

not possible that the coherence of the carbon particles after the spark has passed may not be due to the return of the iron diaphragm in the telephone receiver to its original position, as there is a perceptible jar due to the vibrations in a receiver on both making and breaking the circuit. A. The vibrations of a telephone diaphragm can hardly have energy enough to effect the cohesion of the particles mechanically. The point could, however, be determined by placing a coherer containing metallic powder in the same position. If it will work as well as the carbon coherer, it would justify the theory of our correspondent.

NEW BOOKS, ETC.

THE SEVEN FOLLIES OF SCIENCE. A Popular Account of the Most Famous Scientific Impossibilities and the Attempts which have been made to Solve Them. By John Phin. New York: D. Van Nostrand Company, 1906. 12mo.; 178 pp.; numerous illustrations. Price, \$1.25.

The author in this work has produced a book that will undoubtedly appeal to the popular mind as well as to that of the scientist. He has endeavored successfully to give a simple account of the problems which have occupied the attention of the human intellect ever since the dawn of civilization, and which will continue to interest for ages to come, primarily because many of them cannot be solved despite apparent simplicity. To-day we advance so rapidly in almost every field of endeavor that it is difficult to believe that there may be such a thing as a scientific impossibility, but that this exists is undoubted, and the author shows where the line must be drawn.

JAHRBUCH FÜR DAS EISENHÜTTENWESEN. (Ergänzung zu Stahl und Eisen.) Ein Bericht über die Fortschritte auf allen Gebieten des Eisenhüttenwesens im Jahre 1905. Im Auftrage des Vereins deutscher Eisenhüttenleute bearbeitet von Otto Vogel. IV. Jahrgang. Kommissionsverlag von A. Bagel. Düsseldorf, 1906. 8vo.; 464 pp.; illustrated. Price, \$4.

This book is gotten up with the thoroughness which we so often properly associate with the German scientist. It is an account of practically all the advances and developments which were made in the iron industry in the year 1905, in Germany as well as in other countries. In it are given numberless references to articles written by experts and dealing with various phases of the subject, in technical publications the world over. It contains further a series of articles on various innovations, which are supplied with excellent illustrations to supplement the text.

TYPE AND DETAILS OF BRIDGE CONSTRUCTION. Part II. Plate Girders. Examples of Constructed Railroad and Highway Spans. By Frank W. Skinner. M. Am. Soc. C. E. New York: McGraw Publishing Company, 1906. 8vo.; 412 pp.; illustrated. Price, \$4.

This excellent work is a thorough and comprehensive review of the American practice in plate girder construction for bridge and other work. Many of the chapters are based on earlier writings of the author published in technical periodicals, to which he has been a contributor for the last fifteen years. Examples of early work are given to show the development of designs corresponding with the growth of the requirements, the development of engineering practice, and the change from wrought iron to steel. The examples of the various types discussed and illustrated fully cover the range of dimensions, capacities, and types for the different positions and requirements under which plate girders are used for bridge work. The descriptions are precise, and clearly present many special and important features of design.

HIGH-TENSION POWER TRANSMISSION. Second Volume. A Series of Papers and Discussions Presented at the International Electrical Congress in St. Louis, 1904. New York: McGraw Publishing Company, 1906. 8vo.; 315 pp.; illustrated. Price, \$2.50.

This book is based upon a series of papers and discussions presented at the International Electrical Congress in St. Louis in 1904, and will be found to give the best practice as laid down by the recognized authorities, American and foreign. It is published under the auspices of the Committee on High-Tension Transmission of the Electrical Congress. The papers upon which this book is based were generally developed from practical experience, and as such are of great value to the engineer interested in this subject. They cover many phases of the subject from various points of view, and while in some directions they present difference of opinion on the same question, in others are remarkably unanimous.

MOTOR-CAR MECHANISM AND MANAGEMENT. Part I. The Petrol Car. By W. Poynter Adams. M. Inst. E. E. Philadelphia: J. B. Lippincott Company, 1906. 12mo.; 174 pp.; 22 illustrations. Price, \$2.

It is undoubtedly true that a practical knowledge of the mechanism of the motor car cannot be obtained simply by the reading of a textbook, no matter how excellent this may be. As the author states, it is the intention in the present work that the information contained

in this book shall be supplementary to practical instruction, and as such it will prove of undoubted value. He avoids the use of technical expression and scientific phraseology, and the text will be readily comprehensible to the uninitiated in the mysteries of mechanism. The illustrations have been carefully designed to enable a reader not familiar with mechanical drawings to understand them.

JAHRBUCH DER SCHIFFBAUTECHNISCHEN GESELLSCHAFT. Berlin: Verlag von Julius Springer, 1906. 4to.; pp. 715.

This beautifully bound and illustrated publication is the seventh volume of the Proceedings of the German Society of Naval Architects and Marine Engineers. It covers the spring and autumn meetings of 1906, and contains a number of original papers covering a wide range of subjects, which are not only of interest to members, but will be found worthy of reading by engineers the world over. Several of the papers are discussed by the members. The Emperor of Germany is a patron of the Society, and its flourishing condition is evident from the large membership, which now includes over 1,100 technical men. The papers discuss various phases of marine engineering, both mercantile and naval, and many original theories and deductions as well as practical observations are brought out.

ELECTRIC TRANSMISSION OF WATER POWER. By Alton D. Adams, A.M., M. Am. Inst. E. E. New York: McGraw Publishing Company, 1906. 8vo.; 336 pp.; illustrated. Price, \$3.

The subject chosen by the author of this book is to-day unquestionably one of the most important which the electrical engineer is called upon to solve. Electrical supply from transmitted water power is now distributed in more than fifty cities in North America, and the practice of such usage of natural power is constantly growing and developing. Its various phases are discussed by means of examples chosen from the many transmission systems available, and are excellently illustrated by drawings and photographs. The book will be found to contain the best practice for electrical transmitting as developed in this country, from the water power itself to the details of construction, at the end of the transmission line.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued

for the Week Ending May 29, 1906.

AND EACH BEARING THAT DATE

(See note at end of list about copies of these Patents.)

Table listing inventions such as 'Acids, making dialkyl barbituric, W. Traube', 'Alarm, F. M. Hobbs', 'Animal trap, W. C. Hecker', etc., with corresponding patent numbers.

Table listing inventions such as 'Calking machine, C. Youngstrom', 'Can, P. Ross', 'Can body making machines, automatic blank feed for, P. Fess', etc., with corresponding patent numbers.

Table listing inventions such as 'Gas burner, L. H. Bacque', 'Gas generator, A. H. Jones', 'Gas, making, F. Dannert', etc., with corresponding patent numbers.