

## 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.

"U. S." Metal Polish. Indianapolis. Samples free.  
Inquiry No. 8258.—For manufacturers of prong br.ikes.

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

Inquiry No. 8259.—Wanted, addresses of companies having experience in crude oil burners for annealing ovens.

I sell patents. To buy or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.

Inquiry No. 8260.—For manufacturers of McCall sleeping tent.

The celebrated "Hornsby-Akroyd" safety oil engine. Koerting gas engine and producer. Ice machines. Built by De La Vergne Mch. Co., Ft. E. 138th St., N. Y. C.

Inquiry No. 8261.—For manufacturers of "cotton-flock" for the wall-paper printing trade.

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

Inquiry No. 8262.—For makers of styptic pencils in quantities.

Automobile experts are in constant demand at high salaries. Our seven weeks' course is the most thorough and practical, fitting men to drive, handle and repair. Day and evening classes. Special course for owners New York School of Automobile Engineers, 146 West 56th Street, New York.

Inquiry No. 8263.—Wanted, the address of the Crown Cap Co., manufacturers of the metal cap for bottles; also for makers of similar bottle caps.

Inquiry No. 8264.—Wanted, the name and address of a second-hand dealer in screw and drop presses.

Inquiry No. 8265.—For makers of mail order goods.

Inquiry No. 8266.—For makers of or dealers in magnets or loadstones of considerable power.

Inquiry No. 8267.—For manufacturers or jobbers of a hand or tubular lantern using calcium carbide to produce the gas for fuel in same.

Inquiry No. 8268.—Wanted, address of Follett Steel Numbering Machine Co.

Inquiry No. 8269.—For manufacturers of galathea substance entering into the composition of combs, buttons, etc.

Inquiry No. 8270.—For manufacturers of machines for knitting tapes, etc.; also manufacturers of brass tips for shoe lathets.

Inquiry No. 8271.—For manufacturers of gum-vending machines.

Inquiry No. 8272.—For manufacturers of machinery for making refuse hardwoods, sawdust, etc., into alcohol and other by-products.

Inquiry No. 8273.—Wanted, address of party handling warrentite, which is a clay produced in Ohio.

Inquiry No. 8274.—For manufacturers of machines for assembling wooden cases of different sizes.

Inquiry No. 8275.—For manufacturers of square root angles.

Inquiry No. 8276.—For manufacturers of machinery for the turning of spools, such as ordinary sewing thread is wound on.

Inquiry No. 8277.—For manufacturers of machinery for making dry pressed brick and tiling out of mineral, so that they do not require burning afterward.

Inquiry No. 8278.—Wanted, address of Goodnow & Wightman, dealers in models and tools, formerly of 63 Sudbury St., Boston, Mass.; also manufacturers of model engines and boilers in Boston.

Inquiry No. 8279.—For manufacturers of portable machines for making concrete pipes, hand machine preferred, and pipes should be 6 inches to 15 inches in diameter, more or less.

Inquiry No. 8280.—For manufacturers of sand lime brick machinery.

Inquiry No. 8281.—For manufacturers of glass tubes about 12 inches long, 1/4 inch outside diameter and 5-16 inch inside diameter.

Inquiry No. 8282.—Wanted, names and address of parties making bronze tablets.

Inquiry No. 8283.—For manufacturers of roll paper holder and cutter.

Inquiry No. 8284.—For manufacturers of fish nets.

Inquiry No. 8285.—For manufacturers of boring machines.

## RECENTLY PATENTED INVENTIONS.

### Of General Interest.

ORE-SEPARATOR.—S. J. ROGERS, Bingham Canyon, Utah. An inclined frame is employed, associated with which is an endless traveling belt, onto which the ore pulp or slimes is fed or supplied, means being employed for delivering the material to the belt and other means for so washing the pulp or slimes upon the belt as to more readily effect separation of minerals therefrom by causing the tailings to flow or pass from the belt in a direction opposite to that in which the minerals are conducted.

LEVEL.—J. L. RUSSELL, Andersonia, Cal. In the use of this device one of the end sections is placed at the point to which the level is to be referred. The opposite terminal is then carried to the place at which the level is to be fixed, the length and flexibility of the tube permitting this, and raised or lowered until the liquid at both ends stands at corresponding marks upon the scales. This fixes the desired level. The scale in connection with the tube may be employed in the ordinary way for measuring distances or heights.

EXCAVATING APPARATUS.—R. E. PAGE, Los Angeles, Cal. A reversible scraper is employed having two cutting edges and adapted to be handled in an operative condition on each trip back and forth across the ditch, canal, or other ground to be removed. Means are associated with the scraper for holding it in operative condition during the excavating and loading operation and when fully loaded, said means being also effective in dumping the scraper when it reaches the point of discharge.

SQUARE.—A. W. HIGHT, Ballard, Wash. The invention relates to a carpenter's or other mechanic's square; and it resides particularly in a beveling device applied to the stock of the square. Used as a square, the beveling arm is pushed between the plates of the stock, and interferes in no way. To use the arm, the elbow-lever is operated to relax pressure of the offset part on the arm, and then this arm should be drawn out to adjustment desired, either of two scales being referred to to determine adjustment. After adjustment the beveling device should be locked by the elbow-lever.

### Household Utilities.

CURTAIN-FIXTURE.—T. LAUTHER, Tarentum, Pa. In this instance the invention relates to improvements in fixtures for supporting window shades and curtains, the object being the provision of a fixture of very simple construction that may be readily attached to a window-casing and adjustable to different widths of casings.

### Machines and Mechanical Devices.

ATTACHMENT FOR GRINDING MACHINES.—G. E. BUCK, Newburg, Iowa. The principal objects of this invention are to provide means for mounting disks or cutters in proper relation with respect to an emery-wheel or other grinding device in such a manner that work will be perfectly done without attention except for removing the disk when sharpened; also to provide means for varying the degree of pressure between the cutter and the grinding-tool, and to provide for accurately holding the cutter in position and adjusting its support to and from the grinding device.

RIMMING-MACHINE.—G. A. ENSIGN, Defiance, Ohio. The object of the present invention is to provide certain new and useful improvements in rimming-machines whereby the tenons of the spokes are brought into proper alignment with the apertures in the rim-sections immediately previous to the reciprocating starting-plunger driving the rim-section onto the first portion of the tenon. It relates to woodworking-machinery, and more particularly to rimming-machines—such for instance as shown and described in the Letters Patent of the United States, No. 733,826, granted to Mr. Ensign.

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.

## INDEX OF INVENTIONS

### For which Letters Patent of the

### United States were Issued

### for the Week Ending

July 24, 1906.

### AND EACH BEARING THAT DATE

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

Abacus, A. Monachimoff..... 826,732  
Acid and calcium carbide, making hydrochloric, W. H. Seamon..... 826,614  
Advertising device, H. N. Miller..... 826,681  
Agglomerates and agglutinants, making, R. A. Le Maitre..... 826,948  
Air and vacuum motor, G. W. Johnston..... 827,021  
Air brake apparatus, Geltz & Hosack..... 827,093  
Air separator, G. S. Emerich..... 826,772  
Alarm for use in connection with bags and the like, H. Abrahams..... 826,644  
Amusement device, H. H. Pattee..... 826,738  
Anchor for air ships, D. Thomas..... 826,908

## Wood-working Machinery

For ripping, cross-cutting, mitering, grooving, boring, scroll-sawing edge moulding, mortising; for working wood in any manner. Send for catalogue A. The Seneca Falls M'g Co., 685 Water St., Seneca Falls, N. Y.

## Engine and Foot Lathes

MACHINE SHOP OUTFITS, TOOLS AND SUPPLIES. BEST MATERIALS. BEST WORKMANSHIP. CATALOGUE FREE. SEBASTIAN LATHE CO., 120 Culvert St., Cincinnati, O.

Foot and Power and Turret Lathes, Planers, Shapers, and Drill Presses. SHEPARD LATHE CO., 133 W. 2d St., Cincinnati, O.

## Veeder Counters

to register reciprocating movements or revolutions. Cut full size. Booklet Free. VEEDER MFG. CO., 18 Sargeant St., Hartford, Conn.

Cyclometers, Odometers, Tachometers, Counters and Fine Castings.

THE CLIPPER CLIP. Its triangular shape prevents entangling and gives three times the capacity of any other Clip for attaching papers together. Best & Cheapest. All Stationers. CLIPPER MFG. CO., 401 West 124th St., New York, U.S.A. For free samples and information write to us.

PAPER GAUGE MICROMETER. Measures thickness of paper, cardboard, sheet rubber, etc. by thousandths. Capacity 11-22 in. Cat. No. 178 of Free Tools free. The L. S. Starratt Co., Athol, Mass. \$6.75

## Very Low Rates to Minneapolis and Return via Nickel Plate Road.

August 10, 11 and 12, account G. A. R. National Encampment. Choice of routes beyond Chicago. Final return limit may be extended to September 30. For full information call on A. W. Ecclesstone, D. P. A., 385 Broadway, New York City, or write R. E. Payne, General Agent, 231 Main Street, Buffalo, N. Y.

A. W. Fisher. Manufactory Established 1761. Lead-Colored & Slate Pencils, Rubber Bands, Erasers, Ink, Penholders, Rubbers, Water Colors, Improved Calculating Rules. Send for descriptive Circular S. 44-60 East 23d Street, New York, N. Y. Grand Prize, Highest Award, St. Louis, 1904.

## "Econo" Emery Wheel Dresser

Size 12 in. Made of an abrasive near by ashland as the Black Diamond. Will true or shape any wheel except the very hard and carbured. The "Econo" is the roughing tool placed in the handle end of "Econo." Send for circular. Dresser sent on 15 days' trial. INTERNATIONAL SPECIALTY CO., 360 Holden Ave., Detroit, Mich.

## Electrical Engineering

and Experimental Work of Every Description. We have every facility for producing first-class work promptly. Our factory is equipped with modern machinery throughout.

C. F. SPLITDORF. Engineering Dept. 17-27 Vandewater St., N. Y. City

## WORK SHOPS

of Wood and Metal Workers, without steam power, equipped with BARNES' FOOT POWER MACHINERY. allow lower bids on jobs, and give greater profit on the work. Machines sent on trial if desired. Catalogue Free. W. F. & JOHN BARNES CO. Established 1872. 1999 RUBY ST. ROCKFORD, ILL.

## B. F. BARNES ELEVEN-INCH SCREW CUTTING LATHE

For foot or power as wanted. Has power cross feed and compound rest. A strictly high grade, modern tool. Ask us for printed matter. Descriptive circulars upon request. B. F. BARNES CO. Rockford, Ill. European Branch, 149 Queen Victoria St., London, E. C.

## Regal Marine Engines

Four Cycle Automobile Type with Jump Spark Ignition. Single Cylinders, 1 1/2, 3 and 5 h. p. Double Cylinders, 8 and 15 h. p. Four Cylinders, 30 h. p. Also a superior line of Stationary Engines. It pays Engine buyers to read our new catalogue No. 12. Regal Gasoline Engine Co. COLDWATER, MICH.

## For Either Hand or Power

This machine is the regular hand machine supplied with a power base, pinion, countershaft, etc., and can be worked as an ordinary power machine or taken from its base for use as a hand machine. Length of pipe handled easily in small room. Illustrated catalogue—price list free on application. MACHINE No. 78. Range 2 1/4-4 in. R. H. THE CURTIS & CURTIS CO., 6 Garden St., BRIDGEPORT, CONN.

Anchor plate, C. Thompson..... 826,909  
Animal trap, A. A. Kellogg..... 826,942  
Anthracene dye, green, R. E. Schmidt..... 826,750  
Armor plate, E. Gathmann..... 826,562  
Automatic door-closing device, F. Hudson..... 826,574  
Automatic sprinkler for fire extinguishers, W. D. Murray..... 826,866  
Automobile, L. R. Compton..... 827,058  
Axle lubricator, R. A. Mack..... 826,588  
Bag holder and weighing apparatus, Edwards & Howell..... 826,771  
Bale tie machines, loop forming mechanism for, A. M. Griffin..... 827,065  
Bale tie machine, twisting mechanism for, A. M. Griffin..... 827,064  
Ball and socket joint, W. von Pittler..... 826,608  
Bandage, suspensory, H. J. Wortz..... 826,815  
Barrel, R. W. Hardie..... 826,847  
Barrels and the like, elevator for, W. B. Pavey..... 826,877  
Bearing for hydraulic giants, ball, M. L. Gordon..... 826,931  
Bed bottom, elastic, H. Richardson..... 827,034  
Bed bottom fabric, H. Richardson..... 827,035  
Bed, davenport, I. Conway..... 826,994  
Bed, folding, O. H. Miller..... 826,590  
Bedstead attachment, A. M. MacIlwaine..... 826,950  
Belt, driving, H. E. Smallbone..... 826,899  
Blast furnace attachment, C. Abercrombie..... 826,819  
Blast furnace twyer, T. Evans..... 826,715  
Blast regulator for fanning mills and thresher fans, G. M. Ortmann..... 826,869  
Block press, P. L. Simpson..... 826,751  
Bluing, laundry, C. R. Groff..... 826,567  
Boiler. See steam boiler.  
Boiler, A. M. Cushing..... 826,548  
Boiler feeder, T. S. Horry..... 826,786  
Boiler water gage and column, steam, J. Engler..... 827,002  
Book and portfolio clasp, H. B. Nissly..... 826,957  
Book, blank, P. J. Golden..... 826,564  
Book support, H. L. Cowing..... 826,707  
Boot cleaner, J. C. Scoggins..... 826,808  
Boring mechanism, E. Waldron..... 826,755  
Bottle, J. T. Brillhart..... 826,919  
Bottle closure, C. E. McManus..... 826,796  
Bottle, non-refillable, F. H. Hubbard..... 826,724  
Bottle, non-refillable, W. A. Statmann..... 826,906  
Bottle, non-refillable, F. L. Anderson..... 827,051  
Bottle stoppers, permutation lock for, J. C. Bowers..... 827,053  
Brake-setting device, E. Godley..... 826,780  
Branding machine, Kieffer & Rebsamen..... 826,943  
Brick for building sidings, S. Worster..... 826,838  
Brooder, E. Grummer..... 826,932  
Bucket, clam shell, S. Swedberg, reissue..... 12,514  
Building block and wall, J. A. Ferguson..... 826,777  
Building block molding machine, L. P. Normandin..... 826,599  
Building block molding and pressing machine, J. Jeager..... 826,576  
Building shattering means, J. Spelman..... 826,904  
Butter cutter, F. J. Felling..... 826,716  
Butter separator, A. Fay..... 826,839  
Cabinet, writer's, C. Teeter..... 826,824  
Calipers, micrometer, F. B. Prewett..... 826,633  
Can top scoring apparatus, F. C. B. Page..... 826,601  
Car and engine replacer, A. M. Peebles..... 826,961  
Car construction, metallic, E. I. Dodds..... 826,652  
Car coupling, F. A. Moore..... 826,951  
Car door, grain, C. H. Luthman..... 827,026  
Car door lock, B. B. Ross..... 827,037  
Car dump, S. Otis..... 826,873  
Car frame, metal, C. T. Clarke..... 826,832  
Car step, D. Faut..... 826,826  
Car underframing, Williamson & Fries..... 826,982  
Carburetor, J. E. M. Briest..... 826,531  
Carburetor, J. P. Kemp..... 826,787  
Carburetor, O. H. Hinds..... 826,936  
Carton and gauze cap, combination, C. R. Lindsay, Jr..... 826,949  
Casting mold, M. R. Cuff..... 826,997  
Catamenial sack, D. A. Powdermaker..... 826,881  
Cattle guard, railway, J. R. Horton..... 826,663  
Cement plastering and concrete, fabric for, B. von Busse..... 826,989  
Chain wrench, C. F. Halger..... 826,859  
Chair attachment, barber's, W. C. Mueller..... 826,954  
Chalk holder, H. F. & E. Neumeyer..... 826,736  
Change maker, H. E. Madison..... 826,675  
Cheese cutter, A. M. Horne..... 827,018  
Cheese holder, O. M. Lissak..... 826,790  
Chute and gravity conveyer, combined, M. C. Schwab..... 826,613  
Cigar cutter, F. Ratcliff..... 826,804  
Cigarettes, making, S. I. Prescott..... 826,800  
Clasp. See Book and portfolio clasp.  
Clayware, kiln for burning, F. W. Butterworth..... 826,831  
Clock and savings bank, coin-controlled, A. J. Hall..... 826,933  
Clothes drier, C. Noble..... 826,684  
Clothes drier, T. M. Anderson..... 826,823  
Clothes line pulley, H. Koorie..... 826,727  
Clothes pin, A. F. Ruhlow..... 826,965  
Clothes wringer, centrifugal, J. H. Therien..... 827,046  
Clutch, friction, A. F. Mack..... 826,794  
Coffee pot, A. Peterman..... 826,798  
Coin controlled mechanism, F. J. Tefft..... 826,972  
Collars, rim for horse, W. B. Estes..... 827,061  
Compounds and producing carbids, apparatus for reducing, E. F. Price..... 826,745  
Compounds and producing carbids, reducing, E. F. Price..... 826,743  
Computing mechanism for weighing scales, J. T. Hier, Jr..... 827,015  
Concrete slab crib, double interlocking, M. J. Haney..... 827,013  
Condenser, F. Englietner..... 826,773  
Controlling and driving horses without bits, means for, H. J. Udhag..... 826,810  
Controlling device for cars, electric, J. H. K. McCollum, reissue..... 12,510  
Conveyer, C. E. Christ..... 826,991  
Cooker, N. T. Hanson..... 827,014  
Cooler or condenser, J. Schneible..... 826,966  
Copy holder, F. Drake..... 826,770  
Copying devices, paper holder for roller, P. H. Yawman..... 826,642  
Corn flour and producing the same, Wreford & Besteiro..... 826,983  
Corn husking machines, ear retarder for, J. H. Pitzer..... 826,880  
Couch, combined invalid and surgical, V. Whittington..... 826,978  
Counter molding machine, W. G. Stewart..... 826,697  
Coupling, E. Waldron..... 826,756  
Cover, mucilage and paste vessel, E. Gebhardt..... 826,844  
Crate, folding, H. H. May..... 827,028  
Creepers for animals, L. A. Gardner..... 827,005  
Cross tie, G. E. Angell..... 826,527  
Cultivator, disk, G. W. Mixer..... 826,795  
Cultivator, garden, T. K. Colgate..... 826,782  
Cap and suture rack, J. K. Smith..... 826,940  
Curtain fixture, A. M. Rov..... 826,931  
Curtain fixture, M. E. Dinsmore..... 827,000  
Curtain for vehicles, storm, J. Krauss..... 826,671  
Cuspidor cleaner, Halvorson & Johnson..... 826,657  
Deckle strap, J. S. Patterson..... 826,739  
Dental engine, cord suspension electric, J. V. Trenaman..... 826,629  
Dental swaging device, G. J. Weber..... 826,977  
Dental tool, J. H. Abbott..... 826,818  
Desk reminder, perpetual, F. G. Gerow..... 826,656  
Diastatic substance and making same, J. Takamine..... 826,699  
Die for rope clamps, E. Covert..... 826,766  
Dies, threading, W. Richmond..... 826,610  
Disk, drill attachment, J. W. Smith..... 826,901  
Display rack, J. H. Best..... 826,826  
Display rack, E. B. Weston..... 827,050  
Diving dress, A. McGregor..... 827,029  
Door and gutter, hatch, A. Priddle..... 826,746  
Door chute, T. F. Clark..... 826,541  
Door securer, W. P. Carter..... 826,538  
Door spring, J. C. May..... 826,730  
Doors, etc., device for securing and sealing, P. Bruno..... 826,647  
Draft evener, J. D. Gamble..... 826,778  
Dredging machine, L. Coiseau..... 826,993  
Drill block and bench block, combined, C. F. Train..... 827,062  
Drum and cymbal holder and beater, bass, J. W. Pepper..... 826,602  
Duplicating apparatus, E. R. Moore..... 826,733  
Dynamo, E. C. Ketchum..... 826,668  
Egg cup and cutter, E. N. Gaillard..... 826,843  
Electric conductors, safety device for overhead, E. Giraud..... 826,845  
Electric cut-out, H. E. Trumbo..... 826,974  
Electric furnace, B. Platschick..... 826,962

# Concrete Houses

## CHEAP AND ARTISTIC

SEE the August number of AMERICAN HOMES AND GARDENS for photographs and plans of actually-built modern-priced concrete country houses and illustrations showing how concrete may be applied to interior construction, such as stairways, mantelpieces, ceilings, floors, etc. Price 25 cents.

MUNN & COMPANY, 361 Broadway, New York City

# "Maxwell"

## What do the Owners Say?

That is the best question to ask, when selecting a 'tomobile Maxwell owners are the Maxwell's best advertisements.

The contentment and satisfaction that stands out all over them is the most "catching" thing in the motor world. Just talk to one of them and get the "sunny side" of the automobile question.

Multiple Disc Clutch. Three-point Suspension of Motor and Transmission (Unit).

Metal Bodies. No Noise. No Vibration.

Send for our book "Facts and Testimony" which contains letters from 82 owners who enjoy telling what they know of the "Maxwell." Free to those sending for our catalogue.

Write Department 22.

20 H. P. Touring Car \$1,450 10 H. P. Tourabout \$780

MAXWELL-BRISCOE MOTOR CO.

Members American Motor Car Manufacturers' Association

FACTORIES

Main Plant: TARRYTOWN, N. Y.  
Chicago, Ill. Pawtucket, R. I.

BRANCHES: Maxwell-Briscoe, Inc., New York, N. Y.; Maxwell-Briscoe-Chase Co., Chicago, Ill.; Fisher Automobile Co., Indianapolis, Ind.; Morrison Tyler Motor Co., Boston, Mass.; Maxwell-Briscoe-McLeod Co., Detroit, Mich.; Maxwell Garage, Brooklyn, N. Y.; J. W. Wilcox & Son, Los Angeles, Cal.; Richard Irvin & Co., New York City.



**THE Underwood ALTIITUDE**

A Height of Typewriter perfection imitated but never equalled.

UNDERWOOD TYPEWRITER CO.  
241 Broadway  
New York

Branches in every principal city.

## Mound City Dishwasher

The Only Scientifically Constructed Dishwasher on the Market



No More Drudgery  
Dishwashing Made Easy  
Washes all kinds of dishes, glass and silverware. Can be used on gas, oil, wood or coal stove. Family size will wash 20 to 30 assorted pieces at one time. There is more popular demand for a cheap, practical and durable Dishwasher than any article that can be mentioned. Every lady wants one. Agents wanted. Our agents, both men and women, are making big money. Secure the agency for this wonderful seller in your territory. Agents wanted in all foreign countries. Send at once for testimonials, full particulars and prices. Dept. B.

Mound City Dishwasher Co., Dept. 628, St. Louis, Mo.

FREE!

## Every Factory Should Have This Book

Friction gearing is rapidly displacing many forms of "toothed" gearing in the modern factory. New problems have arisen. This book solves them.

We are the largest manufacturers of

## PAPER & IRON FRICTIONS AND PAPER PULLEYS

The Rockwood kind of paper equipment is by far the best and most satisfactory. It will increase the efficiency of your machinery, and save you money from the very first.

The Rockwood book is a valuable treatise on the whole subject. Tables, facts and formulas. Copyrighted. Sent free to those who need it. State occupation and firm connected with.

The Rockwood Mfg. Co.  
1904 English Ave.  
Indianapolis, Ind., U. S. A.

Electric machines, pole piece for, N. A. Christensen	826,650
Electric signal, A. B. Dungan	826,551
Elevating and unloading apparatus, J. W. Coghill, Jr.	826,709
Elevator, A. Aker	826,821
Elevator cut-off device, W. B. Jones	826,858
Elevator device, C. S. Burnham	826,538
Elevator safety device, F. C. Furrow	826,538
Elevator safety device, D. F. Lepley	826,586
Elevator safety device, F. A. Weigel	826,634
Elevator signaling system, Smalley & Reinert	826,752
Elevator stop device, F. C. Furrow	826,559
Emery wheel dressing tool, E. Wright	826,817
Enameling metal and the resulting product, process of, S. H. Thurston	826,628
Engine, See Hoisting engine	
Envelope, safety, M. Niegmann	826,737
Exercising device, F. Pellissier	826,879
Eyeglasses, adhesive guard for, E. J. George	826,563
Eyelet, G. A. Langmaid	826,672
Fabric holding frame, H. Hochreutener	826,853
Fan, A. Pochyla	826,963
Feed purifier, boiler, F. E. Keyes	826,580
Feeding device, F. Mueller	826,595
Fence post, J. A. Tremblay	826,973
Fence post, H. C. Youngs	826,984
Fence support, D. D. Long	827,069
Fertilizer spreader, P. Wright	826,641
File box and support therefor, J. W. Brahears	826,760
Filter, A. L. Johns	826,857
Filter, centrifugal, R. E. Lee	827,024
Filter system, self-cooling, F. E. Firth	826,654
Fire escape, G. W. Younkman	826,702
Fire escape, J. A. Reynolds	826,884
Fire shutter for doors and windows, T. F. Dowling	826,713
Firearm, Kolb & Foehl	826,788
Fireproof door, A. H. Diver	826,549
Fluid compressors, automatic safety device for, J. W. Dawson	827,060
Fluid pressure regulator, automatic, R. E. Bell	826,530
Fluids to surfaces, machine for applying, R. W. Shely	826,897
Fly paper guard and holder, Gathmann & Hermann	827,006
Fly shield, W. F. Elliott	826,714
Flying machine wing, J. Hofmann	827,017
Folding machine, T. C. Dexter	826,998
Folding table, invalid's, J. Scheibner	826,805
Food, poultry health, C. P. Cartwright	826,990
Foot rest for vehicles, W. H. Little	826,862
Fuel device for feeding, J. McCormack	826,792
Fuel producing artificial, G. W. Herberich	826,723
Furnace fire-arch, J. P. Barnes	826,645
Fuse block, J. Sachs	826,888
Galley lock, S. Stephens	826,620
Garments from tubular fabrics, cutting, J. J. McDonald	826,683
Gas purifying apparatus, S. F. Seager	826,691
Gas purifying apparatus, T. Redman	826,747
Gaseous fuel burner, H. Schneider	826,967
Gear, transmission, A. F. Mack	826,793
Gear wheels, means for mounting, L. Krieger	826,944
Gears to shafts, means for attaching, H. A. Knoener	827,023
Gearing, E. Haynes	826,850
Glassware, fire finishing articles of, J. F. Torrence	826,701
Grader, road, Dill & Hill	826,548
Grain conveyor, E. J. Vraalstad	827,049
Grain separator, G. W. Bradbury	826,988
Grave protector, G. Roth	826,689
Grinding disks and similar rotating objects and tools, protecting hood for, H. Friederichs	826,842
Grinding machine, C. I. Shirley	826,694
Grinding mill, A. F. Davis	826,711
Grinding plate for mills, A. F. Davis	827,059
Gymnasium apparatus, M. B. Reach	826,609
Hame fastener, W. A. Aurand	826,528
Hammer, pneumatic, J. M. & E. W. Raikes	826,802
Handling material, system of, H. W. Blaisdell	826,646
Harrow, A. M. Davis	826,712
Harrow draft attachment, disk, S. H. Garst	826,655
Harrow sulky attachment, M. W. Neuens	826,867
Hat stand, trimming and display, M. Gee	827,007
Hay carrier, W. F. Jacobs	826,856
Heater, A. W. Banks	826,755
Heater, F. E. Stilwell	826,907
Heater attachment, J. Magee	826,676
Heel, shoe, R. I. Herrmann	826,852
Hoisting engine, S. T. Nelson	826,956
Hoists, automatic stop for whip, Baldwin & Ihlder	826,529
Holder, loose leaf, A. Faifer	826,838
Hop draft and the like, apparatus for treating, K. Peter	826,603
Horseshoe, W. D. O'Brien	826,958
Human bodies, preserving, M. S. Leech	826,583
Hydraulic elevator, J. S. Hoyt	826,572
Ice machine valve, F. W. Felsberg	826,722
Incubator, F. Heilmann	826,722
Innersole, F. M. Wade	826,975
Instep support or arch prop, W. Vogler	826,631
Insulator, S. & W. O. Bartley	826,916
Insulator, electrical, M. Mierowsky	826,589
Ironing board fastening device, G. L. Reeve	826,748
Ironing table, P. Christiansen	826,539
Jaw wrench, sliding, A. D. Davis	826,769
Joint, See Ball and socket joint	
Journal box, C. L. Courson	826,765
Journal box dust guard, P. J. Harrigan	826,848
Journal box lid, A. Lipschutz, reissue	826,549
Keyboard for accordeons, J. C. Hofbauer	826,661
Knife, G. M. Tilden	826,700
Ladder, W. A. Truesdell	827,048
Ladder and parts thereof, step, J. S. Tilley	827,047
Ladder, metallic, E. V. Lynch	826,863
Lamp burner, R. H. Maple	826,677
Lamps, automatic igniter and extinguisher for gas, F. Broel	826,533
Lantern burner, Hamm & Mitchell	826,934
Latch, gate, W. R. Morris	826,952
Laundered articles, machine for bundling, C. L. Brown	826,761
Leaf or fabric and making the same, thin, H. R. Gregory	826,781
Leg, artificial, C. B. Winn	826,813
Life guard fender for wheels, J. P. Kane	826,664
Line stretcher, A. P. Ferguson	826,776
Line stretcher and support, R. M. Clapp	826,992
Linotype machine, M. W. Morehouse	826,593
Liquids, automatic means for feeding, W. W. Dingee	826,923
Liquids, machine for delivering, A. F. Humphrey, et al.	826,725
Loop the gap apparatus, M. Garanger	826,560
Lubricator, C. C. Comp.	826,543
Lubricator, J. T. Pedersen	827,032
Magnet protector, thermoelectric, J. Thulin	826,911
Magnet, slow release, L. H. Thullen	826,627
Mail bag catching and delivery apparatus, J. S. Kaufman	827,067
Mail bag crane, O. Hansen	826,721
Mail bag receiving and delivering mechanism for railways, F. H. Burr	827,056
Mail receiving delivery apparatus, F. M. Hurley	826,855
Mail boxes and apparatus, W. P. Rice	826,886
Marking device, skirt, M. Hall	826,846
Marking gage, W. Small	826,816
Match box, F. Ratcliff	826,903
Match, therapeutic, A. P. Hafner	827,066
Mattocks and similar tools, die for making, G. F. Konold	826,789
Mattress, spring, J. Kuss	826,861
Measuring apparatus, tailor's, L. D'Elia	826,651
Medical irrigator, J. A. Noble	826,685
Merry-go-round, C. F. Weidner	826,758
Metallic compounds and producing carbids, apparatus for reducing, E. F. Price	826,744
Metallic compounds and producing carbids, reducing, E. F. Price	826,742
Metallurgical furnace, Lloyd & Thill, reissue	12,511
Metals from ores, flux for extracting, A. Gutensohn	826,568
Metals, reducing, G. L. Fogler	826,557
Middlings, utilizing the nutritive properties of, S. B. Apostoloff	826,824
Miner's tool, O. Hanson	826,569
Mirror, E. J. Handloser	826,935
Molding, M. T. Stevens	826,970
Mooring post, M. Henry	826,571



**Patented**

## New Light

**CARBURETTED AIR**

THROW AWAY your old lamps, stop your gas and electric light bills and use Carburetted Air the cheapest light known. Can be used for lighting, cooking, heating or power. Every Home can own their own plant.

**CHANCE FOR AGENTS & MANUFACTURERS**

We want a tinner or hardware dealer or agent in every county to manufacture and sell under our patent on a royalty basis. This is a chance to make a fortune. Any tinner can make the carburettor. Write for particulars.

**AMERICAN AIR LIGHT AND HEAT CO.**  
42 Broadway New York City

## Sparks That "Spark"



If you want your battery to furnish the kind of sparks that get all possible power out of your motor car or boat, install an Apple Battery Charger. A dynamo right on your car that keeps the batteries always full and ready to furnish a strong, sure current. Write to-day for full information.

The Dayton Electrical Mfg. Co., 98 St. Clair St., Dayton, Ohio

Another Good Thing from the Goodell-Pratt Shops.

## RECIPROCATING AUTOMATIC DRILL



Useful for drilling holes where Braces, Breast Drills or Hand Drills are inconvenient. Maximized Power and Minimized Friction. Catalogue tells all—free.

**GOODSELL-PRATT COMPANY.** Greenfield, Mass.

## WARREN'S WALRUS ROOFING



Shale, slate, tile, wood, and summer sun are powerless against it. On a barn, a factory or a dwelling it will give perfect results for years after other roofings have worn out. Our free sample shows the value. Write for it. WARREN CHEMICAL & MFG. CO., Battery Place, New York

## PATENTS

Our Hand Book on Patents, Trade-Marks, etc., sent free. Patents procured through Munn & Co. receive free notice in the SCIENTIFIC AMERICAN

**MUNN & CO., 361 Broadway, N. Y.**  
BRANCH OFFICE: 625 F St., Washington, D. C.

## French Motors for Lighting Plants



The "ASTER" is the best French motor on the market for lighting houses, hotels, etc. Small, compact, simple and safe to operate. Motive power alcohol, oil or gas. 2 and 4 cylinders. Great power for small engines. Easy running. Write for illustrated Price List.

**ASTER COMPANY**  
1591 Broadway NEW YORK CITY

## It's Easy to Keep Cool!



The simplest, smallest, safest, neatest and most successful Motor Fan made is the Rawlings Patent High-Speed Water Motor Fan. Can be installed in a few minutes. No operating expenses. Made of high-grade brass. Price \$14.00. Fan with complete couplings, \$10.00.

**E. GINTZEL**  
150 Nassau St., New York City

## WELL DRILLING Machines

Over 70 sizes and styles, for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on skids. With engines or horse powers. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog.

**WILLIAMS BROS., Ithaca, N. Y.**

## A Nickel a Minute



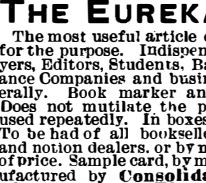
can be made wherever there are crowds if one has a single

**PHOTOSCOPE**

Takes pictures rapidly, develops and finishes them all ready framed for a nickel. Makes fortunes for its owner. Is included in polished oak and glass case. Particulars from

**M. S. KLINE**  
45 N. Division St., Buffalo, N. Y.

## THE EUREKA CLIP



The most useful article ever invented for the purpose. Indispensable to Lawyers, Editors, Students, Bankers, Insurance Companies and business men generally. Book marker and paper clip. Does not mutilate the paper. Can be used repeatedly. In boxes of 100 for 25c. To be had of all booksellers, stationers and notion dealers, or by mail on receipt of price. Sample card, by mail, free. Manufactured by Consolidated Safety Pin Co., Box 121, Bloomfield, N. J.

## To Book Buyers

We have just issued a new 48-page catalogue of recently published Scientific and Mechanical Books, which we will mail free to any address on application.

**MUNN & COMPANY**  
Publishers of SCIENTIFIC AMERICAN  
361 Broadway, New York

## Reduced Rates for Telephone Service

**CONTRACTS NOW BEING TAKEN**


Call nearest Contract Office for full information.

**NEW YORK TELEPHONE COMPANY**

CONTRACT OFFICES:  
15 Dey Street  
115 West 38th Street  
220 West 124th Street  
616 East 150th Street

TELEPHONE NO.:  
9010 Cortlandt  
9040-38th  
9000 Morningside  
9020 Melrose

## RELIABLE MARINE ENGINES



Reliability under all conditions is the characteristic of the "Lamb" Engines. Sizes from 1 1/2 to 100 H. P. in stock. Write for catalogue.

**TERRY & CO.**  
Managers Eastern and Foreign Branch  
92 Chambers St., New York

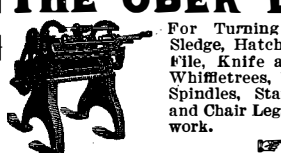
Everything for Boat & Engine

## The Benton Valveless Engine

Has no valve in either intake or exhaust. Consequently: It has fewer wearing parts. It has fewer parts to get out of order. It has more power with less weight. It uses less gasoline. It is under perfect control. Runs at any speed. From 2 to 40 H. P. Furnishings for fresh or salt water.

**T. P. BENTON & SON**  
MANUFACTURERS  
Front and Pearl Streets, LA CROSSE, WIS., U. S. A.

## THE OBER LATHES



For Turning Axe, Adze, Pick Sledge, Hatchet, Hammer, Auger, File, Knife and Chisel Handles, Whiffletrees, Yokes, Spokes, Porch Spindles, Stair Balusters, Table and Chair Legs and other irregular work.

Send for Circular A.

**The Ober Mfg. Co., 10 Bell St., Chagrin Falls, O., U. S. A.**

## EVERY ADVERTISER And Mail Order Dealer Should Read "The Western Monthly"


An Advertiser's Magazine. Largest circulation of any advertising journal in America. Contains 80 to 96 pages every issue. Regular departments every month with many valuable contributions from America's leading advertising men. Best "School of Advertising" in existence. Sample copy free.

**The Western Monthly, 812 Grand Ave., Kansas City, Mo.**

## SENSITIVE LABORATORY BALANCE

By N. Monroe Hopkins. This "built-up" laboratory balance will weigh up to one pound and will turn with a quarter of a postage stamp. The balance can be made by any amateur skilled in the use of tools, and it will work as well as a \$125 balance. The article is accompanied by detailed working drawings showing various stages of the work. This article is contained in SCIENTIFIC AMERICAN SUPPLEMENT, No. 1154. Price 10 cents. For sale by MEXAN & Co., 361 Broadway, New York City, or any bookseller or newsdealer.

## Two Autos One Price



The Durayea Folding Rear Phaeton is a high powered runabout shown here or a comfortable light touring car. Why buy two when one will do? Investigate the scientifically and practically correct DURAYEA. A postal card will bring leaflets.

**DURAYEA POWER CO.,** Ayrud St., Reading, Pa.

## THOMAS AUTO-BI



Model No. 44. Price \$145

Three Horse Power. Simplest motorcycle on the market. Agents wanted everywhere. Catalog free.

**THE THOMAS AUTO-BI CO.**  
1450 Niagara Street Buffalo, N. Y.

## MUD WEED'S TIRE GRIPS



Positively Stops Slipping or Skidding They Make Bad Roads Good

Send for Booklet "S"

**WEED CHAIN TIRE GRIP COMPANY**  
28 Moore St., New York City

## Automatic Water Supply



Most economical, reliable and efficient. If you have running water the Niagara engines will elevate 35 feet for each foot-fall obtainable from spring, brook, or river delivered to any distance. Write for catalogue.

**Niagara Hydraulic Engine Co.**  
140 Nassau St., N. Y.

## MAKE MONEY

Giving Moving Picture Shows. Free Catalog.

**Eugene Cline,**  
Dearborn & Randolph Sts., Chicago.

## Tools! Tools! Tools!



and all you want to know about them. Our Tool Catalogue No. 22 is a cloth-bound book of 950 pages. If you want to "know it all" about Tools you should send for this book at once. Sent post-paid on receipt of \$1.00 which will be refunded from your first purchase from us of \$10.00 or over.

**FRONTGOMERY & CO.**  
105 Fulton Street, N. Y. City



## Inexpensive Classified Advertisements

Advertising in this column is 50 cents a line. No less than four nor more than ten lines accepted. Count seven words to the line. All orders must be accompanied by a remittance. Further information sent on request.

### SALE AND EXCHANGE.

**FOR SALE.**—A 500 horse power cross-compound Corliss engine, built by C. & G. Cooper Co., of Mount Vernon, Ohio. Also three 150 horse power tubular boilers, built by Bass Foundry & Machine Co., of Fort Wayne, Ind., with fronts, stacks, buck stays and fittings complete. Also two Ingersoll-Sergeant air compressors 12x42 inches. ALL the above are in first-class condition, practically as good as new. Cost to install \$35,000. Will be sold at a bargain on quick sale. Located in Indiana. Address New York & Western Consolidated Oil Co., 41 Wall St., New York.

**FOR SALE.**—American School of Correspondence Course in Central Station Work. Fully paid up. Will take \$30 for course, not including reference library, or \$50, including library. L. C. Stover, Booneville, Iowa.

**FOR SALE.**—Going Machine Shop. Reason given for selling. Will bear strict investigation. Situated in Northern Ohio. Natural gas. A bargain if sold at once. Address Machinist, Box No. 525, Tiffin, O.

**FOR SALE.**—My patent No. 823,986 cream remover, or would take partner for developing same. This is a money-maker. For further particulars, E. S. Bartram, Selma, Ala.

**AUTOMOBILE FOR SALE AT A BARGAIN.**—A Knox double opposed cylinder touring car, 1900 Model F, roomy and comfortable, powerful hill climber, never out of order, has elegant top, glass front, and full equipment and used only a short while. The reputation of the Knox cars is too well known to need more description; the magnificent score of their car in the Glidden Tour speaks for itself. Address Automobile Bargain, Box 773, New York.

**POULTRY PAPER.** 44 pages, illustrated, 25c. per year, 4 months, 10c; sample free; 64-page practical poultry book free to yearly subscribers; book alone, 10c; catalogue poultry books free. Poultry Advocate, Syracuse, N. Y.

**IF YOU WANT** to buy a machine, engine, boiler, power equipment, electrical, steam, pneumatic or other machinery—anything in the machine line—Tell Us and we will see that you get full descriptions, prices, catalogues, etc., from all the first-class manufacturers. We charge nothing for the service. Address Modern Machinery Daily News, Security Building, Suite 10, Chicago.

**FOR SALE.**—Eight-inch Clark Telescope, in use four years. Ten-foot tube. Equatorial with accessories, and 15-foot observatory. \$1,800. Address D. E. Wing, 42 Broadway, New York.

**FOR SALE.**—Patent No. 817,480, issued April 10. The best Wire Snow Guard ever made. Reason for selling, other business. For full particulars address J. H. Fulmer, Nazareth, Pa.

**STATE RIGHTS FOR SALE** in new valuable Registering and Canceling Ballot Box patent. For full particulars write to E. K. Tolman, Worcester, Mass.

**MANLOVE AUTOMATIC DRIVEWAY GATE.**—Always in order; operated by any wheel. Safe, handsome, valuable. \$1,000 working. (Canadian rights for sale.) Manlove Gate Co., 272 Huron Street, Chicago, Ill.

### BUSINESS OPPORTUNITIES.

**WANTED.**—Manufactures of specialties as stated. Bucket bolts with thumb nuts, 3/4 inch swivel washers, thumb screw wheels cast of malleable iron. Ralph Parker, Lakewood, N. J.

**WANTED.**—Salesman representing machinery, hardware or supply houses to handle a high grade of leather betting on salary or commission basis. Address J. S. C., Box 773, New York.

**MOTION PICTURE MACHINES.** Film Views, Magic Lanterns, Slides and similar Wonders For Sale. Catalogue Free. We also buy Magic Machines, Films, Slides, etc. T. S. Harbach, 809 Filbert St., Philadelphia, Pa.

**BARGAINS TO CLOSE AN ESTATE.**—All practically new. One Barnes No. 42 bench lathe screw cutting lathe, cost \$51.75. Price with the tools and dogs, \$38. One Barnes friction drill with chuck, cost \$40.30. Price \$32. One Eddy three-horse 50-volt electric motor, \$40. One Gray silver-plating outfit, never used, cost \$18. Price \$12. One iron-frame floor-leg hand-tied lathe, very cheap, \$8. These are all bargains. C. H. Jones, 414 Elmgrove & Barry Building, Rochester, N. Y.

**BARGAIN** for one desiring a small and well-established manufacturing business, fully protected by patents, clearing \$10,000 annually. Investigation solicited. Inquire Manufacturer, Box 773, New York.

**WANTED.**—To buy outright or use on a royalty basis, a garter-clasp or hose-supporter. Must be small in size, simple in construction, easy to manufacture, and a novelty covered by strong patent. Address Clasp, Box 773, New York.

**PRIVATE, PRACTICAL INSTRUCTION** in the Engineering use of Algebra, Geometry, Logs, Trigonometry, Slide rule, etc. Write Geert Blaauw, 111 East 7th Street, New York City.

**WANTED.**—A competent man to take charge of the mechanical department as "Master Mechanic" of a large lead mining company near St. Louis, operating machine shop, power houses, mines, mills and a railroad. Must understand repairing machinery incidental thereto and have good executive ability. Must furnish good references, stating salary. Address Missouri "C," Box 773, New York.

**WANTED.**—Buyers for our one and two-seated business and pleasure Concord spring wagons. Send for 80-page carriage and harness catalog, free. Box 525, Kalamazoo Carriage & Harness Co., Kalamazoo, Mich.

**AGENTS WANTED.**—Rubber Grip Burner fits any kerosene lamp, prevents breaking of chimneys, smoking or flickering. Send 25c. for sample. Rubber Grip Burner Co., 74 Park Place, New York.

### HELP WANTED.

**DEMAND** for technical specialists exceeds our supply; the more out-of-the-ordinary your ability the better our facilities for marketing it. Call, write Haggoods, 335 Broadway, N. Y.

### POSITION WANTED.

**A GOOD MAN OUT OF WORK.**—Anyone wanting a works superintendent is invited to answer this. We pay \$4,000 or over for a mechanical executive. George F. Stillman, 117 Summit Ave., Syracuse, N. Y.

### SITUATIONS AND PROFESSIONAL OPENINGS.

**EXPORT ADVERTISING SOLICITOR WANTED.**—An advertising solicitor having had long experience on export business can have a valuable position with a well-known export medium on proving his ability. Address Export, Box 773, New York.

### HOTELS AND RESORTS.

**JAMESTOWN, OPPOSITE NEWPORT.** Thorndyke Hotel and 8 new cottages, furnished. Charming location on shores of Narragansett Bay; 15 minutes to Newport by ferry. P. H. Horgan, Newport, R. I.

### PATENTS FOR SALE.

**U. S. PATENT.**—For Sale, U. S. Patent on Steel Rotary Dump Wagon. The only water-tight dump wagon in the market. Address Wagon, 307 Savings Bank Building, Auburn, N. Y.

Motion attachment for vehicles, anti-horse, W. B. Saindon	826,690
Motor and power transmitting mechanism, combined, J. K. Stewart	826,696
Motor starting device, explosion, C. A. von Soden-Fraunhofen	826,903
Music leaf turner, N. Young	826,943
Music recorder, E. C. Calvin	826,537
Musical instrument, mechanical, E. S. Votey	826,754
Musical instruments or players, accent and expression regulating means for automatic, P. B. Klugh	827,068
Musical instruments, pneumatic action for mechanical, W. F. Cooper	826,833
Musical instruments, tracker and associated parts for mechanical, E. S. Votey	826,753
Nut lock, M. Mohr	826,591
Nut lock, I. N. Crossland	826,710
Nut lock, A. M. Moylan	826,734
Nut lock, G. H. Spence	826,968
Oil tank, J. J. Tokheim	826,912
Oils and unsaturated organic compounds, hardening and solidifying, A. Kronstein	826,860
Ordinance sighting apparatus, Dawson & Buckham	826,836
Ore, apparatus for cooling, H. F. Campbell, et al.	827,057
Ores, etc., sulfatizing, E. Enke	826,925
Packing machine, D. L. Eustice	826,553
Paper box, C. W. Hobbs	826,784
Paper folding machine, C. H. & W. D. Cooley	826,544
Paper holder and cutter, roll, F. Kaufman	826,665
Pen, fountain, C. Dunn	826,666
Pen, fountain, B. F. Flint	826,552
Pen, fountain, D. B. Kaufmann	827,004
Pen point guard, G. E. Woodbury	827,022
Penholder, R. H. Waller	826,913
Pencil pointer, A. B. Dick	826,633
Picket pointing machine, E. Demarest	826,837
Piling, metal sheet, C. H. Quimby, Jr.	826,547
Pillow slip holder, I. E. Gilmore	826,801
Pin, See Clothes pin	827,008
Pin tongue, T. G. Hunt	826,854
Pipe cleaners, package for, A. Speirs	827,045
Pipe coupling, J. S. F. Marks	826,678
Pipe grip, C. C. Griffin	827,011
Pipe heading machine, J. S. F. Marks	826,679
Pipe wrench, J. G. Lind	826,728
Piston rod packing, C. A. Peverall	826,741
Planter seed cup, W. Fetzner	827,003
Plaster and concrete structures, form for the construction of, G. H. Pegram	826,878
Plate holder, magazine, J. Carpenter	826,920
Playing cards, stand for, L. Healy	826,783
Plowshare rolling machine, C. F. Sperry	826,695
Pocket, watch, L. Greenwald	827,010
Polish on furniture and the like, obtaining high, V. Lutter	826,791
Poultry house, E. H. Oakman	826,600
Poultry house, G. C. Scott, reissue	12,513
Power transmission mechanism, M. Hendrickson	826,851
Prepayment meter, J. J. Wood	826,814
Printers' rollers, machine for cleaning or treating, Crump & Sague	826,834
Printing device, O. D. Safford	826,889
Printing machine, blue, J. E. Walker	826,632
Printing press delivery mechanism, M. J. Barnett	826,825
Pull rod link, hook, and tongue, J. M. Farnsworth	826,775
Pulley for hay-sling carriers, compression, G. A. Olson	827,031
Pumping system, Muckle & Smith	826,953
Puzzle, W. W. Smith	826,902
Rail joint, E. P. Wingren	826,812
Rail joint, O. Blais	826,828
Rail joint, Ferrell & Stillwell	826,840
Railway block signal system, electrically operated, L. Dickey	826,999
Railway car, metallic, A. Stucki	826,809
Railway cross tie, J. M. Griswold	826,566
Railway rail, C. W. Landers	826,945
Railway signaling system, C. P. Breese	827,054
Railway switch, street, C. W. Fautoute	826,774
Railway tie, J. S. Frazer	826,718
Railway tie, H. G. Staab	826,905
Refractory metal, manufacture of, H. A. D. Collins	826,763
Rein supporter, J. M. Holland	826,837
Restraining device, W. Challenger	826,648
Reversing mechanism, stop device for, F. O. Hoagland	827,016
Revetment, W. A. Smith	826,619
Revolving chair, I. E. Bedell	826,917
Rolls, jacket for, C. D. France	826,841
Rotary engine, R. Klann	826,670
Rotary machine, D. Appel	826,985
Rowing mechanism, bow facing, D. R. Sheen	826,693
Rubber, L. Perotti	826,740
Sad iron, A. J. Farrell	826,554
Safe door locking mechanism, O. Price	826,607
Safety gate, A. Eagle	826,824
Sanitary house, E. J. Nohlett	827,030
Sash fastener, storm, E. Hubbell	826,573
Sash lock, O. B. Burroughs	826,830
Sash, reversible window, E. J. Peterbusch	826,604
Sash weight, window, O. F. Zahn	826,703
Saw, Gray & Horning	827,009
Saw frame, C. A. Stickney	826,698
Saw handle, J. W. Cox	826,921
Saw sharpening apparatus, C. H. Reynolds	826,964
Sawing machine, Ivory nut, J. Hornby	826,785
Scaffold, H. F. Laird	826,582
Scissors, T. S. Linscott	826,587
Screw locking means, I. Lehman	826,584
Seal locks, punch for operating, P. Bruno	827,055
Seesaw, W. J. Morgan	826,682
Separator, F. Meyer	826,731
Sewer pipe junction cutter, J. E. Minter	827,070
Sewing and embroidering machine, R. Cornely	827,764
Sewing machine, F. L. Harmon	826,570
Sewing machine trimming mechanism, W. A. Neely	826,596
Sheet metal blanks, machine for edging, A. Slaysman, Jr.	826,807
Shoe upper clamp, J. C. Wright	826,640
Shovel, G. W. Fleck	826,928
Show case, counter, and cabinet, combined, F. George	826,720
Signal, See Electric signal	
Signaling, illuminating apparatus designed for use in flash, A. Rosenberg	826,887
Signaling the presence of deleterious gases in the atmosphere, apparatus for automatically, H. Hauger	826,659
Sliding gate, J. E. Boyer	826,987
Smelter, concentrating, H. E. Marsh	826,729
Smoke jack for roundhouses, O. C. Mann	826,864
Soap shaving machine, G. F. Shaver	826,896
Soldering iron, Wagner & Weston	826,976
Speed and reversing mechanism, variable, G. Stephan	826,963
Sprinklers, fitting for automatic, G. I. Rockwood	826,611
Sprocket wheel, W. C. Waterfield	826,757
Square, parallel, M. Branch	826,759
Stairway, J. H. Sticht	826,621
Stalk cutter, C. A. Battle	826,986
Stamp mill, J. & C. A. Hunt	826,726
Stamps to envelopes, machine for applying postage, T. F. McKey	826,955
Steam boiler, D. Ahern	826,820
Steam boiler, Marlowe & Irving	827,027
Stereoscope, R. R. Whiting	826,635
Stool, piano, E. R. Hunter	826,575
Stop motion apparatus, automatic, K. E. O. Jansson	826,577
Strainer tub for brewers, etc., J. Schneible	826,891
Street flushing apparatus, C. E. Schafer	826,890
Stretching frame, W. Cook	826,995
Stripping and cleaning machine, E. Behrend	826,918
Stuffing box lock and rod-lubricator, W. H. Smith	826,808
Surveying rod, H. G. Clark	826,540
Suspender connection, F. M. Lingo	826,674
Suspenders, E. F. Wright	826,846
Suspenders, W. Freeman	826,929
Suspenders and the like, cast off for, J. Pusey	826,608
Switchboard construction, multiple, B. F. Merritt	826,680
Table lock, pedestal, F. C. Poole	827,033
Table top, F. E. Kindgen	826,669
Tachometer, C. H. Veeder	826,630
Tamping machine, R. D. Sexton	826,692



**Tired THEN DRINK Coca-Cola**

**IT RELIEVES EXHAUSTION**

When the BRAIN is running under full pressure send down to the FOUNTAIN for a glass of

**Coca-Cola**

you will be surprised how quickly it will ease the Tired Brain—soothe the Rattled Nerves and restore Wasted Energy to both Mind and Body. It enables the entire system to readily cope with the strain of any excessive demands made upon it.

**AT ALL FOUNTAINS ALSO IN BOTTLES 5c.**

**"ALWAYS READY"**



**T**HERE are good logical reasons for the popularity of the electric automobile. It is the one indispensable car for the general use of the entire family. It is "Always Ready," Clean, Stylish and Noiseless. Easy to operate. Chelsea Model 26, \$1,200.00; with top, illustrated above, Price \$1,275; complete with removable coupe top; larger tires; battery and heavier construction (see illustration below), \$1,600.00.

**Be Sure the Name "Pope" is on Your Automobile**

Write for catalogue of Runabouts, Surreys, Coupes, Chelseas, Stanhopes, Physicians' Station and Delivery Wagons. Trucks on specifications.

**Pope Motor Car Co.**

Waverly Department Indianapolis, Ind.

Boston, Mass., 223 Columbus Ave. New York City, 1733 Broadway. Washington, D. C., 819 14th St., N. W.

**MARTINKA & CO., Mfrs., 493 Sixth Ave., New York**