


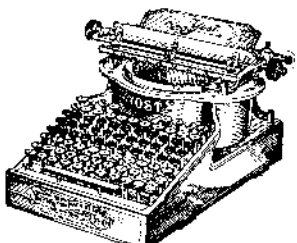
FREE TRIAL
WITTE Gas and Gasoline ENGINES
 are sold on 30 Days' Free Trial. Get out E. WITTE 130N WORKS, 517 W. 21st St. Kansas City or Witte Gas & Gasoline Engine Co. 47 S. Canal St. Chicago, Illinois.



It Fills the Bill
 This is the business man's verdict concerning the
New Remington Billing Typewriter
 It writes neat, compact, legible bills, with twice the speed of the pen. Adaptable to all billing systems.



REMINGTON TYPEWRITER COMPANY,
 327 BROADWAY, NEW YORK.



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.

ELECTRIC AUTOMOBILE.— DIRECTIONS, with many illustrations, for making a complete machine from two bicycles are given in SUPPLEMENT No. 1195. The motor and battery are also treated of in detail. Price 10 cents. For sale by Munn & Co. and all newsdealers.

Smith Premier



MEANS LIBERTY FROM TYPEWRITER WORRY

The Smith Premier Typewriter Co.
 Factory, Syracuse, N. Y.
 Branches in all large cities.

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 SUPPLEMENT 1106. Price 10 cen. s. or sale by Munn & Co. and all newsdealers.

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 625 F. S. Washington, D. C.

DESIGNS.

Buckle plate or similar article, G. W. Dover	36,925
Inkstand, A. E. Manor	36,922
Match case, L. F. Morloch	36,923
Mirrors, brushes, or like toilet articles, handle for, S. A. Keller	36,929
Mirrors or similar articles, back for hand, A. W. Snow	36,931
Mug, L. V. Aronson	36,926
Picture frame, V. Grazzini	36,924
Spoons, forks, or similar articles, handle for, G. H. Dyson	36,927
Spoons, forks, or similar articles, handle for, J. E. Straker, Jr.	36,928
Stamp, trading, T. P. Hunter	36,921

TRADE MARKS.

Absorbent articles, certain named, Norfolk Linen Co.	42,655
Antiseptics and washes for the mouth and teeth, F. A. Schulz	42,659
Biscuits, cakes, crackers, and ginger snaps, Columbia Biscuit Co.	42,686
Bitters, stomach, Golden Seal Manufacturing Co.	42,690
Blacking, dressing, and polish, certain named, Rex Polish Co.	42,670
Blasting batteries, F. L. M. Masury	42,698
Boxes, paper, Randolph Paper Box Co.	42,677
Brandy, J. Robin & Co.	42,666
Cameras and plates, photographic, H. Dawson	42,692
Card cases, aluminium and celluloid, J. W. Morris	42,674
Cards, playing, Campaigno Card Co.	42,682
Chairs, Stanard Manufacturing Co.	42,693
Cider, Fleming & Christian Co.	42,689
Cigars and cheroots, A. Schilt	42,687
Clasps for certain named articles, Scheuer & Bro.	42,685
Coffee, G. Amsinck & Co.	42,688
Confectionery, "Sarotti" Chokoladen- & Cacao-Industrie, Aktiengesellschaft	42,699
Corsets, Abraham & Straus	42,693
Doll stands, Butler Doll Stand Co.	42,691
Fertilizer distributors and parts and appurtenances thereof, Kemp & Burpee Manufacturing Company	42,697
Flour, wheat, Royal Milling Co.	42,699
Footwear and leather, certain named, F. F. Field	42,656
Footwear, certain named, G. F. Daniels & Co.	42,683
Gingham, Holt-Morgan Mills	42,682
Jelly preparation, Michigan Carbon Works	42,687
Lamp chimneys, Gill Brothers Co.	42,613
Liniment, J. H. Snyder Medicine Co.	42,657
Matches, friction, Ohio Match Co.	42,672
Medicated blackberry cordial, Pineule Medicine Co.	42,661
Medicine chests, suspended wall, Dr. Gillette Medical Cabinet Co.	42,678
Metal, bearing, Frictionless Metal Co.	42,681
Musical instrument wire, stringed, American Felt Co.	42,675
Oilcloth wall covering, Standard Table Oil Cloth Co.	42,694
Packing, rubber, New Jersey Car Spring and Rubber Co.	42,696
Pharmaceutical preparations for certain named purposes, W. Natterer	42,658
Photographic plates, developing agent for developing, J. H. Hopper & Co.	42,671
Preparation for the alleviation and cure of certain named diseases, Pineule Medicine Co.	42,660
Razors, H. C. Davis	42,673
Roofing composition, A. H. White Co.	42,695
Rope and twine, American Manufacturing Co.	42,679
Shirt fronts and false shirt bosoms, Reversible Collar Co.	42,654
Tires for vehicles, rubber, J. M. MacLulich	42,680
Tobacco, chewing, B. Payn's Sons Tobacco Co.	42,668
Tonics, digestive, Eclipse Pharmaceutical Co.	42,662
Whiskies, J. Daniel	42,663
Whisky, E. J. Cantin	42,665

LABELS.

"A La Casserole, Tripes a La Mode De Caen, L. Bouchot," for canned tripe, L. Bouchot	11,097
"Antiseptic Baginols," for medicine, Globe Medicine Co.	11,078
"Atheneum Club," for whisky, Padgett & White	11,093
"Best of All," for flavoring extracts, W. A. Rida	11,088
"Cayo Bonito," for guava products, F. R. Yerxa & Sons	11,096
"Checkers Check to Stay Checked," for medicine, J. L. Casper	11,077
"Concentrated Sprayine," for medicine, F. W. Robinson	11,079
"Daily Bread Baking Powder," for baking powder, Kenton Baking Powder Co.	11,098
"Erdman's German Herb Tonic," for medicine, Erdman & Co.	11,082
"Gibbs & Co.'s Unsweetened Dry Gin," for gin, New York Importation Co.	11,089
"Greenland Pennsylvania High Grade Rye Whiskey," for whisky, W. Stastny	11,091
"Hosterman's Celebrated Amber Ointment," for ointment, J. H. Hosterman	11,083
"La Malosa," for cigars, A. C. Henschel & Co.	11,094
"Nervator Bitters," for bitters, W. Stastny	11,090
"Our Cost Mark," for flour, United Grocery Co.	11,099
"Paride's Compound," for medicine, P. Grasso	11,076
"Paride's Emulsion," for medicine, P. Grasso	11,071
"Paride's Injection," for medicine, P. Grasso	11,070
"Paride's Liquor," for medicine, P. Grasso	11,075
"Paride's Magic Fluid," for medicine, P. Grasso	11,073
"Paride's Miraculous," for medicine, P. Grasso	11,072
"Paride's Odontale," for medicine, P. Grasso	11,074
"Perfumed Antiseptic Hasoma," for toilet cream, T. Haswell	11,085
"Real Egg Shampoo," for shampoo, Thomas & Bros. & Co.	11,087
"Scalpine," for a hair tonic, J. A. Rohrbach	11,084
"Smooth's Cold Cream," for cold cream, H. F. Smooth	11,086
"Union Made Wood Work," for woodwork, United Brotherhood of Carpenters & Joiners of America	11,100
"Vive Tablets," for medicine, Frederick W. Brown Co.	11,081
"Wanmore," for whisky, Eagle Lithographic Co.	11,092
"Watch Case Engravers' Union, No. 3 Canton, Ohio," for cigars, Danner Bros.	11,095
"White & White Co.," for medicine, White & White Company	11,080

PRINTS.

"Ah!" for champagne, H. E. Lesan Co.	1,001
"Gravity Lock Binder," for locks for adjustable backs of loose leafed books, files, etc., J. S. McDonald Co.	1,003
"Gustav Eisenkramer's Grand Darklight Cleaning Fluid," for cleaning fluid, G. Eisenkramer	1,002
"Jug of Joy," for beer, Hulbert Adv. Co.	1,000

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.

PERFORATED METAL
 OF EVERY DESCRIPTION
 AND FOR ALL USES.
 THE HARRINGTON & KING PERFORATING CO., 225 N. UNION ST., CHICAGO, ILL., U.S.A.

EASIER TO ROW ABSOLUTELY SAFE Mullins Unsinkable Steel Pleasure Boats
 Made of steel. Practically indestructible. Air chamber each end. Cannot sink. Cannot leak. Require no caulking. Ideal boat for family use, summer resorts, parks. Guaranteed. Will stand the modern row boat for pleasure, safety and durability. No other boat so desirable.
 15-foot boat, crated \$29.00 seat five persons in comfort. able for ladies and children.
 W. H. MULLINS, 384 Depot St., Salem, Ohio

SPECIAL MANUFACTURING. DIES AND STAMPINGS TO ORDER.
 SPEC L MACHINERY—MODELS—EXPERIMENTAL WORK. DRIP FORGING DIES AND DROP FORGINGS. HARDWARE SPECIALTIES ETC. MAN'G TO ORDER. SEND SAMPLES OR DRAWINGS FOR ESTIMATES. WRITE FOR OUR BOOKLET. THE GLOBE MACHINE & STAMPING CO. 970 HAMILTON ST., CLEVELAND, OHIO.

Export Trade
 How to Secure and How to Hold It
 Valuable hints on how to secure Export Trade sent gratis on request. Address
EXPORT EXPERT
 Box 773, New York

ICE MACHINES, Corliss Engines, Brewers' and Bottlers Machinery, THE WILTER MFG. CO., 890 Clinton St., Milwaukee, Wis

SPECIAL MACHINERY Tools and Dies, Model & Experimental Work, Costilo Machine Works, 60 Centre St., New York

CHEMICAL EXAMINATIONS OF ALL KINDS.
 DR. H. C. STEFEL, Bissell Block, Pittsburgh, Pa.

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

ELECTRICITY HOW TO MAKE. A Dynamo, Storage Battery, Telegraph Instrument, Electric Bell, Motor. 5 Books, 10c. each. BUBIER PUBLISHING CO., Box 5, LYNN, MASS.

SPECIALISTS COUNTING, VOTING, SLOT & SPECIAL MACHINERY. GRANT MACHINE CO. BRIDGEPORT, CONN.

Experimental & Model Work
 Ctr. & advice free. Wm. Gardam & Son, 45-51 Rose St., N.Y.

SPECIAL MACHINERY OF ALL KINDS
 Tools and Dies, Punchings, Lathe & Screw Machine Work, Metal Spinning, etc. Write today for prices. Advice FREE
 THE EAGLE TOOL CO. Dept. Y Cin'ti. O. FREE

SETS OF CASTINGS OF MODEL ENGINES SEND TO FOR 125 PAGE ILL. CATALOGUE. ALSO TOOLS, GEAR WHEELS, & PARTS OF MODELS.
GOODNOW & WIGHTMAN
 Removed to 182 Milk Street.

Magical Apparatus.
 Grand Book Catalogue Over 700 engravings 25c. Parlor Tricks Catalogue, free.
 MARTINKA & CO., Mrs., 493 Sixth Ave., New York.

THE SCHWEDTLE STAMP CO. STEEL STAMPS, LETTERS & FIGURES. BRIDGEPORT CONN.

MASON'S NEW PAT. WHIP HOISTS
 save expense and liability incident to Elevators. Adopted by principal storehouses in New York & Boston
 Manfd. by VOLNEY W. MASON & CO., Inc. Providence, R. I., U. S. A.

NOVELTIES & PATENTED ARTICLES
 MANUFACTURED BY CONTRACT. PUNCHING DIES, SPECIAL MACHINERY, E. KONIGSLOW STAMPING & TOOL WORKS, CLEVELAND, O.

Dies, Tools and Special Machines, Models and Experimental Work. General Machine Work.
 PH. J. BENDIS & SONS, Inc., 87 Frankfort St., New York

STAMMERERS
 An absolute cure at The Massachusetts School, 7 Park Sq., Boston, Mass. References from many pupils. Pamphlet sent on request. No fee unless cured.

TOOLS Special Machinery, Dies, Stampings, Nye Tool & Machine Works, 200 South Clinton St., Chicago.

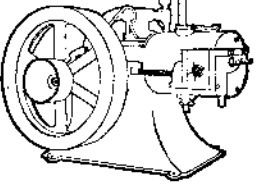
MODELS & EXPERIMENTAL WORK. Inventions developed. Special Machinery.
 E. V. BAILLARD, Fox Bldg., Franklin Square, New York.

FOR SALE FIRST-CLASS MANUFACTURING PLANT, making iron and steel products, up to date and complete in every respect, doing a fine business—no debts—always a money maker, substantial buildings. Elegant equipment, established 15 years. One hundred thousand dollars required. For particulars, address
OLMSTED & BROWN, Chattanooga, Tenn.

METAL SPECIALTIES MFG. CO. SEND SAMPLES WHERE AT HALF MANUFACTURERS' PRICES. GOOD GOODS AT MINIMUM COST. 13-26 W. RANDOLPH ST. CHICAGO.

TYPEWRITERS ALL MAKES
 All the Standard machines SOLD or RENTED ANYWHERE at HALF MANUFACTURERS' PRICES. Shipped with privilege of examination. Send for Cat. Typewriter Emporium, 303 LaSalle St., Chicago

1/4 H. P. Gas Engine Castings
 FOR \$15 WITH BLUE PRINTS.
 Cylinder bored and faced-off.
 Runs by gas or gasoline. Water-jacketed. 1/4 H. P. Castings—not bored or faced—\$16.00. Send for catalogue of engines, dynamos, electrical supplies.



L. W. GILLESPIE & CO., 232 E. 4th St., Marion, Ind.

VACATIONS
 Those who from experience know how much of pleasure is contributed to the vacation in the choice of a route select the
Lake Shore & Michigan Southern Ry.
 This is the road which reaches by its famous through trains, or by its direct connections the entire resort country of the eastern, middle and western states, including Lake Chautauqua, south shore Lake Erie country, and its Islands, lake region northern Indiana and southern Michigan, Colorado, Yellowstone country, St. Lawrence River, Adirondack and White Mountains, Atlantic Coast, etc.
 Reduced rate tickets on sale June 1st to September 30th. All railways sell in connection with the Lake Shore.
Privileges—Enjoyable privileges accorded on tickets over Lake Shore—stop-over Lake Chautauqua, Niagara Falls, Lake Erie Islands, option of boat or rail between Cleveland and Buffalo, etc.
Summer Books—To assist in your vacation plans the following books will be sent by undersigned for eight cents in postage: "The Ideal Vacation Land," "Quiet Summer Retreats," "Lake Chautauqua," "Lake Shore Tours," "Travel Privileges," "Book of Trains."
 A. J. SMITH, G. F. & T. A., Cleveland, O.

For All Sorts of Houses
 NOTHING equals Patton's Sun-Proof Paints for houses. They protect, preserve and beautify. The experiences of owners, builders, architects and painters, everywhere prove the value and economy of
PATTON'S SUN-PROOF PAINTS
 They are scientifically combined, exactly proportioned and accurately mixed by special machinery. They outlast any pure white lead paint and are positively sun and weather-proof. Never blister, chalk nor peel. Their lustre lasts. They have no equal for permanency. *Warranted to wear five years.*
 Write for our free book about paint. It contains valuable information.
PATTON PAINT COMPANY, 227 Lake Street, Milwaukee, Wis.
 PITTSBURGH PLATE GLASS CO., General Distributors.