publishers, New York.

For the latest improved diamond prospecting drills, address the M. C. Bullock Mfg. Co., Chicago, Ill.

Nickel Plating.—Manufacturers of pure nickel anodes, pure nickel salts, polishing compositions, etc. \$100 "Little Wonder." A perfect Electro Plating Machine. Agents of the new Dip Lacquer Kristaline. Complete outfit for plating, etc. Hanson, Van Winkle & Co., Newark, N. J., and 92 and 94 Liberty St., New York.

Perforated metals of all kinds for all purposes. The Robert Aitchison Perforated Metal Co., Chicago, Ill.

Link Belting and Wheels. Link Belt M. Co., Chicago. 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.

Wrinkles and Recipes.—Compiled from the SCIENTIFIC AMERICAN. A collection of practical suggestions, processes, and directions for the mechanic, the engineer the farmer, and the housekeeper. Illustrated colored frontispiece. Edited by Park Benjamin, Ph.D. Third edition. Price, \$2.00. For sale by Munn & Co., 361 Broadway, New York.

Billings' Patent Adjustable Tap and Reamer Wrenches. Billings & Spencer Co., Hartford, Conn.

Steam Hammers, Improved Hydraulic Jacks, and Tube Expanders. R. Dudzeon, 24 Columbia St., New York.

Friction Clutch Pulleys. The D. Frisbie Co., N. Y. city.

"How to Keep Boilers Clean." Send your address for free 88 page book. Jas. C. Hotchkiss, 120 Liberty St., N. Y.

The best Coffee roasters, coolers, stoners, separators, polishers, scourers, glossing apparatus, milling and peaberry machines; also rice and macaroni machinery, are built by The Hungerford Co., 69 Cortland St., N. Y.

Planing and Matching Machines. All kinds Wood Working Machinery. C. B. Rogers & Co., Norwich, Conn.

"New Drill Chuck," holding straight taper or square shanks. Address Standard Tool Co., Cleveland, O., mfrs. of twist drills, reamers, and special tools.

Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting Works, Drinker St., Philadelphia, Pa.

Duplex Steam Pumps. Volker & Felthousen Co., Buffalo, N. Y.

Send for new and complete catalogue of Scientific and other Books for sale by Munn & Co., 361 Broadway, New York. Free on application.

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.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

October 23, 1888,

AND EACH BEARING THAT DATE.

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

- Adding machine, J. H. Schnarrenberger..... 391,430
Adjustable bracket, W. Van Horn..... 391,433
Alarm. See Burglar alarm.
Axe box, car, G. F. Godley..... 391,463
Axe, railway car, S. Gissinger..... 391,703
Axles, machine for bending wagon, W. Schwinger..... 391,649
Baling clamp, A. Kiger..... 391,622
Ballot box, registering and canceling, T. F. Dodge..... 391,518
Banding machine, G. Waters..... 391,728
Barber's dressing case, C. Brown..... 391,506
Basins, supply fittings for, J. Reid..... 391,647
Batteries, automatic circuit changer for secondary, W. W. Griscom..... 391,468
Battery. See Galvanic battery.
Battery plates, machine for making, A. F. Madden..... 391,542
Bedstead, cabinet folding, B. Poulson..... 391,424
Bell, alarm, Nichols & Rose..... 391,483
Belt fastener, E. Eastwood, 2d..... 391,696
Bicycle, tandem, W. E. Smith..... 391,490
Bill of fare, changeable, D. E. Terrill..... 391,765
Board. See Dash board.
Boiler. See Steam boiler.
Bolting reel, J. B. Dobson..... 391,406
Books, binding for, T. F. Gregg..... 391,604
Books, corner cutter for, W. Braidwood..... 391,681
Boot or shoe, G. A. Macker..... 391,478
Bottle stopper, B. Hegele..... 391,709
Box. See Axle box. Ballot box. File box. Knockdown box. Letter box. Match box. Music box. Paper box.
Brake. See Car brake. Locomotive brake. Vehicle brake.
Breast strap, A. J. Stewart..... 391,722
Brick and tile machine, F. E. Frey..... 391,697, 391,698
Bride, arch, J. B. Ellis..... 391,463
Broom holder or support, B. Schad..... 391,429
Brush, R. Cahill..... 391,687
Brush, blacking, J. L. Spalding..... 391,491
Buckle, A. J. Stewart..... 391,544
Buckle, tug, J. T. Merritt..... 391,575
Buggies, dust cover for, A. Barth..... 391,394
Bung retainer and stamp protector, D. Croake..... 391,455
Burglar alarm, R. Teichmann..... 391,724
Burner. See Gas burner. Hay and straw burner.
Paint burner.
Bustle, D. V. Miller..... 391,757
Button, W. Bourke..... 391,398
Button, adjustable, C. G. Smith..... 391,656
Cable gripper and pick-up, Holmes & Charles..... 391,471
Cable hanger, E. J. Hall..... 391,405
Calendar, H. S. Hack..... 391,705
Car brake, W. Heston..... 391,470
Car coupling, S. P. Bentley..... 391,732
Car coupling, S. I. Fields..... 391,525
Car coupling, M. J. Lorraine..... 391,416
Car coupling, Moore & Edwards..... 391,636
Car coupling, A. O. Niedlander..... 391,719
Car coupling, T. Settle..... 391,451
Car coupling, Sheffield & Jamison..... 391,487
Car coupling, P. L. Wood..... 391,572
Car heating apparatus, C. H. Horton..... 391,413
Car marker, E. C. Blatt..... 391,679
Car, stock, G. D. Burton..... 391,579
Car, stock, W. W. Myers..... 391,759
Car wheel, N. Wright..... 391,729
Cars, head rest for sleeping, J. Kirby, Jr..... 391,748
Cards, etc., railway head for cotton, J. P. Thompson..... 391,663
Carrier. See Cash carrier.
Case. See Barber's dressing case. File case. Show case. Surgical or other instrument case.
Cash carrier, A. B. Blackburn..... 391,577
Caster, N. C. Merriam..... 391,631
Centering apparatus, J. E. Howard..... 391,533
Chain, drive, F. Eckstein, Jr..... 391,591
Chair attachment, child's, A. G. Moritz..... 391,667
Chucks, means for operating revolving, W. Cooper..... 391,585
Churn, C. Duecker..... 391,520
Clamp. See Baling clamp.
Clamp for supporting tackle block straps while riveting the same, G. A. Ford..... 391,469
Clarinet, C. Mahillon..... 391,479
Clasp. See Shoe clasp.
Cleaner. See Cotton cleaner.
Cleat, J. W. Foran..... 391,526
Clock synchronizer, A. G. Wiseman..... 391,446
Closet. See Water closet.
Coat, vest, etc., J. H. Prince..... 391,556
Cocoon compound, L. Hennemeier, Jr..... 391,540
Coffee pot, F. B. Idle..... 391,617
Collar and hame, combined, G. S. Harvey..... 391,708