

## RECENTLY PATENTED INVENTIONS.

## Railway Appliances.

**CAR COUPLING.**—Albert N. Hopkins, Duluth, Minn. This is a coupling designed to be entirely automatic and to be readily coupled with the ordinary link and pin coupling, the forward end of each link being beveled, so that in coupling one will ride over the other and the under one will catch behind a lug to couple the cars, the invention also covering other novel features and combinations of parts.

**RAIL JOINT.**—Joseph D. Greene, Marshall, Mo. This is a joint of that class which has two sections adapted to grip the opposite edges of the base of the rail, and which are movable longitudinally, one of the sections being held by a lug between the jaws against longitudinal movement along the rail while the other section is being moved longitudinally to adjust the two sections tightly against the rail.

## Agricultural.

**HARVESTER.**—Herman A. J. Rieckert, New York City. This is a machine in which part of the grain cut is formed into a band to tie the sheaf, the invention being an improvement on a former patented invention of the same inventor, making the machine automatic and very effective, and in which the grain is readily cut, formed into sheaves, and a part of it used for automatically forming bands, which are automatically tied around the sheaves, so that the latter are discharged in perfect shape.

**SELF BINDER.**—Herman A. J. Rieckert, New York City. This is a machine designed to use a prepared straw band, and to be an improved self-binder which is simple and durable and very effective in operation, drawing the straw band tightly around the sheaf, and then rapidly and securely tying it.

**HUSKING BENCH AND FODDER BINDER.**—Parker J. Miller, Mount Gilead, Ohio. This is a combination device, designed to be readily folded up when not in use for storage or transportation, and especially designed to support the bundle of corn for conveniently husking and then tying the fodder, the device consisting of a frame having a central binding beam with a rope attached and a ring or stirrup on the free end of the rope.

**CULTIVATOR.**—Richard Cracraft, Abingdon, Ill. This is a machine especially adapted for use wherever shallow culture is desired, having a diagonal blade for loosening and throwing the earth to one side, while the landsides are omitted from the plow-like blades, which work in opposite directions, so that side draught is completely overcome, and the beam may be readily secured to any carriage capable of drawing a cultivator or plow.

## Miscellaneous.

**CLOTHES DRIER.**—Benjamin F. Fuller, McMinnville, Oregon. This is a rack formed of an extensible bar with sections sliding one upon the other, one of the sections carrying a windlass, in connection with a rack head or bracket, and various other novel features, the device being designed to conveniently hold clothes for drying and airing, and to be simple and readily adjustable.

**TOY GAME APPARATUS.**—Mary P. Stewart, Washington, N. J. This apparatus is made with two intersecting channels, in one of which a plunger is held to slide, while in the other channel is a spring-pressed gate connected with the plunger, one of the channels being set in an inclined position, the game being played with balls by the alternate pulling and releasing of the plunger.

**LOCK.**—Patrick McMahon, Whitestone, N. Y. This is a cylinder lock containing but one cylinder, and having the tumblers so arranged that by increasing or decreasing its length an indefinite set of combinations may be produced, the construction being such that a master key may be made to fit and manipulate all the locks having the improvement.

**GUN RACK FOR TENTS.**—Benjamin Watson, Glen Hazel, Pa. This invention consists of two clasps adapted to be attached one above the other to the tent pole, the upper clasp having swinging arms to be retained in horizontal position and with holes in the bottom to receive the gun barrels, while the lower clasp has swinging arms with slotted sides to receive the butts of the guns.

**DESIGN FOR WEAR PLATE FOR BOOTS, ETC.**—Louis N. Beauchemin, Tacoma, Washington. This invention covers a two-part wear plate, a sole part and a heel part, the sole part having the normal shape of a sole, with approximately half moon shaped openings at the ball and toe, the heel plate having one similar central opening, and both parts being provided with spike-shaped protuberances.

**VEHICLE SEAT.**—Thomas J. Kersetter, Fern, Pa. This invention covers the use of spring arms by which to support the back bar, and a holding frame adapted to secure such arms, made in sections and adjustable, whereby the back bar of the seat can be held in different positions and yield with a spring action, rendering riding more easy and comfortable.

**TRACE CARRIER.**—Alexander P. Waddell, Union City, Tenn. This invention covers an improved buckle, the plate or frame work having cross bars at its upper and lower end and having hooks on its front face, a portion of the rear side of the frame being provided with spurs, and having a trace link or receiver.

**CHURN.**—Columbus Miller, John W. Blue, and Charles S. Miller, Keystone, Mo. This churn has an inner and outer dasher section, the shafts operating which are turned by gearing in opposite directions, the sections being so constructed as to break up every particle of the milk and cream, while there is below the churning chamber a water-receiving chamber.

**FEEDING OIL TO LAMPS.**—Vincent Di Marzo, Louisville, Ky. This invention covers an ap-

paratus consisting of pipes connected to an oil reservoir with which a water reservoir is also connected at the bottom, a weighted gravitating plunger being employed for forcing the oil through the pipes to the lamps, while a regulator is placed in the pipe leading to the lamps to keep the level of oil at the proper limit.

**SAWING MACHINE.**—Henry C. Green, Anniston, Ala. Combined with a main frame and lever frame secured thereto is a saw blade, the levers being arranged in series and connected at one end to the saw blade and at the other end to the main frame, an operating lever being adjustably pivoted between the uprights of the lever frame, with various other novel features.

**INDEX.**—Nathan B. Shyer, Hopkinsville, Ky. Combined with a suitable frame or casing are leaves hinged or pivoted therein and arranged to fall forward when released, the leaves being normally held closed by a latch, while a button is arranged to turn in front of and hold up any one of the leaves.

**ADVERTISING OR DISPLAY DEVICE.**—Andrew Dahlstrom, Ashton, Mich. This is a device more especially designed for use in the dining rooms of hotels, etc., to be made in the shape of a caster or to be connected with a revolving table or platform for use in exhibiting articles of merchandise.

**POST HOLE DIGGER.**—Samuel H. Gregg, Crawfordsville, Ind. This is a device with jaws having back and side plates, the back plates being flat and straight and the side plates projected inwardly from the back plates, and tapered, the jaws being pivoted together, to present the least difficulty in being forced into the ground when open, and to entirely inclose the soil, so that the hole may be easily and completely cleaned of the loose dirt.

## 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.

For Sale—New and second hand iron-working machinery. Prompt delivery. W. P. Davis, Rochester, N. Y. Acme engine, 1 to 5 H. P. See adv. next issue.

Tuerk water motors at 12 Cortlandt St., New York. Presses & Dies. Ferracut Mach. Co., Bridgeton, N. J. Hoisting Engines. The D. Frisbie Co., New York city. Platinum scrap, old wire, etc., bought, Willis & Clemons, 39 S. 10th St. Philadelphia.

Best Ice and Refrigerating Machines made by David Boyle, Chicago, Ill. 155 machines in satisfactory use. The Improved Hydraulic Jacks, Punches, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

Beach's Improved Pat. Thread Cutting and Diamond Point Lathe Tool. Billings & Spencer Co., Hartford, Ct.

Veneer machine, 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. 173.

Screw machines, milling machines, and drill presses. The Garvin Mach. Co., Laight and Canal Sts., New York.

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

Linen and rubber hose, all kinds of belting, general mill and factory supplies. Send for catalogue and prices. Greene, Tweed & Co., 83 Chambers St., New York.

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

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.

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

SCIENTIFIC AMERICAN  
BUILDING EDITION.

## JUNE NUMBER.—(No. 56.)

## TABLE OF CONTENTS.

1. Plate in colors of an elegant residence at Montclair, N. J. Munn & Co., architects, New York. Perspective view, also a plate showing the north and rear sides, floor plans, sheet of details, etc.
2. Elegant colored photographic plate, with floor plans, sheet of details, etc., of a cottage at Blythebourne, L. I. Estimated cost \$3,200.
3. Residence at Yonkers, N. Y. Perspective view and floor plans. D. & J. Jardine, architects, New York. Cost, \$10,850.
4. A residence at Orange, N. J. Perspective views, floor plans, etc. Cost about \$12,000.
5. Perspective view and floor plans of a residence at Holyoke, Mass. L. B. White, Holyoke, Mass., architect. Cost complete, \$6,000.
6. Sketch of two old Bristol houses.
7. Sketch of hotel and Post Office, Dartmouth.
8. A Casino erected at Springfield, Mass. Cost complete \$12,000. Floor plan and perspective.
9. A church recently erected at Greenwich, Conn., at a cost of \$13,000 complete. J. C. Cady, architect, New York. Ground plan and perspective elevation.
10. View of the entrance to the United States Trust Company's building, Wall Street, New York.
11. A dwelling at Yonkers, N. Y. Cost complete \$5,000. Floor plans and perspective elevation.
12. Elegant residence at Stamford, Conn. W. R. Briggs, architect, Stamford, Conn. Cost \$15,000. Floor plans and perspective.
13. View of the iron and wood gate in front of the entrance to the Pres Pavillion at the recent Paris exposition.
14. Miscellaneous Contents: Fireproofing wooden floors.—"Peach bottom" slate.—The manufacture of granite. —The lien law.—Combustible architecture.—Variety in Gothic architecture.—New No. 9 double cylinder planer and smoother, illustrated.—A sliding Venetian blind, illustrated.—The Holmespur feed slitting machine, illustrated.—Get sound titles to your real estate.—Heating apparatus for a wagon factory.
- Carrier. See Coin carrier. Egg carrier. Glass carrier. Hay carrier.
- Cart, road, H. C. Turner..... 429,784
- Case. See Dressing case.
- Cash register and indicator, M. R. Longacre..... 429,927
- Casting machine, type, F. Wick..... 430,061
- Cement lined pipe, H. B. Nichols..... 429,947
- Chain, Thomas & Beale..... 429,978
- Chair. See Car chair.
- Charcoal apparatus for treating, R. V. F. De Guignon..... 429,682
- Chart for draughting garments, J. S. & M. E. Baughman..... 430,059
- Chimney cow or ventilator, W. G. Henl..... 429,911
- Churn, H. Westphal..... 429,707
- Chute, coal, W. Claypole..... 429,840
- Clamp. See Hose clamp.
- Clasp. See Pencil clasp. Rope clasp.
- Cleaner. See Wire and track cleaner.
- Clipper, rotary, W. H. Dogwell..... 430,070
- Clippers, adjustable attachment for hair, W. C. Hatcher..... 429,722
- Closet. See Water closet.
- Closet, C. T. Pratt..... 429,952
- Clothes prop attachment, L. E. Friend..... 430,012
- Clutch, friction, L. H. Watson..... 430,097
- Coin carrier, F. T. Camp..... 429,752
- Combination lock, I. Livingston et al..... 429,691
- Commutators, machine for turning dynamo, H. G. McLean..... 429,946
- Commutators, tool for turning dynamo, A. D. Spencer..... 430,094
- Condenser for steam pump, R. L. Frost..... 429,808
- Cooler. See Milk cooler.
- Copies, re-enforcing press, C. E. Jewell..... 429,885
- Copper when heated, preventing the oxidation and deoxidation of, G. W. Cummins..... 429,892
- Corn enter, C. G. & S. P. Deming..... 430,004
- Corn splitting machine, R. E. Poindexter..... 429,784
- Corrugated structure, J. Mitchell..... 429,937
- Couch or lounge, O. Alexander..... 429,750
- Coupling. See Car coupling. Thill coupling.
- Whiffletree coupling.
- Cow tail holder, G. W. & A. J. Duore..... 429,849
- Crusher. See Ore crusher.
- Cultivator, R. Cracraft..... 429,888
- Cultivator, W. H. Rand..... 429,955
- Cultivator, J. P. Turner..... 429,824
- Cultivator, L. H. Whitman..... 429,948
- Cultivator, lister, A. A. Sawyer..... 429,964
- Currents, means for creating artificial, E. Bantz..... 429,883
- Curtain roll support, S. S. Mackin..... 429,930
- Cutter. See Band cutter. Corn cutter. Slaw or krait cutter.
- Almagamator, C. W. Tremain..... 429,823
- Annealing steel castings and steel forgings, W. Sellers..... 429,773
- Accordion, E. Kalbe..... 429,763
- Adding machine, H. Cook..... 430,001
- Advertising and discount coupon book, sheet, or card, C. A. Slocum..... 430,044
- Advertising or display device, A. Dahlstrom..... 429,893
- Aging wines, apparatus for, L. Waggoner..... 429,626
- Air brake mechanism, H. S. Hopper..... 430,024
- Alarm. See Burglar alarm.
- Almalgamator, C. W. Tremain..... 429,823
- Annealing steel castings and steel forgings, W. Sellers..... 429,773
- Announcer, electric, J. D. Bishop..... 429,599
- Attrition mill, H. A. Duc, Jr..... 429,679
- Axle, F. Kruegermann..... 429,726
- Band cutter and feeder, W. H. Alston..... 429,676
- Bandage, medical, J. Wainwright..... 430,048
- Barrel cover, C. Woodworth..... 429,671
- Batteries, porous cell for galvanic, G. H. Felt..... 429,837
- Battery. See Galvanic battery. Secondary battery.
- Battery solution, galvanic, G. H. Felt..... 429,396
- Batting, compressing and baling cotton, H. Rembert..... 429,640
- Bed covering, W. T. Doremus..... 429,894
- Bed, door, J. Rocheleau..... 429,643
- Bell mechanism, door, A. F. Rockwell..... 430,040
- Bell and sash, combined, A. Hellenberg..... 429,810
- Belts over their pulleys, apparatus for throwing, H. T. Nezler..... 429,861
- Belts, tension device for, A. G. Anderson..... 429,877
- Bench. See Husking bench.
- Binder, self, H. A. J. Rieckert..... 429,958
- Block. See Snatch block.
- Board. See Game board. Switch board.
- Boat, G. W. Schermerhorn..... 429,649
- Boiler water indicator, J. L. Campbell..... 429,997
- Bolster spring, B. C. Seaton..... 429,651
- Bolt. See Flour bolt. King bolt. Spring bolt.
- Bolt, W. T. Kenyon..... 429,630
- Bolt holder, C. A. Maurer..... 429,638
- Book and binding thereof, W. R. Crawford..... 429,889
- Box. See Express messenger's box. Letter box. Paper box. Stuffing box. Water and gas box.
- Brake. See Carriage brake. Header brake. Sled brake. Wagon brake.
- Brake shoe and beam attachment, S. A. Bemis..... 429,674
- Brick or tile, Kreng & Ebur..... 429,925
- Bricks, enamel for coating, J. Stiel..... 429,651
- Broom holder, M. J. Shimer..... 429,761
- Brush, J. M. Beissbarth..... 429,889
- Brush, O. Jenness..... 429,077
- Brush making machine, C. D. Hughes..... 429,921
- Buckle, E. Latham..... 430,074
- Buckle, J. T. Merritt..... 429,788
- Buggy top, H. W. Timmons..... 429,822
- Buggy top raiser, J. Long..... 429,728
- Bureau, washstand, and writing desk, combination, J. Wippler..... 429,802
- Burglar alarm, G. H. Hodgkins..... 429,762
- Burglar alarm, electric, H. C. Shubert..... 429,817
- Burner. See Gas and air burner. Oil burner. Refuse burner. Straw burner.
- Butter mould, Kinnaman & Dean..... 429,630
- Button fastener, F. E. Stracke..... 429,821
- Button fastener holder, shoe, A. G. Wilkins..... 429,828
- Buttoner, J. M. Sullivan..... 429,661
- Cable grip, E. R. Guerra..... 429,790
- Cable terminal, J. C. Reilly..... 429,815
- Calendar, Y. Paez..... 430,096
- Calendar, L. Palmersten..... 429,949
- Camera. See Photograph camera.
- Can. See Oil can.
- Can forming and soldering machine, C. W. Sleeper..... 429,872
- Cannons and operating the same, pneumatic, W. A. Bartlett..... 429,593, 429,594
- Cannon, pneumatic, W. A. Bartlett..... 429,595
- Cannon, pneumatic, G. H. Reynolds..... 429,641
- Cap, C. M. De Lacy..... 430,003
- Capsule stripping machine, F. J. Reinhold..... 429,957
- Car chair, reversible, Scarritt & Mosley..... 429,966, 429,967
- Car coupling, M. M. Clarke..... 429,886
- Car coupling, A. N. Hopkins..... 429,920
- Car coupling, M. E. Summers..... 429,662
- Car coupling, H. J. Webb..... 429,983
- Car doorway, bridge, stock, B. C. Hicks..... 429,915
- Car, hand, C. Roberts..... 429,962
- Car, passenger, I. B. Guenzberg..... 429,619
- Car, railway, J. N. Barr..... 429,834
- Car seat, G. W. Cushing..... 430,071
- Car, stock, B. C. Hicks..... 429,916
- Car wheel, C. Roberts..... 429,963
- Cars, bridge for doorways of cattle, B. C. Hicks..... 429,760
- Card fillets, apparatus for covering cylinders with, N. Whitley et al..... 429,985
- Carriage brake, baby, W. Wilson..... 429,709
- Carriage door, L. M. Hurley..... 430,096
- Carrier. See Coin carrier. Egg carrier. Glass carrier. Hay carrier.
- Cart, road, H. C. Turner..... 429,784
- Case. See Dressing case.
- Cash register and indicator, M. R. Longacre..... 429,927
- Casting machine, type, F. Wicks..... 430,061
- Cement lined pipe, H. B. Nichols..... 429,947
- Chain, Thomas & Beale..... 429,978
- Chair. See Car chair.
- Charcoal apparatus for treating, R. V. F. De Guignon..... 429,682
- Chart for draughting garments, J. S. & M. E. Baughman..... 430,059
- Chimney cow or ventilator, W. G. Henl..... 429,911
- Churn, H. Westphal..... 429,707
- Chute, coal, W. Claypole..... 429,840
- Clamp. See Hose clamp.
- Clasp. See Pencil clasp. Rope clasp.
- Cleaner. See Wire and track cleaner.
- Clipper, rotary, W. H. Dogwell..... 430,070
- Clippers, adjustable attachment for hair, W. C. Hatcher..... 429,722
- Closet. See Water closet.
- Closet, C. T. Pratt..... 429,952
- Clothes prop attachment, L. E. Friend..... 430,012
- Clutch, friction, L. H. Watson..... 430,097
- Coin carrier, F. T. Camp..... 429,752
- Combination