

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

DYNAMO OR MOTOR.—J. A. TITZEL, Sr., Washington, Pa. In this machine there is a revoluble armature and a fragmentary field, the latter consisting of separate groups of magnets mounted upon sector-like blocks which are detachably secured to a circular frame. The field magnets are arranged to act successively upon separate magnets of the armature, and the blocks carrying field magnets are adjustable relatively to the frame. All magnets, both in field and armature are provided with poles disposed tangentially so as to improve the magnetic field. The machine may be made comparatively light in proportion to power of current.

Of Interest to Farmers.

BINDER ATTACHMENT.—A. WILLIAMS, Joliet, Mont. In this patent the invention is an improvement in self-binding harvesters, being in the nature of a seed-saving attachment by which to collect grain and grass-seed which are ordinarily wasted off the deck of a binder. A box is so arranged as to receive the seeds as they discharge from the table, and the binder-table being inclined downward toward the box to discharge the seeds thereto.

TRACTION-ENGINE.—B. B. STAUFFER, Kansas City, Mo. The invention relates to traction-engines or portable engines, and its object is to provide an improved steering mechanism by means of which the power of the engine may be utilized, if desired, for steering purposes. The improvement can be attached to traction-engines of ordinary construction without necessitating the removal of different parts.

CANE-HARVESTER.—G. D. LUCE, New Orleans, La. The particular object of this invention resides in a novel form of feeding and carrying mechanism. As the machine moves forward the cane will pass between divergent portions of the chain and be carried to the cutters, and then the cut cane will be moved rearward while in upright position and discharged in windrows, and the cane will be carried over the rear end of the frame or lifted above the same as the carrier-chains are inclined upward toward the rear. Improvements are substantially of the character of harvesters shown in former patents granted to Mr. Luce.

HAY-SWEEP ATTACHMENT.—J. R. JUDGE, Anselmo, Neb. The object of this invention is to provide a novel attachment for a hay-gathering sweep which will effect a proper deposit of a load of hay from the sweep onto the stacker and prevent the dislodgment of any portion of the load upon withdrawing the sweep from the stacker, which will expedite the work and lessen the labor entailed in operating a stacker and sweep.

CULTIVATOR.—S. H. COLEMAN, Villisca, Iowa. The cultivator is especially adapted for working corn and garden-truck; and the inventor's purpose is to provide a light, durable, and economic apparatus of such arrangement that the blades or shares may be made to enter more or less deeply into the ground and will cut at each passage all weeds between the rows, pulverizing the ground and hilling up the plants in many respects better than shovel-cultivators. The blades enter the ground readily and work equally as well on rough soddy ground as on soft and will also efficiently work on a hillside. It will not choke or become clogged when cornstalks, trash or clods are in the way.

COTTON-PICKER.—S. L. BOND, Charleston, S. C. In this case the invention pertains to cotton-pickers; and its object is to produce a simple device of its class which is provided with improved means for picking the cotton and delivering it into a receptacle. The device is expected to be pushed along by a plantation hand and can be completely controlled by one person.

Of General Interest.

PLATING APPARATUS.—L. SCHULTE, New York, N. Y. This invention relates to electro-chemistry; and its object is to provide an apparatus for plating all kinds of articles, especially, however, sheet metal, band-iron, wire, and the like, arranged to allow the use of a high current to plate the article in a comparatively short time, to insure uniform plating of the entire surface of the article, and to give a bright appearance to the deposit.

SOAP-DISPENSING APPARATUS.—W. R. SALTZGABER and C. J. CARMICHAEL, Knoxville, Tenn. This improved apparatus is particularly adapted for all public places where the toilet articles are promiscuously used, since it not only effects economy, but will absolutely obviate the danger of infection from the use of soap which has been contaminated by persons previously handling it. In this connection it should be noted that not only can the soap be supplied to the receptacle in an unevaporable and sterile condition and so maintained, but that it is unnecessary for the user to handle any portion of the apparatus at any time.

ANTISEPTIC BOTTLE.—F. SONNENFELD and J. GLASS, New York, N. Y. It is the principal object of the inventors to provide a bottle or receptacle which may be refilled and used an indefinite number of times without the possibility of carrying disease-germs or poisonous chemical compounds when it is submitted

to an ordinary washing process, and which, being transparent, will indicate to the public the fact of containing foreign substances, so as to necessitate thorough cleaning before refilling.

FISH-HOOK.—W. E. KOCH, Whitehall, N. Y. This invention refers particularly to improvements in hooks of the gang type used for trolling, an object being to provide in connection with a main hook a simple means for attaching an auxiliary or gang of hooks thereto, the connection between the parts being such as to cause the bait-minnow, either alive or dead, to float in an upright and natural position.

MINER'S LAMP.—F. KOCH, West Hazleton, Pa. The object of the inventor is to provide in connection with a lamp-spout a wick-raiser arranged to prevent leakage. To project a wick the wick-raiser is moved downward, and then upon an upward movement the inwardly-turned portion of a plate will engage in the wick and cause its upward movement with the plate. During downward movement of the plate the teeth in the upper end of the tube will prevent a downward movement of the wick.

MOLD FOR FORMING CEMENT BUILDING-BLOCKS.—B. ELY and J. I. TAYLOR, Rock Rapids, Iowa. In this case the invention is an improvement in knock-down or separable molds adapted for forming clay or cement building-blocks having cavities or passages, permitting circulation of air. The invention relates particularly to the means for forming longitudinal and transverse air-passages in the molded block and also to the means for forming a thin block adapted for use as a facing or veneering for walls of buildings.

METHOD OF WELDING.—O. EIGEN, 12 Brauerstrasse, Duisburg, Germany. The two extremities of a chain-link, of two bars, rails, or the like to be welded together and which have been heated to welding heat are submitted to the action of two pressure-rolls rotating in same direction in such manner that the extremities to be united are pressed one against the other both in longitudinal direction of bar and also transversely of same. These rolls may act upon the joint either with equal or unequal circumferential velocities. If velocities of rolls are different, parts to be welded together will not only be pressed together, but the work will at same time be advanced between the rolls. Displacement of work may be effected mechanically by any other means.

MAIL-BOX.—J. H. DICKSON, Polk, Pa. The purpose of the invention is to provide a mail-box which will require the use of but one hand to place letters within and to so construct the box that it will be strong, compact and simple and able to stand any reasonable test and wherein also the box will be waterproof and practically burglar-proof.

BUTTON ATTACHMENT FOR GARMENTS.—J. D. BURNS, Washington, D. C. That class of buttons which are provided with means for attaching them to a garment are improved by this invention. Mr. Burns employs for this purpose a wire which is permanently attached to a button and formed with a spiral coil adjacent to the latter, the wire being extended laterally from the coil so to form a piercing-point and lever, which is utilized in applying the button to a garment.

ICE-CREEPER.—E. C. BARTLEY, Mifflintown, Pa. This device is designed to be secured to the heel of an ordinary boot or shoe, or to be worn with rubbers or overshoes. For the purpose intended it is a simple, cheap, and efficient article which can when not in use be folded into a small compass to enable it to be readily carried in the pocket, etc.

SPLASH-GUARD FOR BATHING APPARATUS.—E. J. BISSELL, Bartold, Mo. The purpose of this invention is to provide a convenient and economical guard which may be conveniently attached to an ordinary washtub or to one or two pails. Broadly stated, his invention comprises a guard arranged to be placed on top of one or two vessels, with an opening provided in the bottom of the basin opposite either one or both of the vessels.

SAFETY-RAZOR.—B. KIAM, New Orleans, La. In operation the guard-plate and blade may be readily removed and replaced at will, thus facilitating the thorough cleansing of the razor, and Mr. Kiam is able to secure the blade in place without perforating the said blade and also without perforating the guard-plate which presses against the blade and bends the same to any desired curve in the use of the invention.

DISINFECTING DEVICE.—G. KRUEGER, Johnstown, Pa. The invention refers to devices for the burning of disinfectants, it being particularly useful in connection with the combustion of sulfur to produce sulfurous-acid vapor. Its principal objects are to provide a convenient and effective device for the purpose. The vessel for the combustible is supported with a body of water, thus obviating any danger of fire or damage to surrounding objects.

HAIR-TONIC.—E. MAROSI, New York, N. Y. The compound consists of the following ingredients combined in the proportions stated—viz., infusion of one-half pound of mustard seed, one-quarter pound of white rosin, and one pint of turpentine. The liquid compound is repeatedly rubbed on the bald head of the human body to insure the formation of a new growth of hair.

ABDOMINAL CORSET.—C. MUNTER, New York, N. Y. One purpose of this invention is to provide an article of apparel which serves as a conformer for the body and which may be readily applied and operated to properly shape the figure at the waist, stomach, and hips and which can be comfortably worn with beneficial effect. It provides for an equal distribution of flesh over parts not naturally fleshy without detrimental strain, tends to impart a perfect form to the figure, at the lower portion of the body and supports the abdomen without undue pressure on delicate organs.

COVER FOR RECEPTACLES.—A. Q. WALSH, New York, N. Y. The purpose here is to provide a cover, especially such as are adapted to contain tobacco, cigars, or cigarettes, and to so construct it that it can be simply slipped over the neck of the receptacle, closing said receptacle in practically a liquid and air tight manner and enabling the cover to be quickly and conveniently removed or placed in closing position on the receptacle.

FISH-HOOK.—H. S. WEST, Council Bluffs, Iowa. An object of this improvement is the provision of a hook with a novel and effectual weed-guard so sensitively formed as to readily yield for the hooking of a fish, but not liable to be detached from the hook-point by lateral or direct pressure when drawn through weeds or grass in water. The bait on the hook cannot be detached by a fish.

VALVE.—H. ZINS, Nicollet, Minn. The object here is to provide means whereby when the drain-pipe running from the pump-barrel to the water-tank freezes, the water which may be drawn from the well by the pump or engine after such freezing will by its pressure cause the valve constituting part of the improvement to open and allow such water to escape into the pit or other suitable place, and thereby relieve the pressure which would damage the pump, rod, engine, windmill, or other parts of the pumping system.

FISH-HOOK.—G. W. BLACKBURN, Sarasota, Fla. Mr. Blackburn's purpose in this invention is to construct a fish-hook so as to minimize the danger of losing the fish when once hooked. This end he attains by providing the hook as usually constructed with a peculiarly-arranged spur, which is preferably barbed and which is mounted on the hook so as to come into action when the fish is hooked, the spur moving toward the point of the hook proper and forming therewith a complete ring or inclosure from which it is almost impossible for the fish to become disengaged. The hook has been tested and holds the fish as securely as intended.

WOVEN FABRIC.—H. SARAFIAN, Yonkers, N. Y. It is the intention of Mr. Sarafian to produce an improved fabric which shall be distinguished by cheapness and yet present an ornamental appearance. The same is composed of a body or under portion consisting of cheap yet strong and durable material—such, for example, as cotton or jute—and a top or surface portion consisting of better and more ornamental material, such as silk or worsted. The invention is embodied in the manner of arranging threads or strands composing the ornamental surface material and the weft for tying in the same to the body or bottom portion.

DETACHABLE HANDLE FOR BROOMS, MOPS, ETC.—M. HARTMAN, Upper Sandusky, Ohio. The invention pertains to improvements in detachable handles for brooms, mops, etc.; its object being to provide improved means whereby a handle can be put on a new broom, etc., when the old one is worn out, and also to provide improved means whereby the handle can be readily taken apart and packed in small space, thereby saving in cost of transportation and shipping.

DEVICE FOR REMOVING OBSTRUCTIONS FROM BETWEEN THE TEETH.—C. F. ROTH, Chicago, Ill. Removing obstructions from between the teeth, which cannot be accomplished by the ordinary toothpick, can be done by this device. It is small, can be easily carried in the pocket, and the rubber strip can be readily removed for cleansing purposes and easily replaced, knobs at the ends of the strip operating to prevent any displacement of the latter in use.

Heating and Lighting.

ACETYLENE-GAS GENERATOR.—O. H. HASNEDER, Seaford, N. Y. A particular purpose of the inventor is to provide a readily-comprehensible safety-feed mechanism for the carbide from the hopper to the generator, controlled by one movement of the operator, and the mechanism when operated in one direction simultaneously opens access to hopper, closes the delivery-section of hopper, and establishes communication between hopper and outside atmosphere for escape of any gas which may be in hopper prior to introducing carbide therein, the feed mechanism operated one direction acting to close inlet of hopper and the vent for gases and open communication between hopper and generator.

BUNSEN BURNER.—H. F. MIELENHAUSEN, New York, N. Y. In the present patent the invention is an improvement upon a burner which is intended especially for use in connection with gas-lights which employ incandescent mantles, the object being to so construct the burner as to prevent smoking and bring about a more complete mixture between the gas and air before combustion.

Household Utilities.

FLEXIBLE ELASTIC BINDER.—C. T. WHITSETT, Indianapolis, Ind. When used as a supporting device for the covering for a bathtub the binder is extended transversely across the tub substantially midway between the ends of the latter, and the elastic strip hooks are caught over the rim of the tub at opposite points. Elasticity of the strip permits the hooks to be slipped over rim of the tub and draws hooks into close engagement with the rim, supporting the cover-sheet securely. When used upon a bundle formed by folding or rolling the sheet, one of the hooks is caught upon one corner of the bundle, while the other is caught upon the diagonally opposite corner, the corner portion of the bundle passing between bends of the two hooks.

FLAT-IRON HEATER.—J. A. LOFSTEDT, Yonkers, N. Y. The principal objects of this invention, which relates to an opening and closing heater, are to provide means for securing the proper heating of flat-irons, for preventing the waste of heat by heating them in the wrong portions, and for providing means for closing the heater when the iron is introduced and opening it when the iron is withdrawn.

Machines and Mechanical Devices.

AUTOMATIC PIANO-PLAYER.—J. B. WALKER, New York, N. Y. In rendering music it is desirable that the theme, air, melody, or other desired portions of the music be played with a different degree of intensity or expression from the accompaniment or remainder of the music, and also desirable that the operator should be able simultaneously to vary at will while he is playing the music the relative intensity of tone of theme and accompaniment. Not only should he be able to vary the relative strength of tone of theme and accompaniment, but to secure the best effects be able to vary strength of tone of the whole series of theme notes as such and of the whole series of accompaniment notes as such independently at will while playing the music, playing the accompaniment softly while playing the theme more loudly, or vice versa. In the present, which is an improvement upon one described in a former application, now pending, Mr. Walker achieves the above ends.

APPARATUS FOR THE TREATMENT OF ORES.—R. G. REILLY, Albuquerque, New Mex. An object of the invention is to provide an apparatus for treating ores in the dry way, whereby the metallic contents thereof may be reduced to the free state with a minimum expenditure of fuel and at a more rapid rate than has heretofore been possible. Further, an apparatus employed to reduce metallic constituents of ores to the free state or with equal success in desulfurizing certain ores without reducing metallic constituents to the free state.

MACHINE FOR MAKING PAPER BAGS.—B. J. JENSEN, 60 Oelenschlaegersgade, Copenhagen, Denmark. The present invention refers to improvements in machines for making paper bags and which are provided with folding-rollers and folding-knives. These suffer from the drawback that the folded sheets after being submitted to one or more foldings are apt to become shaggy, so that the two sides of the half-finished bag are no longer smooth or do not lie closely together. When such a bag is hit by the folding-knife, the fold lies askant on the bag or the latter will when passing the rollers get creased and the finished product gets a less attractive look. This invention alleviates this drawback.

STEAM-HAMMER.—F. C. EMRICK, Bluehill, Neb. One of the leading features of the invention resides in the arrangement of the cylinder and piston-rod, the latter passing through stuffing boxes in both of the cylinder-heads, thus dispensing with the necessity for additional guides for the piston-rod. A further feature lies in the location of the valve-chest near the lower end of the cylinder and in operating the valve by means of a peculiar gear actuated from the upper end of the rod.

LOG-SAWING MACHINE.—C. E. BROWN, Stayton, Ore. Mr. Brown's invention refers to log-sawing machines, and particularly to a machine in which is combined a friction-nigger, a cant-handler, and log-deck skid-chains. He provides a construction wherein the above named parts are controlled by a single lever capable of operation in four directions, and wherein there are no steam pistons or joints to be kept in order, as in a steam-nigger, and wherein the log turns away from the nigger, preventing it from tearing off slivers, and wherein, further, the log falls upon the skids when turning, thereby avoiding jar to the carriage. Thin wide cants may be turned one at a time or several at once, a great advantage in mills having no pony-saw.

WEB-WINDING MACHINE.—E. SCHOENING, Berlin, Germany. Mr. Schoening's invention relates to winding-machines for winding paper, woven materials, and other goods in web form upon a roller, and has for its object to provide a machine of the character indicated, which will automatically and tightly wind the web in a straight and uniform manner. The invention consists of means controlled by the web for regulating the speed of the roller upon which the web is wound.

VENDING-MACHINE.—F. LYNES, Johnstown, N. Y. In this case the invention relates

particularly to improvements in ejecting devices for coin-controlled vending machines—such, for instance, as shown in a former application filed by Mr. Lynes—an object being to provide a simple device whereby a cigar or other vendible article when raised to discharging position will be thrown forward upon the top of the machine-casing.

APPARATUS FOR PRINTING WARPS ON PRINTING-DRUMS.—F. SCHMIDT, 7 Edisonstrasse, Oberschöneweide, near Berlin, Germany. The present invention relates to an apparatus for printing warps on printing-drums, wherein it is essential that the adjustment of the drum is effected in such a manner that its movement is dependent upon the movement of the adjusting device for the design. In manipulation of the apparatus, the operative places an indicator upon the threads to be printed, and turns the hand-wheel till indicator points to the check to be printed. Printing of warps can be then immediately proceeded with by means of rollers or the like, as the warp-drum has been automatically adjusted at the same time as the pattern-drum.

DOUBLE PRINTING-DRUM FOR WARPS.—F. SCHMIDT, 7 Edisonstrasse, Oberschöneweide, near Berlin, Germany. The subject-matter of the present invention is a double printing drum for warps, wherein it is essential that there be two drums of different circumference which can simultaneously be printed with the same pattern, as both drums receive the same angular rotation. This uniform angular rotation is obtained by the intercalation of gearing. It is furthermore essential that the two warp-drums of different circumference be driven together with a drum containing the design or pattern, the driving thereof being effected in that driving-crowns are provided on the circumference of the drums.

Prime Movers and Their Accessories.

DRIVER-WHEEL.—E. STANCLIFF, New York, N. Y. The invention provides an attachment for a locomotive driving-wheel adapted to economize power and reduce frictional resistance. It consists essentially of an annular ring provided on its outer circumference with a flange and a tread surface, of the usual type, adapted to roll upon a rail. The driving wheel rolls on the inner circumference of the ring, the latter being formed with a groove to receive the flange of the wheel. The construction partakes of the nature of an internal gear.

BOILER.—H. L. DES ANGES, New York, N. Y. The invention relates, first, to a boiler in which water-tubes are provided around which tubes the gases of combustion circulate and through which tubes internal or fire tubes are passed, so that the heating-surface of boiler is very greatly increased; and it relates, second, to a novel manner of fitting the several tubes which holds them securely in place and at the same time allows any one of the tubes to be removed conveniently for repair and other purposes.

COMBINED THROTTLE AND GOVERNOR FOR EXPLOSION-ENGINES.—O. MINTON, New York, N. Y. The principal object of the invention is to provide between a governor of any suitable design and the gas-inlet valve of an explosion-engine a connection whose length may be varied so as to adapt the action of the governor and valve to the load carried by the engine. It has special reference to explosion-engines designed for use upon automobiles and other vehicles.

STEAM-TURBINE.—T. J. MASTERS, 29 St. Mary's street, Cardiff, Glamorgan, England. This improvement relates to a compound reversible steam-turbine or rotary engine designed to utilize both the impact or momentum and also the expansive force of the steam in such manner as to avoid back pressure and economize power in a high degree, the improved turbine or rotary engine being provided also with means whereby the speed and direction of running may be controlled more efficiently than heretofore possible in engines of the same general type.

Railways and Their Accessories.

RAILROAD SYSTEM.—C. MEHRING, Charlottesville, Va. In this instance the invention relates more particularly to single-rail car systems; and the object had in view is to simplify and improve similar railroad systems constructed as heretofore. The inventor's leading idea is the employment of novel trucks, whereby the cars are prevented derailing, and thus rendered secure for speed not safe with railroad systems as formerly constructed.

RAILROAD CROSS-TIE.—S. HOAGLAND, Astor, Fla. The object of the invention is to provide a tie which is simple and durable in construction, cheap to manufacture, and arranged to properly support and securely hold the rails in position, to avoid spreading of the rails, and to allow of conveniently placing the tie and rails in position.

REGISTER SYSTEM.—A. FEVOLA, Yonkers, N. Y. Mr. Fevola's invention relates to systems for registering the number of persons passing some predetermined point, it being especially useful in recording the number of passengers carried by such a public conveyance as a street car. Its principal objects are to provide a convenient apparatus which will operate but once for each passenger, giving a registration of the exact number using the vehicle.

VESTIBULE.—T. A. RYAN, Yonkers, N. Y. In the present patent the invention pertains to vestibules for the fronts of vehicles, it being particularly convenient for use in connection with electric cars. Its principal objects are to provide such a structure which may be readily folded out of the way when not needed and yet will furnish an effective closure when in use.

LUBRICATOR.—J. MCQUEAD, Hunt, Ill. This invention relates to lubricators, and more particularly to those adapted for use in connection with the journal boxes of cars. Its principal objects are to provide such a device which will deliver the lubricant in substantially definite quantities when the car is in motion and will stop this supply when it is at rest.

STOCK-GUARD.—H. A. MIDDAGH, Seattle, Wash. Mr. Middagh's invention has reference to improvements in stock-guards, the object being the provision of an absolute guard against the access of stock from the highway to the tracks of a railroad crossing the same, and one which shall be simple, cheap, and easily applied and removed.

Pertaining to Vehicles.

PNEUMATIC TIRE.—G. DEVOLL, Boston, Mass., and G. H. RISLEY, Brielle, N. J. The present invention has reference to pneumatic tires, such as are used on the wheels of vehicles; and its object is to provide a new and improved pneumatic tire arranged to prevent the rubber tube of the tire from being punctured and at the same time afford the desired elasticity.

LAMP-HOLDER.—E. E. HENRY, Georgetown, S. C. This holder is especially useful for supporting lamps on moving vehicles, such as automobiles and bicycles. The object of the invention is to produce a device of simple construction and which will afford means for supporting a lamp movably, so that the rays of light will be always projected in advance of the vehicle and in the direction in which it is advancing.

INNER TUBE AND MEANS FOR INFLATING SAME.—W. A. HOLLIS and H. S. HOLLIS, 1 Palmera Avenue, Hove, Sussex, England. The invention relates to inner tubes for pneumatic tires and means for inflating the same. The improvement consists in the construction and arrangement of two or more inner air-tubes so that they lie around the rim of the wheel without shifting their relative positions and without bursting when the tire is inflated.

COMBINATION TRUCK AND SCALE-PLATFORM.—P. MORGAN, New Orleans, La. Under the present systems of transferring coffee-bags from the pile to the railway-cars weighing and transferring are two separate operations, each costing about three cents per bag. Mr. Morgan provides means for performing these operations at once, thus making a great saving of cost and time. The invention is capable of use in other connections. It may be used in weighing all kinds of material in sacks or other receptacles and also in bulk.

MOTOR-VEHICLE.—IL. SÉCHAUD, Gentilly, Seine, France. The invention has for its object a device which permits of effecting by means of a single appliance changes of direction and velocity, throwing into and out of gear the braking, and also the regulation of motor-vehicles. The combination constituted by this device renders unnecessary all the individual parts hitherto employed for operating the different mechanism, leaves the hands of the driver at liberty, and renders it possible for complete novices to drive motor-vehicles.

WHEEL.—J. B. McMULLEN, Howard County, Md. In the present patent the invention is an improvement in wheels, and is designed particularly for use on automobiles or other vehicles of that general character; and the inventor's object is, among others, to provide a novel construction whereby the tire may be conveniently applied and removed from the wheel by means of a removable side plate.

FOOT-WARMER.—C. H. WHITAKER, Bordentown, N. J. The foot-warmer is intended especially for use in carriages and like vehicles, and it is of that class in which a base is provided and heated by an ordinary lantern-burner mounted on the base and having heat-communicating means extending from the top of the burner to or into the base.

AXLE-LUBRICATOR.—J. ADEN, Ruralhall, N. C. In this case the improvement pertains to automatic lubricating devices for vehicle-axles of that class in which a reservoir for oil is located on the axle, just back of the axle-collar, from which oil is fed down along the spindle by distributing-grooves. The oil is uniformly fed without obstruction and in a manner to exclude the dust and remove the gummy waste matters.

Designs.

DESIGN FOR A TOILET-POWDER RECEPTACLE.—W. A. BRADLEY, New York, N. Y. This new design for a toilet-powder receptacle shows an oval contour of the box and the radial fluted ornamentation appearing at the top of the box together with the fluted and apertured cap.

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. 6838.—For manufacturers of brass and wooden tubing.

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

Inquiry No. 6839.—For parties making or selling small wooden wheels for toy carts, etc., about 2, 4 or 5 inches in diameter.

Perforated Metals, Harrington & King Perforating Co., Chicago.

Inquiry No. 6840.—For manufacturers of confetti-making machines.

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

Inquiry No. 6841.—For manufacturers of sun motors, or machine that derives its motive power from the sun.

Adding, multiplying and dividing machine, all in one. Felt & Tarrant Mfg. Co., Chicago.

Inquiry No. 6842.—For manufacturers of the Oddo coat hangers.

Commercially pure nickel tube, manufactured by The Standard Welding Co., Cleveland, O.

Inquiry No. 6843.—For manufacturers of Edison's World's Fair electric silk candy machine.

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

Inquiry No. 6844.—For manufacturers of crude oil burners for stoves and furnaces.

Braze Cast Iron. See our advertisement in this paper. The A. & J. Mfg. Co., 9 S. Canal St., Chicago.

Inquiry No. 6845.—For manufacturers of small water wheels.

I sell patents. To buy them on anything, or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.

Inquiry No. 6846.—For manufacturers of well tubing.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Machine Company, Foot of East 13th Street, New York.

Inquiry No. 6847.—For manufacturers of a machine which will print, cut and punch tags on one impression.

Gut strings for Lawn Tennis, Musical Instruments, and other purposes made by P. F. Turner, 46th Street and Packers Avenue, Chicago, Ill.

Inquiry No. 6848.—For manufacturers of small metal studs, such as are used in new and laundered shirts.

We manufacture iron and steel forgings, from twenty pounds to twenty-five tons. Crank shafts of all varieties. Erie Forge Company, Erie, Pa.

Inquiry No. 6849.—For manufacturers of a pressed steel tub or box 16 x 26 and enameled white, the shape to be same as ordinary kitchen sink.

Models, dies, boxes, metal stampings, patent articles, novelties, manufactured and sold. Printing on aluminum. U. S. Novelty Co., Lily Dale, N. Y.

Inquiry No. 6850.—For manufacturers of automatic pocket knives.

WANTED.—An engineer experienced in the design, construction and use of gasoline motors for automobiles. "Address Pope Manufacturing Company, Hartford, Conn."

Inquiry No. 6851.—For manufacturers of a air pistol or rifle which can be used for small game.

WANTED.—Experienced man to take charge of Metal Department. One competent to handle large Dies, Hammers and Presses. Address Federal Casket Company, Bellaire, Ohio.

Inquiry No. 6852.—For manufacturers of duplicating apparatus.

WANTED.—Colonial silverware. Any one wishing to sell any authentic silver made in this country during the eighteenth century, please communicate with C. A. M., Box 773, New York.

Inquiry No. 6853.—For manufacturers of Virgin lace or lace bark of the tropics.

You can rent a well equipped private laboratory by day, week or month from Electrical Testing Laboratories, 548 East 80th Street, New York. Absolute privacy. Ask for terms and facilities.

Inquiry No. 6854.—Wanted, catalogue of railroad cattle guards.

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. 6855.—For manufacturers of pitch working machinery, namely, splitting, rounding and finishing pitch, from the cane; also machine for bleaching pitch.

Space with power, heat, light and machinery, if desired, in a large New England manufacturing concern, having more room than is necessary for their business. Address Box No. 407, Providence, R. I.

Inquiry No. 6856.—For manufacturers of overhead tracks for handling merchandise and manufactured articles in factories, such as are used in packing houses for beer.

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. 6857.—For manufacturers or parties selling a traction gear on which a 5 to 8 h. p. gasoline engine can be mounted.

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. 6858.—Wanted, the address of The Dart Electric Light Co.

WANTED.—The patents or sole agency for Britain and France, of new machines and articles used in the Brewing and Allied Trades. Highest references given and required. State best terms with full particulars to "Wideawake," care of Streets Agency, 30 Cornhill, London, England.

Inquiry No. 6859.—For firms' names installing crude oil gas plants.

WANTED.—A first-class Machine Shop Foreman; a man who is capable of producing work at the lowest possible cost. Must be a man of ideas and capable of hiring and handling men. Reliability first consideration. Steady position with opportunity to advance. Factory at Waterloo, Iowa. Address Manufacturer, Box 773, New York.

Inquiry No. 6860.—Wanted, address of makers of very strong glass known as agatine.

Splendid opening for a high-grade mechanical engineer, who has had a broad experience in managing machine shops, the manufacture of machinery, engines and metal specialties. Applicants must be in prime of life and now employed. Preference will be given to applicants who have had modern scientific training in mechanical schools of high standing. Unqualified references will be exacted. All communications received will be regarded as strictly confidential. Address Mechanical Engineer, Box 773, New York.

Inquiry No. 6861.—For manufacturers of plucking machines (fowl).

Parties looking for factory sites should not overlook Maine. We have several towns where we are enabled to furnish factory sites on railroads and seaport harbors free of cost and abate taxes for ten years. We build homes for operatives, and let them pay for them on the rent plan at low interest. This gives the best help and practical protection against labor troubles. Maine labor will produce more per man in our small villages than in any big city in the world, and, being home owners, take more interest in their employers' welfare. We will also furnish you a Maine charter for your corporation, if you need one. Maine Realty Development Company, Bangor, Maine.

Inquiry No. 6862.—For manufacturers of machinery for turning out spoon oars and paddles.



HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.

References to former articles or answers should give date of paper and page or number of question. Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.

Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

Scientific American Supplements referred to may be had at the office. Price 10 cents each.

Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(9632) A. G. L. asks: What is the cause of that buzzing noise when the receiver of a telephone is held to the transmitter? Is it a sign that the line is all right? How is a telephone wired that is used on the central energy system? A. When you hear a sound in the receiver of a telephone, it means that something is going on over the line. It may be someone is talking on that line, which is all right. It may be cross talk from some other line, in which case it is not all right. A central energy system is wired so that all instruments have connection with the battery to ring their bells at all times when the telephones are on the hooks. Diagrams of wiring will be furnished for any system by those who handle and sell the instruments for that system.

(9633) A. B. asks: 1. Can you tell me of a simple test to tell platinum wire? A. Platinum is characterized by its high fusing point, about 3450 deg. Fahrenheit. It cannot be melted by any temperature below that of the oxyhydrogen flame. This is the simplest test. Heating in an ordinary flame does not alter it. It is not soluble in any single acid, but is dissolved by aqua regia. 2. Is it true that there is a salt lake that has a crust of salt on the surface? If so, what is the name of it? A. There is a place called Salton in California where salt is plowed up from the surface of the shore of a lake and purified for the market. Later another crop can be harvested from the same place. Salt does not float on water. There cannot be a crust of salt over the surface of a lake. 3. Why is it that ice is a non-conductor and water is a conductor of electricity? A. Neither ice nor water when pure is a conductor of electricity. Water owes its conductivity to minute quantities of impurity in it. Ice tends to freeze itself pure from impure water. Hence ice is usually a non-conductor of electricity. 4. Can you explain to me what watt and watt-hours denote? A. A watt is the unit of electrical power. One ampere flowing at a pressure of one volt gives power of one watt. One watt working for one hour makes a watt-hour. You would find all such questions answered in Swoope's "Elementary Lessons in Electricity," which we can send for \$2.

(9634) W. S. M. says: I want to put an electrical plant on my farm for lighting, water service, etc. We use compressed air for water service. Have plenty of wind. Storage batteries, from my experience, have not been satisfactory during a calm. Has any one tried compressed air as a power during a calm? Do you believe that compressed air could be used to any advantage in generating electricity? A. We know of no experiments or experience with compressed air obtained from windmills for electric lighting purposes, and would not advise its use. Storage batteries are also unsatisfactory in the hands of inexperienced persons. We would advise a gasoline or kerosene engine as the most satisfactory source of power in the majority of such cases as you have in mind.

(9635) E. G. B. says: Would it be possible to revolve an iron plate 1/4 inch thick, 6 feet diameter, at the rate of 616 revolutions