

RECENTLY PATENTED INVENTIONS.

Railway Appliances.

CAR AXLE BOX.—Edward Leslie, Orangeville, Ontario, Canada. The bearing herein provided for is adapted for the standard box, the angular motion of the axle being allowed for, while a narrow bearing brass can be used, which is properly supported at the upper part, a flat key fitting into the casing provided with a central aperture, while an intermediate plate is held on the under side of the key with a circular offset fitting into the aperture of the key.

CAR PLATFORM.—Robert S. C. Fuller, New York City. An auxiliary platform, capable of independent movement, is pivoted on the rigid platform of the car, whereby, when the cars are coupled, the platform of one will meet that of the opposing car, the platforms remaining in contact throughout their width irrespective of the curves of the road, while a gate folding at the side of the car may be opened to extend from one car to the other parallel with the outer sill of the platform.

CAR PUSHER.—Joseph C. Chrisman, Sewell Depot, West Va. This device is intended especially for pushing cars in coal mines, as well as for other uses, and has a base formed of two foot sections adapted to slip in one direction along the rail, and to clamp against any reverse movement, a slide bar being connected with one of the sections and sliding through the other, with lever connections between the latter section and the slide bar and a push bar or rod.

TRACK PLOW.—Edward Leslie, Orangeville, Ontario, Canada. This is an ice or snow plow designed to loosen any hardened snow or ice immediately next to the track, and having a flanger mechanism to remove snow or ice in proximity to the inside of the rail and discharge it a sufficient distance from the track to prevent its falling back.

Electrical.

BRUSH HOLDER FOR DYNAMOS.—Walter S. Bishop, New Haven, Conn. This is a simple and efficient device for holding the brush in the position of use with a light and uniform pressure, the brush being rendered adjustable in the holder by a positive screw movement, the brush-holding arm being pushed forward into contact with the commutator cylinder by a spiral spring, while there is an adjusting screw for moving the brush backward and forward through the brush socket.

ELECTRICALLY CONTROLLED ENGINE.—James E. Byrne, Brooklyn, N. Y. This invention relates to a hydraulic engine operating in connection with sheaves and cables, the latter attached to a car or cage to move it up and down, and provides means whereby the controlling valve is operated by electricity from the car instead of by hand power, and also for automatically reversing the car switch when the car reaches its upper or lower limits of travel.

Mechanical.

ANTI-FRICTION BEARING.—Bethuel G. and George H. Handy, Monroe, N. Y. This is a roller bushing for sheaves in which there is a rotary tubular box within an outer casing, and a series of rollers journaled in the box parallel with its axis, the faces of the rollers contacting with the inner side of the casing, and there being a space between the outer surface of the box and the rollers to prevent frictional contact.

PIPE TESTING MACHINE.—Michael Sexton, New York City. This invention provides for the use at each end of the pipe to be tested of a frame carrying a clamp screw with a packed head, one of the two clamp heads being provided with a testing fluid inlet, whereby water, steam, air, or other fluid may be forced into the pipe from a compressing apparatus, at any desired pressure, to discover sand or blow holes, splits, etc.

WATER WHEEL.—James T. Rohm, Locust Grove, Pa. Mounted in a closed casing is an upper horizontal rimless water wheel, having inclined buckets, and a lower horizontal water wheel having oppositely inclined buckets, with a surrounding rim extending upwardly and inclosing the other wheel, the opposite rotary motion of the two wheels being transmitted in one direction to a gear wheel.

LEVER FOR LOOMS.—Joseph A. Evans, Philadelphia, Pa. This is a shuttle-box-operating lever designed to improve the box lever of a power loom adapted for weaving fancy fabrics by making the lever in two parts and jointing it to work as freely as a solid lever, yet yield at the center to permit both ends to go up, should the plunger be arrested in its upward movement from the anchor wings becoming locked.

SPRAY CYLINDER FOR PAPER MACHINES.—Granville D. Crance, Valatie, N. Y. This invention covers a spray cylinder cleaner in which the cylinder has an extension at one end and a discharge pipe at the other, a rod with a handle fitting in one end of the cylinder, while at the other end of the rod is a swab, which is to be reciprocated in the cylinder for readily cleaning it.

Agricultural.

DISK HARROW.—George T. Booth, Christchurch, New Zealand. This invention provides means for securing the disks more firmly on the bolt or axle, to prevent excessive wear and tear, and also to regulate the pressure of the disks on the soil, and so that the pressure may be transferred to the outer or inner end of the disk bar, while wheels and axles are provided, so that the disks may be carried well clear of the ground while traveling.

COTTON HARVESTER.—Richard H. Farnell, Rosedale, Miss. This is a machine for picking cotton from the rows of plants in the field, a principal object being to prevent the team from knocking out the ripe cotton, for which the picking box is made to

operate at two rows distant from the team, so that there will be between the team and the row of cotton being picked a row of picked plants, thus saving great waste.

HAY RAKE AND BALING PRESS.—John A. Hooton and Gilbert L. Wiard, Atkinson, Neb. This invention covers a combined machine of a hay rake and double baling press, with elevator, longitudinally extending baling boxes with alternately operating plungers, and a feeder delivering alternately into the boxes, taking up the hay from the swath, baling it, and dropping the finished bales in the field.

Miscellaneous.

STAMP CANCELER.—Benjamin Summers, Petersburg, Penn. This canceler has a main plate with a handle and parallel cheek pieces in combination with a tumbler, to which a rod is connected, blocks being held in ways between the cheek pieces and connected to the tumbler, whereby the down thrust of the handle will move the blocks in a straight line between the cheek pieces.

GRATE.—Salvatore J. Buzzini, New York City. This invention relates to grates for stoves, ranges, etc., the grates being made to reciprocate or shake preferably in straight horizontal directions to free the grate and fuel from ashes, and to swing to one side to dump the contents of the fire box, the invention covering various novel arrangements and combinations of parts.

COATING PAPER.—George Manahan and Henry Gade, New York City. This invention covers an apparatus for applying to one side of a web compositions of various kinds in a fluid form, provision being made for the required varying amount of the coating smearing surface, and the apparatus being mainly intended to be used in applying a preservative and weather proof composition to a web of paper for making sheathing or building paper.

SCIENTIFIC AMERICAN BUILDING EDITION.

JUNE NUMBER.—(No. 44.)

TABLE OF CONTENTS.

- 1. Elegant plate in colors, showing elevation in perspective and floor plans of a field stone residence, costing about nine thousand five hundred dollars. Page of details, etc.
2. Plate in colors of a cottage costing three thousand two hundred dollars. Perspective elevation, floor plans and details.
3. Engraving of the new Federal building to be erected at Worcester, Mass. Cost two hundred and fifty thousand dollars.
4. A cottage of moderate cost lately erected at Bedford Park, New York. Perspective and floor plans.
5. Plans and perspective of a convenient stable erected at Bedford Park, N. Y.
6. A handsome residence lately erected at Chattanooga, Tenn., from designs by Blotherwick & Penn, architects. Cost ten thousand dollars complete. Plans and perspective elevation.
7. A residence at Florence, Northampton, Mass. Cost ten thousand dollars complete. Perspective and floor plans.
8. Engraving of a half-timbered house at Chester, England.
9. View and plans of a fine barn lately erected near Providence, R. I.
10. A modern residence at Belle Haven Park, Greenwich, Conn. Perspective and floor plans.
11. A handsome house in the colonial style lately erected at "Renolds Terrace," Orange, N. J., at a cost of fifteen thousand dollars complete. Chas. A. Gifford, of London, architect. Perspective elevation and floor plans.
12. A cottage at Bedford Park, New York. Cost eight thousand five hundred dollars. Plans and perspective.
13. Engravings of the great Eiffel tower at the French exhibition.
14. St. Cloud Presbyterian Church, Orange, N. J. Potter & Robertson, architects, New York. Perspective elevation and floor plan. Cost seven thousand five hundred dollars.
15. Miscellaneous Contents: Brick piers.—Home decorations.—Delights of color.—Foundations in alluvial deposits.—Portland cement and sea water.—The effect of moisture on wood.—The weeping larch, illustrated.—Nashville's estimating rules.—Selected lumber.—The science of dry rot.—Sewage a protection against the teredo.—Ornamental borders, with illustrations.—Hot air vs. steam.—The new Catholic cathedral at Pekin.—Advantage of sanitary measures.—Which are the hardwoods?—An ideal living room.—A water motor for elevators, illustrated.—Granite rust.—Ventilating grates, illustrated.—French building laws.—Mahogany.—Artistic wood work, with illustrations.—Stains for mortar and plaster.—An enduring tin roof.—Wood filling and finishing.—Shell fish marbles.—Fire-resisting ceilings.
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.

Patent No. 394,707, Dec., 1888, portable burglar, door, and window alarm, for sale as a whole. Moulds, pattern, tools, etc., are ready. Write to J. L. Mikich, Houston, Texas. Samples, 50 cents apiece.

Special facilities for manufacturing light machinery, hardware, and novelties. Stamping, presswork, punches, dies, and special tools. Correspondence invited. Rockaway Manuf. Co., Rockaway, N. J.

For the best Hoisting Engine for all kinds of work, address J. S. Mundy, Newark, N. J.

Guild & Garrison, Brooklyn, N. Y., manufacture steam pumps, vacuum pumps, vacuum apparatus, air pumps, acid blowers, filter press pumps, etc.

Engineers wanted to send their addresses and receive free a 25 cent book, "Hints and Suggestions for Steam Users." Lord & Co., 11 S. 9th St., Philadelphia, Pa.

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

Ball Engine.

Automatic cut-off. Ball Engine Co., Erie, Pa.

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.

Screw machines, milling machines, and drill presses. E. E. Garvin & Co., Jaigh and Canal Streets, New York.

Needle slot screens and all kinds of mining screens. Robert Aitchison Perforated Metal Co., Chicago, Ill.

Drop Forgings. Bronze Forgings. Upward of 3,000 different articles. Billings & Spencer Co., Hartford, Conn.

The Improved Hydraulic Jacks, Punches, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

Investigate Edison's Recording Steam Gauges. Savecoal, etc. Write for pamphlet. J. B. Edson, 86 Liberty St., N. Y.

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

Veneer machines, with latest improvements. Farrel Fdry. and Mach. Co., Ansonia, Conn. Send for circular.

Tight and Slack Barrel Machinery a specialty. John Greenwood & Co., Rochester, N. Y. See illus. adv., p. 28.

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

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

Rollstone variety lathe—bores, beads, and turns at the same time. Rollstone Machine Co., Fitchburg, Mass.

Manufacturers Wanted at Lyons, N. Y. 5 railroads, canal; low taxes, rents, fuel, and labor. Address Secretary Board of Trade.

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

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

June 11, 1889,

AND EACH BEARING THAT DATE.

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

- Adding machine, D. E. Felt. 405,024
Air cooling apparatus, J. L. Wood. 405,064
Air engine, J. S. Baldwin. 404,818
Animal trap, A. Brown. 405,006
Anvil and swage, J. H. Urschel. 405,191
Asbestos treating, B. E. Church. 405,201
Assorting machine, Gooding & Ladd. 404,904
Automatic sprinkler, J. Clapp. 404,897
Axle box, car, E. Leslie. 405,040
Back band pad, G. W. Moores. 404,923
Bag. See Paper bag.
Bag lock, C. Reinisch. 405,119
Baker's peel, G. A. Neumann. 405,046
Baling press, F. W. Anderson. 404,815
Baling press, J. H. Howard et al. 404,972
Band cutter, C. H. Hill. 404,840
Bar. See Binding bar. Exercising bar. Stretcher bar.
Battery. See Galvanic battery. Secondary battery.
Beach chair, C. E. Koechling. 405,038
Bearing, anti-friction, B. G. & G. H. Handy. 405,011
Bed pan, M. Riker. 403,182
Bellows, O. Kullbom. 405,108
Binder or file for documents, P. Garton et al. 405,026
Binding bar, J. T. Richardson. 404,895
Bit. See Drill bit.
Blind stop, M. B. Wesson. 404,938
Boiler. See Steam boiler. Wash boiler.
Boiler, M. E. Irving. 404,912
Boiler front and setting, H. L. Beach. 404,821
Boiler stay, H. Schaubel. 405,227
Boiler tube fastening, H. Schaubel. 405,225
Boiler tubes, fastening, H. Schaubel. 405,226
Bolster spring, H. Van Arsdale. 405,192
Bolt and nut, A. M. Brainard. 404,963
Bolt threading machine, A. Wood. 405,296
Book blank, N. H. Baker. 404,817
Boom pad, S. Wheeler. 404,881
Bottle stopper, T. B. Howe. 405,065
Box. See Axle box. Fruit box. Letter box.
Box binder, metallic, F. G. Johnson. 404,842
Brake. See Carriage brake. Wagon brake.
Brakes, engineer's cock for air, G. A. Boyden. 405,197
Brick burning, J. C. Anderson. 405,086
Brick machine, B. Owen. 404,857
Bridge spans, draw, M. H. Long. 405,042
Bureau or similar article of manufacture, Katherman & Folk. 405,166
Burner. See Gas burner. Hydrocarbon burner. Oil burner.
Button, P. A. Raymond. 405,179
Cable grip, G. A. Carreras. 405,145
Cable roads, slot rail for, M. M. Suppes. 405,281
Calendar, C. K. Hamilton, Jr. 405,160
Car coupling, R. J. Edwards. 405,085
Car coupling, Greenway & Strickland. 404,967
Car check, J. M. De Witt. 404,901
Car gate, N. F. Mathewson. 404,919
Car heating apparatus, J. F. McElroy. 404,927
Car heating apparatus, P. L. McGovern. 405,112
Car platform, railway, R. S. C. Fuller. 405,025
Car pusher, J. C. Chrisman. 405,012
Car replacer, R. W. Africa. 405,143
Car stock, M. D. Moore. 405,107
Car windows, smoke and dust fender for, Waller & Carlstedt. 405,060
Cars, alarm signal for cable and electric railway, Pingst & Bemis. 404,981
Cars, safety extinguishing attachment for heating and illuminating apparatus for railway, R. T. Smith. 404,875
Cars, steam heating system for railway, J. F. McElroy. 404,926
Carding machines, etc., cylinder for, G. O. Wick-ers. 405,234
Carpet stretcher, Moylan & Griemsmann. 405,171
Carpet sweeper, W. J. Drew. 405,084
Carriage bow, G. L. Crandal. 404,900
Carriage brake, baby, I. Levy. 405,041
Carriage curtain knob, F. A. Neider. 404,928
Carriages, prop block washer for, A. Searls. 404,989
Carrier. See Cash carrier. Cotton carrier.
Cart, road, F. H. Boni. 405,074
Cart, road, J. W. Coombe. 405,061
Cart, spring, L. E. Walberg. 405,193
Cartridge loader, A. Euston. 405,152
Cartridge shells, device for uncapping and recapping, N. M. Muzzy. 404,855
Case. See Latch case. Show case.
Cash carrier, W. H. Billing. 404,887
Cash carrier, E. P. Zerbe. 404,943
Cash carrier, Zerbe & Church. 404,944
Cash carriers, adjustable curve for, F. S. Church. 404,896
Cash register, W. C. McGill. 405,111
Casting chill rings, apparatus for, H. Birkholz. 404,988
Casting chill corrugated rollers, apparatus for, H. Birkholz. 404,899
Casting machine, ingot, W. R. Hinsdale. 404,900
Centering device, J. A. Palmer. 404,858
Centrifugal separators, means for lubricating, F. Hart. 405,212
Chair. See Beach chair. Folding chair. Opera chair.
Cherry stoner, P. H. Reibisch. 405,118
Cigar wrapping and rolling machine, C. W. Bowman. 405,073
Cleaner. See Grain cleaner.
Clock, electric alarm, B. Dubinski. 405,206
Clock, electric alarm, W. E. Hadlock. 404,906
Clock, electric self-winding, J. H. Gerry. 405,089
Clock pendulum, J. Werner. 404,937
Clock and coupling for barrels, casks, etc., combined, C. C. Jandinoll. 404,918
Cock, gauge, J. P. Strebig. 405,129
Coin-actuated receptacle, E. C. Jones. 305,215
Coffee mill, L. Drude. 405,019
Coffin fastener, S. A. Scofield. 404,872
Collar stuffing machine, C. Ewing. 405,023
Condensing apparatus, C. C. Worthington. 405,142
Conductor, underground, G. E. Tailleux. 404,877
Cooker, steam, Schroyer & Penn. 404,871
Cooking utensil, F. H. Ferguson. 405,087
Coop, hen, E. Butterick. 405,008
Corset, L. J. James. 405,037
Corset, A. D. Nason. 405,113
Cotton carrier, R. T. Smith. 404,991
Coupling. See Car coupling. Thill coupling.
Cultivator, M. V. De Witt. 405,204
Cultivator, G. Moore. 404,922
Cultivator and cotton chopper, combined, A. H. Johnson. 405,165
Cultivator, hand, H. C. Tubbs. 404,936
Cupola or blast furnace, Hathaway & Stocking. 404,908
Curtain pole, F. G. Johnson. 404,841
Cutter. See Band cutter. Milling cutter.
Dental plugger, A. J. Sawyer. 405,123
Derrick, L. S. Deming. 405,082
Digger. See Potato digger.
Domino, C. M. Hyatt. 405,164
Door, screen and storm, Weisendanger & Ulrich. 404,899
Doors, roller for sliding, N. Clark. 405,202
Draught equalizer, L. C. Harris. 405,161
Draught spring, E. L. Hilderbrand et al. 405,162
Drawer guide, D. W. Kendall. 405,098
Dredging machine, H. S. Brown. 404,891
Drier. See Grain drier.
Drill. See Grain drill. Rock drill.
Drill bit, J. Eagen. 474,829
Drilling machine, electric, E. A. Sperry. 405,187
Dyeing apparatus, E. Wood. 405,141
Dynamo, brush holder for, W. S. Bishop. 405,002
Earrings, mounting for, V. Gentner, Jr. 405,157
Earthenware, C. C. Gilman. 405,028
Electric circuit, apparatus for indicating the strength of the current in an, G. Pfannkuche. 404,860
Electric circuit, indicating the strength of the current in an, G. Pfannkuche. 404,861
Electric current generators, regulation of alternating, G. Pfannkuche. 404,859
Electric machine, dynamo, O. P. Loomis. 405,218
Electric motor, starting and stopping device, F. A. Perret. 405,223
Electrical current generators, regulation of alternating, G. Pfannkuche. 405,174
Electrical distribution system, T. A. Edison. 404,902
Electrical machines, discharge device for, A. Schmid. 405,124
Electrically controlled engine, J. E. Byrne. 404,894
Electricity by secondary batteries, distributing, W. W. Griscom. 404,968
Electro-magnetic transmitter, J. T. Williams. 405,194
Electrode for electro-therapeutic body wear, H. P. Pratt. 405,176
Elevating machine, J. E. Byrne. 404,893
Elevating machine, electric, J. E. Byrne. 404,895
Elevator. See Water elevator.
Embrodering and edging machine, E. & R. Cornely. 405,116
Embrodering machine, E. & R. Cornely. 405,147
Engine. See Air engine. Electrically controlled engine. Low pressure engine. Rotary engine. Steam engine.
Engine shafts, electric indicator for, J. C. Ricketson. 404,867
Engine shafts, electric signal for, J. C. Ricketson. 404,866
Engines, balanced piston for steam, W. J. Thomas. 405,132
Engines, powder gas boiler for, O. & H. Schneider. 405,229