







My Own Circulars Cards &c. \$5 PRESS

Eclipse Pocket Ammeter

for general battery testing. • to 20 amperes.

Flexible cord attached and contact spur in case, which is drawn back into case, when carried in pockets. Size of watch and very light weight. Can be used in any position. Particularly designed for Auto. use. any position. Price \$5.00. ELDREDGE ELECTRIC M.G. CO. 227 Main St., Springfield, Mass.



A Handy Book To Have

Montgomery & Co.'s Tool Catalogue

It is illustrated throughout and describes and prices Tools. 704pages, 84x 4½ ins. The latest edition, with discount sheet by mail for 25 cents. MONTGOMERY & CO., 105 Fulton St., New York City.

BARCAINS IN MARINE ENGINES. & H. P. to 50 H. P. 2 and 4 cycle. Single, double, triple and 4 cyclin wanted in every country. Michigan Motor Co., Grand Rapids, Mich.

DRILLING

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

WILLIANS BROS., Ithaca, N. Y.



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. Term., \$3 a year; four months, \$1. Sold by all newsdealers

MUNN & CO.361 Broadway, NewYork Branch Office 625 F St. Washington, D. C.

Pointing presents or other machines, red
carrying apparatus for Week, 63, W.

Manaced
Carrying apparatus for Week, 63, W.

Manaced
Prepiling reservit, C. A. Manker.

T08, 221
Prepiling reservit, E. Andrich.

T08, 221
Prepiling reservit, E. Andrich.

Fellow apparatus for the shorts, lesser, 78, 148
Pulley mechanium for his shorts, 188
Pulley mechanium for his shorts, 188
Pulley mechanium for his shorts, 188
Railway for tramway, meneral er his, C.
Railway bleet switch and signal system, 789, 248
Railway for tramway, meneral er his, C.
Railway er tramway, meneral er his, C.
Railway witch, electric, S. C. Gutter, 789, 825
Railway er tramway, meneral er his, C.
Railway witch, electric, S. C. Gutter, 789, 825
Railway er tramway, meneral er his, C.
P. W. Merchanue.

P. W.



Dixon's Eterno

COPIES PURPLE

Sold by stationers, with or without nickeled point protector.

Dixon's Pencil Guide, indexed by vocations, corectly indicates the right pencil for your use. Sent free. Dept. JOSEPH DIXON CRUCIBLE CO., Jersey City, N.J.

DYNAMO CASTINGS

With output of 5 amperes and 10 volts, furnished for anatoms to put
together. Will drive small little or light at Sounds lamps. Rough
as Figs, \$1.5.; packy angelland, \$6.50; fully reached, realy to assurfale, \$5.5. fell directions. Send for burdlen No. 3. PARSELL & WEED, 129-131 W, 81st 8t., New York

Lackawanna Motors

are Simple and Valveless. Easy to start and easy to operate. For automobiles and launches. 3 to 24 H. P.

Cut shows Lackawanna Reversing Device attached to our 6 H. P. marine motor. No reversing gear necessary

LACKAWANNA MOTOR COMPANY 51.61 Letchworth St. Buffalo, N. Y.



Do you want an automobile you can drive year in and year out without constant worry? Do you want a machine that has few parts, and all of them instantly accessible? Do you want to understand intelligently the operation of every part in an hour's time? Then, you want to buy any one of the six models of

Rambler Touring Cars

Model "H" \$850 at the factory

Model "H." \$850 at the factory

Model "H." here shown, will carry four
people anywhere any car can go. It has full
elliptic springs, two powerful brakes, 28-in.
wheels, 3-in. three, 81-in. wheel base, large
cylinder, 7 actual h. p. engine, two lamps
and horn, det achable tonneau, and sells for
only \$850 at the factory.

Six different models, \$750 to \$1,350
at the factory. Write for new Art
Catalogue and "A Little History"

THOMAS B. JEFFERY & COMPANY

Kenosha, Wisconsin, U. S. A.

Chicago Branch, 39:264 Wabsis Avenue
Boston Branch, 145 Columbus Avenue
Philadelphia Branch, 242 N. Broad Street



The Man Who Knows

never lets anything come between him and the game but a Marlin. He finds Marlin accuracy a pretty good thing to depend on.

Marlin repeaters are made to get the game. They take heavy loads and stand hard service. They never fail.

The **Marlins** with the "Special Smokeless Steel" barrels—using powerful, smokeless loads-are the rifles for big game. From the light .30-30—to the heavy .45-70—every calibre has proved its wonderful accuracy and value a thousand times.

Hundreds of vivid tales of Marlin prowess are told by "The Men Who Know" in our Experience Book. It's worth reading. Sent with our catalogue for 3 stamps postage.

THE MARLIN FIRE ARMS CO. No. 39 Willow St., New Haven, Conn.

GOODELI HACK-SAW BLADES

THEY "NEVER PLAY BELOW THE KEY"

Set For The Job

These free and easy cutters are thin and hard and made for use in remarkably rapid work. Made from the finest quality of hot-rolled sheet steel. Send for catalogue for prices and sizes.

GOODELL-PRATT COMPANY Greenfield, Mass.



SOMETHING NEW! Our Hand IGNITER needs no batteries to start your gasoline engine. A few turns of the handle produces a large spark. Purchase one of these igniters and save trouble and expense with batteries. We carry a rull line of Magnetos, Dynamos, etc. Write for catalog.

THE CARLISLE & FINCH CO. 233 E. Clifton Ave., Cincinnati, O.

PER (ENT. INVESTMENT GILT-EDGED

 $(3\frac{1}{2})$ per cent. every six months, June and December.)

Write for pamphlet of particulars to

W. E. GRIFFIN, Cashier, The Eureka County Bank, Eureka, Nevada.

Do You Want Good Information Cheap?

Write to us and we will refer you to a Scientific Ameri-Supplement that will give you the very data you need.

SCIENTIFIC AMERICAN SUPPLEMENT articles are written by men who stand foremost in modern science and industry.

Each Scientific American Supplement costs only 10 cts. But the information it contains may save you hundreds of dollars. Write for a catalogue of Supplement articles. It costs nothing.

Act on this suggestion!

MUNN & COMPANY

361 Broadway, New York