

NEW BOOKS, ETC.

THE MANUAL OF STATISTICS. Stock Exchange Hand-Book, 1908. Thirtieth Annual Issue. Railroad and Industrial Securities, Government Securities, Mining, Grain and Provisions, Cotton, Money, Banks and Trust Companies, New York: The Manual of Statistics Company. 12mo.; cloth; 1080 pages. Price, \$5.

The thirtieth issue will add to the high standing of the manual as a repository of those data which give information on securities, quotations, provisions, banks, trusts, etc. The railroad department comprises the railway companies of the United States, Canada and Mexico, with details of their organization, mileage, capital stock, funded debt and earnings. That of the industrials is a record of manufacturing, street railway, electrical, gas, mining, land, coal, iron and steel, telegraph and telephone and miscellaneous corporations. Such important features as those of government securities of the United States, Cuba, the United Kingdom of Great Britain, and Japan, and all the great municipal securities of the United States and Canada are printed in full. In fact, this is the plan adopted throughout, and the arrangement of the details is so clear that investors and investigators will have the advantage of a complete service down to date that is easy and expeditious to acquire. Eighteen large maps of railroad systems and mining and other industrial districts add to the value of the work.

GEOLOGY OF COAL AND COAL MINING. By Walcot Gibson, D.Sc., F.G.S. London: Edwin Arnold, 1908. 16mo.; pp. 341. Price, \$2.50.

The author has produced an excellent volume on the geology of coal and coal mining. The subject of fossils is admirably treated. Prospecting and boring are taken, and studies on an exposed and on a concealed coal field are given. Then follow chapters on the coal fields of Great Britain, continental Europe, North America, Africa, India, Australia, China, Japan, New Zealand, and the Dutch East Indies, not forgetting the comparatively small fields of South America. The book is well illustrated and printed.

THE FALLS OF NIAGARA. Their Evolution and Varying Relations to the Great Lakes; Characteristics of the Power, and the Effects of Its Diversion. By Joseph William Winthrop Spencer, M.A., Ph.D., F.G.S. 1905-6. Ottawa: Geol. Surv. Canada, 1907.

The latest and most elaborate study of the physical history of Niagara deals primarily with the history of the recession of the cataract from end to end and describes with much detail the local physical features, the contemporaneous distribution and discharge of waters in the region of the Upper Lakes, as well as the sequence of water levels in the Ontario basin. The author has computed the time which it probably took for the river and cataract to reach their present stage.

THE WIFE AS A FAMILY PHYSICIAN. By Anna Fischer-Dueckelmann, M.D. Milwaukee: International Medical Book Company, 1908. Large 8vo.; pp. 870; 27 full-page color plates and prints; 440 original text illustrations. Price, \$5.

This portly volume is a practical book of reference to the family in health and in sickness. It is written by a graduate of the University of Zurich, and has been translated and adapted with the collaboration of a staff of eminent physicians. The publishers inform us that the book has had an extraordinary success in Europe, having been published in eleven different languages, and several million copies having been sold. It would seem that this, in itself, is sufficient evidence of its merit. From the scientific point of view we do not, of course, recommend everyone to be his own physician, because in that case he is apt to have a bad patient. But the present book recommends the natural healing art and does not, as a rule, prescribe drugs. It does not tend to make the service of a physician unnecessary; but its aim is to teach people a hygienic mode of life and to take sensible precaution against disaster. The book is profusely illustrated and is well printed and bound.

PRACTICAL IRRIGATION: ITS VALUE AND COST. By August J. Bowle, Jr., S. B. New York: McGraw Publishing Company, 1908. 8vo.; pp. 232. Price, \$3.

The prospect of converting desert land into flourishing country lends the most attractive aspect to irrigation. Some people, carried away with the possibilities of irrigation, lose sight of the all-important financial end of the question, and make extensive investments in plant which is unnecessary or unsuited to the work to be done. Others, with ill-advised ideas of economy, endeavor to irrigate their land without properly laying it out, and spend for labor many times the cost of a suitable installation. To speak intelligently about irrigation we must know the cause and the value, not only of the plant as a whole, but of the individual parts thereof. The author has written a very carefully balanced book, which should be indispensable to all engineers and others who are interested in irrigation work. We are particularly impressed with the common-sense methods which the

author suggests. For instance, he states that where the cost of obtaining water is high, expensive means of preventing seepage may be justified. When the fuel is high, and the plant is operating under a high level of efficiency, a high-grade plant should be installed. Where fuel is cheap and cheap low-grade labor is available, it may be folly to install a high-grade plant with its added expenses and complication. It has been the endeavor of the writer to furnish data for determining the cost and value of irrigation and of the apparatus and machinery which may be used therein.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending September 1, 1908,

AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]

Table listing inventions with patent numbers, including items like Abrading machine, Acid baths, Adding machine, and many others.

Table listing inventions with patent numbers, including items like Clothes pressing and cleaning apparatus, Clutch, roller, Coal bunker, and many others.

Table listing inventions with patent numbers, including items like Ingots, plates, sheets, tubes, wires, and like products, Insect exterminator, Insulating coupling, and many others.