hicle is prevented. Should an attempt be made to open the lock without releasing the proper latches, an alarm will be sounded.

SPEED-RECORDER AND REGISTER FOR VEHICLES.—CARL FRANCKE and HEINRICH SCHWABACHER, Dessauertstrasse 6, Berlin, Germany. The apparatus will indicate the time at which a tram car left a station, the speed at which the car covered its journey, the time at which it completed the journey, and the various stopping places. The apparatus can also be made to indicate the total of the various separate journeys made within a certain given period.

BRAKE.—GASTON H. DE BERLY and EUGÉNE G. RASSINIER Rue Damrémont 4, Paris. France. The invention is chiefly characterized by the combination of a sleeve carried and fixed to the hub of spokes of a motor vehicle wheel, which sleeve is acted upon with braking effect by two rollers carried upon a lever. The lever is pivoted to the axle; and by its operation a progressive grip is obtained upon the inside or outside of the sleeve or upon both sides.

PAWL AND RATCHET BRAKE. — E. CANAPLE and F. THIÉBAUX, Germigny-l'Evêque, Seine et Marne, France. With this invention the driver of a vehicle may use both hands, if desired, to operate the brake lever, as the pawl and ratchet act automatically. By the shifting of a weight on the pawl the latter may be made either to engage the ratchet teeth or to swing free from them.

VEHICLE BRAKE.—J. W. PACKARD and W. A. HATCHER, Warren Ohio. The brake comprises a shoe mounted on a lever hung from the vehicle spring and actuated by a connecting-rod and foot lever. The shoe coacts with the inner periphery of an annular brake-rim fastened directly to the inner periphery of a wheel at one side of the spokes.

ELASTIC TIRE.—W. F. WILLIAMS, 17 and 18 Great Pulteney Street, Golden Square, London. The invention consists in embedding into the rubber an open-meshed fabric, of the nature of a fishing-net, formed of cords knotted together at their points of intersection. The meshes are large and open so that the rubber will fill and completely envelop them. The knots insure that the cords will mutually support each other, and they so strengthen the rubber as to prevent tearing.

Miscellaneous Inventions.

ARCH.—LOUIS LANE, Toledo, Ohio. Mr. Lane has devised an improved construction of small arched bridges, culverts, and the like. Arch plates spring from abutments, which plates are corrugated in the direction of their curve. A key-bar is arranged between the upper ends of the plates. To the bar plates are secured engaging the upper and under surfaces of the arched plates. By properly proportioning and employing metal arch-plates, the trouble and expense of temporary centering which has rendered the use of such arches impracticable in many places, owing to the great diversity of sizes, are saved.

CURRYCOMB.—JOSEPH E. GILBERT, Dansville, Mich. The scraper-blades are held together in pairs. Through slots in some of the scraper-blades, guide-bars loosely pass, which are held at their ends in the outer toothed bars. The scraper-blades can be moved endwise. Hence, it is possible to remove the adhering scurf from the comb, simply by moving the scraper-blades, and not by striking the currycomb against the floor or wall to its great injury.

CURTAIN-FIXTURE.—WILLIAM E. MATHEWS, Ferndale, Cal. The curtain-fixture is easily applied and readily adjusted. The same screw or clamp will operate to secure the curtain-bracket in any desired adjustment, and will, at the same time, bind the bars that form the bracket in clamping engagement with the window casing.

PAPER-FASTENER. — ROBERT MCMAHON, Manhattan, New York city. The paper-fastener consists of two members, of which one is provided with pins to be passed through the papers and to engage the other member. Registering apertures in the members permit the passage of a seal-ribbon. Flaps on the second member conceal and lock the pins without covering the registering aperture. The device fastens any desired number of superposed sheets securely together.

SHIPPING-BOX.—ASA E. PIPER, Buffalo, N. Y. The box is intended to hold and ship produce, such as butter, the construction being such that the box can be knocked down, so that several boxes can be made to occupy a very small space. The cost of manufacture is small.

CHATELAINE-BAG HOOK.—MARCUS T. GOLDSMITH, Manhattan, New York city. The inventor has devised a hook that is arranged to be held securely in position on the waist-belt, so that it cannot be accidentally detached. Only the wearer can remove the hook.

WINDOW BOX FOR PROTECTING FOOD.—ALEXANDER BOLLER, Manhattan, New York city. This folding box for windows can be closed up flat, so as to occupy a minimum amount of room in storage. Self-adjusting fastening devices permit the attachment of the box to a window-frame of almost any size. The upper lid can be raised or lowered to permit cleaning of the window-panes. The lower member can be adjusted to enable the window-sill and the bottom of the box to be thoroughly cleaned. The sides can be adjusted without disturbing the bottom. However slanting the sill may be, the bottom can always be maintained level.

BOTTLE CLOSURE.—JOHN SCHIES, Anderson, Ind. The neck of the bottle is grooved to receive a sealing strip, so formed as to be engaged by the threaded cap. The seal swells in the groove, while the cap is held to the seal by the screw-threads. The threading of the cap into the ring, as well as the moisture of the contents of the bottle, will operate to aid the natural resilience of the seal in forcing the seal into the groove of the bottle-neck.

SLIDE LOOP-CLIP.—ISAAC GOURES, 403 East Seventy-seventh Street, Manahattan, New York city. The invention is an improved device for holding a supporting strap or loop as adjusted on a belt of elastic webbing or the like. Mr. Goures' device is of simple construction, and, when in position, prevents the loop or strap from sliding along the web. The clip is so arranged that it will neither cut into nor soil the web during its movement.

PROJECTILE AND FUSE.—LEOPOLD JULIG, 348 Seventh Street, San Francisco, Cal. The invention is a new projectile and fuse, whereby greater effectiveness is obtained. It is an improvement upon that form of projectile in which the fuse or primer is ignited by the primary combustion of potassium, which, when brought into contact with water ignites and burns spontaneously.

CALCULATOR.—ARMAND T. BEAUREGARD, Stamford, Conn. This improved calculator is more especially designed for use in testing the accuracy of electric recording watt meters and finding by mere inspection the percentage error whether the meter be fast or slow.

CHATELAINE HOOK.—LOUIS B. PRAHAR, Brooklyn, New York city. Mr. Prahar has devised a simple, light and durable form of chatelaine hook, so constructed that it can be quickly applied to a belt or band, and as readily removed. The chatelaine hook is held to a support in such a manner that it can work no injury.

BAR MIXING-GLASS. — HENRY MORGAN, Cripple Creek, Colo. The invention provides a mixing-vessel having an internal hinge, and a strainer loosely pivoted on the hinge. The liquid passes through the strainer and into a serving-glass. The device is readily detachable.

CARBID CARTRIDGE FOR ACETYLENE GAS GENERATORS.—ELMER F. MACKUSICK, Manhattan, New York city. The inventor has devised a new and improved charge for acetylene gas generators, which is arranged hermetically to inclose the calcium carbid and to prevent its disintegration by moisture while not in use. An intermittent generation of gas is caused and the charge is submerged in water, thus insuring a cool generation of gas.

NOZZLE.—CHARLES A. SNIDER, Jersey City, N. J. A carrier provided with a number of different articles is movably mounted upon a support in such a manner that by moving it any one of the articles can be brought into an operative position. The invention is particularly applicable to nozzles for fire-hose or fire-hydrants. The construction is simple and compact; and its parts easily accessible.

VALVE.—ANTON WAGNER, Manville, R. I. The purpose of this invention is to enable one having charge of a valve to tell exactly to what extent the valve has been moved, and thus accurately regulate the amount of fluid that may pass through it. This end is attained by providing a peculiarly constructed scale used with the valve, so that all movements are recorded on the scale.

BOX.—AUGUST FLASKAMP, Crefeld, Germany. The box is intended to contain and display scarfs, neckties, and similar articles, and to hold the things displayed either directly on posts or supporters or between partitions. The individual supports for the articles or the supports for the partitions are simply constructed and securely fastened in position in the bottom of the box.

Designs.

HOOF PAD.—JOHN CAMPBELL, Manhattan, New York city. The body of the pad has at its side edges forward of the heel at the quarter two shoe recesses, the inner walls of which are formed by the outer surfaces of the projection. In the body at the underside there is a depression or pneumatic chamber which narrows toward the front of the pad and from which a channel leads through the heel to the back edge.

NECKTIE.—ABRAHAM W. COWEN, Manhattan, New York city. The design provides a combined four-in-hand and bow tie.

SUSPENDER YOKE. — BENJAMIN STEIN, Manhattan, New York city. The leading features consist of two connected side-wing sections curving upward and outward in opposite directions; and a downwardly-extending tab member, forming a portion of the central section of the yoke and continuous with the side-wing sections.

PURSE TOP.—SIDNEY A. KELLER, Manhattan, New York city. The leading feature of this design is an arch surmounted on the faces and other margin by a complete floral pediment.

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.

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

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

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

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

Inquiry No. 2209.—For makers of machines for making clay knobs, bushing cleats, etc.

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

Inquiry No. 2210.—For manufacturers of the Tesla electrical system for carrying ore and bags of grain.

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

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I will represent you in Europe. Hardware or novelty trades. Best references. "Europe." Box 773, New York.

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We develop inventions through their several stages, manufacturing for the market. Amstutz Osborn Co., Cleveland, O.

Inquiry No. 2215.—For makers of non-absorbent round paper boxes of 2¼ x 3 and ⅛ inches deep, plain outside.

Special and Automatic Machines built to drawings on contract. The Garvin Machine Co., 149 Varick, cor. Spring Streets., N. Y.

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

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WANTED.—Foundry chemist who can also superintend cupolas and produce iron at lowest cost. Young man preferred. Stover Manufacturing Company, Freeport. Md.

Inquiry No. 2221.—For flat steel 5-16 x 3-32.

Wanted—Revolutionary Documents, Autograph Letters, Journals, Prints, Washington Portraits, Early American Illustrated Magazines. Correspondence Solicited. Address C. A. M. Box 773, New York.

Inquiry No. 2222.—For cuts of Serrel or other automatic silk reel machinery; best loom for weaving organzine silk; best loom for weaving floss, for illustrating bulletin of a State Department of Agriculture.

WANTED.—Draftsman of first-class skill wanted in manufacture of highest grade fine instruments. Unusually attractive position for right man, satisfactory compensation and association with experts. Address, stating age, experience and desired salary, Electrical, Massachusetts. Box 773, New York City.

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Inquiry No. 2228.—For dealers in the slicer, blocker and taperer machines for manufacturing corks.

Inquiry No. 2229.—For dealers in machine shop outfits.

Inquiry No. 2230.—For makers of rock-drilling machinery and outfits

Inquiry No. 2231.—For dealers in model air cylinders and valves.

Inquiry No. 2232.—For makers of camel's hair cloth for hydraulic press work.

Inquiry No. 2233.—For manufacturers of pipes.

Inquiry No. 2234.—For manufacturers of baskets or cans for removing debris of villages and city streets.

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Inquiry No. 2237.—For manufacturers of spring guns.

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Inquiry No. 2239.—For dealers in yarn for blankets or robes.

Inquiry No. 2240.—For dealers in rims for cheese boxes.

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Inquiry No. 2242.—For a machine for mixing sand and other ingredients for making glass.

Inquiry No. 2243.—For parties to make novelties of white metal, aluminium, etc., to order.

Inquiry No. 2244.—For machinery for making wooden dishes for butter and lard.

Inquiry No. 2245.—For parties to manufacture small articles from pressed steel.

Inquiry No. 2246.—For manufacturers of seed and coffee triers.

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