RECENTLY PATENTED INVENTIONS. Agricultural Implements.

PLOW .- H. BRYAN, Modesto, Cal. This invention is an improvement in the class of wheeled-plows, more particularly gang plows, whose frame is supported at the rear end by a wheel adapted for vertical adjustment for the purpose of varying the depth of the furrow or for supporting the plows proper above the surface of the ground when the plow is being hauled or shipped.

CORN-SHOCK CARRIER.—N. W. Lyon, Brighton, Iowa. The object of this invention is first the provision of a simple and strong construction adapted to be turned up on end for ready loading of an upright shock on the vehicle; secondly, to provide means for binding the shock to the vehicle in an expeditious manner, and thirdly, to provide impaling devices adapted to co-operate with the binding devices and securely hold the shock on the vehicle against any tendency to become displaced.

Electrical Apparatus.

INCANDESCENT ELECTRIC LAMP.—G. C. WEBSTER, Warren, Ohio. The filament of this lamp is so arranged as to produce a maximum and symmetrical distribution of light rays. Filaments have heretofore been so constructed as to produce superior illumination in a vertical plane or downward direction, and others have given superior lateral distribution. this invention, however, both effects have been attained.

ELECTRIC ACCUMULATOR-PLATE. - A Fischer, Berlin, Germany. This accumulator plate consists of sheets of lead folded into serpentine form; the objects attained by this improved form are, first, that the plates are stiffened—that is, prevented from being straightened out in any degree—and, second, that their active surface is increased.

Hardware.

COMBINATION-TOOL.—J. L. Woop, Fulton, and W. G. LAWRENCE, Cordova, Ill. This tool has the general form of a monkey-wrench in which various other implements are embodied by certain novel features of structure. The tool is particularly useful to bicyclists and automobile drivers, comprising as it does, a hammer, two spoke wrenches and a socket wrench, as well as a monkey-wrench.

SQUARE, A. L. LUNDGREN, Pullman, Ill. Mr. Lundgren has invented a new drawing and measuring instrument which will be found useful to carpenters and other mechanics. The instrument is arranged for convenient adjustment to give any desired angle and is adapted to be folded into a comparatively small space.

Mechanical Devices.

ROLLER-BEARING .- JOHN D. TWIGGS, JR. Augusta. Ga. The invention relates to axle journals and bearings for rolling stock, and other devices and machines. The bearing is arranged to reduce the friction of the parts to a minimum, to hold the rollers in position when opening the bearing for examination or repairs, to insure a proper lubrication of the parts at all times, and to render the bearing dust-proof.

AUTOMATIC FAN.-J. D. WILLIAMS, Den ning, Ark The invention is an improvement in that class of automatic fans which are designed to be placed upon tables in diningrooms, sick-rooms and other places, for creating a breeze of air and driving away flies or other troublesome insects. The chief features of novelty are the means for supporting the fan shaft and securing it detachably, and for adjusting the fan blades on the shaft.

CONSECUTIVE - NUMBERING APPA RATUS.-O. G. BARTUSCH, Brooklyn, N. Y. An improved consecutive-numbering apparatus is provided in this invention, which is arranged to actuate one set or a plurality of sets of numbering wheels simultaneously and to allow of adjusting the sets nearer to or farther from each other, to suit the condi-

APPARATUS FOR MOUNTING PHOTO-Grant has invented a new machine for mounting photographs upon their cards or mounts. This machine enables the work to be done properly and in less time than is taken by the present hand method.

AUTOMATIC CAR AND ELEVATING TRACK.—W. L. McLaughlin, Clearlake, Iowa, and J. E. Swenson, Lake Crystal, Minn. An improved automatic car and elevating track is provided by this invention whereby grain. corn, coal. sand and the like may be elevated and dumped. The apparatus is arranged to automatically open the locked cargate for discharging the cargo into the chute of discharge and to autoleading to the place matically close and lock the gate when the car reaches its receiving position.

WINDMILL.-T. W. Lowe. Stockton, Cal. The construction of the windmill is such that the vanes will catch any breeze that may be stirring, thus making the wheel run in very light winds. The effective area of the vanes may be varied either by automatic mechanism or by hand-controlled devices. The vanes are self-adjusting according to winds of the de-

sired strength, thus preventing the wheel from running at excessive speeds in case of high winds, and affording a construction which re quires very little lubrication.

Railway Improvements.

RAILROAD-BED .- MARTIN HAAS, Kalamaoo, Mich. A bed of novel construction is hereby afforded, upon which the rails may be directly supported without the use of crossties. The invention consists broadly in a cement bed upon which the rails rest, the bed having embedded within it longitudinal and transverse twisted or corrugated wires or strips,

MAIL DELIVERING AND CATCHING DEVICE.-W. J. Noble, Philadelphia, Pa. Mr. Noble has invented an improved mail delivering and catching device which is arranged to positively deliver a mail pouch or bag from a passing train to a track station and simultaneously cause an outgoing mail pouch to be picked up by the train from the sta tion.

DUST-GUARD .- J. S. PATTEN, Baltimore, Md. Mr. Patten is the inventor of two forms of dust guards for use in boxes of railway cars. The guards are cheaply and efficiently constructed for application to the ordinary box without necessitating any change of structure therein. In the first construction, the packing strip is in the form of an annular plaited flax strip having a central opening of desired bore and made of general elongated form to hold it from turning with the axle. In the second construction the packing sec-

tion is in the form of a frame pressed from a sheet of metal forming a face-plate and a center pocket in which the flax packing is held. A cover-piece is provided for securing the packing in place.

Vehicles and Their Accessories.

ARMOR FOR VEHICLE-TIRES.—C. H. PASCHKE, Buffalo, N. Y. The invention provides an inflatable tire for vehicles with a novel protective armor which is light, strong, and durable and which will afford increased bite for frictional contact with the road bed, thns preventing slipping of the wheels. The invention is particularly adapted for use on the wheels of heavy automobiles, road wagons, carriages, and the like.

Miscellaneous Inventions.

PACKING-RING. - H. KIRSCHNING, 133 Ackerstrasse, Berlin, Germany. An improved packing-ring is hereby provided in the manufacture of which one or more sheet metal strips are pressed edge foremost into the ring. By means of the insertion of the metal strip, a reliable packing is obtained, having great strength and increased stiffness, so that the rings may be subjected to severe strains without danger of fracture or bending.

GUN-CLEANER .- G. H. GARRISON, Bucoda, Wash. The invention relates to improvements in devices for cleaning the interior of a gun-barrel, the object being to provide a simple means for expanding the swab while operating in the gun-barrel. A resilient vermicular core extends lengthwise through the swah whereby when the swab is compressed longitudinally it will be circumferentially expanded.

FOOT-WARMER FOR VEHICLES .- G. W. DUNHAM and J. W. Fox, East Cleveland, Ohio. This foot-warmer is adapted to utilize the waste heat resulting from combustion for propulsion of a vehicle, such as an automobile actuated by a motor using gas or steam for its motive agent, or to utilize the water-cooling circulation of automobiles actuated by gaso line.

STOVE OR RANGE.-G. A. TUCKFIELD, Salt Lake City, Utah. Mr. Tuckfield has invented improvements in stoves or ranges which comprise a simple means for increasing or diminishing the fire space and grate area so that more or less fire may be maintained, as the case may require, resulting in an economy of fuel when a small fire is desired.

PROCESS FOR EXTRACTING PRECIOUS tions of the work to be performed without METALS.—W. HiLt, Coles, Cal., and C. E. disconnecting the sets from the driving LANE. Ashland, Ore. Messrs. Hilt and Lane have invented a new process for precipitating precious metals from their solutions. The pro-GRAPHS.—I. G. GRANT, Bozeman, Mont. Mr. cess consists in producing zinc vapor and con-Grant has invented a new machine for mount. densing the same beneath the surfaces of said solutions, thereby causing the zinc to replace the Precious metals in the solutions.

ARTIFICIAL STONE .- F. Boas, St. Hyacinthe. Can. The invention has reference to artificial stones which are obtained by the action of high or low pressure steam on a mixture of sand with material containing alkaline earth, and it is distinguished from the processes heretofore in use by employing silicate of magnesia as a chief agent for effecting the solidification of the mixture.

COMBINED UNDERVEST AND CORSET COVER.-C. DUROUR Savannah, Ga This improved lady's garment combines an undervest and corset-cover and is arranged to permit the weaver to readily use the garment as an undervest for the protection of the chest. back, and arms when wearing an ordinary dress or to employ the garment as a corset-cover when wearing a low-necked dress.

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. INDEX OF INVENTIONS

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. 3156.-For manufacturers of axle cutters.

AUTOS.-Durvea Power Co., Reading, Pa.

Inquiry No. 3157.—For manufacturers of glass bottles holding 5 quarts to the gallon, for carbonated spring water.

For mining engines. J. S. Mundy, Newark, N. J. Inquiry No. 3158.-For dealers in old rubber.

"U. S." Metal Polish. Indianapolis. Samples free. Inquiry No. 3159.—For makers of heaters using wood for fuel.

WANTED.-You to read ad. page 195 Metal Working Plant for Sale.

Inquiry No. 3160.—For photographic nickel-in-the-slot machines.

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

Inquiry No. 3161.—For makers of molds for making soap.

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

Inquiry No. 3162.—For manufacturers of engraving machinery for button making.

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

Inquiry No. 3163.—For makers of portable saw mills.

Die work, experimental work and novelties manufac-

tured. American Hardware Mfg. Co., Ottawa, Ill. Inquiry No. 3164.—For makers of small clamps for paper.

Book "Dies and Diemaking," 100 6x9 pages. \$1, post-

paid. Send for index. J. L. Lucas, Bridgeport, Conn. Inquiry No. 3165.—For steel framing, girders, etc., for the construction of buildings.

We design and build special and automatic machinery for all purposes. The Amstutz-Osborn Company, Cleveland, Obio.

Inquiry No. 3166.—For makers of appliances for distributing a dry powder fire extinguisher on fires. IDEAS DEVELOPED.-Designing, draughting machine work for inventors and others. Charles E. Hadley, 584 Hudson Street, New York.

finquiry No. 3167.—For anice machine, capacity 300 pounds per day.

Automobiles built to drawings and special work done promptly. The Garvin Machine Co., 149 Varick, cor. Spring Streets, New York.

Inquiry No. 3168.—For parties to manufacture patent cutlery.

Manufacturers of patent articles, dies, stamping pany, 18 South Canal Street. Chicago.

Inquiry No. 3169.-For makers of hand and steam laundry machinery.

FOR SALE.—Patent No. 670,482. Hat-fastener. Clasps head as did elastic, but is concealed under hair. Address Dr. Emma T. Willis, Urumia, Persia.

Inquiry No. 3170.—For information relative to the use of compressed air for elevating water from deep wells. The largest manufacturer in the world of merry-go ounds, shooting galleries and hand organs. For prices

and terms write to C. W. Parker, Abilene, Kan. Inquiry No. 3171.-For a machine for breaking eggs and separating the shells.

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. 3172.—For makers of small electromagnets.

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. 3173.—For makers of automatic magnet winders.

WANTED.-Machines for splitting cane for manufacturing chairs, etc. Send catalogues and best prices. W. E. Richardson. Boustead Institute, Singapore Straits Settlements.

Inquiry No. 3174.—For manufacturers of novelties and specialties.

One of the handsomest tool catalogues has just been issued by Montgomery & Co., 105 Fulton St., New York. There is hard'y a tool manufactured which is not illustrated and described in this useful volume. Every mechanic should have one.

Inquiry No. 3175.—For dealers in diving suits and submarine workers' supplies.

WANTED .- Assistant superintendent in factory employing 400 men. Must be familiar with shop practice and methods, and capable of handling men. State age. experience, reference and salary required. Address the Ohio Brass Company, Mansfield. Ohio.

Inquiry No. 3176.-For makers of aluminium

WANTED,-A capitalist to take half of a valuable lot of patents for the United States in the hands of a com pany, and would be director in the general branch This company will eventually outvie the Steel Trust. Must deposit one hundred and fifty thousand dollars. He would receive ten thousand shares in the general branch. in addition to half of the patents business of the United States. For information apply to manager of Joyce Manufacturing Company.

Prince Albert Sask.

Northwest Territory, Canada.

luquiry No. 3177.-For makers of sheet steel shovels, forks, picks, etc.

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. 3178.—For dealers in second-hand asoline engine; and launches.

Inquiry No. 3179.—For a hand illuminating gas igniter (not to be attached to burner).

Inquiry No. 3180.—For parties to manufacture hooks and eyes. Inquiry No. 3181.-For makers of machines for grinding leather.

Inquiry No. 3182.-For parties to do twisted wire work in large quantities. Inquiry No. 3143. -For power machines for per-

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

September 9, 1902,

AND EACH BEARING THAT DATE.

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

the note at end of instances dopies of these p	
Acid and making same, paramethyl-amidophenylglyoxylic, F. Ach. Aerated waters on draft, apparatus for serving, J. P. Jackson Air cooling and purifying apparatus, C. W. Vollmann Alloy, antifriction metal, Pearse & Ievers. Alumina from silica sengrating. A Kayser	708,511 708,714
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Schofield Animal trap, S. Hetherington Ash tray, P. Kulicke Automatic alarm J. F. Laird	708,834 708,638 708,650 708,816
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dered, rendering, C. P. Sorensen Amalgam trap, G. R. Tuttle Amusement or roundabout apparatus, G. W. Schofield Animal trap, S. Hetherington Ash tray, F. Kulicke Automatic alarm, J. F. Laird Baby jumper, G. J. Holton Ball apparatus, captive, E. H. Miles Banjo vellums, drawing down device for, W. J. Stent Barrels, machine for making veneer, W. C. Grant Barsels, machine for making veneer, W. C. Grant Basket forming and stapling machine, N. E. Brown Battery plates, manufacturing secondary, G. H. Christian T08,694, Beam, structural metal, A. A. Strom Bearing, roller side, J. C. Wands Belt stud or fastener, Linderman & Binz Belt stud or fastener, Linderman & Binz Belt stud or fastener, Linderman & Binz Belt stud square, A. C. Cullmann Billiard cushion, R. A. Stevens Bin. See Grocer's bin. Bleaching apparatus, C. C. Clark Blind, window, W. R. Briggs Botter or desk pad, G. W. Buskirk Blowling engine, W. Kennedy Boat, submarine, J. P. Holland. Bolt machine, C. K. Lassiter Bone black kiln, W. T. Mohr Borling and drilling machine, B. E. Hervey. Bottle stopper, M. P. Wilson Bottles or jars, metal cap for, C. A. Calle- son Bowling alley, C. J. Olson Box, E. T. Noble Box covering machine, C. B. Baldwin Box fastenling, E. Fletcher Brake mechanism, D. S. Sebastian Brake shoe, J. D. Gallagher Brick press, J. J. Nieters Building renovating apparatus, D. F. Saun Building renovating apparatus, D. F. Saun Building sconstruction of metallic frame, C. E. Hebberd Button, F. E. Stanley Button, J. Hilder	708,686 708,725 708,922
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inson Caster, furniture, W. J. Martin Casting apparatus, D. T. & S. W. Croxton, reissue	708,895 12,028
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rison Elevator. See Grain elevator. Elevator, L. W. Dexter Elevator, M. A. Clennam Elevator, F. Pulwitt Emergency brake, W. W. Hopkins. Engine, T. Deakin Envelop filler, safety, G. E. Hurst. Exhibiting and vending machine, D. M. Winans	708,830 708,885 708,697 708,555
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Insect repellent, J. C. Kessler	708,649 708,941 708,948
mann Junction box, W. F. Bossert Kiln burning apparatus, G. F. Gray et al.	708,648 708,692 708,707
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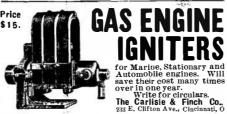
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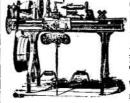
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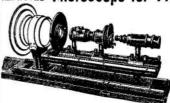
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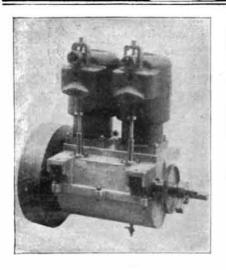
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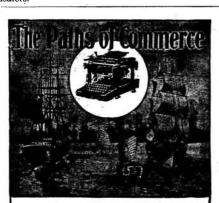
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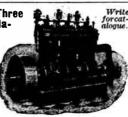
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