Scientific American.



Geo. W. Polk. A new and valuable paper, containing Prof. Eithu Thomson, giving an account of a new way full practical directions and specifications for the construction of the fastest and best-kinds of Ice Yachts of the same or of different kinds. With 4 figures. Construction of all the parts. Contained in SCIENTFIC AMERICAN SUPPLEMENT, No. 6124. Price 10 cents. To be had at this office and from newsdealers.



46

TIFIC AMERICAN SUPPLEMENT, No. 62 cents. To be had at this office and of all r



MESSRS. MUNN & CO., in connection with the publi-cation of the SCIENTIFIC AMERICAN, continue to ex-amine improvements, and to act as Solicitors of Patents for Inventors.

for inventors. In this line of business they have had forty-one years emportance, and now nave suscituded fucifields for the proparation of Patent Drawings, Specifications, and the goseention of Applications for Patents in the United States, Canacia, and Foreign Countries. Messers Munn & Co. Also attend to the respectively constructed to for hocks. Lacels, Reisense, Assignmenta, and Reports on Infringements of Patents. All business infrusted to them is done with special care and promptness, on very reasonable terms

A pamphlet sent free of charge, on application, con-taining full information about Patents and how to pro-cure them; directions concerning Labels, Copyrights, Designs, Patents, Appeals, Reissues, Infringements, As-signments, Re ected Cases, Hints on the Sale of Pa-tents, etc.

We also send, *freeof charge*, a Synopsis of Foreign Pa-tent Laws, showing the cost and method of securing patents in all the principal countries of the world.

MUNN & CO., Solicitors of Patents,

301 Broadway, New York. BRANCH OFFICES - No. 622 and 624 F Street, Pa. Shafting and Gearing, Textile Machinery, 22d and Wood Ster, Bo Balling, new 7th Street, Washington, D. C.



NAVAL ARCHITECTURE.-AN INteresting review, by Mr. R. Duncan, of the progress that has been made in this branch of science during the last fity years. Contained in SciEnviric AMERI-CAN SUPPLEMENT, NO. 589. Price 10 cents. To be had at this office and from all newsdealers.

ASK YOUR STATIONER FOR THE JOHANN FABER LEAD PENCILS THE BEST NOW MADE

SEVERN AND MERSEY TUNNELS. Full description of these two important engineering works, with two engravings. Contained in SCIENTIFIC ANERICAN SUPPLEMENT, No. 604. Price 10 cents. To be had at this office and from all newsdesilers. WHAT AMERICAN ZOOLOGISTS HAVE

WHAT AMERICAN ZUCLUCTIDID HAVE Done for Evolution—FY Edward S. Morse. Address of the retiring president of the American Association for the Advancement of Science, New York, Aug 11, 1887. An interesting review of ten years work performed by American Zoologists. Contained in SCIENTIFIC AMERI-CAN SUPPLEMENT. NOS. 607, 608 and 609. Price10 cents each. To be had at this office and from all news-dealers.



Manufacturers, Agriculturists, Chemists, Engineers, Mechanics. Builders, men of leisure, and professional men, of all classes, need good books in the line of theirrespective callings. Our post office department permits the transmission of books through the mails at very small cost. A comprehensive catalogue of useful books by different authors, on more than fifty different subjects, has recently been published for free circulation at the office of this paper. Subjects classified with names of author. Persons desiring a copy, have only to ask for it, and it will be maile to them. Address,

MUNN & CO., 361 Broadway, New York.

and described in the SUPPLEMENT.

engravings.

Price for the SUPPLEMENT for the United States and Canada, \$5.00 a year, or one copy of the SCIENTIFIC AM-ERICAN and one copy of the SUPPLEMENT, both mailed one year for \$7.00. Address and remit by postal order. express money order or check,

The most important Engineering Works Mechanisms and Manufactures at home and abroad are represented

MUNN & Co., 361 Broadway, N. Y., Publishers SCIENTIFIC AMERICAN.

To Foreign Subscribers.-Under the facilities of the Postal Union, the SCIENTIFIC AMERICAN is now sent by post direct from New York, with regularity, to sub-scribers in Great Britain. India, Australia, and all other British colonies : to France, Austria, Belgium, Germany Russia.and all other European States; Japan. Brazil, and all States of Central and South America. Terms, when sentto foreign countries, Canada and Mexico, excepted \$4, gold, for SCIENTIFIC AMERICAN. one year \$9. gold for both SCIENTIFIC AMERICAN and SUPPLEMENT for This includes postage, which we pay. Remit 011e yea hy postal or express money order, or draft to order of MUNN & CO., 361 Broadway, New York,

PRINTING INKS. THE "Scientific American" is printed with CHAS ENEU JOHNSON & CO.'S INK. Tenth and Lom-bard Sts., Phila., and 47 Rose St., opp. Duane St., N. Y.

ELEVATORS, ETC.