

Advertisements.

ORDINARY RATES.

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LOVELL DIAMOND CYCLES



HIGHEST GRADE. LOWEST PRICES.
FOR LADIES OR GENTLEMEN
Pneumatic Tires, \$115, \$100, \$85.
Cushion Tires, 105, 90, 75.

John P. Lovell Arms Co., Manufacturers
BOSTON, MASS.
AGENTS WANTED

ONE PRICE COLUMBIAS

He who would own a Columbia pays the price of it—the same price for everybody—Keep both eyes on the man who has a "seein' it's you" price—you don't know what you're getting—the world knows Columbias.

Victor + Bicycles
Are first in tires and improvements. The best pneumatic with inner tubes removable through the rim.

H.W. JOHN'S IMPROVED ASBESTOS ROOFING
IMPROVEMENTS PATENTED 1890 IN THE U. S., CANADA AND EUROPE.
FIRE-PROOF. Easily applied by anyone. Send for Samples and Descriptive Price List.

"Spur Pointed" Wood Screws.
Patented May 10, July 19, 1887; Oct. 29, 1889; Aug. 19, Oct. 21, 1890; April 7 May 12, 1891; July 19, 1892.
Its Advantages are:
1. Stronger than a common screw.
2. Uniform and wide slot.
3. Requires the use of but one bit in hard wood.

HARTFORD STEAM BOILER INSPECTION AND INSURANCE CO.
CONN.
For Certain Places and Purposes One Valve Answers Better Than Any Other.

KODAK FILMS.
Our New Films are giving perfect satisfaction. They are highly sensitive, and repeated tests show that they retain this sensitiveness as well as glass plates.

Motor of 19th Century
Can be used any place, to do any work, and by any one. No Bull-eri! No Fire! No Steam! No Ashes! No Gauges! No Engineer!

SEND FOR OUR CATALOGUE!
FIBRE SHEETS, RODS, TUBING, WASHERS
MADE HARD OR SOFT.
A HORN LIKE MATERIAL. LIGHT AND STRONG FOR GENERAL USE IN THE MACHINE SHOP.

THE STIRLING BOILER
is economical in fuel, repairs, and absolutely safe at high pressure. Practically self-cleaning.
THE STIRLING COMPANY,
GENERAL OFFICES:
PULLMAN BUILDING, CHICAGO

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is economical in fuel, repairs, and absolutely safe at high pressure. Practically self-cleaning.
THE STIRLING COMPANY,
GENERAL OFFICES:
PULLMAN BUILDING, CHICAGO

ELECTRO VAPOR ENGINE.
GAS OR GASOLINE FOR FUEL.
NO BOILER. NO FIRE. NO DANGER.
NO ENGINEER.
Engine operated by spark from small battery.

THE COPYING PAD—HOW TO MAKE and how to use; with an engraving. Practical directions how to prepare the gelatine pad, and also the uniline ink by which the copies are made, how to apply the written letter to the pad, how to take off copies of the letter.

The Smith Premier Typewriter
Embodies the most Progressive Mechanical Principles. All the Essential Features Greatly Perfected.
Perfect and Permanent Alignment.
Easiest Running, and Nearly Silent.
All type cleaned in Ten Seconds without Soiling the Hands.

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THE COMET CRUSHER
THE GREAT BALLAST AND CORE BREAKER
FRASER & CHALMERS
133 FULTON ST. W. CHICAGO ILL. & 2 WALL ST. NEW YORK

Link-Belt Machinery Co
CHICAGO.
Link-Belting and Sprocket Wheels
Elevators and Conveyors
Rope Transmissions
Special Mining Machinery
Special Woodworking Machinery
Gear, Pulley, Sheave & Fly Wheel Castings.

James Smith Woolen Machinery Co.
MANUFACTURERS OF
THE HUB FRICTION CLUTCH.
POWER TRANSMISSION MACHINERY.
411 to 421 Race Street, PHILADELPHIA, PA.
NEW DOUBLE LEVER HUB FRICTION CLUTCH.

The American Bell Telephone Company
125 MILK ST., BOSTON, MASS.
This Company owns the Letters Patent No. 186,787, granted to Alexander Graham Bell, January 30, 1877, the scope of which has been defined by the Supreme Court of the United States in the following terms:

Good living
doesn't come from riches. It comes first, and brings riches. While the poor man walks, he will stay poor. His prosperity begins when he rides, and eats a good dinner, and carries a good watch.

LIFE SAVING DEVICES.—A COLLECTION of suggestions of devices for communicating between the shore and stranded vessels, offered to the London Daily Graphic by various correspondents.

BABCOCK & WILCOX CO. WATER TUBE STEAM BOILERS
MANUFACTURERS IN UNITED STATES, SCOTLAND, FRANCE, GERMANY & AUSTRIA.

This Company owns the Letters Patent No. 463,569, granted to Emile Berliner, November 17, 1891, for a Combined Telegraph and Telephone; and controls Letters Patent No. 474,231, granted to Thomas A. Edison, May 3, 1892, for a Speaking Telegraph, which cover fundamental inventions and embrace all forms of microphone transmitters and of carbon telephones.

"OTTO" GAS AND GASOLINE ENGINES,
1-3 to 100 horsepower
Can be used in cities or in country independent of gas works or gas machines.
No Boiler.
No Danger.
No Engineer.
OTTO GAS ENGINE WORKS, PHILADELPHIA.

THE STATE for OREGON
Manufactures is OREGON
A Great Field for Manufacturers and Factories. Portland is its great industrial center. Her perfect water power unequalled anywhere, has every facility of location for Mills and Factories.

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.
In this line of business they have had forty-five years experience, and now have unequalled facilities for the preparation of Patent Drawings, Specifications, and the prosecution of Applications for Patents in the United States, Canada, and Foreign Countries.

ASTRONOMY
Poole Bros. Celestial Planisphere and Celestial Handbook just published.
For descriptive circular address
POOLE BROS., CHICAGO, ILL.

THE EDISON INCANDESCENT LAMP
IS THE ONLY INCANDESCENT LAMP LAWFULLY MADE.
All others infringe the Edison Patents, and are counterfeits.
THE RIGHT OF THE EDISON COMPANY TO AN INJUNCTION AGAINST INFRINGERS HAS BEEN DETERMINED BY THE U. S. CIRCUIT COURT OF APPEALS. COPIES OF DECISIONS SENT ON APPLICATION.
GENERAL ELECTRIC COMPANY,
BRANCH OFFICES:
44 Broad Street, New York; 620 Atlantic Avenue, Boston, Mass.; 173 and 175 Adams Street, Chicago, Ill.; 509 Arch Street, Philadelphia, Pa.; 264 West Fourth Street, Cincinnati, O.; 401-407 Sibley Street, St. Paul, Minn.; Grand Building, Atlanta, Ga.; 1333 F Street N. W., Washington, D. C.; 15 First Street, San Francisco, Cal.; Masonic Temple, Denver, Colo.

THE SIMPLEX TYPEWRITER
\$250 GUARANTEED
to do as good work as any high priced machine. Specially adapted for use in private correspondence. Sent by mail or express prepaid on receipt of \$2.70. See Sci. Am., Oct. 1, p. 211.
Address Simplex Typewriter Co., 32 Great Jones Street, New York.

PRINTING INKS.
The SCIENTIFIC AMERICAN is printed with CHAS. BENEJOHN & CO.'S INK, Tenth and Lombard Sts., Philadelphia, and 47 Rose St., opp. Duane, New York