

RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

HAY-STACKER DRUM.—P. E. SNEER, Ellensburg, Wash. This drum, which is designed for use on hay-stackers, increases the motion of the fork without adding to the speed of the horse or other power, and also furnishes the greatest amount of power when most needed, and the greatest speed when most needed.

MOTOR-OPERATED AGRICULTURAL MACHINE.—D. LUBIN, New York, N. Y. The patent covers a machine with a motor-operated mechanism, whereby digging devices are forced into the ground and then the machine moved forward one step as the diggers are lifted with the earth and breaking devices rapidly operated to finely pulverize the lifted earth.

AGRICULTURAL MACHINE.—D. LUBIN, New York, N. Y. Two patents have been granted to Mr. Lubin for inventions under this heading. The first machine is of the class operated by a steam or other motor, and it comprises a rotary digging-tool with means operated by the motor for moving the vehicle forward at predetermined distances to rotate the tool and at the same time cause it to gradually enter the ground to the desired depth.

The second machine is of the class in which a motor mounted on a wheeled vehicle alternately operates a ground digging or breaking tool and moves the vehicle a short distance for the next operation of the tool, the object being to provide a machine so made as to automatically change the gear connections to cause the different movements or operations.

POWER-OPERATED AGRICULTURAL IMPLEMENT.—D. LUBIN, New York, N. Y. The object of this invention is to have the implement operated by steam or other motive agent in such manner as to alternately move the device and operate the ground digging tool or tools by means of which the ground will be uniformly operated upon, finely pulverized, and prepared for planting or seeding.

Miscellaneous Inventions.

BEDSTEAD POST AND RAIL JOINT COUPLING.—A. W. BUSBY, Milwaukee, Wis. A novel, simple and strong dovetail connection has been invented by Mr. Busby, which is especially adapted for joining the rails and bed posts of wooden or metal bedsteads. The device may be easily disconnected when desired. The angle-iron side rails may with this connection be so secured to the bed post as to dispose either the outer or inner surfaces of the rail uppermost.

SHOE-TREE.—M. HAYES, New York, N. Y. Means for expanding and re-shaping boots and shoes to prevent them from being crushed or wrinkled while not in use, is provided in this invention. The construction of the tree is simple and so arranged that it may be easily manipulated and inserted in the shoe.

BADGE.—G. H. BROOKS, Louisville, Ky. The badge has a fastening formed of a spring wire having one end constructed as a hook and the other as the pin proper, the fastening being inserted through holes in the backing. The hook is provided with a shank which holds it rigidly in place, projecting on the face of the backing.

DISPLAY-RACK.—G. A. WEEKS, Sheldon, Ill. Improvements in devices for exhibiting lace curtains, portieres, wall paper, dress goods, and other articles, are provided in this invention. Provision is made for bringing any desired article into view and also a suitable cover is provided whereby dust will be excluded from the articles to be exhibited.

DISINFECTANT-DISTRIBUTING DEVICE.—S. HESKETH, Auckland, N. Z. A device for distributing disinfectant material is provided in this invention. The device may be either portable or stationary and is arranged to constantly feed the disinfectant material at desired strength and in desired quantity, to a pivoted self-emptying receptacle, which, when discharging material from one compartment will present another compartment to be filled from the source of supply.

GATE.—F. E. JACKSON, Wayne Township, Wayne County, Ind. The gate is more especially designed for use on farms, driveways and other places. The construction permits convenient opening or closing of the gate by a person on foot, in a wagon or on horseback. For the passage of small animals such as sheep and swine the gate is raised bodily without being opened.

ANNULAR TANK FOR LIQUIDS.—O. INTZE, Aix-la-Chapelle, Germany. The principal difficulty attending the construction of large tanks of cylindrical form consists in the connection of the bed or bottom of the tank with the lower parts of the cylindrical walls and in the construction of a supporting structure, capable of transmitting a heavy load in an advantageous manner onto the supports. The present invention provides new means for overcoming these difficulties.

BRICK.—J. B. DUNLAP, Tonkawa, Okla. Ty. Mr. Dunlap is the inventor of a novel composition of brick or building blocks, to be used for all purposes, either above or below ground, for which bricks are ordinarily employed. The brick is composed of sand and certain chemical binder ingredients, combined in a new manner.

LUBRICANT FOR WOOL AND PROCESS OF MAKING SAME.—G. B. HOLDEN, Lowell, Mass. The underlying idea of the invention is

to cause wool to run smoothly through the machinery used in operating the same during the process of manufacture, and also to soften the wool and render it pliable. Mr. Holden has invented an improved lubricant which will accomplish this result.

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 information. In every case it is necessary to give the number of the inquiry.

MUNN & CO.

Marine Iron Works. Chicago. Catalogue free.

Inquiry No. 3889.—For dealers in the different parts of suspenders.

AUTOS.—Duryea Power Co., Reading, Pa.

Inquiry No. 3890.—For a second-hand Becker vertical milling machine.

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

Inquiry No. 3891.—For parties to manufacture a suitable trophy for a public gift representing Indian craft.

Coin-operated machines. Willard, 284 Clarkson St., Brooklyn.

Inquiry No. 3892.—For makers of steam turbine engines of 50 horse power.

Blowers and exhausters. Exeter Machine Works, Exeter, N. H.

Inquiry No. 3893.—For makers of metalophones. Dies, stampings and armature discs. Advance Manufacturing Co., Racine, Wis.

Inquiry No. 3894.—For machines for folding and stitching at the same time.

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

Inquiry No. 3895.—For trolley tracks for overhead hoisting for use in warehouses for piling up heavy cases.

Metal Stamping Co., Niagara Falls, N. Y., cuts and forms sheet, bar, rod, or wire any shape.

Inquiry No. 3896.—For a practical ice plant of capacity 50 to 100 lbs. a day, of a small cooling plant for reducing the temperature to 40 or 50 degrees.

FOR SALE.—60 h. p. Otto gas engine, the latest type, practically new. Colborne Mfg. Co., Chicago.

Inquiry No. 3897.—For a speed and time recorder to be attached to an automobile or other vehicle.

Let me sell your patent. I have buyers waiting. Charles A. Scott, Granite Building, Rochester, N. Y.

Inquiry No. 3898.—For a machine for grinding or pulverizing hard substances.

SAW MILLS.—With variable friction feed. Send for Catalogue B. Geo. S. Comstock, Mechanicsburg, Pa.

Inquiry No. 3899.—For makers of portable boring bars.

Gear Cutting of every description accurately done. The Garvin Machine Co., 149 Varick, cor. Spring Sts., N. Y.

Inquiry No. 3900.—For manufacturers of accordion pleating machines.

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

Inquiry No. 3901.—For the manufacturers of the Coats sheep shearing machine.

Crude oil burners for heating and cooking. Simple, efficient and cheap. Fully guaranteed. C. F. Jenkins Co., 1103 Harvard Street, Washington, D. C.

Inquiry No. 3902.—For importers and makers of sewing needles.

The largest manufacturer in the world of merry-go-rounds, shooting galleries and band organs. For prices and terms write to C. W. Parker, Abilene, Kan.

Inquiry No. 3903.—For a machine for testing lubricating grease.

We manufacture anything in metal. Patented articles, metal stamping, dies, screw mach. work, etc. Metal Novelty Works, 43 Canal Street, Chicago.

Inquiry No. 3904.—For a pulley-turning lathe which will finish a pulley complete.

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

Inquiry No. 3905.—For manufacturers of steam engines.

WORKS MANAGER WANTED FOR EUROPE.—For the manufacture of small scientific machines. Must be a thoroughly competent practical engineer, well versed in working the most modern types of automatic machinery for making screws, studs, washers and other small machine parts. To a thoroughly competent man a good position is offered. Address W. W. W., P. O. Box 145, New York City.

Inquiry No. 3906.—For machines for picking cotton from the stalk in the field.

INVESTMENT OF CAPITAL.—Stock for sale in a going electrical manufacturing company within one hundred miles of Chicago. Fine business and good plant well located. Investigation courted. For particulars write to M. Harwood, 2d Floor, Electric Building, 118 W. Jackson Boulevard, Chicago.

Inquiry No. 3907.—For makers of electric floor planers.

Wanted—Revolutionary Documents, Autograph Letters, Journals, Prints, Washington Portraits, Early American Illustrated Magazines, Early Patents signed by Presidents of the United States, Valentine's Manuals of the early 40's. Correspondence solicited. Address C. A. M., Box 773, New York.

Inquiry No. 3908.—Wanted to correspond with parties prepared to supply a machine for cutting washers or gaskets directly from a hose as the hose is fed into the cutting machine.

Inquiry No. 3909.—For makers of the one man elevator which is run by water.

Inquiry No. 3910.—For makers of electric lighting machinery.

Inquiry No. 3911.—For the best motor freight carriers run by electricity.

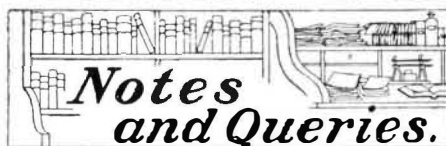
Inquiry No. 3912.—For makers of the very lightest engine possible, of 2 or 3 horse power, such as for aerial machines.

Inquiry No. 3913.—For a wire-tapering machine.

Inquiry No. 3914.—For machinery for making flour from bananas.

Inquiry No. 3915.—For dealers in presses and dies for making mosaics and artificial stone.

Inquiry No. 3916.—For manufacturers of decorators.



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.

(8869) W. J. C. wishes to know how to remove indelible ink marking from clothing. A. Indelible inks are of such variable character that it is quite impossible to reply. Many of these inks have nitrate of silver as a basis; in this case, a solution of hyposulphite of soda might help. Some other inks might possibly be bleached out with javelle water and weak muriatic acid; this can be used only in white goods, as most dyes would be destroyed. Possibly also a solution of sulphurous acid might be of service.

(8870) R. D. H. asks for a recipe for making (on a small scale) a varnish which will restore to shabby rubber boots and shoes a gloss such as is imparted by the manufacturers in the first instance. A. Digest 1 part of shellac with 10 parts of strong aqua ammonia until thoroughly dissolved.

(8871) C. A. asks: Can you send me a formula for making condensed milk? A. In general, condensed milk is made by evaporating in vacuum pans to about one-quarter of the original volume, and then adding 25 per cent to 30 per cent of cane sugar.

(8872) G. R. asks: 1. If there was a hole straight through the earth, and you were to drop some heavy object into it, how far would it go? A. If there was a hole through the earth, a ball dropped into the hole would fall as far beyond the center of the earth as it had fallen before it reached the center, if also we do not consider the resistance of the air. 2. Does a traction engine pull on the same principle as a horse, or can it pull more with a longer hitch? A. A traction engine pulls exactly as a horse pulls, or as any other power pulls.

(8873) J. G. H. asks: I wish to raise water 60 feet with an air pump, for domestic purposes. 1. Is it practicable? 2. If so, what should be the relative sizes of the air and water pipes? 3. What is the best type of air hand compression pump to do the work? 4. Would a two-cylinder or double pump, one cylinder a suction pump for water, the other an air compression pump, be practicable? A. There is no actual economy in raising water 60 feet with air compressed by hand. There is great loss of labor on the compressed air by its discharge to refill the tank with water in using the tank system. The air lift system requires a well as deep below the water as the lift is above it. We advise that a combination air and water pump, such as you suggest, cannot be made practicable.

(8874) A. P. A. asks: A dam is 10 feet high and 10 feet wide. A claims that with 10 feet of water on one side and 7 feet on the other, that there is more pressure on the whole dam than there is when there is 7 feet on one side and none on the other. B claims the opposite. A. The absolute pressure on the dam is due to the difference in the total pressures at the level of the water on each side. Thus the total pressure at 10 feet minus the total back pressure at 7 feet is less than the total pressure of 7 feet on one side only. We make the mean pressure per foot at 10 feet 309 pounds, and the mean pressure at 7 feet 203 pounds, and 309 — 203 = 106 mean pressure, as against 203 pounds for the mean pressure at 7 feet. B is correct.

(8875) G. A. D. writes: I have been watching your paper for some information about the new copper goods put on the market called "Royal" copper or "Olympia" copper. It is a dark color, and it is claimed to wear without scratching. Will you please tell me how it is done, or if you have published it, in which paper you have it. A. To produce this color on copper, either dip in a solution of 2 drachms of antimony sulphide and 1 ounce pearl ash in one pint of water, or boil for fifteen minutes in a strong water solution of tartar.

(8876) J. A. S. writes: Can you tell me or put me in the way of finding out how much a tall chimney made of brick will sway, if it will sway at all? I do not know how to look for the information, and I want to be acquainted with the condition for personal satisfaction. A. Tall chimneys that are small in size sway in strong winds so much as to be easily observed and measured: 6 to 8 inches from the center is not uncommon with very tall factory chimneys. Bricks and mortar are elastic.

INDEX OF INVENTIONS

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

March 3, 1903,

AND EACH BEARING THAT DATE.

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

Acid ester of methylene diguaiacol and making same, benzolic, S. L. Summers	721,924
Addressing machine, L. E. Olson	722,136
Advertising automaton, F. C. Dornmont	721,787
Advertising device, F. C. Dornmont	721,788
Agricultural implement, D. Louin	722,028
Air inlet, self acting, V. G. Bauer	721,853
Air lock, safety, W. I. Aims	721,991
Air spray, compressed, L. Scruggs	721,752
Alkali caffeine methylene disalicylate, S. L. Summers	721,923
Alloys of aluminium, producing, A. Mandat	721,814
Ammunition, carrier for small arms fixed, A. Mills	722,123
Anchor, ships, H. J. Brooke	721,663
Animal trap, V. Weiler	722,065
Annealing apparatus, Anderson & Hollingsworth	722,073
Arch, concrete, G. B. Waite	721,982
Automatic coupling, G. A. Hermanson	721,891
Automobile, F. L. Fay	721,876
Automobile steering mechanism, H. H. Buffum	721,859
Awl, needle, B. E. Hervey	722,105
Axle, ball bearing, J. J. Hartney	721,700
Baling press, C. H. Jackson	721,905
Baling press, G. B. Triplett	722,191
Band cutter and self-feeder, J. H. Rains	721,740
Bandage, suspensory, J. L. Luper	722,121
Battery, See Galvanic battery	
Battery cans, etc., funnel for filling storage, T. A. Edison	721,870
Bearing in swivel joints for hoist blocks, ball, F. Hooker	721,801
Bearing, side, J. C. Wands, reissue	12,993
Bed, mattress, or cushion, J. F. Nunan	722,135
Beets, etc., topping machine for, C. Spreckels	722,156
Belt, conveyor, G. C. Plummer	722,039
Belt pad, hernial, F. Matuchet	721,963
Bib or faucet, S. S. Williamson	721,766
Bicycle attachment, H. R. Blomberg	722,078
Bicycle gear, M. E. Porter	722,739
Bicycle toe clip, Thiem & Weber	722,056
Bit, W. C. Johnson	721,894
Blackheads, instrument for removing, Hildebrandt & Johnston	722,019
Blast furnace, C. W. A. Koulkebeck	721,956
Boat, C. Drobovitch	721,868
Boat, life, R. Forrest	721,690
Boiler due cleaner, Henderson & Thompson	721,889
Boiler plug or cover, W. M. Jackson	721,955
Book copy holder, note, C. H. Glass	722,010
Book, entry, Rackafellow & Squires	721,835
Books, device for fastening loose leaf, J. A. Waldo, Jr.	722,061
Boot, W. Cassie	721,668
Bottle and stopper, combined, W. Steiner	722,053
Bottle closure and brush, Weber & Frey	722,170
Bottle, non-refillable, H. Van Wie	721,759
Bottle, non-refillable, C. F. Hatley	722,014
Bottle rinser, M. W. Norckwitz	721,823
Bottle stopper, nursing, W. H. Morton	721,722
Bottle washing machine, W. J. Cunningham	721,673
Bottles, apparatus for simultaneously corking a number of, Hyden & Simonsson	721,803
Bottling apparatus, J. Beiser	721,854
Bowling pin, B. A. Stevens	721,976
Box making and filling machine, W. H. Butler	721,667
Brace, S. Clawson	722,181
Braiding machine, W. Munat	722,183
Brake beam, H. C. Buboup	721,664
Brake shoes, making, Timms & Busb.	721,845
Brick construction, E. D. Scott	721,751
Brick drier, T. M. Wilson	721,988
Bridge, bascule, Scherzer & Kandelier	721,918
Broom holder, H. P. Lanerd	721,811
Brush for cleaning type, J. F. McPherson	722,131
Brushes, manufacture of, Hayden & Powers	722,017
Buckle, tongueless, J. H. Frees	721,947
Building block, L. P. Normandin	721,825
Building construction, J. Reemer	721,747
Cabinet, kitchen, M. J. Carr	721,560
Calendar, A. F. Hoffman	722,020
Calendar roll, F. C. Smith	722,190
Camera focusing hood, E. N. Lake	721,898
Can, J. Kroeber	722,025
Can filling machine, C. H. Ayars	722,075
Can brake mechanism, J. Shelton	722,154
Car, center dumping, R. H. Hornbrook	721,892
Car coupling, S. L. Trueblood	722,192
Car coupling, lateral, F. Kohn	722,114
Car door, grain, J. H. A. Huck	722,108
Car door lock, W. H. Fulton	722,007
Car, dumping, J. L. Hamel	722,100
Car dust proof journal box, J. Rogers	721,836
Car for shipping musical instruments, freight, A. Glover	721,886
Car platform vestibule, Gibbs & Pearson	722,097
Car, railway repair, G. L. Bender	721,856
Car step, G. T. Andrews et al.	722,074
Carbonating apparatus, J. C. Murphy	721,723
Carbonator, Collings & Griscom	721,671
Cart or wagon, dump, G. Streich	722,165
Case for the reception and display of salable articles, L. W. Faber	721,874
Caseln, producing, A. D. Charles	721,908
Cash register, A. Pfister	721,915
Cash register, electrical, J. C. Vahjen	721,981
Cast hollow ware, caring openings in the walls of, P. J. McGuire	721,730
Casting machine, pig, J. S. Fielding	721,878
Cattle guard, G. A. Preston	722,043
Centrifugal machine, E. D. Mackintosh	721,714
Chain, detachable link drive, J. M. Dodge	722,001
Chains, detachable open link for drive, J. M. Dodge	722,002
Cheese cutter, J. Birch	721,658
Chuck, E. J. Skinner	721,753
Chute, coal, R. K. Teller	721,977
Cigar display box, D. C. Uffelman	721,758
Cloth shearing machines, lifting mechanism for the cutting parts of, E. H. Marble	721,903
Clothes peg, R. Hawbridge	721,702
Clutch, Z. R. Tucker	721,925
Clutch, E. W. Miller	721,964
Clutch, friction, M. C. Harris	721,799
Clutch, friction, G. L. Scott	722,150
Clutch, magnetic, E. R. Douglas	721,678
Coal or rock drill, L. K. Koontz	721,895
Cock, stop, P. R. Fern	722,092
Coherer system, self-decohering, A. Popoff	722,139
Coin receptacle, A. Gross	721,887
Coke ovens, apparatus for making briquets for circular, J. W. Seaver	722,151
Combustible fluid, producing, C. A. Kuenzel, Jr.	721,957
Conveyor, endless, W. L. McCabe	721,725
Cooking utensil, E. V. Santee	721,750
Core bar, W. D. Ross	721,837
Corn husking machine snapping rolls, F. Hagen	721,798
Cornice brake machine, H. Schott	722,149
Cotton conveyor, pneumatic, G. E. Richmond	721,743
Coupling, See Automatic coupling	
Cover, kettle, G. C. Bulgin	722,082
Cracker box rack, O. G. Anderson	721,992
Cranes, automatic rail gripping or locking device for electric, Wellman & Moore	722,066
Crate, folding, J. A. Stewart	722,161
Croquet board, parlor, B. T. White	721,764
Curtain roller bracket, H. Reimann	721,833
Cushion, F. Bueh	721,936
Cylinder lock, J. A. Horne	721,802
Dental clamp, W. A. McCarter	722,033
Detector bar clip, G. Smith	721,975
Die, J. R. Bikesie	721,650
Disinfectants to water closets, apparatus for applying, F. W. Norris	721,900

(Continued on page 197)