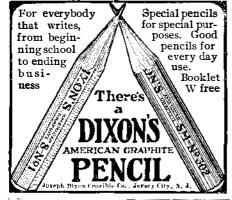


# ELECTRICAL ENGINEERING TAUGHT BY MAIL. Write for our Free Illustrated Book. "CAN I BECOME AN ELECTRICAL ENGINEER?"

We teach Electrical Engineering, Electric Lighting, Electric Railways, Mechanical Engineering, Steam Engineering, Mechanical Drawing, at vour home by mail, Institute indexed by Thes. A. Edison and others, ELECTRICAL ENGINEER INSTITUTE, Dept. A. 240.242 W. 23d St. New York.



ELECTRICAL APPARATUS REPREsented by Conventional Diagrams in Drawings.—Fifty diagrams showing the usual method of illustrating electrical apparatus in drawings. A labor saving paper. Contained in SUPPPEMENT 1106. Price 10 cents. For sale by Munn & Co. and all newsdealers.

### REMOH JEWELS



Are Marvels of Beauty Are Marvels of Deauty
Upon receipt of your name and address
a magnificent catalogue containing nearly 400 hand some engravings of artistic
and exclusive designs in
high-class imitation Diamond and Fearl Jewelry
wil be mailed

REMOH JEWELRY CO., 834 Olive St., St. Louis

# A.W.FABER

Manufactory Established 1761. LEAD PENCILS, COLORED PENCILS, SLATE PENCILS, WRITING SLATES, INKS, STATIONERS RUBBER GOODS, RULERS, ARTISTS' COLORS.

78 Reade Street, New York, N. Y. GRAND PRIZE, Highest Award, PARIS, 1900.



## TYPEWRITERS MAKES All the Standard machines SOLD or RENTED ANY WHERE at HALF MANUFACTURERS' PRICES Shipped with privilege of examination. Send for Cat

Typewriter Emporium . 203 LaSalle St., Chicago DRY BATTERIES.—A PAPER BY L. K.

Bohm, treating of open circuit batteries, historical dry batteries, modern dry batteries, Hellesen's battery Brian's battery, Koller's battery, and the efficiency of dry cells. With three illustrations. Contained in Scientific American Supplement, No. 1001. Price 10 cents. To be had at this office and from all newsdeelers.

# **MAGNETISM PERSONAL**

Will power, the art of fascination, call it what Will power, the art of fascination, call it what you please—is the intangible force that sways the minds of men. Our new free book "The Secret of Power" tells how anyone can acquire this marvelous, mysterious force, how to learn to read the secret natures, character, abilities, talents and weaknesses of others, how to determine what vocation you should follow to succeed best, and develop wonderful physic-1 and mental power.

mental power.

You can possess a fine physique, a charming personality, the ability to read human nature, and rule the minds of men, so as to achieve marvelous business and social success, and gratify your highest ambitions, if you will but devote a few minutes per day to the study of the study of the study of the success. our wonderful mail course. You need no sub-jects on which to practise. You can learn in the privacy of your own room without the knowledge of your most intimate fried. You can use what we teach the very first day after you get our course. Write at once for "The Secret of Power." Address,

COLUMBIA SCIENTIFIC ACADEMY 1931 Broadway, New York.

#### LABELS.

Adler
(tats-Eye Dry Battery,' for dry batteries or
their containers, Mannfacturers' and Inventors' Electric Com, for a cosmetic, K.

Blood

"Dr. Tickles' Cough Drops," for cough drops,
J. F. Burden.

"Eberl's Corn Cure," for a corn cure, Eberl
& Dupuy.

"Eczemaline," for a remedy for skin diseases,

& Dupuy.

"Eczemaline," for a remedy for skin diseases, C. Murphy.

"Elesco Baltimore Rye Whiskey," for whisky, L. Stern & Co.

"First Cable," for cigars, American Lithographic Co.

"Gem Washing Compound, for soap and washing compound, C. Pearce, 9,612

"Guaranteed Strictly Kosher for Orthodox," for means, provisions, bolognas, sausages, and meat products, B. Adler.

"King Bee," for four, Huston & Huston. 9,610

"Kornkins," for corumeal and cereal products, Robinson Danforth Milling Co. 9,613

"La Rosilla," for eigars, American Lithographic Co. 9,605

"Metabolin," for a medicine, J. Komitzer. 9,598

Milwankee Tonic Brew, for beverages, Chas. L. Kiewert Co. 9,598

"Mottingham Curtains," for curtains, Mills & Gibb. 9,587

Prostatol," for a medicine, J. Komitzer. 9,599

"Rival Pale Ale," for ale, S. S. Pierce Co. 9,596

"Rollman Food Choppers," for food choppers, C. Sohock

Rosy Daisy," for cigars, American Lithographic Co. 9,596

Rosy Daisy," for cigars, American Lithographic Co. 9,596

Rosy Daisy," for cigars, American Lithographic Co. 9,596

Sanitary Safety Pins," for safety pins, S. 601

graphic Co. 9,606

Sanitary Safety Pins, for safety pins, S. Kann Sons & Co. 9,611

"Sex-o-tine," for a medicine, T. E. Smith. 9,600

"Stremous Stout," for stout, S. S. Pierce Co. 9,597

"U'dorf," for a medicine, Prussian Chemical Co. 9,600

#### PRINTS.

"Greeuspeing Water," for spring water, R. D. 

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 begiven. 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.

#### NEW BOOKS, ETC.

LITTLE MASTERPIECES OF SCIENCE. Edited by Geo. Iles. 32mo. New York: Doubleday, Page & Co. 1902. Inven-York: tion and Discovery. Pp. xiii, 183. Health and Healing. Pp. x, 175. The Skies and the Earth. Pp. xxi, 191. Explorers. Pp. ix, 171. The Naturalist as Interpreter and Seer. Pp. xii, 185. Write for information and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information, and a copy of the Scattley Write for information and a copy of the scattley Write for information and a copy of the scattley Write for information and a copy of the scattley Write for information and a copy of the scattley Write for information and a copy of the scattley Write for information and a copy of the 173. Mind. Pp. xii, 185.

Mr. George Iles has edited six little volumes that bear the titles "Mind," "Explorers,"
"Health and Healing," "Invention and Discovery," "The Skies and the Earth," and "The
Naturalist as Interpreter and Seer." Wherever possible he has drawn upon the accounts of the discoverers themselves. The result is that the six little volumes which he presents to us, contain, in a most concise and readable form, a very good summary of modern science. The publishers have seen to it that the little volumes appear in a dress commensurate with their importance.

THE AUTOMOBILE. By Paul V. Hasluck, Philadelphia: David McKay, 1902. Pp. 608, 536 illustrations. Price \$4.50.

This latest work on the automobile, from the pen of the editor of Work and the Building World, is founded on Gerard Lavergne's "Manuel Theoretique et Pratique de l'Automobile sur Route." Mr. Hasluck has not only translated this French treatise in a very able manner, but he has also added much origi nal matter, thus making the book one of the most comprehensive works on the subject that has so far appeared. After an introductory chapter on the evolution of the automobile, the author discusses the various kinds of motive power available. He then goes into a description of the corresponding kinds of motors and the various parts that go to make up a steam, electric, or gasoline carriage. The descriptions are non-technical, though complete and thorough. They will be found helpful to the man well versed in mechanics as well as to the tyro. All of the live problems of the day with regard to automobiles are discussed, and much valuable data given, including tabulated results of most of the French and English tests held for several years past. An elabor ate index of 4,000 items completes the book

ELECTRICAL DICTIONARY. English, German and French. By Paul Blaschke. Leipzig: S. Hirzel. 1902. 8vo. Pp. 226. Price \$1.50.

This is the third and last installment of an electrical dictionary to which we have had previously occasion to refer. Since the publication of the reviews of the parts thus far issued, more than one opportunity has presented itself of testing the serviceability of Blaschke's work. It must be confessed that are concerned, he has performed his task faithfully and trustworthily. With this third installment he has completed an electrical dictionary, the need of which has been very severely felt by translators for years.

# RFORATED META OF EVERY DESCRIPTION AND FOR ALL USES. HARRINGTON & KING PERFORATING CO.



I PRINT MY OWN CARDS
Circulars, newspaper. Press, \$5.
Larger size, \$15.00. Money saver.
Big profits printing for others.
Type setting easy, rules sent. Write for catalog, presses, type, paper, etc., to factory, The Press Co., Meriden, Conn.

BYING MACHINES. S. E. WORRELL.
VOLNEY W. MASON & CO.,
Friction Pulleys, Clutches & Elevators
PROVIDENCE, R. I.

Can Sell Your Real Estate no matter where it is. Send description, state price and learn how. Est. '96. Highest references. Offices in 14 cities W. M. Ostrander, 1893 N. A. Bldow. Philadelphia



#### THE FRANKLIN DYNAMO

50 Watts, 10 Volts, 5 Ampères 3,000 to 4,000 revolutions. Sets of mate-rials, finishes parts, complete machines. For mateur construction—very efficient. Will strive a dental engine, sewing ma-chine or small lathe; run as a generator, will furnish current for six 6-candle lam st. Parts, 84,58, 84,60, 85,50. Com-plet. 812,50. Write for circulars.

The Sharer"

A newfootpowert hat can be applied to all light machinery. A kick starts the machine and an occasional kick keeps it going. Send for keeps it going. Send for our Booklet.

SLOTKIN & PRAGLIN,

50 Watts, 10 Volts, 5 Amperes

New York.

# Capital to Invest Experimental & Model Work

I have capital to invest and will buy outright or make liberal arrangements with party hav-ing anything to offer suitable for mail order business. Address, giving full particulars, Mail Order, Box 773, N. Y.



## F THE (LIPPER (LIP.

The 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.,

New York

BRASS OR STEEL.

U. S. A. For free samples and information write to us.

CONTROL OF FIRE.—VALUABLE PAper on fire extinguishment. SCIENTIFIC AMERICAN SUPPLEMENT 1134. Price 10 cents. For sale by Munn & Co. and all newsdealers.

## A SOUTHERN LOCATION

In Alabama, Georgia, Kentucky, Mississippi, North Carolina South Carolina, Tennessee and Virginia. Write for information and a copy of the Southern Field, a 18 page ungazine, giving information about the South.

M. V. RICHARDS,

Land and Industrial Agent,

Washington, D. C.

# **FACTORY** For Sale

Complete with heat, light and power. Ready for occupancy. Ten acres of land. Five trunk railroads, Suitable for almost any like of work. Beautiful city of 45,000 inhabitants. For particulars address

THE SINGER MANUFACTURING CO., South Bend, Ind.

# Latest Moving Picture Machines. No vibration. New Spectacular effects, etc. Booklet "Projection Op-tics," free. Bullard & Breck, 131 Post, San Francisco, Cal.

Model Shop Parsell & Weed. 129-131 W. 31st St., N.Y

# MATCH Factory Machinery. W. E. WILLIAMS, Mfr., 217 South Clmton St., Chicago, U. S. A.

EXPERT MODEL MAINERS, Models, Patterns, Dies & Novelties, Experimental work. WAGNER MFG. Co., 9 Mohawk St., Chicago, Ill.

Special Screw Machine Work.

Pleased to quote Prices.

HANDY THINGS CO., LUDINGTON, MICH.

Magical Apparatus.

Graud Book Catalogue. Over 700 engravings,
20c. Parlor Tricks Catalogue, free.
MARTINKA & CO., Mfrs., 493 Sixth Ave., New York.

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

SHOE BLACKING.-FORMULAS FOR liquid and solid blacking are given in SUPPLEMENT Nos. 1213 and 1239. Price 10 cents each. For sale by Munn & Co. and all newsdealers

# Cir. & advicefree. Wm. Gardam & Son 45-51 Rose St., N.

STIFIELS NEW YORK STENCH WORK SWALMSHAM

A MONEY MAKING METAL WORKING AND STAMPING PLANT FOR SALE.
Orders easy to get and at 2004 prices. Good specialties and ready customers for them. Capable of great expansion, and profits will pay at a rapid rate for all additions and improvements. Special reasons for selling. Price \$25,000. Address Box 156, Niagara Falls, N. Y.

ELECTRICITY. A Dynamo. Storage Battery, Wimshurst Machine, Telegraph Instrument, Electric Bell, 5 Books, 16 cents each.

Bubler Pub. Co., Box 8, Lynn, Mass.

#### NOVELTIES & PATENTED ARTICLES Manufactured by Contract. Punching Dies, Special Machinery. E. Konigslow & Bro., 181Seneca St. Cleveland, O.

AMERICAN AMATEIR PHOTO(IRAPHER. A monthly magazine giving reliable information on the art and technique of photography. Useful to beginners and experts. Subscription \$1.50 per year, Foreign \$2. Specimen ten cents. Address A. B. 351 Broadway, N.Y.

MACHINES, Corliss Engines, Brewers' and Bottlers' Machinery. THE VILTER MFG. CO., 899 Clinton Street, Milwaukee Wis.

# H. A. KAYSAN- Gassel, Germany

Importer of American Specialties Manufacturers will kindly quote prices and mail samples

"THIS BEATS NEW JERSEY." Charters procured under South Dakota laws for a few dollars. Write for corporation laws, blanks, by-laws and formsto PHILP LAWRENCE, late Asy'l Sec. of State, Huron, S. Dak. or Cushing & Cushing, 220 P. Way, N. Y.

# THE WEALTH OF NATIONS

PATENT GIVES you an exclusive right to your invention for a term of seventeen years. You can sell, lease, mortgage it, assign portions of it, and grant licenses to manufacture under it. Our Patent system is responsible for much of our industrial progress and our success in competing in the markets of the world. The value of a successful Patent is in no degree commensurate with the almost nominal cost of obtaining it. In order to obtain a Patent it is necessary to employ a Patent Attorney to prepare the specifications and draw the claims. This is a special branch of the legal profession which can only be conducted successfully by experts. For nearly sixty years we have acted as solicitors for thousands of clients in all parts of the world. Our vast experience enables us to prepare and prosecute Patent cases and Trade Marks at a minimum of expense. Our work is of one quality and the rates are the same to rich and poor. Our unbiased opinion freely given. We are happy to consult with you in person or by letter as to the probable patentability of your invention.

so far as the French and German installments Hand Book on Patents, Trade Marks, Etc., Sent Free on Application.

MUNN @ CO., Solicitors of Patents, Branch Office Main Office,

361 BROADWAY, NEW YORK.

625 F Street, Washington, D. C.