

NEW BOOKS, ETC.

ANIMATED PICTURES. By C. Francis Jenkins. Washington, 1898. Pp. 118. Price \$2.50.

The volume before us deals with the development of moving photography and is written by an inventor of a successful machine. His advice on the technical aspect of the subject is very valuable, and there is no doubt it will be interesting to many photographers.

THE BUTTERFLY BOOK. A Popular Guide to a Knowledge of the Butterflies of North America. By W. J. Holland. New York: Doubleday & McClure Company, 1898. Pp. 382. Price \$3.

The time has arrived when thoroughly scientific books, especially books on natural history, with proper plates and illustrations, can be sold at a price which puts them within the reach of even the scientific student, whose purse is proverbially small.

OUR NAVY IN THE WAR WITH SPAIN. By John R. Spears. New York: Charles Scribner's Sons, 1898. Pp. 406. Over 100 illustrations. Price \$2.

This very timely and interesting work really forms the fifth volume of the author's well known "History of Our Navy," with which it agrees in general style of text and illustrations.

THE PRACTICAL COMPOUNDING OF OILS, TALLOW, AND GREASE FOR LUBRICATION, ETC. By an Expert Oil Refiner. London: Scott, Greenwood & Company. New York: D. Van Nostrand Company, 1898. Pp. 96. Price \$3.50.

A practical work by a practical man is always of standard value. The volume before us treats comprehensively the subject of hydrocarbon oils, animal and fish oils, compound oils, vegetable oils, lamp oils, machinery greases, etc.

THE SPEED LATHE. By A. G. Compton and James A. De Groodt. New York: John Wiley & Sons, 1898. 12mo. Pp. 134. 99 illustrations. Price \$1.50.

The book before us is the first of a series of three on advanced metal work, giving lessons of the speed lathe, engine lathe, and planing machine, for the use of technical schools, manual training schools, and amateurs.

A New Edition of "Liquors and Preserves" Now Ready.

We have just printed a new edition of De Brevans' "Manufacture of Liquors and Preserves." This will doubtless be welcomed by some of our readers, as the former edition was entirely exhausted and some of our customers were only able to obtain copies at a considerable advance on the published price.

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The charge for insertion under this head is One Dollar a line for each insertion; about eight words to a line. Advertisements must be received at publication office as early as Thursday morning to appear in the following week's issue.

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Grease Can patent noticed on page 108 of this issue for sale. Address inventor, Alden Crocheron, 206 N. 2d West St., Salt Lake City, Utah.

The celebrated "Hornsby-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Refrigerating Machine Company. Foot of East 13th Street, New York.

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Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication. References to former articles or answers should give date of paper and page or number of question.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted FEBRUARY 7, 1899.

AND EACH BEARING THAT DATE. [See note at end of list about copies of these patents.]

Table listing various inventions such as abdominal bandage, air brake hose coupling, air compressing apparatus, etc., with corresponding patent numbers.

Table listing various inventions such as fan motor, farm gate, feed gate, fence water regulator, etc., with corresponding patent numbers.

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PROPOSALS.

Commission NEW EAST RIVER BRIDGE, City of New York. Notice to Contractors. FEBRUARY 3, 1899. Proposals will be received by the Commissioners of the New East River Bridge, at their Office at No. 49 Chambers Street, in the Borough of Manhattan, in the City of New York, at two o'clock in the afternoon of the 8th day of February, 1899, endorsed "Proposals for Construction of Steel Towers and End Spans of the New East River Bridge," for furnishing the materials for and constructing the Steel Towers and End Spans of the New East River Bridge in accordance with the proposed form of contract and the drawings and specifications therefor. All bids shall be inclosed in sealed envelopes, addressed to Lewis Nixon, President of the Board of Commissioners of the New East River Bridge, and presented to him on that day and at that hour at said office, and such bids will be opened in public meeting by the said Commissioners on that day at two o'clock in the afternoon.

Copies of the specifications and the general drawings for the work, with the proposed forms for the bid, bond and contract may be seen, and further information will be given at the office of the Chief Engineer, No. 84 Broadway, Borough of Brooklyn, City of New York, on and after the 6th day of February, 1899. Particular attention is called to the following changes which have been made in the specifications and drawings issued in February, 1898: The first sentence in Section 25 of the specifications shall read thus: "All steel shall be acid open hearth, made by the pig and ore process from stock satisfactory to the Engineer." The following section shall be inserted after Section 103 of the specifications: "Rust Joints. All foot castings shall be bedded on rust joints satisfactory to the Engineer." Drawings Nos. 148 and 149, dated January 10, 1898, replace drawings Nos. 148 and 149, dated January 10, 1898; and drawing No. 163, dated December 29, 1898, is added to the drawings.

The Commissioners require that all bidders shall carefully examine the specifications, drawings and proposed form of contract, in order that no question as to their meaning may arise hereafter. It must be distinctly understood that no changes in the quality of the materials or of the workmanship will be allowed, and that the specifications will be adhered to in all particulars. The contract is to be completely performed on or before the twenty-eighth day of February, 1900. Proposals will be made upon a form provided therefor, and only those proposals will be considered which are complete, in proper form, comply with the requirements as specified, and are from parties of known reputation, experience and responsibility.

Each bidder will be required to deposit, with his proposal, in the office of the Commissioners, a certified check for \$10,000, payable to the order of Julian D. Fairchild, as Treasurer of the New East River Bridge Commissioners, as security for the execution by him of the contract and the giving of the required bond, if his bid is accepted, within two weeks after notice of the acceptance of his bid. The Contractor will be required to give a bond in the penal sum of \$40,000, in the form annexed to the proposed form of contract, with an approved surety company doing business in the City of New York, conditioned for the prompt and faithful performance of the contract and its covenants and the work thereunder. As by far the greater part of this work can be executed by bridge establishments of the first class, bids will be received only from such parties as have the requisite plant and facilities, which have been in successful operation on work of similar character for at least one year. The bidders must be, in the opinion of the Commissioners, fully qualified both by experience and in opinion as to the character and importance according to the highest standard of bridge work at the present time.

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