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 SEE FIRST PAGE SCIENTIFIC AMERICAN SEPT. 2, 1899.

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**NEW BOOKS, ETC.**  
**HINTS ON PLAYING THE JANE NAVAL WAR GAME. (Naval Kriegsspiel.) Together With All the New Rules and Official Changes.** By Fred T. Jane, inventor of the game. London: Sampson Low, Marston & Co. 1902. Pp. 47.

The Naval War Game, or Kriegsspiel, was designed to enable the players to realize as close a simulation of real warfare as is possible. The idea of the game is that any naval officer should be able, without any knowledge of the game, to direct the evolutions of the fleet. It is described by the author as the antithesis of chess, billiards, etc., in that mere proficiency of moving, and so on, does not entail victory, which depends upon the skillful handling of the fleets. The game is played with miniature models of the various warships of the world on boards marked out in squares. There is a code of rules drawn up, and a system of awarding points. That the game gives a very close approximation to actual naval warfare conditions is proved by the fact that it is enormously popular among the navies of the world, practically all of which have officially adopted it. The hints on playing the game are designed to familiarize the players more completely with the true intention and scope of the game. We notice, by the way, that in the sum total of points given to the various warships of the world, the "New Jersey" comes as first with 116 points, the "King Edward" of the British navy and the "Brin" of the Italian navy next with 104 points. There is a mass of information in this work which would be of interest to those who follow the growth of our navies, but who have no intention of playing the game itself.

**EXPERIMENTAL SOCIOLOGY.** Descriptive and Analytical. By Frances A. Keller. New York: The Macmillan Company. London: Macmillan & Co., Ltd. 1901. 16mo. Pp. 316.

The author, who, as the title page informs us, is a graduate student of the University of Chicago, has produced a book which is devoted primarily to the study of methods of the investigation of delinquents and their treatment. The author recognizes that what has been done is not a complete study. But taking the book for what it is worth, it certainly should secure interest. The information which has been collected is presented in such an attractive form that the reading of the book is more agreeable than might be expected from its title.

**ALL THE WORLD'S FIGHTING SHIPS. A Practical Naval Annual for Practical Men.** By Fred T. Jane, inventor of the Jane Naval War Game. New York: Harper & Bros. 1901. Pp. 397. Illustrations.

This work is by far the most complete naval annual in the world. It is also the most practical and technical. It contains a photograph of every warship in the world, also a deck plan and sheer plan on which the position and thickness of all the armor, and the position and caliber of every gun are indicated. There are also two silhouettes of every warship and also of every merchant ship that might be of service in war. On the same page with the photograph and the plan of each ship is a table giving the leading dimensions of the vessel, the size and character of its guns, thickness and nature of its armor, together with its speed, fuel supply, etc. There are also articles on the year's progress in gunnery, marine engineering, armor, torpedoes, construction, strategy, tactics, signaling, etc. For the use of officers at sea it is a particularly valuable work, inasmuch as there is crowded into its pages matter that would ordinarily require several volumes for its presentation.

(Continued on page 302)

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**THE BLOCK SYSTEM OF SIGNALING ON AMERICAN RAILROADS.** By Bram B. Adams. New York: The Railroad Gazette. 1901. 8vo. Pp. 260.

In view of the present discussion of signal systems, which has been aroused by the recent accident in the Grand Central tunnel, New York, the above work, which is from the pen of a practical railroad man and one of the editors of a leading railroad journal, is particularly timely. The subject is treated in a most thorough and practical manner, and is fully illustrated with half-tone engravings and line cuts, the latter being freely lettered and very completely described in the accompanying text. The drawings are very clear, both the smaller illustrations showing mechanical details and the general plans of yards and signaling installations being worked out with a comprehensive thoroughness that leaves nothing to be desired. The work is clearly written, and covers the ground with great completeness. The telegraph block systems of three of the largest railroads of the country, including the Pennsylvania, are described in three separate chapters. Then follow a chapter on single-track blocking, and two chapters on the controlled manual system as used on the N. Y., N. H. & H. Railroad. The last five chapters are devoted to descriptions of the various systems of interlocking. While the work is primarily one for the engineer and the superintendent, it should be in the hands of every railroad man whose duties necessitate his familiarity with signals and their operation.

**THE PREVENTION OF SMOKE.** Combined with the Economical Combustion of Fuel. By W. C. Poppell, M.Sc. New York: D. Van Nostrand Company. London: Scott, Greenwood & Co. 1901. 8vo. Pp. 203. Price \$3.50 net.

The main portion of this book is devoted to a brief statement of the principles underlying the smokeless and economical combustion of fuel; a description of the most recent practice for burning fuel for commercial purposes; a review of a number of complete trials recently made with the object of showing the best methods of dealing with coal for the purpose of steam raising, and, lastly, a summary of the law as it relates to the smoke question. This scheme, both simple and logical, has been carried out thoroughly. The illustrations in the book might well be improved; but the printing is excellent.

**THE SOAP BRAND RECORD AND TRADEMARK MANUAL.** By Leebert Lloyd Lamborn, B.S. New York: Charles S. Berriman, Soap Gazette and Perfumer. 1902. 8vo. Pp. 178. Price \$5.

The author's intention is evidently good. But sometimes he says things that irritate a trademark attorney. Mr. Lamborn constantly refers to "copyrighted" trademarks. If this book is ever published in a second edition we trust that he will substitute "registered" for the inaccurate "copyrighted." On page 49 the author refers to the Patent Office Record, a publication with which we are not familiar. Perhaps he refers to the Official Gazette. By far the most valuable portion of the work is an excellent list of registered ("copyrighted," the author calls it) trademarks for soap. That list expiates the sins mentioned.

**A DICTIONARY OF DYES, MORDANTS, AND OTHER COMPOUNDS USED IN DYEING AND CALICO PRINTING.** By Christopher Rawson, Walter M. Gardner and W. F. Laycock. London: Charles Griffin & Co. Philadelphia: J. B. Lippincott Company. 1901. Octavo. Pp. 374. Price \$5.

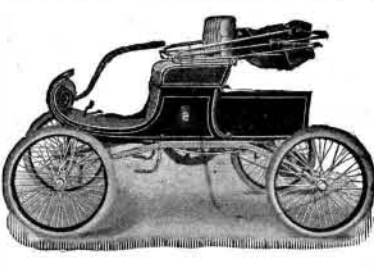
The authors of this book are men whose names are intimately associated with the chemistry of dyeing. Their work seems to be a very complete lexicon of such dyes and mordants as are used in the dyeing and printing of calicoes. The dictionary will probably be of great practical value in the laboratories of color chemists. To many perhaps the lack of a method of applying the dyes and mordants will be felt; but such methods will be found fully described in the "Manual of Dyeing" prepared by the same authors.

**WATER AND ITS PURIFICATION.** A Handbook for the Use of Local Authorities, Sanitary Officers, and Others Interested in Water Supply. By Samuel Rideal, D.Sc. Second Edition, Revised and Extended. Philadelphia: J. B. Lippincott Company. London: Crosby, Lockwood & Son. 1902. 16mo. Pp. i-xvi, 346.

This is the second edition of a work which has proven of rare value to the sanitary engineer and to those who have been in any way interested in the water supply of large cities. In the present edition additional matter dealing with recent water problems and sand filtration has been included. The first chapter has been rewritten and new matter incorporated. In its revised form the book should certainly meet with a favorable reception.

**TUBULAR TRANSIT FOR LONDON.** By John Leighton, F.S.A. London, 1902. First Edition. Pp. 16.

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