

WAR OFFICE COMPETITION FOR TRACTORS FOR MILITARY PURPOSES.

The Competition for Tractors for Military Purposes which was announced for the Spring of 1903 will be postponed until the month of October, 1903.

These forms must be completed and returned to the Secretary, Mechanical Transport Committee, not later than January 1, 1903.

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 your home by mail.

LEARN PROOFREADING. If you possess a fair education, why not utilize it at a genteel and uncrowded profession paying \$15 to \$33 weekly?

The Typewriter Exchange. 1 1/2 Barclay St., NEW YORK. 124 La Salle St., CHICAGO. 38 Bromfield St., BOSTON. 817 Wyandotte St., KANSAS CITY, MO. 209 North 9th St., ST. LOUIS, MO. 536 California St., SAN FRANCISCO, CAL.

CALIFORNIA Reliable Information about vegetable gardening, grain growing, fruit culture, poultry, climate, soil, water, lands, power, markets, manufacturing facilities, wages, etc.

OIL-SMELTER-MINES Dividend-Paying Mining, Oil and Smelter Stocks, Listed and Unlisted, our Specialty. DOUGLAS, LACEY & CO. Bankers & Brokers, Fiscal Agents.

EVERYBODY finds the Remington Typewriter adapted to his work. Wyckoff, Seamans & Benedict (REMINGTON TYPEWRITER COMPANY) 327 Broadway, - New York

Table listing various goods and their prices: Food, prepared cereal, American Cereal Co. 38,993; Fruits, certain named dried and evaporated, Hancock & Co. 38,996; Greases employed in soap making, Aspergren & Co. 38,989.

Table listing various goods and their prices: Medical compound for treatment of nervous diseases and as a tissue builder and general tonic, J. H. Kastle 39,005; Medicine, tonic, Biogene Manufacturing Co. 39,002.

Table listing various goods and their prices: Labels. "Battle" for coffee, Southern Coffee Co. 9,472; "Italy Brand" for olive oil, Parodi, Ermilio & Co. 9,477.

Table listing various goods and their prices: Prints. "Table Tennis," for table tennis, Gray Lithograph Co. 560; "The First Over the Bars, Hunter Baltimore Rye," for whisky, W. Lanahan & Son 559.

Notes and Queries.

HINTS TO CORRESPONDENTS. Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.

(8720) J. L. B. asks: 1. What battery shall I use, and how many cells of the same, to light two 8 candle power lamps of 8 volts and 2 amperes?

(8721) C. T. M. asks: What is meant by a twenty per cent grade? A. A twenty per cent grade rises or falls 20 feet for every 100 feet measured horizontally and not on the slope.

PERFORATED METALS. FOR ALL USES, MADE AS REQUIRED. THE HARRINGTON & KING PERFORATING CO. 225 N. UNION ST. CHICAGO, ILL. U.S.A.

WANTED by prominent and best introduced firm on the European Continent, sole agency for a practical and solid Typewriting Machine.

CREST 3, 5, 7 H. P. MOTORS. Sparking Pugs and Coils. CREST MFG. CO., Cambridge, Mass.

ELECTRICITY. HOW TO MAKE. 10 Cts. Wimhurst Machine, A Dynamo, Storage Battery, Electric Bell, 5 Books, 10 cents each.

BERRYMAN Heaters. BENJ. F. KELLEY & SON, 91 Liberty St., New York. Manufacturers of the (KELLEY PATENT) Improved Berryman water tube Feed Water Heater and Purifier.

SMALL SPRINGS OF EVERY DESCRIPTION. FLAT OR ROUND WIRE, STEEL OR BRASS. THE WALLACE BARNES CO. IS MAIN ST. BRISTOL CONN.

2d HAND GAS and GASOLINE ENGINES. Save 30 to 50 per cent. Second hand engines in stock from 1 to 20 h. p., all makes, all prices.

FREE Catalogue of Architectural, Scientific and Technical Books. Prospectus for 1902, for "Architects' and Builders' Magazine," monthly \$2 a year.

MODELS & GEARS. UNION MODEL WORKS 193 CLARK CHICAGO.

YOU ONLY RISK \$1. In order to keep things moving during the hot weather, on receipt of \$1.00 I will ship to any station in the United States A 400-LB. WILLARD STEEL RANGE.

THE "QUEEN" DRAWING PENS. SCIENTIFICALLY SHARPENED.

All Queen Pens are sharpened by experts who have had many years' experience in making and sharpening Drawing Pens.

I PRINT MY OWN CARDS. Circulars, newspaper, Press, \$5. Larger size, \$14.00. Money saver. Big profits printing for others.

THE LOCKE ADDER. Buy the Locke Adder to save your brain. CAPACITY 999,999,999. Patent, calculator, landline, most practical and durable, low-priced calculating machine.

Van Norman Universal Bench Lathes. with line of attachments for screw cutting, milling, grinding, etc., are splendidly adapted for fine experimental work, etc.

RAFTSMEN WANTED. - AN EXAMINATION for Marine Engine and Boiler Draftsmen, Assistant Marine Engine and Boiler Draftsmen, and Copyist Marine Engine and Boiler Draftsmen.

"THIS BEATS NEW JERSEY." Charters procured under South Dakota laws for a few dollars. Write for Corporation laws, blanks, by-laws and forms to PHILIP LEWIS.

MODELS, DIES AND PUNCHES. Special Machinery, Wood and Metal Patterns, Stampings, etc. Hoeff & Moore, 85 and 87 Fifth Ave., Chicago.

MATCH FACTORY MACHINERY. W. E. WILLIAMS, Mfr., 217 South Clinton St., Chicago, U. S. A.

ICE MACHINES, Corliss Engines, Brewers' and Bottlers' Machinery. THE VILTER MFG. CO., 217 Clinton Street, Milwaukee Wis.

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

MODEL and EXPERIMENTAL WORK. Mechanical and Electrical Engineer. Drawings and Designs for Special Work.

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

OMNIGRAPH Will Teach absolute correct in the shortest time at a total cost of four dollars.

THE AMERICAN \$10 TYPEWRITER. Is as well made as the highest-priced machines, but more simple. It has stood the test: ten years without a competitor.

ELECTRIC Envelope Sealer. Capacity, 150 per minute. Not only a time and labor saving device, but does its work accurately and neatly.

HARPER'S The MAID-AT-ARMS Illustrated by Christy 1.50. This important novel of love and adventure deals with the early "patron" families of New York. by Robert W. Chambers Author of "CARDIGAN" HARPER & BROTHERS, Franklin Square, New York