#### 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 as 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 dis charged 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 heam 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. Beanchemin, 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

VEHICLE SEAT. - Thomas J. Kerstetter, 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 barof the seat can be held in different positions and yield with a spring action, rendering riding more easy and comfort-

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 baving 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 onter 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, au operating lever being adjustably pivoted between the uprights of the lever frame, with various other novel

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 Dolla 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 ma chinery. Prompt delivery. W. P. Davis, Rochester, N.Y. Acme engine, 1 to 5 H. P. See adv. next issue.

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# SCIENTIFIC AMERICAN

# BUILDING EDITION

JUNE NUMBER.-(No. 56.)

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- 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 Blythehourne, L. I. Estimated cost \$3,200.
- Residence at Yonkers, N. Y. Perspective and floor plans. D. & J. Jardine, architects, New York. Cost, \$10,950.
- 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.
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- 9. A church recently erected at Greenwich, Conn., a a cost of \$13,000 complete. J. C. Cady, architect New York. Ground plan and perspective eleva-
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June 10, 1890.

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tion, J. Wippler	Flour bolt, J. M. Case. Flour, meal, or bran packer, C. Roehl Flue stopper, W. Chase. Forging machine, W. H. Johnson Frame. See Stove frame. Umbrella frame. Friction surface, J. V. Beekman. Fruit assorting or sizing machine, J. A. Jones Fumigator, C. Q. Hayes. Furnace, W. Horsfall. Furnace for heating metals, W. Sellers. Furnace grate, W. R. Roney. Fuses without exposing flames or sparks, means for igniting, W. B. & G. J. Smith	429,986 429,645 429,745 429,718 430,029 429,991 480,031 480,031 429,776 429,776 429,596 429,895 429,895 429,703 429,895 429,703 429,897 429,603 429,779 429,675 430,103 429,675 430,103 429,995 430,021
tion, J. Wippler	Flour bolt, J. M. Case. Flour, meal, or bran packer, C. Roehl. Flue stopper, W. Chase. Forging machine, W. H. Johnson Frame. See Stove frame. Umbrella frame. Friction surface, J. V. Beekman. Fruit assorting or sizing machine, J. A. Jones. Fumgator, C. Q. Hayes. Furnace, W. Horsfall. Furnace for heating metals, W. Sellers. Furnace grate, W. R. Roney. Fuses without exposing flames or sparks, means for igniting, W. B. & G. J. Smith	429,986 429,6418 439,7418 430,029 429,991 480,031 480,031 480,031 480,076 429,526 429,776 429,596 429,596 429,596 429,676 429,870 429,807 429,807 429,807 429,675 430,103 429,995 430,021 429,876 429,877 429,877
tion, J. Wippler	Flour bolt, J. M. Case. Flour, meal, or bran packer, C. Roehl. Flue stopper, W. Chase. Forging machine, W. H. Johnson Frame. See Stove frame. Umbrella frame. Friction surface, J. V. Beekman. Fruit assorting or sizing machine, J. A. Jones. Fumgator, C. Q. Hayes. Furnace, W. Horsfall. Furnace for heating metals, W. Sellers. Furnace grate, W. R. Roney. Fuses without exposing flames or sparks, means for igniting, W. B. & G. J. Smith	429,986 429,541 429,718 430,029 429,991 480,031 480,038 429,676 429,776 429,596 429,596 429,596 429,807 429,807 429,807 429,807 429,807 429,807 429,808 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,719 429,809 429,719 429,809
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Carrier. See Coin carrier. Egg carrier. Glass	
carrier. Hay carrier.  Cart, road, H. C. Turner	29,784
Case. See Pressing case. Cash register and indicator, M. R. Longacre	
Casting machine. type, F. Wicks	
Chain, Thomas & Beals	429,978
Charcoal, apparatus for treating, R. V. F. De Guinon	429,682
Chart for draughting garments, J. S. & M. E. Baughman	430.059
Chimney cowl or ventilator, W. G. Henls	429.911
Chute, coal, W. Claypoole	
Clasp. See Pencil clasp. Rope clasp. Cleaner. See Wire and track cleaner.	
Clipper, rotary, W. H. Cogswell	430,070
Hatcher	429,722
Closet. C. T. Pratt	
Clutch, friction, L. H. Watson	130,097
Coln carrier, F. T Camp	
Commutators, machine for turning dynamo, H. G. McLean	429,946
Commutators, tool for truing dynamo, A. D. Spencer	
Cooler. See Milk cooler.	
Copies, re-enforcing press, C. E. Jewell	
and deoxidation of, G. W. Cummins	430,004
Corn splitting machine, R. E. Poindexter Corrugated structure, J. Mitchell	<b>42</b> 9.937
Couch or lounge. O. Alexander	429,750
Whiffletree coupling. Cow tail holder, G. W. & A. J. Doore	129,849
Crusher. See Ore crusher. Cultivator, R. Cracraft	429,883
Cultivator, W. H. Rand	
Cultivator, L. H. Whitman	429,668
Currents, means for creating artificial, E. Bantz Curtain roll support, S. S. Mackin	<b>42</b> 9,833
Cutter. See Band cutter. Corn cutter. Slaw or kraut cutter.	1201100
Desks, tables, etc., covered top for, W. F. Smith Die. See Upsetting machine die.	430,092
Digester, F. C. Lovejoy	<b>42</b> 9,69 <b>2</b>
Door or shutter straightener, J. Kaiser Dressing case or bureau attachment, W. H. Hall	
Drill. See Ratchet drill. Drilling machine. F. B. Miles	
Easel, alarm, M. K. Paine	
Mason	
Egg carrier, S. H. Houghton Electric conduit, underground, H. Flad	430,010
Electric connection, C. J. Van Depoele Electric cut-out, automatic, M. Waddell	429.745 490,096
Electric drill system, H. N. Marvin429,730, Electric machine, dynamo, R. Pfund	<b>42</b> 9.73fi
Electric meter, J. H. Barnard Electric regulator, E. Wagemann	429,825
Electrical distribution, system of, E. M. Bentley Electrically reciprocated tools, generator for, H.	
N. Marvin	429.836
Elevator. Fogarty & Buchanan	
Engine. See Marine engine. Traction engine. Envelope machine, S. W. Balch	430,057
Eraser. ink, O. M. Solberg	429,704
steel for, G. J. B. Rodwell	
Express messenger's box, T. S. Spivey Extractor. See Stump extractor.	429,657
Fabric. See Roofing fabric. Fabrica, renovating, A. Mautner	429,791
Fan, H. S. Carley	429,884
Fence, J. W. Roberts	429,685
Fence making machine, W. H. SmithFence post, H. J. Howser	429,655
Fertilizer distributer, J. R. McCord	429,859
File, paper. E. H. & C. Morgan	429,938
Fire lighter, C. P. Heal	429,908
Fishing reel. J. Vom Hofe	429,770
Flour, meal, or bran packer, C. Roehl	429,645
Flue stopper, W. Chase	429,718 430,029
Frame. See Stove frame. Umbrella frame. Friction surface, J. V. Beekman	429,991
Fruit assorting or sizing machine, J. A. Jones Fumigator, C. Q. Hayes	480,031 480,018
Furnace, W. Horsfall	429,626 429,776
Furnace grate, W. R. Roney Fuses without exposing flames or sparks, means	
for igniting, W. B. & G. J. Smith429,597, Galvanic battery, J. Beattle, Jr	429,598
Galvanic battery, G. H. Felt	429,895
Galvanic battery, J. Sificeo, Jr	429,703
Galvanometer, A. E. Colgate	429,800
Game board, N. Reiz	429,779
Gas and air burner, O. M. Shannon	
Gate. See Hatchway gate. Gate. Day & Handy	
Gate fastening, L. E. Bradford	430.020
Gearing, reversible grip, P. Hockett Generator. See Steam and gas generator. Steam	