

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

**GUARD FOR INCANDESCENT LAMPS.**—C. W. EISENMANN, Julian, Neb. The object of the invention is to provide a new and improved guard, more especially designed for protecting the glass bulbs of incandescent lamps and which is simple and durable in construction and arranged to permit convenient attachment to the bulb. The guard is readily placed in position and is wholly supported from the bulb itself.

Of General Interest.

**PARQUETRY FLOOR.**—C. M. KREBS, New Albany, Ind. The aim of the invention is to provide a floor not liable to warp or become disjoined, adapted to be quickly laid on an old or new wood subfloor, and arranged to secure nailing of the blocks and securing other exposed parts so that no nails or other fastening devices will be exposed to view, and to allow finishing of the parts of the floor at the shop, so that after assembling an even and level surface is produced and no further planing, scraping, sand-papery, puttying, or varnishing is necessary. Mr. Krebs has invented another parquetry floor to be completely manufactured in the factory, to leave as little work as possible for the floor layer, and adapted to readily bridge over existing short abrupt inequalities in a subfloor-surface, and to conform to gentle undulations, if any, in the subfloor, and prevent undue warping of the floor and its parts from becoming disjoined.

**JEWELRY-PROTECTOR.**—A. LANDAU, New York, N. Y. Mr. Landau's invention relates to protectors for jewelry and the like, being more particularly applicable to watches. It has for its principal objects the securing of such articles to the clothing of the wearer that while they may be readily detached by him they cannot become accidentally displaced nor easily snatched by thieves.

**SLEEVE-DRAPER.**—ETHEL LESSER, New York, N. Y. This invention has for its object the construction of a form which shall be more efficient and capable of easier handling and manipulation than prior devices of this character. The form shall be made of material which will permit an openwork construction, so that when the sleeve is adjusted upon the form it may be served from the interior, the open spaces affording access to the material for the proper manipulation of the material and of the drapery or trimming.

**KNOCKDOWN BOX.**—J. LUCAS, Charleston, S. C. In this patent the invention relates to improvements in that class of pasteboard boxes known as "knockdown" boxes; and the object is to produce a box of this character which is cheap to manufacture and when up is stronger and more durable than any now known or used. There are no projecting corners to catch, as in the ordinary form of knockdown box.

**ANKLE-BRACE.**—H. LUECK, New York, N. Y. The invention relates to ankle-braces adapted to be applied to shoes and intended to assist children in keeping their ankles straight when learning to walk and afterward until the ankles acquire their sufficient strength, and may also be worn by any and all persons having weak or injured ankles. The invention resides in the peculiar arrangement of combined cushioning and strengthening pads with respect to the shoe so that the brace may be used or not at will and when used forms an elastic inclosure for the ankle.

**COMPRESSION-INDICATOR FOR CALIPERS.**—C. C. McCLAGHRY, Atlanta, Ga. In this instance the purpose is the provision of a scale attachment for calipers and a pointer for the scale automatically carried across the scale as the measurement is taken and automatically returned to zero when the calipers are removed from the object, thus enabling a machinist, for example, to determine by sight when two or more objects are alike.

**NON-REFILLABLE BOTTLE.**—G. G. ROSS, Seattle, Wash. In this patent the inventor Mr. Ross has for his object the provision of certain novel details of construction for bottles used to put up for sale certain quantities of a vendible liquid—such, for example, as a popular brand of whiskey, brandy, wine, or the like—which will prevent the refilling in part or entirely of the bottle when emptied, and thus effectively prevent adulteration of the liquid or substitution of an inferior kind for that originally held in the bottle.

**TRAP.**—A. ZEIGER, New York, N. Y. This invention seeks to overcome a disadvantage in the usual S-trap used in plumbing and the like, and in carrying it out the inventor provides a trap with a cross connection running in its upper bend at a point above the water-line in the trap, this connection forming, with the upper bend, a divided passage from the lower bend, and thereby preventing that suction of the water in the lower bend which will result in siphoning out the said water.

**BLIND-LOCK.**—R. H. ASHMORE, Jefferson City, Tenn. In this patent the invention relates to novel and effective means for securing blinds at closed position and whereby they are rendered more secure against being opened on the outside. Before the very efficient securing means employed could be unfastened from the outside of the blinds, it would render necessary much cutting away of the blind by an intruder.

**GAGE AND MARKER FOR GARMENTS.**—A. R. WATERMAN, New York, N. Y. The purpose of the invention is the provision of a marking device and gage for garments adapted to expeditiously and accurately mark any garment which is to be taken up or shortened, the device being especially adapted for shortening or evening the bottom portions of skirts, coats, cloaks, or dresses of all kinds and sizes, whereby when a hem is to be made at the bottom of the garment or the garment is to be shortened the marking will be an even distance from the floor all around the garment.

**PROCESS OF MAKING SULFURIC ACID.**—A. L. STINVILLE, 10 Rue Chimonnier, Paris, France. Mr. Stinville's object is to secure the same results as those obtained by the Lunge tower—that is to say, the increase of the quantity of acid manufactured in a given system of lead chambers, while diminishing considerably at the same time the quantity of water-vapor injected for the reactions and doing away entirely with or reducing to a minimum the inconveniences offered by the towers.

**RULE-GAGE.**—H. McKECHNIE, North Seattle, Wash. The invention relates to improvements in gages or templates to be used in connection with a pocket-rule or the like in marking lines parallel with the edge of boards; and the object is to provide a device in which a person may place his finger while moving the rule along the board and prevent the finger contacting either at the side or end with the rough edge of the board, thus protecting the finger from splinters.

Heating and Lighting.

**GAS-BURNER.**—W. C. OBERWALDER, New York, N. Y. The prime object of the improvement is to provide a burner adaptable particularly to incandescent mantles, and in which the mixture of air with the gas to produce a Bunsen flame will be uniform and automatically regulated, according to the pressure of the gas, and also a burner in which there will be no danger of back-flashing of the flame or of interference with the flame by currents of air.

Hydraulics.

**SAFETY CONTROLLING - GEAR FOR FLUID PRESSURE ENGINES.**—E. CROWE, Birchholm, Bushey Wood, Tolley Rise, Sheffield, England. Mr. Crowe's invention relates to apparatus for automatically closing a stop-valve situated on the pressure-pipe leading to the engine when the engine attains or exceeds a certain speed, and has for its object the prevention of breakdowns consequent on accidental derangement or failure of the ordinary governing or controlling gear, or (in case of an engine hand controlled) in consequence of negligence or inadvertence of the engine-driver.

Machines and Mechanical Devices.

**APPARATUS OPERATED BY A PERFORATED BAND FOR CASTING SPACES.**—M. WEHRLIN, 74 Rue de la Victoire, Paris, France. In this patent the invention relates to improvements in machines for casting and composing movable type of the kind described in the English Patent No. 18,542. Mr. Wehrin's invention has for its object to simplify the device for the making of spaces to justify automatically the lines.

**AUTOMATIC CLUTCH FOR TYPE CASTING AND COMPOSING MACHINES.**—M. WEHRLIN, 74 Rue de la Victoire, Paris, France. Practice has brought to light a defect in the machines described in the English Patent No. 18,542—viz., that it is always necessary to be on the lookout when the last line of the registering-band is approaching and to stop the machine at the proper time just after the casting of the last character to prevent the machine, and particularly the piston, from running idle. The present invention relates to an arrangement whereby the casting-machine will be brought automatically to a stop after removal of the last line of composition, which will allow the attendant not to busy himself at all about the approach of the last line.

**TYPE CASTING AND COMPOSING MACHINE.**—M. WEHRLIN, 74 Rue de la Victoire, Paris, France. In movable-type casting machines operated by means of register-bands, in the course of a certain operation it has not been possible to produce at the same time as the usual printing-type a second sort of writing, called "distinguishing" printing-type, whereby a varied composition might be made. This invention relates to a device whereby without increasing the number of perforations (combinations of perforations) of the registering-band or the number of dies, and consequently the number of brackets supporting the same, it becomes possible to compose besides the usual printing-type a second sort of printing-type called "distinguishing" printing-type.

**ORE-CONCENTRATOR.**—S. BEER, Butte, Mont. Mr. Beer's invention relates to improvements in mills for separating the values from gold or other ores, an object being to provide a device of this character that may be built to set up at a comparatively small cost, that may be easily operated by water-power, and in which there will be but little wear and tear.

**LEMON-SQUEEZER.**—W. H. GREGORY, Vallejo, Cal. This improvement relates to a device provided with a magazine or storage-

bin in which lemons, limes, and other like fruit may be stored and with mechanism below this bin for cutting and squeezing the fruit, so that by the operation of this mechanism the fruits may be successively cut and squeezed. It is especially intended for use at bars or places in full view of the customer.

**FRUIT-SORTER.**—J. B. CRUM, Homeland, Fla. In this instance the invention relates to improvements in machines for sorting oranges, apples, and similar fruit, an object being to provide a machine for this purpose of simple construction, and by means of which the fruit may be rapidly sorted and the various sizes discharged in different piles or receptacles.

**COTTON-CLEANING MACHINE.**—E. J. GARDNER, Shawnee, Oklahoma Ter. In carrying out this invention, Mr. Gardner has particularly in contemplation the correlation and arrangement of certain elements by which all dirt, leaves, and hard substances will be separated from the cotton and the latter in a clean or renovated state will be delivered to a chute, from whence it is conducted to a proper receptacle or point.

**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 the 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. 5829.**—For machines for making pearl buttons.

**AUTOS.**—Duryea Power Co. Reading, Pa.

**Inquiry No. 5830.**—For a machine for making mica lamp chimneys.

For mining engines. J. S. Mundy, Newark, N. J.

**Inquiry No. 5831.**—For manufacturers of safety pins, also for machines for making the same.

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

**Inquiry No. 5832.**—For a machine for extracting the fiber from the meat.

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

**Inquiry No. 5833.**—For a hand machine for twisting wire for fencing.

FOR SALE.—Patents on collapsible umbrella. Box 1125, Omaha, Neb.

**Inquiry No. 5834.**—For an advertising device by which two endless chains have attached between them sheets of printed matter which are carried around and caused to drop at intervals by a pawl and ratchet.

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

**Inquiry No. 5835.**—For manufacturers of sand blast machines.

If it is a paper tube we can supply it. Textile Tube Company, Fall River, Mass.

**Inquiry No. 5836.**—For makers of small water meters with sufficient power to run a 20-watt dynamo.

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

**Inquiry No. 5837.**—For makers of incubators.

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

**Inquiry No. 5838.**—For a retail dealer in fancy woods (foreign and domestic) prepared for the scroll sawyer.

Patented inventions of brass, bronze, composition or aluminum construction placed on market. Write to American Brass Foundry Co., Hyde Park, Mass.

**Inquiry No. 5839.**—For manufacturers of spring meters.

Sheet metal, any kind, cut, formed any shape. Die making, wire forming, embossing, lettering, stamping, punching. Metal Stamping Co., Niagara Falls, N. Y.

**Inquiry No. 5840.**—For manufacturers of revolving hand fans.

Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machinery and tools. Quadriga Manufacturing Company, 18 South Canal Street, Chicago.

**Inquiry No. 5841.**—For addresses of tin plate mills, also makers of tinners' tools and machinery.

An Expert Mechanic on scientific instruments, etc., who has a laboratory fitted up for accurate work, wishes to meet a party engaged in scientific experiments, mechanical or electrical. Absolute privacy. Highest references. Electrical, 828 Kent Ave., B'klyn.

**Inquiry No. 5842.**—For manufacturers of wood wool, and quotations on the same.

**Inquiry No. 5843.**—For the address of the designer or maker of any filling or packing machine for packing absorbent material in a paper napkin, and in closing in a rubber band.

**Inquiry No. 5844.**—For makers of sand blasting machines, for sand blasting glass for signs.

**Inquiry No. 5845.**—For a motorcycle having a 1 1/2 or 2 h. p. engine.

**Inquiry No. 5846.**—For manufacturers or dealers in hats.

**Inquiry No. 5847.**—For a coating machine such as used for photographic papers.

**Inquiry No. 5848.**—Wanted, information concerning the making of wood alcohol, acetate of lime, etc., in connection with charcoal production.

**Inquiry No. 5849.**—For maker of aluminum and silver soda-water counter supplies.

**Inquiry No. 5850.**—For manufacturers of gilsonite and elaterite anti-corrosion paints.

**Inquiry No. 5851.**—For parties engaged in enameling such as used in tin cans, buttons, etc.

**Inquiry No. 5852.**—For makers of accessories for an umbrella factory, such as handles frames, etc.

**Inquiry No. 5853.**—For makers of centrifugal pumps.

**Inquiry No. 5854.**—For makers of gasoline engines, patterns and foundry mouldings.

**Inquiry No. 5855.**—For makers of portable houses or cottages.



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.

(9438) W. H. B. asks: Is there any method of preventing a reflection in show windows which have a dark oak backing and are roofed over with wood? At present, a person looking in the windows will see a dim reflection of himself besides the goods, so that they are not displayed to advantage. A pane of glass in a show window will reflect an image of a person standing in front of the window when the outside of the window is lighter than the inside. It cannot be avoided except by making the interior lighter than the exterior.

(9439) W. M. H. says: In "Experimental Science," Vol. I., page 407, the formula for Dr. Gassner's dry battery mentions among other ingredients, plaster, 3 parts by weight. Would you kindly tell me through your valuable paper what plaster is meant? I hardly think it can be plaster of Paris that is meant. Also what covering is used on this cell, to seal the contents from the action of the air? A. When plaster is called for in the formula for dry cells, plaster of Paris is meant. The cement over the top of the cell may be any resin, wax, or pitch which will become hard.

(9440) W. S. S. asks: 1. Are the neutralizing brushes on a Wimshurst influence machine used to start the generation of electricity in the machine by friction of the brushes on the sectors as they pass by brushes? If not, what starts the action of machine to generate electricity? A. The origin of the charge of the Wimshurst machine is not well understood. Writers of text-books usually begin the explanation by assuming one of the sectors to have a slight charge of electricity. After that, the course is simple. How this initial charge originates they do not state, since probably they do not know. The only allusion we have seen to the matter is in Ganot's "Physics": "The initial charge is probably obtained from the electricity of the air, or from the frictional resistance against it." It may be so. 2. What length of spark would the above machine give, if it had two 16-inch revolving glass plates, with the usual number of sectors on? A. The length of spark is limited by the distance between the balls on the ends of the collecting combs. If a machine has the discharging balls farther apart than this distance, the spark will jump between these balls and the axle upon which the plates turn. The spark length is usually considerably less than this distance. 3. How would gold leaf do to make the sectors of, instead of tinfoil? A. Gold leaf would answer the purpose of sectors for a Wimshurst machine, though it is not very tough, and would soon wear through by the friction of the brushes. 4. Is there any difference in quality between a 6-inch spark generated by an induction coil and one of same size made by the Wimshurst machine? A. There is a great difference between sparks produced by different sources of electricity. A fine thin spark and a fat thick one are very unlike in their effects. One can, without any inconvenience, receive the spark of an induction machine, but not of an induction coil. There is much more energy in the discharge of the coil.

INDEX OF INVENTIONS

For which Letters Patent of the

United States were Issued

for the Week Ending

July 26, 1904

AND EACH BEARING THAT DATE

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

|   |         |
|---|---------|
| Acid, apparatus for making sulfuric, Hege & Heinz | 765,834 |
| Adding machine, E. Fitch                          | 765,142 |
| Aerator, cream or milk, G. W. Kennedy             | 765,778 |
| Air brake system, W. Williams                     | 765,058 |
| Air compressor, J. S. Herriot                     | 765,923 |
| Air current governor, S. P. Smith                 | 765,796 |
| Alarm ship, J. Berry, reissue                     | 12,250  |
| Alarm for pneumatic feeders, T. J. Arnault        | 765,657 |
| Alloy and its manufacture, R. B. Wheatley         | 765,085 |
| Ammunition hoist, J. F. Meiten                    | 765,672 |