

Advertisements.

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WOOD OF METAL WORKERS
without steam power can save time and money by using our Foot and Hand Power Machinery

AMERICAN PATENTS.—AN INTERESTING and valuable table showing the number of patents granted for the various subjects upon which petitions have been filed from the beginning down to December 31, 1894.

POWER & FOOT LATHES
SHAPERS, PLANERS, DRILLS, MACHINE SHOP OUTFITS, TOOLS AND SUPPLIES. CATALOGUE FREE

Smart Men

Were not always smart. They had to study and read and learn. They had to get all the ideas they could from other people.

GULD & LORD
618 Atlantic Ave., BOSTON, Mass.

THE CURTIS Water Pressure Regulator
For Hotels and Public Buildings, Water Motors, Hydraulic Elevators, etc.

WORK SHOPS
of Wood and Metal Workers, without steam power, equipped with BARNES' FOOT POWER MACHINERY

Rivet Machinery
RAPID ACTION MODERN DESIGN HIGH-GRADE WORK
BUILT BY THE E. J. MANVILLE MACH. CO.

WIRE STRAIGHTENER
This straightener is of an improved pattern, and will straighten wire from No. 3 to No. 20.

CHANDLER & FARQUHAR,
38 FEDERAL STREET, BOSTON, MASS.

Repair Bicycles for a Living.—Your boy's hobby may be mechanics; if so, get him the proper tools.

THE RIVETT LATHE
Faneuil Watch Tool Co. Boston, Mass., U.S.A.

NEW TOOLS... NEW CATALOGUE, 1896

PERFORATED METAL
OF EVERY DESCRIPTION
THE HARRINGTON & KING PERFORATING CO.

FOR EVERY CYCLIST.
POCKET COMPANION TOOL
Three tools you are always needing: Screw-driver, Awl, Wrench.

TRANSITS AND LEVELING INSTRUMENTS.
NICKEL PLATED ELECTRIC LEVELS
Sizes, 2 and 3 inches. Prices, 25 and 30 cents.

"Queen" Builder's Transit \$100
IMPROVED TRANSITS AND LEVELS
Graduated entirely on our large dividing engines.

Spinning and Twister Ring Blanks
BILLINGS' IMPROVED KEY RING
Patent applied for.

WESTERN ELECTRIC
SCIENTIFIC AMERICAN SUPPLEMENT. Any desired back number of the SCIENTIFIC AMERICAN SUPPLEMENT can be had at this office for 10 cents.

TUCK MANUFACTURING CO.
AMES STREET, BROCKTON, MASS.
Giant Screw Drivers, 6 in., 45c.—nickel ferrules, rosewood handles.

Pohlé Air Lift Pump
The Ingersoll-Sergeant Drill Co.
Bulletins to tell you will be sent on application.

SETS OF CASTINGS OF MODEL ENGINES
FREE. CATALOGUES FREE. ALSO TOOLS, GEAR WHEELS & PARTS OF MODELS

ACETYLENE GAS AND CARBIDE OF CALCIUM.—All about the new illuminant, its qualities, chemistry, pressure of liquefaction, its probable future, experiments performed with it.

PATENTS!
MESSRS. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN, continue to examine improvements, and to act as Solicitors of Patents for inventors.

Elbridge Electrical Mfg. Co.
ELBRIDGE, N. Y.
MANUFACTURERS OF High Grade Dynamos and Motors

Measuring Tapes.
Chesterman's, Excelsior, Lufkin's, Eddy's, Roe's, etc., and supplies of all kinds for Architects, Engineers and Draftsmen.

LITTLE GIANT SCREW PLATES
Wire sizes for Jewelers, Dentists, Tool Makers, and Amateurs use.

THE ORNAMENTAL IRON INDUSTRY.—Description of the method of manufacturing wrought iron into ornamental and artistic forms.

Trucks of Every Description.
The Handy Truck
Price F. O. B. \$2.00 Self-Lubricating \$2.25

DORMAN'S VULGANIZERS
are used all over the world. Exclusive Manufacturers of Steam Machines for Rubber Stamps.

WELL DRILLING MACHINERY
MANUFACTURED BY WILLIAMS BROTHERS, ITHACA, N. Y.

AUTOMATIC-OPENING SCREW CUTTING CHUCK
The only chuck made that works automatically without outside connections.

TURBINE WATER WHEELS.
SEND FOR PAMPHLET. JAMES LEFFEL & CO., Springfield, Ohio, U. S. A.

"PEERLESS" DUPLEX PIPE THREADING MACHINES
Combination Bench and Pipe Vises.

Electricity To Electrical Workers.
Mechanics, Mechanical and Architectural Drawing, Plumbing, Architecture, Mining, Civil Engineering in all Branches.

OLDS SAFETY VAPOR ENGINES
FREE from chills, gears, rockers and complications. Greatest simplicity, efficiency, and durability.

"WOLVERINE" GAS AND GASOLINE ENGINES, STATIONARY and MARINE.
The "Wolverine" is the only reversible Marine Gas Engine on the market.

GAS and GASOLINE ENGINES.
Using Natural Gas, Coal Gas, Producer Gas, and Gasoline direct from the tank.

SINTZ GAS ENGINE CO.
GRAND RAPIDS, MICH., U. S. A.
Manufacturers of the Sintz Stationary and Marine Gas and Gasoline Engines.

WEBSTER 2 1/2 actual horse power GAS ENGINE
for \$150, less 10% discount for cash. Built on interchangeable plan.

Lidgerwood Hoisting Engines.
300 STYLES AND SIZES. OVER 12,000 IN USE.

PREISTMAN SAFETY OIL ENGINE
"A thoroughly successful commercial Engine using a Safe Oil."—Franklin Institute

VANDUZEN STEAM PUMP
THE BEST IN THE WORLD. Pumps Any Kind of Liquid. Always in Order, never Clogs nor freezes.

Experimental & Model Work
E. V. BAILLARD, 106 Liberty Street, N. Y.

GATES' ORE BREAKERS
LEAD ALL OTHERS IN ECONOMY, DURABILITY, CAPACITY. ESTIMATES furnished for COMPLETE CRUSHING PLANTS

The WINSHIP Platform Sprinkling Wagon.
The most complete Sprinkling Wagon ever built.

ROCK DRILLS
AIR COMPRESSORS & GENERAL MACHINERY FOR MINING, TUNNELING, QUARRY & RAILROAD WORK