

RECENTLY PATENTED INVENTIONS.
Electrical Devices.

PROCESS FOR ELECTRICALLY WELDING RAIL-JOINTS.—C. PAHDE, Hohenzollernstrasse 63-65 Breslau, Germany. This is a process for welding rail-joints after the rails are placed in position upon the track, the object being to render the rails practically integral. A molding form is placed around the adjacent or abutting ends, an electric current is passed through the junction between the rails so as to partially melt these ends, and large bits of metal are gradually fed in between the ends, so as to fill up flush with the top, thus perfectly uniting the rails.

Of Interest to Farmers.

BALE-TIE.—D. WITT, Trenton, Ill. This bale-tie is intended for use in securing bales pressed in baling-presses and for other use. The invention provides at one end of the main wire a hook-like projection and a keeper-section twisted in connection, so that the section overlies the hook and the loop of the section may receive the hook in the fastened position of the parts, the end extension of the section beyond the loop passing through the eye on the other end of the tie and bearing below such eye while the eye is engaged with the projection, whose free end is within the loop of the keeper. The end extension of the keeper-section is made in form of an eye for convenient manipulation of the device and when disposed in a certain position locks the loop on the hook or projection.

CORN HARVESTER AND HUSKER.—P. FLEMING, Burton View, Ill. The aim of this invention is to provide a machine which is adapted to enter a corn-field and to harvest or cut off the stalks of corn and at the same time strip the ears from the stalks, take the husk off the ear, and to save any shattered grains of corn which may be shelled off, all of the operations to be continuously performed by the draft of the team in drawing the machine across the field.

Of General Interest.

PROCESS OF MAKING PAINT-PIGMENTS.—J. A. TITZEL, Sr., Newcastle, Pa. In this instance the invention relates to a process for producing a pigment or basis for making paints and preservative coatings admitting of general use, but specially applicable to surfaces of iron and steel, so as to preserve the same and especially to prevent the rusting thereof.

NAIL-CLAW.—L. JOLISSAINT, Terre-Blanche-Hérimoncourt, Doubs, France. This tool is to be used for the quick withdrawal of nails or tacks. Two nippers are presented to the nail head and slight pressure is exerted upon the wood, while the arms are brought nearer to each other, so as to cause the nippers to pass under the head. Then the tool is tilted to find a fulcrum on the wood by means of its heel portion, and in this way the nail can be very easily removed. Spacing of arms can be previously regulated by means of guides, according to diameter of head of the nails which are to be removed. Should nails be headless, the pressing of nippers against the bodies of the nails would be sufficient to allow of withdrawing these nails.

PORCELAIN TOOTH-FACING.—L. L. POSTON, Council Bluffs, Iowa. This improved dental attachment comprises a porcelain tooth having its back constructed in right-angular form, the vertical portion having a dovetail groove which extends down below the horizontal or shelf portion and terminates in a socket, and a right-angular plate having a rod secured to and extending below it, the plate and rod being fitted to the tooth proper and the rod being held in the groove and extending below the shelf into the pocket.

FLASH-BOARD FOR DAMS.—J. E. JENKINS, Vernon, N. Y. One purpose of the inventor is to provide an automatic board which will have a damming effect on the flow of water in all cases in which the surface of the water is below a certain maximum elevation, the board being of cylindrical construction and mounted to freely roll upon curved tracks engaging the board at its ends, and, if necessary, at points between its ends, which tracks have a maximum curvature at their upstream ends gradually increased in radius to a point near their outer or downstream ends, which latter parts are substantially straight and nearly horizontal.

BOOKCASE.—H. E. HUBBELL, Johnson, Vt. There is provision in this improvement for a series of shelves which may be raised to any desired height on a central post by means of pawl and ratchet mechanism. The shelves are circular and are mounted so that they can turn about the post to bring any desired book before the operator. The shelves are supported on ball-bearings to give perfect freedom of movement. The case is also adapted for holding merchandise or the like.

VAULT-MOLD.—T. F. GAEBLER, Rockville, Ind. Mr. Gaebler's invention has reference to a mold for manufacturing burial-vaults from plastic materials. The principal objects of his invention are the provision of means whereby burial-vaults can be made rapidly and economically and at the same time improve the structure and appearance of the vaults themselves.

DIE-STOCK.—J. J. DELEHANT, Chicago, Ill. In this instance the invention refers to

improvements in stocks for thread-cutting dies, an object being to provide a die-stock with a simple means for quickly adjusting it to different sizes of pipes or rods on which a thread is to be cut and serving as a guide to cause a perfectly straight cut of the thread.

RETORT.—G. KETCHUM, Cutler, Ga. The retort comprises an outer and an inner casing, the former provided with upright guides on which the latter may slide when the lid of the outer casing is removed. The main steam inlet of the outer casing is surrounded with a step bearing which receives a nozzle on the inner shell making a steam-tight connection. A perforated steam distributing cone is fastened over the inlet of the inner shell.

MACHINE-GUN.—J. BOEGER, Dresden, Kan. This gun is adapted to be used with any form of cartridge. The effect of the discharge is very destructive. It is to be used on fortifications to oppose the storming of an enemy. It may also be used in trenches and on battle-ships. By having three or more cartridge-holders the loading and firing may be carried on so rapidly as to make the weapon one of great destructive power. None of the barrels are parallel; but all diverge, and the tiers of barrels are so divided and ranged as to perfectly cover a field five or six hundred feet wide at a range of fifteen hundred to two thousand yards, the shots placed at this distance two to two and one-half feet apart.

Household Utilities.

WASHTUB.—A. THOUROT, Union Hill, N. J. This non-leakable washtub is in single formation and provided with one or more compartments and constructed to be conveniently and expeditiously connected by bolts and nuts or their equivalents, the sections being so shaped as to receive and hold an outer covering of cement or other plastic material, which effectually conceals all connecting mediums and completely closes all interstices or joints. It can be transported in sections and readily set up.

Machines and Mechanical Devices.

WHEEL-STRAIGHTENING MACHINE.—J. S. MAYSE, Brady, Texas. The improvement relates to means for straightening light or heavy wagon-wheels when the spokes become loosened and the wheel is excessively dishd, and the object is to provide details of construction which enable the quick and convenient straightening in a perfect manner, for the removal of an excess of dish or concavity from either side of the wheel, and the straightening of vehicle-wheels having either wooden or flanged metal hubs and either metal or wooden spokes, and facilitate the removal and resetting of the tire on the rim of a wheel that has been straightened on the improved machine.

Railways and Their Accessories.

RAILWAY-SWITCH.—C. E. KLING, Harrisburg, Pa. The purpose of this invention is to provide a construction of switch in which the main line is always open and wherein when it is desired to pass to a siding the switch can be set from the engine-cab and locked in such position until the entire train has passed upon the siding, whereupon the switch will be automatically returned to its position for the main line, the operation being the same when a train is to pass from a siding to the main line, with the exception that the operation at such time is entirely automatic.

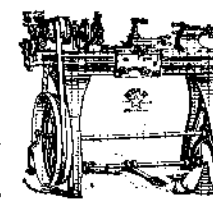
Pertaining to Vehicles.

ROLLER-BEARING.—R. F. BOWER, Lima, Ohio. In this case the invention is an improvement in anti-friction-bearings. The invention may be employed in vehicles, automobiles, machinery, roller journal-bearings, line and propeller shafting or otherwise wherever desirable. An alternating arrangement of the rollers operates to space the cylindrical portions of the rollers apart and reduces the friction in the use of the improvement. The ball is an integral rigid part of the roller.

UNICYCLE.—J. MATTSO, Anaconda, Mont. Mr. Mattson provides a vehicle to which ready access may be had from either side. The steering devices are used only when the lateral wheels are upon the ground. The parts are so distributed relatively to each other as to effect a thorough balancing thereof, thus tending to equilibrium thereof in operation. By operating either one of the particular hand-levers the operator may readily control any part of the machine. It may be driven by either mechanical or electrical power.

BRICK-TRUCK.—C. M. STEELE, Statesville, N. C. Provision is made in this patent for a novel construction of truck including interchangeable frames, one for handling portable hacks and the other for handling pallets in racks. In operation the handle-levers operate upon the rocking arms in such manner as to lift an adjustable-frame and a lifting-frame in the operation of the handle-levers. Bracerods are so connected that the handle-lever has to draw the lifting-frame back far enough to balance the load in lifting the arms of the main frame.


MOTOR-STARTER.—C. E. ASBURY, Jeffersonville, Ind. The invention refers particularly to improvements in devices for starting combustion-motors on automobiles or similar vehicles. The main object of the invention is to provide in connection with the spring-actuated



"Star" Lathe
Foot and Power Screw Cutting
Automatic Cross Feed
FOR FINE, ACCURATE WORK
Send for Catalogue B.
SENECA FALLS MFG. CO.
695 Water Street,
Seneca Falls, N. Y., U. S. A.

ENGINE & FOOT LATHES
MACHINE SHOP OUTFITS
TOOLS SUPPLIES
SEBASTIAN LATHE CO.

Foot and Power and Turret Lathes, Planers, Shapers, and Drill Presses.
SHEPARD LATHE CO., 133 W. 24 St., Cincinnati, O.



THE CLIPPER CLIP
Its triangular shape prevents entangling and gives three times the capacity of any other clip for attaching papers together.
Best & Cheapest. All Stationers.
CLIPPER MFG. CO.,
401 West 124th St., New York, U.S.A.
For free samples and information write to us.

GIANT STEAM SHOVELS
Toledo 125 Ohio, U.S.A. The Vulcan Iron Works Co. Vulcan Place



LUFKIN TAPES AND RULES
ARE THE BEST.
For sale everywhere. Send for Catalog No. 16.
LUFKIN RULE CO.
Saginaw, Mich., U. S. A.
New York and London.


ORIGINAL BARNES Upright Drills
Positive Feed
10 to 50-inch Swing
Send for Drill Catalogue.
W. F. & JNO. BARNES CO.
(Established 1872)
1999 Ruby St., Rockford, Ill.

The Genuine Armstrong's STOCKS and DIES
Acknowledged to be the best. Different sizes and capacities. Write for catalog.
THE ARMSTRONG MFG. CO., Bridgeport, Conn.
New York Office, 139 Centre Street

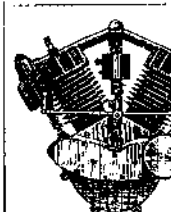
American Jump Spark Ignition Apparatus
UPON IT DEPENDS THE SUCCESS OF YOUR ENGINE
We manufacture the famous Am. Indestructible Spark Plug, with double insulated mica core. It lasts indefinitely. Our Coils are the recognized standard of the world. Write for catalog.
American Coil Co., P. O. Box 89, W. Somerville, Mass.
N. Y. Representatives, Auto Supply Co., 1662 Broadway, N. Y. City.



THE SUPPLEMENTARY SPIRAL SPRING
Absorbs all vibration. No jolts or rebounds. Acts alike under light and heavy loads. Stands the test, adds comfort and new delight to motoring. Saves engine, tires and springs. Will please you as hundreds of others. State make and model of your car.
SUPPLEMENTARY SPIRAL SPRING CO.
4529 Delmar Ave., St. Louis, Mo.



Hydro-Carbon Motors
Headless Self-Contained
It is a easily controlled as a steam engine. Variable sparker. The only perfect moderate priced launch engine on the market. Let us convince you. Write to-day.
Grant-Ferris Co., Troy, N. Y.



THE CURTIS DOUBLE CYLINDER MOTOR
5 h. p. 60 lbs. Roller Bearings.
Capt. Baldwin's famous airship, the California Arrow, is propelled by this motor. Also our motorcycle, which holds the world's record of 10 miles in 8 min. 54 2-5 sec.
Catalog Free.
H. H. CURTIS MFG. CO.
Hammondport, N. Y.



THE WONDER DYNAMO-MOTOR
Most Complete Little Machine Made
Lights lamps, runs meters, decompresses water, etc. Output twelve watts, wound for any voltage up to ten. Has laminated armature, making the most efficient little motor of its kind on the market. Will run on 110 volt circuit. Weight, 4 lbs. Height, 5 inches. Send stamp for catalogue. Agents wanted everywhere.
THE R. M. CORNWELL CO.
406 South Salina Street, SYRACUSE, N. Y., U. S. A.



BARKER MOTORS
Have more good points, fewer parts and require less attention in operation than any other.
Launches, Valves, Specialties.
C. L. Barker, Norwalk, Ct.

starting device a simple means for disposing working parts of the device so as to prevent the danger of "kicking-back."

Designs.
DESIGN FOR A PERCOLATOR-HANDLE.—H. NUTRIZIO, New York, N. Y. The handle is unique and well adapted for the purpose intended; it is readily accessible when applied to a percolator, enabling the latter to be conveniently manipulated and offers no obstruction to the cover for the pot, and does not detract from the appearance of the vessel.

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. 7312.**—Wanted, a second-hand gasoline engine.
- "U. S." Metal Polish. Indianapolis. Samples free.
- Inquiry No. 7313.**—For makers of glass novelties, such as hour glasses and egg turners.
- Drying Machinery and Presses. Biles, Louisville, Ky.
- Inquiry No. 7314.**—For dealers in initiatory outfits for lodge work.
- Handle & Spoke Mch. Ober Mfg. Co., 10 Bell St., Chagrin Falls, O.
- Inquiry No. 7315.**—Wanted, name of mill rolling very light steel belting 8 inches to 32 inches wide, and flexible enough to work over pulleys 5 inches diameter.
- Adding, multiplying and dividing machine, all in one. Felt & Tarrant Mfg. Co., Chicago.
- Inquiry No. 7316.**—For parties to make thin and concave razor blades.
- Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.
- Inquiry No. 7317.**—Wanted, a company to install a gas plant for light and fuel purposes, in town of about 1500 population, compactly built up, the entire corporation being only one mile square.
- I sell patents. To buy or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.
- Inquiry No. 7318.**—For manufacturers of non-conducting cement for use in electric heater work to hold resistance wires in place.
- WANTED.—Patented specialties of merit, to manufacture and market. Power Specialty Co., Detroit, Mich.
- Inquiry No. 7319.**—For makers of school rulers.
- The celebrated "Hornby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Machine Company, Foot of East 138th Street, New York.
- Inquiry No. 7320.**—For makers of gas, gasoline and storage battery motor of 1/4 or 1/2 h. p.
- WANTED.—Ideas regarding patentable device for water well paste or mucilage bottle. Address Adhesive, P. O. Box 773, New York.
- Inquiry No. 7321.**—Wanted, the name and address of the makers of the "Aeriola" piano player.
- Mechanical devices of brass, aluminum, and kindred metals manufactured for inventors and patentees, and marketed on royalty, when desired. Imperial Brass Mfg. Co., 241 So. Jefferson St., Chicago, Ill.
- Inquiry No. 7322.**—Wanted, makers of channel iron 1 1/4 x 1 1/4 x 1/8 inches.
- Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, wood fiber machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.
- Inquiry No. 7323.**—For makers of bicycle railroad attachments, also small iron hand cars for one man's use.
- Absolute privacy for inventors and experimenting. A well-equipped private laboratory can be rented on moderate terms from the Electrical Testing Laboratories, 548 East 80th St., New York. Write to-day.
- Inquiry No. 7324.**—Wanted, machinery for making old carpets into rugs.
- Manufacturers of all kinds sheet metal goods. Vending, gum and chocolate, matches, cigars and cigarettes, amusement machines, made of pressed steel. Send samples. N. Y. Die and Model Works, 508 Pearl St., N. Y.
- Inquiry No. 7325.**—Wanted, an air pump to give sufficient air to a diver in from 5 to 20 feet of water.
- FOR SALE.—Complete sets of patterns for manufacturing Strowbridge Seeders, Fanning Mills, Hand Corn Shellers. Write Hawkeye Incubator Co., Newton, Ia.
- Inquiry No. 7326.**—Wanted, parties building wire tapering machines, or to taper wire blanks in quantities, size wanted 1/8 inches long, tapering from 1-16 inch to 1-64 inch diameter.
- Inquiry No. 7327.**—Wanted, address of agents or makers of "Cantabem" pins.
- Inquiry No. 7328.**—For makers of fine composition castings, in quantities, for small gears and other parts of small machinery.
- Inquiry No. 7329.**—For makers of machines or looms for making shoestrings.
- Inquiry No. 7330.**—For makers of celluloid.
- Inquiry No. 7331.**—Wanted, machinery for extracting oil from castor beans.
- Inquiry No. 7332.**—For manufacturers of castings of stationary and marine gas engines.
- Inquiry No. 7333.**—For makers of dog power tread mills.
- Inquiry No. 7334.**—For makers of metal acetylene gas burners.
- Inquiry No. 7335.**—For makers of small 1 h. p. motors.
- Inquiry No. 7336.**—For makers of china kilns for firing hand-painted china.
- Inquiry No. 7337.**—For makers of wireless telegraphic outfits.
- Inquiry No. 7338.**—For manufacturers of feather-stripping machines.
- Inquiry No. 7339.**—For makers of grass goods, such as gasoline needle valves, burners, etc.
- Inquiry No. 7340.**—Wanted, a machine for sealing and attaching postage stamps to about 8,000 envelopes per hour.
- Inquiry No. 7341.**—For makers of clocks for registering the arrival of pigeons at end of race.
- Inquiry No. 7342.**—Wanted, makers of machinery used in the oil industry.
- Inquiry No. 7343.**—For dealers in cloth of jute heavier than the ordinary bagging, and closer than the cloths for pressing tankage.