

Advertisements.

ORDINARY RATES.

Inside Page, each insertion, - 75 cents a line Back Page, each insertion, - \$1.00 a line

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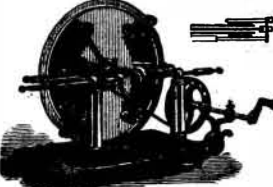


Star Automatic Lathe Cross feed 9 and 11-inch Swing. New and Original Features. Send for Catalogue B. Seneca Falls Mfg. Company, 695 Water St., Seneca Falls, N. Y.

POWER & FOOT LATHES SHAPERS PLANERS DRILLS MACHINE SHOP OUTFITS, TOOLS AND SUPPLIES. CATALOGUE FREE SEBASTIAN LATHE CO. 120 CLEVELAND ST. CINCINNATI, O.

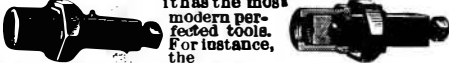
Foot Power and TURRET LATHES, Planers, Shapers, and Drill Presses. SHEPARD LATHE CO., 133 W. 2d St., Cincinnati, O.

Queen's Patent "Triple Plate" Toepler-Holtz Electrical Machine.



Can be used at all times of year and in all kinds of weather. Price range from \$25 to \$50. Write for application. We carry a complete line of Electrical and Physical Instruments and Apparatus. QUEEN & CO., Inc. 1010 Chestnut St. Philadelphia, Pa.

HAVE THE LATEST IMPROVEMENTS. No machine shop can be thoroughly up-to-date unless it has the most modern perfected tools.



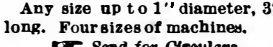
ASHLEY PATENT NIPPLE HOLDERS hold nipples for cutting either right or left hand threads. They hold the sleeve from turning and take the strain off both the sleeve and shank thread. Made of best quality cast steel, carefully fitted. Long or short nipples cut with equal facility. The Ashley Holders are of light weight and compact form. WALWORTH MFG. CO., 20 Oliver St., Boston, Mass.

HIGH GRADE WOOD WORKING MACHINERY



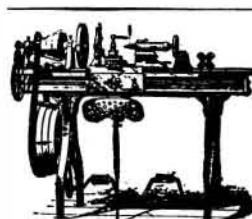
Single Machines or Complete Equipments for Any Class of Work. Your Correspondence is Solicited. Illustrated Matter and Prices on application. J. A. FAY & CO. 10-30 John St., CINCINNATI, OHIO

MACHINES FOR ROLLING SCREW THREADS.



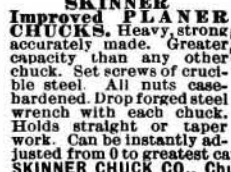
Any size up to 1" diameter, 3' long. Four sizes of machines. Send for Circulars. BLAKE & JOHNSON, P. O. Box 7, Waterbury, Conn.

THE ELECTRIC HEATER.—A VALUABLE paper, with working drawings of various forms of the electrical heaters, including electric soldering iron, electric pad for the sick, etc. 6 illustrations. SCIENTIFIC AMERICAN SUPPLEMENT 1112, Price D cents. For sale by Munn & Co. and all new dealers.



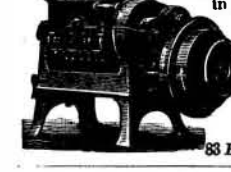
LATHES FOR GUNSMITHS, TOOL MAKERS, EXPERIMENTAL AND REPAIR WORK, Etc. Send for Illus. Catalog. W. F. & Jno. Barnes Co. 1909 Ruby Street, ROCKFORD, ILL.

ROUND OR SQUARE BASE SKINNER



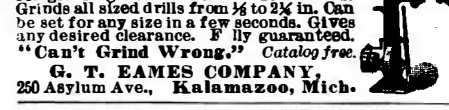
Improved PLANER CHUCKS. Heavy, strong accurately made. Greater capacity than any other chuck. Set screws of crucible steel. All nuts case-hardened. Drop forged steel wrench with each chuck. Holds straight or taper work. Can be instantly adjusted from 0 to greatest capacity. SKINNER CHUCK CO., Church St., New Britain, Conn.

"Universal" Kneading and Mixing Machines



Over 600 in use. Over 300 varieties in 150 different industries. Patented in all countries. WERNER & PFLEIDERER Saginaw, Mich. Builders of all kinds of Chemical Machinery, also at Cannstatt, London, Vienna, Berlin, Paris and Moscow. Highest International Awards

The Yankee DRILL GRINDER

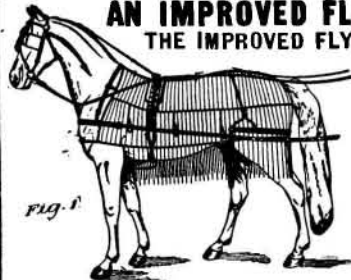


for grinding both Twist and Flat Drills. Grinds all sized drills from 1/8 to 3/4 in. Can be set for any size in a few seconds. Gives any desired clearance. Fully guaranteed. "Can't Grind Wrong." Catalog free. G. T. EAMES COMPANY, 250 Asylum Ave., Kalamazoo, Mich.

You spend thousands on coal bills—but how much to save the steam? Want to know more about it?—Ask for our booklet "H" on the HEINTZ STEAM TRAP. WILLIAM S. HAINES CO., 136 South Fourth St., Philadelphia, Pa.

Table listing various mechanical parts and their prices, including items like Knitting machine striper attachment, Labeling machine, Lamp, and various pumps and engines.

TWO VALUABLE PATENTS FOR SALE.



AN IMPROVED FLYNET AND CHECKEASE FOR HORSES. By means of certain ELASTIC PORTIONS, this Flynet is always kept in position and will fit large or small horses. It is adapted to extend to the collar or harness and will cover the horse to a greater extent than the ordinary nets while not interfering with the comfort or movements of the horse.

E. READ GOODRIDGE, Decker Building, 33 Union Square, NEW YORK.

SAVE 1/2 Your FUEL wasted up chimney. BY USING THE ROCHESTER RADIIATOR. Money refunded if not satisfactory. Write for booklet on economy in heating homes. ROCHESTER RADIIATOR CO., 60 F rance Street, Rochester, N. Y.

Foreign Trade Marks FOR American Merchants.

GREAT POWER—SMALL COST! The maximum of strength, durability and safety, with the minimum of cost that describes our HOISTING ENGINES for operation on Gasoline, Distillate or Crude Oil. Every part of the engine is interchangeable. Soon saves its cost in fuel alone. Both friction and geared hoist, 6 to 150 H. P. For quarries, mines and docks. Send at once for free catalogue. Weber Gas & Gasoline Engine Co., 402 S. W. Boulevard, Kansas City, Mo.

It is not generally understood amongst merchants that in many foreign countries the first registrant of a Trade Mark becomes the legal owner of said Mark, even though he may not be the bona fide proprietor. Many American goods are copied by foreign competitors, who put inferior goods on the market and sell them under the American Trade Marks. If these imitators have secured registration for said Trade Mark, they become, in many foreign countries, the legal owners of the Mark, and it will not be possible for the real owners afterwards to procure protection for their Trade Marks. Great hardship often arises in this manner. The only way to prevent such a course is for the American merchant to register his Trade Marks in the countries with which he has commercial relations.

MIETZ & WEISS KEROSENE and GAS Engine. The most economical power known. Absolutely safe and reliable. Runs with common kerosene. Perfectly automatic. Patented 1887, U.S. and European countries. Send for Catalogue. 128-132 Mott St., New York.

MUNN & CO. PATENT SOLICITORS, 361 BROADWAY, NEW YORK.

WITTE GASOLINE "HOISTS" Guaranteed to work at any altitude if you get it with the electric igniter. You can not afford to assume any risk with a "Witte Hoist" you don't do it. Write your own Guarantee. Ask for catalog S.A. Witte Iron Wks. Co. 1207 Walnut St., KANSAS CITY, Mo.

Advertisement for LUCKE'S ROLLS, featuring an illustration of a cigarette and text describing its quality and availability.

WEBSTER MFG. CO., 1074 West 15th St., Chicago. Eastern Branch: 38-D Day Street, New York City. Southern Branch: 601 Poydras Street, New Orleans, La.

GAS ENGINE IGNITER Complete with spark coil, \$1.50. The Best Thing on the market. Send for catalog. The Carlisle & Finch Co., Sixth St., Cincinnati, O.

The "Wolverine" Three Cylinder Gasoline Marine Engine. The only reversing and self starting gasoline engine on the market. Lightest engine for the power built. Practically no vibration. Absolutely safe. Single, double, and triple marine and stationary motors from 1/2 to 30 H. P. Write for catalogue. WOLVERINE MOTOR WORKS, Grand Rapids, Mich.

The Pipe of the Century ...THE... "MALLINKROTT" PATENT NICOTINE ABSORBENT AND VENTILATED SMOKING PIPE, IS THE ONLY PIPE FIT FOR A GENTLEMAN TO SMOKE.

SMALL POWER MOTORS. This cut represents our small 110 volt Direct Current Motor with clamp attachment. We make these in three sizes, 1-10, 1-8 and 1-6 h. p. Can also furnish them on flat base or with speed regulating rheostat in base. We manufacture 1-6 h. p. 220 and 500 volt Motors, 1-8 and 1-6 h. p. Alternating Motors, Dental Motors, etc. Also a full line of D. C. Fan Motors. Send for Bulletin No. 108 of Small Motors and 1899 Fan Motor Catalog. The Holtzer-Cabot Elec. Co., Boston, (Brookline) Mass.

THE HARVEY & WATTS CO., 275 Canal Street, N. Y. Station E, Philadelphia.

PERFECT - PUMP - POWER. is attained only in the TABER ROTARY PUMPS. They are mechanical simple and durable. Will pump hot or cold fluid, thin or thick. Requires no skilled mechanic. Most power at least cost. All parts interchangeable. Made of iron, steel or bronze. Can be driven by belt, motor or engine attachment. Large Illustrated Catalogue free. TABER PUMP CO., 32 Wells St., Buffalo, N. Y., U. S. A.

Planning the New Home Anyone contemplating the building of a new home will find the Building Edition of the Scientific American of peculiar and absorb ing interest. This beautiful publication is issued monthly, and contains practical articles and suggestions on modern house building, together with a series of splendid plates, showing perspective views and floor plans of the most up-to-date modern dwellings, estimated cost, etc. A single issue of this handsome periodical is often worth the year's subscription price to the intending builder. Write today for a copy and send 25 cents for a single copy, or \$2.50 for annual subscription.



