RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

PLOW.—BENJAMIN D. BALDWIN, Maul, Hawall. The invention is a double moldboard hilling-up plow, so constructed that it will throw up a large amount of loose soil against the stems of sugar-cane or other growing crops planted in rows. The plow is simple and durable.

COMBINED WIRE-FENCE MACHINE AND STALK-CUTTER.—FRANK SCHMITT, Carlyle, Ill. The purpose of this invention is to provide a machine of improved construction which can be drawn along and made to pay out wire during the building of wire fences, and which will be adapted to reel in fence-wire removed from the posts. The device can likewise be used to collect and cut up stalks.

Engineering Improvements.

STEAM-BOILER.—WILLIAM N. OLDMAN, 270 Front Avenue, Buffalo, N. Y. Rows of fire-tubes are arranged horizontally and equidistantly; and between each two rows of fire-tubes rows of threaded stay-rods are arranged both vertically and horizontally. The arrangement of the stay-rods in rows between two vertical and horizontal rows of tubes insures uniform distribution of strain, so that cracks and leaks are not liable to occur and a maximum strength is obtained. The inventor claims that his boiler can withstand nearly double the pressure of steam of cylindrical fire-tube boilers having stay-rods arranged in the usual way.

Metallurgical Apparatus.

MACHINE FOR EXTRACTING METAL FROM ORE.—ALBERT I. IRWIN, Cripple Creek, Col. The object of the invention is to provide a simple mechanical device to be used in conjunction with any suitable solution and an electric current for the continuous and the automatic treatment of the metals, the precious metals being simultaneously extracted and deposited. In a treatment-tank, an endless anode travels, the upper and lower stretches of the anode being in position to be immersed in the solution in the tank. Diagonally-disposed blocks of insulating material are attached to the anode. Under each stretch of the anode in the tank is a cathode.

AMALGAMATOR AND CONCENTRATOR.—IRWIN H. SPRIGGS, Eureka, Utah. The ore amalgamator and concentrator comprises two semi-cylindrical trays arranged one above the other and supported on rockers. Water is supplied to the upper tray. An agitator in the lower tray is operated by the rocking movement of the tray. An automatically operated valve is provided for an outlet in the lower tray. By reason of the peculiar rocking motion, all earth that can be worked by other machines is successfully handled. The machine's chief success, however, lies in saving values in clay.

ORE-LEACHING APPARATUS.—RALPH L. GRAVES, Sumpter, Ore. The invention is an improvement in apparatus for use in separating ore. Means are provided whereby the pulp is agitated through the medium of a suitable pump, the suction and discharge of which can both be within the same tank. By means of this apparatus, agitation can be stopped and resumed at pleasure. The clear fluid can be drawn from the agitation-tank when desired. But little power is required.

Mechanical Devices.

MACHINE FOR MAKING PLASTER-BOARDS.—PATRICK RYAN, Manhattan, New York city. In July, 1900, Mr. Ryan patented a machine for making plaster-boards. The present invention is an improvement on that machine. The machine is designed to form fireproof boards for use in buildings, the boards beng produced from alternate layers of a suitable fabric and a plastic material such as ordinary plaster. A hopper contains the dry plaster; and an apron passes therefrom. The apron moves through a water-pan or trough to wet the plaster. A second apron, movable transversely to the first apron, is adapted to carry webs of fabric in which the wetted plaster is deposited. The material is spread on the fabric-web by a spreader working over the second apron.

WOOD-TURNING LATHE.—DEFIANCE MACHINE WORKS, Defiance, Ohio. This machine, the invention of Mr. George A. Ensign, is especially designed for producing in large quantities duplicate articles—such as bobbins, handles, spoons, mallets, stakes, pins, and the like, either plain or with beads—the lathe being arranged to reduce the rough material to the finished product complete in every respect and the exact shape and size, perfectly smooth and highly accurate. The lathe consists of a spindle carrying a number of cutters, toward and from which a table is mounted to travel transversely. On the table a head-stock is mounted. A driving-pulley mounted in a swinging support carried by the table is geared with the head-stock. The tail-stock is also mounted on the table; and means are provided for operating the table.

STAPLING-MACHINE.—MILTON HINKLEY, Benton Harbor, Mich. The invention relates to machines for making baskets. The construction is such that the work can be readily shaped over a former without hindrance from the staple-driving devices. When the work is shaped the staple-forming and staple-driving devices are brought into an active position over the work and the former, to secure the parts of the work together by means of the staples.

MEASURING-FAUCET.—JOHN P. DOBBYN, Hayfork, Cal. This faucet is particularly useful in dispensing soda water, tea, coffee, or other beverages, and is so arranged as to discharge the proper amount into a tumbler or cup. The device is operated without touching the faucet, which is often hot.

CIGARETTE-CUTTER.—FELIX P. HERMIDA, San Juan, Porto Rico. The machine cuts cigarettes from the lengths received from the cigarette-forming machine. And the object is to provide a cutter so constructed as to travel with the movement of the cigarette-length leading from the forming-machine, thus making a straight cut without danger of tearing the paper.

CALCULATING-MACHINE.—CLARENCE E. LOCKE, Kensett, Iowa. The calculating-machine is of the Young-Fowler type, in which a number of independent slides are used. The present invention provides a calculating-machine of this class which is simple and durable; which exhibits the result in such a place that there will be no possibility of confusion nor any necessity for changing the position of the machine to find the result; in which a simple mechanism is furnished for locking the slides when desired, and in which the slides are distinguished so as to facilitate calculation.

BOTTLE-CARRIER.—WILLIS D. SNOW and HARRY M. PALMER, Bloomington, Ill. The inventors have devised a novel machine for assembling a number of jars or bottles, so that they can be carried hanging with open mouths for immersion into a tank holding liquid for filling the bottles or jars. The invention is especially adapted for filling milk-jars in quantity at one operation.

BALL MIXING AND DISCHARGING APPARATUS.—CHARLES DUHAMEL, Rue le Peletier 11, Paris, France. Given a number of balls in a suitable receptacle, to cause the balls to pass from the receptacle in a certain number of outlet tubes leading to stopping or distributing devices—this is the problem which the inventor has solved. A receptacle is used, in which the balls can be inserted, and which is provided with a bottom made in two parts, one of which is fixed and the other movable. On the edge of the fixed part, adjacent to the movable part, are perforations communicating with the outlet-channels. The movements of the movable parts are sufficient, relatively to the sides of the receptacle, to cause at certain moments the greater part of the balls to come together at the lower parts of the receptacle, and leave only a slight layer of balls on certain inclined parts of the bottom. The result is that these latter balls are free to roll toward the outlets.

FIRE-ESCAPE.—THOMAS T. BROWN, Angus, Minn. The fire-escape is provided with a coil of rope which is held in a suitable casing. Mechanism is provided for causing the rope to run slowly out of the casing; so that by fastening the outer end of the rope a person can connect himself with the casing and gradually descend from a burning building.

Vehicle Accessories and Harness.

MEANS FOR RESTRAINING HORSES.—SAMUEL S. STEWART, Hicksville, N. Y. This invention relates to a device for arresting runaway horses; and it comprises two knobs arranged to be pressed against the nozzle of a horse to throttle it whever it runs away.

FIFTH-WHEEL.—GEORGE BENJAMIN, Saginaw, Mich. The fifth-wheel comprises a pair of annular members provided with threads loosely screwed together. One of the members is provided with means for connecting it with the front axle of the vehicle; and the other annular member is provided with means for connecting it with the bed of the vehicle. The fifth-wheel is simple, durable, easy to operate, and made up of parts easily interchanged. It is adjustable; and its parts are readily accessible.

Miscellaneous Inventions.

ENVELOPE OR SACK.—CHARLES A. MEADOWS, Yonkers, N. Y. This new and improved sack is designed for receiving coins, paper money, and other articles, and is arranged to be conveniently opened to permit the discharge of the contents and then to form an advertising medium.

NAPKIN-HOLDER.—ALEXANDER H. BROWNLEY, Onehunga, Auckland, New Zealand. The holder is designed to support a table-napkin over the clothing at the front, and is also adapted to hold a napkin in folded position on the table, thus dispensing with the usual napkin-ring. The holder can be quickly applied to the napkin and to the cloth without danger of cutting the material.

CARD OR PHOTOGRAPH HOLDER.—LUCIEN E. PARKER and JOHN S. GOTT, Lenox, Mass. The clamping device provided by these inventors is capable of engaging a card, photograph, or the like, without perforating or bending the article. The device permits a number of photographs to be strung in series or to be arranged in groups or any other desired order, permits the use of cards of different shapes, thickness and sizes, enables the user to place a stack of photographs or group them together in one place without having vacant holders left over, and provides for the easy removal of any card or photograph without disturbing other cards. When a number of photographs are to be stored away the improved holder can be folded upon itself, so as to allow the photographs to be arranged face to face.

SMOKE-PIPE REGISTER.—WILLARD S. TUTTLE, Brooklyn, New York city. The invention relates to heating-drums or smoke pipes usually extending from a room through the ceiling and the floor above into an upper room and connecting with the chimney to carry off the smoke and gases, and to radiate heat into the room above. The invention provides a new and improved register for holding a smoke-pipe in position in the floor and arranged for obtaining the desired control of the heated air passing from a room below to the room containing the register.

TRUNK.—FRITZ C. LUNDBECK, San Francisco, Cal. The trunk is arranged with a number of drawers located one above the other to fill the trunk body completely. The construction permits the independent use of the drawers, so that the owner can readily gain access to any of the drawers without disturbing the positions of the other drawers.

DRAWING-TABLE.—HENRY A. DAVIS, Muskegon, Mich. The drawing table comprises a standard on which is a head. The table-top has a plate pivotally connected with the head. A segmental flange is extended outward from one side of the plate; and a locking-bolt is movable through the head and has a hook portion to engage over the flange. The table is simple, cheap, and readily adjustable to any height and incline.

PAPER-BAG HOLDER.—CHARLES F. FRANCISCO, 719 Fifth Street, San Diego, Cal. The invention is an improvement in devices adapted to hold paper bags and the like for use in grocery, confectionery and other stores. The devices are so constructed and arranged as to permit a single bag to be removed from the pack or bundle without disturbing the others.

CHECK-BOX.—THOMAS F. MCCULLOUGH, Memphis, Tenn. The box holds and successively delivers consecutively-numbered checks. The device is adapted specifically for use in barber-shops, physicians' offices and hospitals where customers, clients, or patients are served in their turn. By means of the device each person, on entering the waiting room may secure a check; and these checks, running consecutively as they do, will settle all disputes concerning the time of arrival.

PUZZLE.—MARY F. BOUGHNER, Sedalia, Mo. The puzzle includes a board consisting of a box-like casing, and a cardboard false bottom provided with holes arranged in the form of a cross. The holes are marked and are designed to receive pins. The idea is in setting the puzzle to place a pin in each of the sockets except the central one, then by jumping from any of the four sides into the central hole, removing the peg, which is jumped and continuing to jump one peg at a time until only one peg is left on the board, and that in the center.

PAD FOR SUPPORTING PRINTING-FILMS.—BENJAMIN DAY, West Hoboken, N. J. The pad supports a printing-film while it is being inked and presents a semi-rigid and evenly-yelding support for the printing-film, while the latter is under the pressure of the flexible-composition hand-roller that is passed over it during the operation of inking the film. The present pad is an improvement on the plane surface hitherto used in supporting the film during the inking process, and readily accommodates itself to the action of the flexible-composition roller in passing over its printing surface without inking the interstices or intaglio parts surrounding the tints, in relief.

ADJUSTABLE SLEEVE-CHART.—HARRY C. WILSON, Manhattan, New York city. The pattern for sleeves is of such a character that it can be quickly adjusted to the desired measurements. The sleeve pattern is so constructed as to give upon its outside the pattern of the top part of the sleeve and with its inner outline the pattern of the under part of the sleeve.

Designs.

CASE FOR VENDING-MACHINES.—MILBERT F. PRICE, Iowa City, Iowa. The leading feature of the design is a base with a vertically-extending transparent cylindrical case mounted thereon.

DIE SECTION.—EDWARD H. SMITH, Mt. Vernon, Ohio. A design patent has been granted to H. E. Smith, for a die section for use in the forming of sheet metal articles, which design is characterized by longitudinal curved grooves arranged side by side with an intervening partition, the walls of the grooves being provided with transverse grooves which lead to the outer edges of the curved grooves, the whole aiding in securing the form of article desired.

MERCHANDISE CHUTE FOR VENDING-MACHINES.—MILBERT F. PRICE, Iowa City, Iowa. The chute has a body portion with widened end parts and is to be used in connection with the collar-button-vending machine recently patened by Mr. Price.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.

Business and Personal Wants.

READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. **In every case it is necessary to give the number of the inquiry.**

MUNN & CO.

Marine Iron Works. Chicago. Catalogue free.

Inquiry No. 1863.—For manufacturers of novelties for the mail order business.

"U. S." Metal Polish. Indianapolis. Samples free.

Inquiry No. 1864.—For the M. E. Hall hemstitcher or a substitute thereof.

WATER WHEELS. Alcott & Co., Mt. Holly, N. J.

Inquiry No. 1865.—For wholesale manufacturers of door locks.

Stencil Machines.—A. J. Bradley, 101 Beekman St. N.Y.

Inquiry No. 1866.—For dealers in second-hand gasoline engines.

Metal substitute. Crane Bros., Mfrs., Westfield, Mass.

Inquiry No. 1867.—For manufacturers of the wireless telegraphy apparatus.

Gasoline Lamps and Systems. Turner Brass Works, Chicago.

Inquiry No. 1868.—For mechanical drawings on small dynamos and engines.

Handle & Spoke Mchy. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.

Inquiry No. 1869.—For a machine for tying rattan in bunches.

Bids accepted for whole or part of U. S. Patent No. 688,235. Box 2, Kent, N. Y.

Inquiry No. 1870.—For parties to make a screen door fastener.

Glass paper-weights for advertising. Write for prices. Lobmiller Co., Wellsburg, W. Va.

Inquiry No. 1871.—For machines for making light barrels and kegs.

Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.

Inquiry No. 1872.—For manufacturers of ground paper for making papier maché.

Rigs that Run. Hydrocarbon system. Write St. Louis Motor Carriage Co., St. Louis, Mo.

Inquiry No. 1873.—For manufacturers of silvered glass or mirrors for reflecting telescopes.

FOR SALE.—New patent for boiler No. 684,620. J. Snyder, 254 Wythe Ave., Brooklyn, N. Y.

Inquiry No. 1874.—For manufacturers of collapsible tubes.

For sheet metal stampings and novelties try Standard Stamping Co., Seventh and Hudson, Buffalo, N. Y.

Inquiry No. 1875.—For manufacturers of mailing cases for grease tubes.

If making metal goods and needing special parts, write us. Metal Stamping Co., Niagara Falls, N. Y.

Inquiry No. 1876.—For blocks for cutting out gloves and mittens.

Ten days' trial given on Daus' Tip Top Duplicator. Felix Daus Duplicator Co., 5 Hanover St., N. Y. city.

Inquiry No. 1877.—For rubber-tired casters 2½ inches to 3½ inches in diameter.

FOR SALE.—The patent right of a good-selling portable commode. Address Saunders Bros., Westerly, R. I.

Inquiry No. 1878.—For hydraulic jacks affording 12 inches raise and capacity of 500 pounds.

Inventions developed and perfected. Designing and machine work. Garvin Machine Co., 149 Varick, cor. Spring Sts., N. Y.

Inquiry No. 1879.—For rough and finished green and plate glass slabs ½ inch and 1 inch thick, and about the size of 12 inches by 24 inches, 18 inches by 22 inches, 40 inches by 22 inches and 76 inches by 22 inches.

Manufacturers of patent articles, dies, stamping tools, light machinery. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

Inquiry No. 1880.—For manufacturers of hydraulic, electric or steam cranes.

Designers and builders of automatic and special machines of all kinds. Inventions perfected. The W. A. Wilson Machine Company, Rochester, N. Y.

Inquiry No. 1881.—For manufacturers of iron bars, steel-laid for wood planer knives.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 138th Street, New York.

Inquiry No. 1882.—For knives for rotary and other veneer machines,

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.

Inquiry No. 1883.—For an apparatus for cooling a cold storage room.

Have completed a series of high-grade Microscope Objectives of entirely new and improved formulas. Do my own work throughout. Am seeking position where can continue or superintend manufacture of the same. Genuine opportunity for enterprising establishment. Dadd, 350 Seventh St., Buffalo, N. Y.

Inquiry No. 1884.—For ice-making plants.

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

Inquiry No. 1885.—For machines for cutting out of quick lime pencils which are to be used for calcium lights.

Inquiry No. 1886.—For manufacturers of cabinet handles made of thin brass or nickel.

Inquiry No. 1887.—For manufacturers of machinery for making rugs from old carpets.

Inquiry No. 1888.—For parties engaged in embossing work on stationery.

Inquiry No. 1889.—For manufacturers of heavy flat coil springs.

Inquiry No. 1890.—For dealers in cut gearing.

Inquiry No. 1891.—For manufacturers of spice mill machinery.

Inquiry No. 1892.—For manufacturers of adding machines.

Inquiry No. 1893.—For parties handling the "Martin Cash Carrying Device."

Inquiry No. 1894.—For machinery for making butcher skewers.

Inquiry No. 1895.—For a steam-meter (Kalorimeter) Prof. Peabody's system, or the manufacturer thereof.

Inquiry No. 1896.—For parties to manufacture a mail pouch catcher and deliverer.

Inquiry No. 1897.—For manufacturers of telephone supplies.

Inquiry No. 1898.—For parties to manufacture gas mantles.

Inquiry No. 1899.—For parties to spin a certain material into thread for making mantles.

Inquiry No. 1900.—For a hydraulic press with accumulator and pump combined.

Inquiry No. 1901.—For manufacturers of motor bicycles for road riding.

Inquiry No. 1902.—For manufacturers of merry-go-rounds.

Inquiry No. 1903.—For manufacturers of magical apparatus.

Inquiry No. 1904.—For manufacturers of crude oil burners for steam boilers.

Inquiry No. 1905.—For freight automobiles to carry about 2,000 pounds.

Inquiry No. 1906.—For manufacturers of fulling machines and textile machinery.

Inquiry No. 1907.—For manufacturers of the Regal motor gasoline engine.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending

January 7, 1902,

AND EACH BEARING THAT DATE.

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

Accounts, system of keeping, E. R. Edwards 690,708
Acetone, making, J. L. Hawliczek 690,724
Air conducting tube, F. Line 690,744
Auricular instruments, transmitting and receiving tube for, A. G. House 690,430
Autographic register, T. F. Schirmer 690,465
Automatic brake, M. A. Beck 690,552
Awning, C. H. Hansen 690,650
Axle shaping machine, G. A. Ensign 690,709
Bag. See Laundry bag.
Bag machine, G. R. Ward 690,491
Bag or satchel lighting device, W. W. McCormick 690,753
Ballast conveyer and leveler, G. F. Spurlin. 690,788
Battery end cell switch indicator, A. C. Walther 690,800
Battery plate, secondary, B. Kuettner 690,589
Bearing, electric motor shaft, S. H. Short. 690,467
Bearing, roller, F. W. Thomas 690,484
Bearing, roller, F. Whitney 690,626
Bed and invalid chair, combined spring, J. H. T. Edwards 690,844
Belt, J. Loeffelholz 690,863
Bicycle, H. Jarvis 690,733
Bicycle seat, H. Jarvis 690,734
Bicycle support, V. M. Gabrielle 690,718
Billiard cue bridge, S. Ruhland 690,617
Billiard cue tip, F. L. Robinson 690,613
Binder, H. H. Hoffmann 690,859
Binding or edge protector and making same, skirt, A. S. Kronold 690,442
Bismuth oxyiodid methylene digallate and making same, S. L. Summers 690,672
Bismuth oxyiodids, making methylene digallate of, S. L. Summers 690,673
Blacking or coloring boots or shoes, device for, F. Gibberd 690,850
Block or tile for partitions, wall &c., W. A. C. Waller 690,811
Boat, life, A. Anrep 690,685
Boat, life, R. D. Mayo 690,909
Boiler, C. J. Cronin 690,701
Boiler setting, G. L. Norrman 690,870
Boiler tube cleaner, M. Snyder 690,474
Bottle filling and capping machine, T. L. Valerius 690,488
Bottle, non-refillable, O. E. Blaine 690,631
Bottle top, tooth powder, H. B. Kent 690,737
Bottle washing machine, W. B. Cobb 690,563
Boxing machine, F. W. Wild, Jr 690,805
Bracelet, elastic chain, J. Kun 690,590
Brake, T. G. Blatch 690,692
Brake beam, J. H. Baker..690,547, 690,548, 690,824 to 690,826
Brake block for vehicles, adjustable, N. Liston 690,745
Branding animals or packages, apparatus for, Renner & Boyens 690,771
Bread or cake box, J. Powers 690,874
Brick making machinery, H. Hanni 690,857
Brooder, J. M. Sontag 690,885
Broom, W. H. O'Keefe 690,871
Broom, etc., hanger, J. F. Whitehead 690,803
Broom head, J. H. Webb 690,495
Broom head, H. W. Judevine 690,736
Buffing machine, M. H. Ballard 690,548
Buggy top, folding, J. A. Wilson 690,543
Bung, R. Spahn 690,786
Bunsen burner, C. W. Taylor 690,792
Burner. See Bunsen burner.
Button or stud, attaching, C. H. Schopbach. 690,666
Calendar, F. C. W. Stelter 690,670
Calipering device, sheet, T. C. Dexter 690,703
Call apparatus, electric, C. Shore 690,623
Camera panoramic attachment, H. L. Fisher 690,570
Can filling device, F. Strattner 690,790
Can heading machine, automatic, A. W. Livingston 690,593
Can opener, G. W. Gomber 690,418
Candelabrum, J. G. Theobald 690,538
Cane, S. A. M. Khan 690,655
Car brake, S. H. Pocock 690,769
Car checking device, A. M. Acklin 690,814
Car coupling, L. N. Singin 690,470
Car coupling, J. M. Clark 690,560
Car coupling draw bar draft rigging, J. M. Waugh 690,683
Car draft rigging, railway, J. M. Waugh 690,684
Car, dump, Williamson & Pries 690,501
Car, dumping, J. C. & R. A. Sturgeon 690,625
Car emptying mechanism, J. M. Riddle 690,877
Car fender, J. H. Surtin 690,674
Car, metal freight, L. T. Canfield 690,559
Carbonometer, E. S. Downs 690,409
Carbureter, Lane & Davenport 690,444
Carbureting apparatus, air, P. R. van der Made 690,681
Cards, machine for lacing jacquard, V. Royle 690,615
Cash register, Smith & Giles 690,472
Cash register, F. H. Bickford 690,554
Cash register, J. P. Cleal 690,561, 690,562
Ceiling, J. Freckmann 690,646
Cement, strengthened cast, J. Daime 690,840
Chain, halter, S. M. Wells, Jr 690,801
Chatelaine holder, T. H. Fishel 690,569
Chimney thimble, C. F. Schroth 690,778
Cigarette machine, C. R. Spencer 690,887
Cinematographic apparatus, F. Alberini et al 690,815
Clasp, N. Crane 690,904
Clothes line reel, P. Krex 690,588
Clothes line tightener and adjuster, Blevins & Taylor 690,890
Clutch, automatic, G. S. & J. J. Huff 690,583
Clutch, traction engine friction, P. Swenson 690,536
Cock for water heaters, combined gas and water, W. B. Folger 690,413
Coffee hulling machine, A. H. Hopkins 690,429
Coin controlled apparatus, fraud preventing device for, O. F. Sorg 690,476
Coin holder, J. Williams 690,806
Coin weighing and counting machine, C. W. Reeves 690,876
Coke oven, R. D. Martin 690,748
Collar, horse, H. J. Breeze 690,632
Commode, J. B. Frost 690,415
Combination wrench, C. J. Barnes 690,688
Commutator brush, C. G. Curtis 690,516
Compound engine, telescopic, W. Schneider 690,620
Condenser and water heater, tubular, C. P. Horton 690,729
Conveyer, A. J. Frith 690,518
Cooking utensil, E. S. Oliver 690,760
Cooling and ventilating apparatus, J. & W. Titus 690,485
Cop tube carrier, S. W. Wardwell 690,493
Corset, apparel, C. H. Schopbach 690,665
Corset, extensible, F. C. Smith 690,898
Corset shaping machine, S. Koos 690,740
Cotton cleaner, J. T., W. R. & G. B. Rodgers 690,614
Counter, H. R. Heal 690,424
Cover retaining device for pots and kettles, C. D. Brown 690,828
Crane for handling lumber, etc., H. Brooke 690,513
Crate for bananas, shipping, T. J. Lowther 690,657
Crushing mill, T. L. & T. J. Sturtevant 690,534
Cultivator, P. J. Nelson 690,758
Currycomb, S. B. Felty 690,712
Curtain fixture, M. Jolliffe 690,437
Curtain fixture, O. L. Schanbacher 690,881
Cutter. See Vegetable cutter.
Cutting apparatus, G. H. Peterson 690,767
Cutting mechanism, F. Herb 690,521
Cycle driving mechanism, J. W. Edblad 690,411
Cycle, motor, H. H. Peirce 690,602
Damper mechanism, time, S. S. Colt 690,637
Despatch tube, F. R. Taisey 690,675
Detergent and making same, Pease & McDonnell 690,458
Disinfecting compound, W. Martin 690,867
Disinfecting sewer vaults, apparatus for, W. Martin 690,866
Display box and support for neckties, J. H. Louder 690,864
Distilling apparatus, J. J. Roake 690,611
Distributing tank, K. G. Barkhausen 690,390
Ditch roller, S. D. McGuire 690,893
Door check, F. J. Miller 690,600
Door stop, W. V. Bleha 690,555
Drawing machine, railway head or other similar fiber, A. W. Mathewson 690,596
Dress shield, M. B. Gault 690,719
Drier, Trammell & McDuffie 690,796
Drill braces, attaching device for, J. F. Steckenreiter 690,669
Drill socket, O. A. Parpart 690,764
Drinking fountain for fowls, W. H. Busch. 690,831
Dust collector tubes, support for, O. E. McMeans 690,455
Educational appliance, L. C. Levy 690,446
Educational appliance, W. A. Proctor 690,664
Electric machine regulator, dynamo, C. M. Green 690,420
Electric meter, G. H. Meeker 690,450
Electric motors or other electrical translating devices, controlling, G. T. Woods 690,807, 690,808
Electric motors or other electrical translating devices, apparatus for controlling, G. T. Woods 690,809, 690,810
Electric switches, independent operating means for, J. H. Spangler 690,787
Electric switch, E. R. Storm 690,479
Electric time switch, W. J. Carter 690,833
Elevator door, J. Mathews 690,749
Embossing and printing machine, P. V. Avril 690,822
Embossing machine, F. J. Albrecht 690,816
Engine, J. C. Bleyney 690,511
Engine boiler, G. E. Hesse 690,426
Engine shaft, J. L. Clayland 690,835
Engine speed regulator, explosive, A. L. Kull 690,443
Engines, draft generator for threshing machine, V. Stoltz 690,789
Envelop, return, T. C. West 690,500
Expansion joint, R. E. Vail 690,797
Explosive engine, F. D. Sweet 690,481
Extension table, J. Cornell 690,401
Feed roll, E. Ording 690,456
Feeder, automatic boiler, F. Leadbeater 690,445
Feeder or elevator, automatic, H. L. McCoy 690,891
Feeding machine, F. L. Cross 690,702
Fence, wire, C. T. Brown 690,514
Fiber from stalks, machine for separating, S. B. Allison 690,817
File, L. C. McNeal 690,869
Filter, C. S. Parker 690,457
Filter, E. M. Knight 690,524
Filter strainer, W. Wagner 690,541
Filter, water, W. Wagner 690,540
Firearm, automatic, Kjellman & Andersson. 690,739
Fire extinguisher, J. H. Brittoon 690,556
Fire extinguisher, C. F. Brigham 690,633
Fireproof window, L. D. Biersach 690,392
Fireproof window, self-closing, F. D. Swaney 690,535
Fish trap, A. E. Zangenberg 690,507
Flash light lamp, photographic, J. L. Zweck 690,508
Floor and ceiling construction, J. Schratwieser 690,621
Floor construction, J. W. Rapp 690,609
Fly trap, Drake & Semple 690,566
Folding box, J. J. McCormick 690,454
Folding box, Z. B. Webb 690,496 to 690,498
Follower, hinged split, C. A. Batchelder 690,689
Foot warmer, J. T. Cole 690,836
Fountain. See Drinking fountain.
Fountain, F. W. Darlington 690,405
Fruit drier, W. A. Cates 690,834
Fruit or flower picker, T. Drynan 690,567
Fuel, manufacture of artificial, E. Springborn 690,888
Funnel attachment, W. A. Hesse 690,576
Furnace for burning bituminous coal, E. M. Hugentobler 690,431, 690,432
Gage, P. C. Smith 690,530
Galvanic battery, W. Erny 690,710
Galvanic battery or pile, Reed & Morrill 690,770
Game ball, W. H. Hoyt 690,861
Game device, E. Lasker 690,656
Garment supporter, E. W. Carter 690,635
Gas burner, W. J. Smart 690,471
Gas burner pressure regulator, automatic, C. A. Haas 690,573
Gas burners, mantle holder for incandescent, F. Quatram 690,606
Gas generator, acetylene, J. J. Hendler 690,425
Gas generator, acetylene, J. H. Ross 690,773
Gases, apparatus for cooling and cleaning blast furnace, B. H. Thwaite 690,795
Gasolene burner, W. C. Rand 690,608
Gate, W. R. Snyder 690,667
Gearing, frictional, G. Silvestri 690,884
Glass, etc., decorating, H. L. von Bonhorst 690,889
Glazing bar, D. J. Jarvis et al 690,732
Globe holder, G. Gray 690,419
Gluing machine, Fassett & Whittier 690,847
Gold separating machine, B. W. Sweet 690,791
Grading and ditching machine, W. H. Morenus 690,451
Grafting implement, D. A. Manuel 690,865
Grain binder, H. B. Sperry 690,477
Grain binding machine, M. Kane 690,439
Grain, drying, V. Lapp 690,592
Grass uprooter, D. N. Phillips 690,461
Grinding machine, drill, C. A. Chandler 690,398
Gun, automatic, A. Vickers 690,799
Gun cleaner, A. W. Bishop 690,393
Gun ejector, breakdown, E. H. Elder 690,568
Guncotton press, A. Hollings 690,728
Handle, Seybold & Mountford 690,622
Handle bar for cycles, etc., F. Sadler 690,464
Harness safety attachment, M. A. Dunn 690,642
Harrow tooth, A. H. Schaffer 690,776
Harvester, corn, V. Degenhard 690,841
Harvesting implement, celery, J. G. Smith. 690,899
Hay elevator, J. Ney 690,660
Heating apparatus, J. A. Dezell 690,704
Heel cushion, shoe, L. Schwarz 690,779
Hexamethylentetramin and quinic acid and making same, salt of, Wichmann & Gabler 690,804
Hinge, J. G. Smith 690,782
Hitching or unhitching device, horse, S. McIntyre 690,892
Hoist, D. E. Rowland 690,774
Hoof pad, A. C. Tappe 690,482
Hook and eye, A. K. Phillips 690,528
Hook and eye, safety, T. Pedersen 690,765
Hopper for refining engines, C. Wurster 690,504
Hose member, W. C. Anderson 690,819
Hose terminal, H. E. McKechney 690,754
Hot water heater, F. Robbin 690,612
Hubs, machine for forming spoke holes in, E. Einfeldt 690,906
Hydraulic motor for pump and reversing valve therefor, W. O. Worth 690,813
Hydrocarbon engine, A. D. Richardson 690,610
Hydrogen sulfid, making, H. H. Wing 690,502
Ice cream freezer, J. A. Snigo 690,532
Ice pick, W. G. Browne 690,829
Ignition arch, J. P. Sneddon 690,473
Igniting plug, Davis & Mellen 690,640
Illuminating and heating burner, combination, V. K. Coffil 690,700
Incandescent lighting device, Hooker & Birchmore 690,578
Ink, copying, E. P. Lawton 690,862
Inkstand, L. I. Perry 690,766
Ink well, Dyer & Colhoun 690,643
Ink well, G. Doherty 690,843
Journal box and bearing, F. W. Thomas 690,483
Key holder, F. E. Brown 690,396
Key lock, changeable combination, W. H. Taylor 690,537
Knitting machine tension device, G. W. Ruth 690,775
Ladder, extension, P. Pirsch 690,462
Lamp glowers, making electric, M. W. Hanks 690,856
Lamp socket, J. C. Tourmier 690,487
Lath for plastering foundations, J. John 690,435
Lathe attachment for relieving the teeth of cutters, F. W. Parker 690,763
Laundry bag, G. H. Grant 690,854
Lawn sprinkler, H. Papenfus 690,762
Lead from lead ores, obtaining metallic, A. Germot 690,520
Leaf turner, W. J. Brashears 690,395
Leather stretching device, J. Caldwell 690,397
Linotype machine, P. T. Dodge 690,707
Liquid separator, centrifugal, P. M. Sharpless 690,883
Lock. See Key lock.
Locomotive ash pan, H. L. Browder 690,827
Locomotive springs, spring hanger for underhung, H. A. Gillis 690,851
Loom shedding mechanism, J. W. Platt 690,873
Loom shedding motion, W. C. Asimos 690,388
Loom warp stop motion, Coldwell & Gildard 690,636
Looms, electromechanical controlling mechanism for, J. C. Edwards 690,644
Luggage rack, H. Clark 690,699
Magnesium sulfite, making, H. H. Wing 690,503
Magneto-electric machine, Simms & Bosch. 690,469
Mail marking machine, E. Cheshire, 690,695 to 690,697
Mat, A. Baumgarten 690,551
Match making machine, J. Dela Mar 690,905
Meat tenderer, R. Stone 690,533
Memorandum clip board, R. B. Dickey 690,842
Merchandise, system for distributing, R. O. Wickes 690,627
Metal and the manufacture thereof, covered strip of soft, I. W. Heysinger 690,427
Metal bars, rosette for forming crossed joints for, M. Mendel 690,598
Mixing machine, T. L. Smith 690,783
Molding machine, continuous, B. Fletcher. 690,716
Mowing machines, means for adjusting finger bars of, W. D. Myers 690,452
Music cabinet, sheet, O. H. Stewart 690,478
Musical instrument, stringed, F. A. Porter. 690,463
Nasal distender, W. Moores 690,527
Newspaper holder, J. Conzett 690,837
Noria, D. Hutton 690,584
Nut lock, P. S. Eklund 690,846
Nut lock, L. T. Stephenson 690,900
Nut lock, D. T. Wallace 690,902
Oil engine, internal combustion, H. F. Wallmann 690,542
Oils, apparatus for the vaporization, combustion, and utilization of hydrocarbon, T. Tomlinson 690,486
Organ, L. D. Hickman 690,726
Pail burner attachment, dinner, S. H. Cartrell 690,519
Paper box, folding, M. Herre 690,575
Paper, centrifugal sizing wood pulp or similar materiasl for the manufacture of, H. Schiller 690,777
Paper corrugating apparatus, J. T. Ferris 690,713
Paper drying machine, W. M. Barber 690,629
Paper making machine, C. H. Atkins 690,686
Paper marker, P. Grabler 690,853
Paper, paper pulp, and paper stock, machine for tearing up, C. Wurster 690,505
Phonograph or graphophone horn, J. W. Henderson 690,858
Photographs, pictures, etc., stand or frame for, W. Guttenberg 690,572
Piano action, L. N. Soper 690,784
Piano player, automatic, J. Sampere 690,618
Pile fabric, woven, A. F. McCollum 690,912
Pipe coupling, A. E. Dart 690,517
Piston lubricator, steam engine, J. C. Bleyney 690,510
Plaiting machine, E. W. Silsby 690,781
Pleasure device, W. R. Inshaw 690,434
Plow, W. R. Oyelr 690,761
Pneumatic despatch tube carrier, A. W. Pearsall 690,894
Poke, animal, B. F. Proffitt 690,875
Power transmission device, W. L. Judson. 690,585
Power transmission mechanism, variable speed, W. L. Judson 690,586
Power transmission device, I. H. Davis 690,641
Powder cans, detachable spout for, L. J. Grove 690,571
Press. See Guncotton press.
Pressure regulator, automatic, A. S. Comstock 690,515
Printing carpets, mats, etc., apparatus for, A. F. Lundeberg 690,746
Printing films, adjustable holder for, J. A. Sauter 690,619
Printing machines, sheet delivery mechanism for, C. P. Cottrell 690,638
Printing press rolls, means for inking, J. H. Schussler 690,895
Propulsion, marine, J. J. Astor 690,821
Pulley, expansion, S. W. Wardwell 690,494
Pulping machine, C. Wurster 690,506
Pumping engine, steam, C. C. Worthington 690,545
Quinin salicylic ether, F. Hofman, reissue 11,960
Quoin lock, G. F. Peck 690,911
Rail joint, Hickman & Borrow 690,428
Rail tie and fastener, steel, J. S. McAwley. 690,751
Railway cradle, marine, J. L. Crandall 690,402
Railway, electric, F. M. Ashley 690,386, 690,387
Railway, electric, G. Davis 690,406
Railway rail joint, F. Bain 690,823
Railway, single track, H. H. Teunis 690,539
Railway switch, E. B. Green 690,421
Railway system, electric, H. P. Wellman 690,499
Railway T-rails, grooved rail appliance for street, H. C. Phelps 690,603
Railway tie, J. P. Bickerstaff 690,691
Railway tie, steel, I. Dinger 690,705
Railway track and car truck, G. Meader 690,597
Railway track jack, Hale & Bartlett 690,423
Railway vehicle life guard, G. Kirby 690,738
Range boiler, A. C. Badger 690,628
Ratchet wrench, W. T. Garrett 690,647
Razor, safety, A. L. Silberstein 690,780
Register top plate, D. G. Clark 690,698
Rendering tank, W. C. Marshall 690,525
Request and mailing sheet, combined, D. L. Taylor 690,793
Rheostat for electric motors, starting, F. Mackintosh 690,448
Riveting machine, W. S. McKinney 690,755
Roasting pan, J. Herbs 690,574
Rock drill, A. C. Bates 690,630
Rock drill, A. M. Ballou 690,687
Rolls, cakes, etc., machine for making, M. Korth 690,741
Roofing material, F. S. Miller 690,526
Rotary engine, H. W. Van Auken 690,798
Sack holder, P. W. Erickson 690,412
Sash fastener, J. A. Kemp 690,440
Saw, L. R. Sosna 690,785
Saw, double cutting band, E. E. Thomas 690,678
Saw jointer and gage, combined, D. W. Solomon 690,668
Sawmils, haul up chain unloader for, E. E. Thomas 690,677
Sawmills, reciprocating lumber mover for, E. E. Thomas 690,679
Scale, C. G. Strubler 690,480
Scoop, H. H. Hodell 690,522
Screen frame, adjustable metallic, M. Messer 690,599
Seal, shackle, A. B. Schofield 690,466
Selector, K. Himrod et al 690,577
Sewing machine feeding mechanism, G. M. Todd 690,680
Sewing machine for felling, W. Arbetter 690,385
Sewing machine loop taker mechanism, W. Grothe 690,722
Sewing machine shuttle, V. Royle 690,616
Sewing machine stripper plate, R. G. Woodward 690,812
Sewing machine tucking guide, R. C. Johnson 690,735
Sewing machines, finger tip attachment for glove, L. A. Van Praag 690,682
Shade, W. A. Haywood 690,725
Shade roller bracket support, J. Renner 690,529
Show tray, T. S. Coffin 690,399
Sifting pulverized ores, etc., apparatus for, Jamieson & Odling 690,731
Sign, electrically illuminated, J. H. Goehst. 690,649
Sign, street lamp, O. I. Terrell 690,901
Sink garbage holding attachment, C. E. Cox 690,838
Skate, O. W. Everett 690,711

(Continued on page 46)