

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 disjointed, 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 disjointed.

JEWELRY-PROTECTOR.—A. LANAU, New York, N. Y. Mr. Lanau'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 vendable 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 "Hornsbury-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 mica.
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]

Table listing inventions and their patent numbers: Acid, apparatus for making sulfuric, Hege 765,834; Adding machine, E. Fitch 765,142; Acerator, cream or milk, G. W. Kennedy 765,778; Air brake system, W. Williams 765,953; Air compressor, J. S. Herriot 765,923; Air current governor, S. P. Smith 765,796; Air 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. Metten 765,672

Engineering CORRESPONDENCE

Our system of training by mail has helped thousands held down in poor positions to rise to better salaries and situations. Your chance to rise is just as good as others. Write for our free illustrated book, "Can I Become An Electrical Engineer?" We teach by mail, Electrical Engineering, Mechanical Engineering, Steam Engineering, Mechanical Drawing, Electric Lighting, Electric Railways, ELECTRICAL ENGINEER INSTITUTE, Dept. A, 240 West 23rd St., New York.



BLISS ELECTRICAL SCHOOL
214 G Street, N. W., Washington, D. C.


Offers a theoretical and practical course in ELECTRICITY complete in one year. Students actually construct Dynamom, Motors, etc. *Twelfth* year opens September 28. Send for Catalog.

THE STATE UNIVERSITY OF IOWA
SCHOOL OF APPLIED SCIENCE, Iowa City, Iowa.

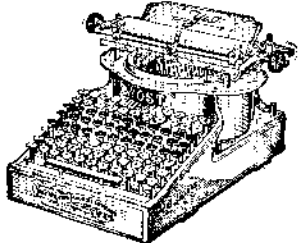
High grade courses in ENGINEERING. Numerous technical courses in special branches. Adequate equipment. University environment. Location unsurpassed. Expenses low. Address G. E. MACLEAN, President.

The Remington does not overwork the operator... the operator cannot overwork the Remington.

Work is easy on the Remington Typewriter for both the operator and the machine.



Remington Typewriter Co., 327 B'way, N. Y.



The **Light Running YOST** is easy to operate. Its **Beautiful Work** is easy to read. Our **Unusual Catalogue** is easy to understand.

Why not send for the **UNUSUAL CATALOGUE** and learn of the **BEAUTIFUL WORK** done by the **LIGHT RUNNING YOST**? Sent free.

YOST WRITING MACHINE CO., 245 B'way, New York

KENT POCKET METERS
Automatic Volt-Ammeter

is designed and calibrated especially for testing batteries on gasoline automobiles and launches and for any other use of like capacity. Accurate and substantial. Amperage reading made simply by pressing button. The most convenient and complete battery tester on the market.

Volt-Ammeter \$6.00. Amperemeter \$5.00.
Atwater Kent Mfg. Works, 110 N. 5th St., Philadelphia, Pa.

MILLS FOR ALL MATERIALS.

OUR BUSINESS IS TO MAKE MACHINERY FOR GRINDING, GRAIN CRUSHING, ROCKS AND PULVERIZING ALL HARD SUBSTANCES. WE HANDLE ALL KINDS OF MATERIALS FROM COTTON SEED TO ROOTS AND HERBS. BY AN UNEXCELLED PROCESS IF YOU WANT ANY KIND OF A MILL OR GRINDING MACHINE, COME TO US AND YOU WILL GET THE BEST AND STILL SAVE MONEY.

SPROUT, WALDRON & CO. MUNCY, PA.

50 Years' Experience

PATENTS

Trade Marks, Designs, Copyrights, Etc.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents. Patents taken through MUNN & Co. receive Special Notice, without charge, in the

Scientific American

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsdealers.

MUNN & CO. 361 Broadway, New York
Branch Office 26 F St. Washington, D. C.

Toy gun, R. M. Painter	765,786
Trap, R. N. Wynne	765,869
Trolley, W. O. Miller	765,850
Trolley, J. M. Olinger	765,852
Trolley wire clip, A. E. Holladay	765,974
Truck, car, E. Packham	765,989
Trunk harness, B. W. King, Jr.	765,895
Tubes, etc., manufacture of, B. F. McTear	765,673
Tubular boiler, C. Bioly	765,676
Turbine, G. M. Andersson	765,761
Turbine, I. Benjamins	765,800
Turbine, steam, M. D. Kalbach	766,044
Type casting and setting machine, G. A. Goodson	765,775
Type casting and setting machine, J. C. Fowler	765,965
Type writer actuating mechanism, W. G. Spiegel	765,799
Type writer attachment, J. A. G. Arnold	765,804
Type writer copy holder, D. M. Sells	766,120
Type writing machine actuating mechanism, electromagnet, E. K. Curtis	765,960
Type writing machine carriage feeding mechanism, J. A. Smith	765,861
Valve, Mattacks & Bradford	765,053
Valve device, C. H. Watters	765,867
Valve piston and connection, triple, Geltz & Hosack, reissue	12,245
Valve, puppet, H. Dock	765,727
Valves, means for operating pneumatic, W. Lintern	765,743
Vapor generator, J. Stubbers	766,122
Vehicle curtain, R. Wall	765,683
Vehicle lighting apparatus, J. A. Little	765,979
Ventilator, F. J. Prochaska	766,063
Violin, J. D. Loppentien	766,048
Wagon brake, J. J. Schofield	765,860
Wagon, dump, H. C. Tripp	766,123
Wall section for house building, portable, E. C. Mahoney	765,830
Washing machine, E. G. Ellis	765,918
Washing machine, H. A. Bierley	766,097
Watch renairing tool, combination, M. W. Sayidiah	766,067
Water purifying, Jewell & McGee	766,146
Water tube boiler, R. Gray	765,830
Weather strip, metal, H. E. Kenny	765,844
Weeder, wheel, S. Fuller	766,031
Weighing machine, automatic, E. G. Thomas	766,004
Weighing mechanism, automatic, A. H. Phillips	765,676
Wheel, See Double helical spur wheel.	
Whiffletree coupling, S. J. Davis	765,820
Whiffletree hook, A. R. Otterman	766,114
Whin sections, means for uniting, M. O. Felker	765,826
Whin stock loop connection, M. O. Felker	765,824
Whipping device, draft animal, J. Brooner	766,136
Whistle, steam, Anderson & Ayres	766,129
Wick, lamp, H. G. James	765,976
Window, H. E. Brown	765,870
Window, G. E. Gale	765,828
Window, R. H. Wunder	765,949
Window frame and sash, A. Rasner	765,857
Wiring system, house, J. W. A. Richardson	765,904
Worsted preparing and spinning machine, F. P. Shaw	765,713
Woven fabric, T. B. Dornan	765,961
Wrench, H. L. Bordwell	765,912
Wrench, W. N. Greer	766,145

DESIGNS.

Pin, clasp, H. W. Fishel	37,055
Rubber fabric, sheet, D. B. Martin	37,057
Spoons, forks, or similar articles, handle for, F. Habensack	37,056

TRADE MARKS.

Baking powder, J. H. Parrish	43,058
Beer, A. Schneider	43,056
Belting, certain named, C. L. Ireson	43,068
Car couplings, buffers, draft gears, and parts thereof, Gould Coupler Co.	43,072
Cigars, A. Caruncho	43,052
Coffee, green, E. de la Garza y Cia.	43,053
Coffee made from bananas, Banana Coffee and Food Co.	43,054
Corn cure, N. Chennasamy	43,061
Corn shellers, A. H. Patch	43,071
Corset covers, Maline Mills Co.	43,056
Duck and dress goods, Lowell Weaving Co.	43,049
Feed, certain named, Washburn-Crosby Co.	43,059
Fencing wire, Pacific Steel and Wire Co.	43,060
Mineral waters, Hyatso Mineral Water Co.	43,055
Oils, lubricating, Crew Levick Co.	43,066
Ointment, Joseph D. Brown Chemical Company of Baltimore City	43,063
Painters' supplies, certain named, Benjamin Moore & Co.	43,065
Paints for certain named purposes, Columbia Refining Co.	43,064
Paper, grease and moisture proof, R. S. Elliot	43,067
Salves, G. F. Fuerth	43,062
Slicers and kraut cutters, vegetable, E. C. Atkins & Co.	43,070
Thread, sewing, William Paton, Limited	43,051
Washing fluid, J. E. Fisher	43,060
Watches, C. F. York	43,048
Yeast, J. H. Marquardt	43,057

LABELS.

"Cinch Rubber Heels," for rubber heels, F. W. Whiteher	11,269
"Colonial Art Finishes," for finishing material, Chicago Wood Finishing Co.	11,279
"Dorothy Dix," for cigars, H. Sommer	11,275
"Dr. Straube's Hien-fong-Essence," for medicine, German-American Hien-fong Co.	11,272
"Erin Brand," for handkerchiefs, A. B. Heine & Co.	11,268
"Imperial Vaginettes," for suppositories, J. S. Falck	11,273
"Island Brand," for candy, E. Nevergood	11,277
"Miami," for baking powder, Miami Baking Powder Co.	11,278
"Paynes Healing Powder," for healing powder, Payne Drug Co.	11,274
"Sa-go-la Mountain Sage Tonic," for medicine, Rocky Mountain Sage Tonic Co.	11,270
"Speckled-Henn," for candy, Henn & Speck Co.	11,276
"Ticknor's Magic Capsules," for medicine, G. Ticknor	11,271

PRINTS.

"A Delightful Sweet to Eat," for milk chocolate, Huyler's	1,033
"Adele Clothes for fall and winter," for men's winter apparel, David Adler & Sons Clothing Co.	1,031
"Foy's Vest Pocket Foot Hook," for foot hooks, J. Foy	1,032
"Gold Medal Iowa Sorghum," for sorghum, Farrall & Co.	1,034
"Golfonella," for ladies' head gear, J. Rosenfeld	1,029
"Gustav Eisenkramer's Grand Darklight Cleaning Fluid," for cleaning fluid, G. Eisenkramer	1,035
"Please Customer," for men's clothing, G. V. Smith	1,030
"Pyramid Natural Cements Plaster," for cement plaster, United States Gypsum Co.	1,036

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for 10 cents, provided the name and number of the patent desired and the date be given. Address Munn & Co., 361 Broadway, New York.

Canadian patents may now be obtained by the inventors for any of the inventions named in the foregoing list. For terms and further particulars address Munn & Co., 361 Broadway, New York.

SPECIAL MANUFACTURING.

DIES AND STAMPINGS TO ORDER.

SPECIAL MACHINERY--MODELS--EXPERIMENTAL WORK

DROP FORGING DIES AND DROP FORGINGS.

HARDWARE SPECIALTIES--MANF. TO ORDER--SEND SAMPLES OR DRAWINGS FOR ESTIMATES. WRITE FOR OUR BOOKLET, THE GLOBE MACHINE & STAMPING CO. 870 HAMILTON ST., CLEVELAND, OHIO.

ICE MACHINES. Corliss Engines, Brewers' and Butchers' Machinery. THE FILTER MFG. CO. 893 Clinton St., Milwaukee, Wis.

CHEMICAL EXAMINATIONS OF ALL KINDS. R. H. C. STIEFEL, Bissell Block, Pittsburgh, Pa.

MODELS & GEARS. CATALOGUES FREE. UNION MODEL WORKS 193 CLARK CHICAGO.

MODELS & EXPERIMENTAL WORK. Inventions developed. Special Machinery. E. V. BAILLARD, Fox Bldg., Franklin Square, New York.

SAVE MONEY and appear neat by wearing M. & M. Rubber Collars. They never wilt or turn yellow. Price 25 cents. Send for catalogue. Agents wanted. Address M. & M. MFG. CO., 9th Street, Springfield, Mass.

THERMO-PILES \$3.00 each. For electrolytic assays, charging storage batteries, etc. Walsh's Sons & Co., Newark, N. J.

MODELS CHICAGO MODEL WORKS ESTABLISHED 1867 179 MADISON ST. CHICAGO, ILL. WRITE FOR CATALOGUE OF MODEL SUPPLIES

BUILDERS of Special Machinery. Models Experimental work. Inventions developed. THE FENN-SADLER MACH. CO., Hartford, Conn.

MODEL AND EXPERIMENTAL WORK. Electrical and Mechanical Instruments. Small Machy. EDWARD KLEINSCHMIDT, 82 W. Broadway, New York.

SPLITDORF SPARK COILS 25 VANDEWATER ST. N.Y.

MECHANICAL MANUFACTURERS wishing to establish branch in New York City, can be represented by NATIONAL SUPPLY CO., 335 Broadway, N. Y.

DRYING MACHINES. S. E. WORRELL, Hannibal, Mo.

TWENTY-FIVE DOLLARS CASH For information about a machine to wash (outside only) 50,000 round light-weight 5 and 20-ounce bottles per day. Four girls to attend. Or one of 20,000 two attendants, daily. STEVE J. THOME, 458 Wabash Ave., Chicago, Ill.

Dies, Tools, Models and Special Machinery. ROBERT F. MOORE, CHICAGO, ILL.

TYPEWRITER HEADQUARTERS
332 Broadway, New York, sell all makes under half-price. Don't buy before sending for samples of writing, prices, exchange and unparelled service. Immense stock for selection. Shipped for trial. Guaranteed first-class condition. Dealers supplied.

Manufacturers of **HARDWARE SPECIALTIES**
Contract Manufacturers and will market articles of merit
LORIMER MFG. CO., 153 S. Jefferson St., Chicago, Ill.

SETS OF CASTINGS OF MODEL ENGINES SEND 10¢ FOR 126 PAGE ILL. CATALOGUE. ALSO TOOLS. GEAR WHEELS & PARTS OF MODELS. GOODNOW & WIGHTMAN, BOSTON. Removed to 132 Milk Street.

BARAINS IN MARINE ENGINES. 2 1/2 H.P. 1250 R.P.M. 2 and 4 cycle. Single double triple and 4 cylinders, auto marine and working engines. High and low speed. The best on the market for auto, speed or racing boats, launches, cruisers and auxiliary yachts. We also manufacture the only true Self Reversible Propeller Wheel, the best wheel in the world. Write for full descriptive catalog B. Agents wanted in every country. Michigan Motor Co., Grand Rapids, Mich.

Eclipse Pocket Ammeter
For general battery testing. 0 to 30 amperes.
Flexible cord attached and contact spur in case, which is drawn back into case, when carried in pocket. Size of watch and very light weight. Can be used in any position. Particularly designed for Auto. use. Price \$5.00.
ELDRIDGE ELECTRIC MFG. CO. 237 Main St., Springfield, Mass.

JEFFREY ELEVATING--CONVEYING--POWER For Catalogues address THE JEFFREY MFG. CO. TRANSMISSION--SCREENING--DREDGING--COAL CUTTING DRILLING--HAULING--WASHING MACHINERY. NEW YORK BKS 934

Roof Leak?
Makes Roofs Last Ten Years Longer

Will Make Your Old Roof Absolutely Waterproof and Look Better Than a New One and Save the Price--Will Add Ten Years to the Life of Any Roof--Guaranteed

Liquid Samples and Book Showing Various Uses Sent Absolutely Free on Request

It is useless to go to the expense of putting on a new roof when you can make the old one good as new in point of service, have it look better and save the price. ROOF LEAK will do it. Guaranteed. It will make an old leaky roof absolutely waterproof. It will add ten years to the life of any roof, new or old. It stops and prevents rusting in tin or iron roofs and arrests and prevents decay in shingle roofs.

ROOF LEAK is put up in heavy liquid cement form and is applied as received. You will be surprised to learn how cheap you can make your old roof new or make your new roof last a lifetime. It will not crack in winter or soften in summer, and is highly FIREPROOF.

ROOF LEAK has been made and sold since 1898 and is increasing in popularity and use at an enormous rate. It is being used on the houses, barns and granaries of the farmers of our land, and on the beautiful homes and cottages of our cities. The roofs of mills, elevators, store buildings, factories, depots, roundhouses, hotels, churches and schoolhouses throughout the length and breadth of the land are being beautified, made whole and durable by ROOF LEAK. Has been adopted by the U. S. Marine Hospital service, prominent railroads and steel works. It gives equally good service on tin, iron, felt or shingles. When you buy it you have the assurance that you are not only saving the price of a new roof but that you are getting a roof that will last longer, look better and be better than anything else you could get. It has been tried and stood the test.

There is but one ROOF LEAK and is sold in our original kits bearing our signature and trade-mark, not sold in bulk. Anyone having a roof that he wants to set ten years more service from without the expense of a new roof should write at once and get liquid samples and interesting book showing various uses, all of which will be sent absolutely free on request. Write to-day and save the price of a new roof or insure the prolonged life of roofs in good condition.

Ellicott Varnish Co. 156 Fulton St., Chicago 263 Pearl St., New York

MANUFACTURERS OF FINE VARNISHES

MIENNER'S BORATED TALCUM TOILET POWDER

A Positive Relief
PRICKLY HEAT, CHAFING, and SUNBURN, and all affections of the skin.

Removes all odor of perspiration. De-lightful after shaving. Sold everywhere, or mailed on receipt of 25c. Get Mennen's (the original). Sample Free. GERHARD MIENNER COMPANY, Newark, N. J.



YOUR EYE

RIGHT HERE!



Now let us send you the Free Book telling all about it. We will also send you for fifty original samples of pens for improving your handwriting.

Conklin's SELF-FILLING PEN

"The Pen That Fills Itself"


Dip pen in any ink well or any ink, press lever and operation is over. As a matter of cleanliness, comfort and convenience don't you see it to yourself? Learn more about this perfect pen!

If you will let us send you our beautiful new illustrated catalogue, it will make you a CONKLIN enthusiast.

The Conklin Pen Co. 117 Madison Ave. Toledo, Ohio

Represented in Great Britain by American Agencies, Ltd., 38 Shoe Lane, Farringdon St., London, E. C. in Australia by Rae, Mann & Gilbert, 47 Market St., Melbourne.

Trains arrive and leave by ELGIN TIME



The Elgin Watch is as indispensable to the traveler as it is to the great railroad systems. Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches.

"Timemakers and Timekeepers," an illustrated history of the watch, sent free upon request to

ELGIN NATIONAL WATCH CO., Elgin, Ill.

