which experience has dictated. All flowing water moves under the guidance of natural laws which produce in their combinations complex results, which must be taken into consideration fully if favourable results are to be obtained from the regulation of river channels.

One subject dealt with at some length which deserves the careful attention of river engineers is the prevention of floods by regulating the flow of the water by means of natural or artificial reservoirs. It is not for want of example that this important subject has not received the attention that it deserves. So long ago as the time of the Pharaohs, the regulation of the Nile was effected by the construction of Lake Mœris. Advantage was taken of a large natural depression near the river, covering an area of 695 sq. miles. This was embanked, and a channel cut connecting the lake and the river. In times of extraordinary high Nile, an opening was cut in the embankment and the water from the river allowed to flow through the cut to the artificial lake; when the flood subsided the cut in the bank was made up again.

In America the great lakes form a practical object-lesson as to the use of storage reservoirs. These operate to preserve a balance between the cycles of wet and dry seasons, and so regulate the depth of the water in the rivers with which they are connected, to the advantage of navigation in dry seasons, and the prevention of floods when the rainfall is excessive.

The largest artificial reservoir that has been constructed in the United States is that at the head of the Mississippi. The country in the neighbourhood of the source of this river is interspersed with a great number of small lakes and depressions. About thirty years ago, following the Egyptian example, embankments were constructed to hold up the water over this area in wet seasons, and works carried out to enable this to flow out when the river could take it without causing floods. In Italy the lakes adjacent to the northern tributaries of the Po have in like manner been adapted to serve the same purpose. The flow of the Rhine in its upper part is also regulated by the lakes with which it is connected.

One of the most extensive modern artificial systems of regulation is to be found in Russia, at the head waters of the Volga and Msta rivers, where, by the embankment of a large tract of low swampy land, the flow of water in the Volga has been so regulated that the length of time over which navigation is practicable in dry seasons has been increased by three months.

The most recent example of river regulation in Europe has been carried out in Silesia, where, on an average, the river Oder overflowed its banks and flooded the country through which it flows once in eight years. The loss to the inhabitants caused by the last of these floods was estimated at half a million pounds. The scheme adopted has been to form a series of reservoirs by constructing embankments across the valley and holding up the water when the river is not able to carry off the rainfall.

OUR BOOKSHELF.

The Wonders of Wireless Telegraphy. By Prof. J. A. Fleming, F.R.S. Pp. xi+279. (London: S.P.C.K., 1913.) Price 3*s.* 6*d.* net.

DR. FLEMING'S reputation as inventor, experimenter, theorist, and expositor in the domain of wireless telegraphy is so high that any work by him upon this fascinating and difficult subject will be welcome. We already have learned to look to his advanced and mathematical works for guidance when seeking to understand the intricacies of spark or æthereal telegraphy. In the present book, however, Dr. Fleming has undertaken a task which in many ways is more difficult than writing an advanced treatise, for he has attempted, and his success is great, to unfold the nature of the operations on which this new art depends without the use of mathematical or very technical language. This book is to be considered as a continuation of, or addition to, "Waves and Ripples in Water, Air, and Æther," by the same author.

Without following the treatment of the several chapters, special reference may be made to the fifth chapter, which is of particular interest, as we there find the most recent views on long-distance transmission as not affected by the curvature of the earth, but susceptible to peculiarities of weather, and, above all, to the effect of the rising or setting sun. Another feature is the discussion of the methods of transmission by intermittent spark, continuously existing arc, and various mechanical methods of obtaining continuous waves or nearly so, and this it would appear might be read to advantage by some whose knowledge of electrodynamics is greater than their familiarity with the everyday difficulties met with in working commercially.

The chapter on the wireless telephone is also one which will appeal to every reader.

(1) *Who's Who,* 1914. Pp. xxx+2314. Price 15*s.* net.

(2) *Who's Who Year-Book for* 1914–15. Pp. vii+178. Price 1*s.* net.

(3) *The Englishwoman's Year-Book and Directory.* 1914. Edited by G. E. Mitton. Pp. xxxii+441. Price 2*s.* 6*d.* net.

(4) *The Writers' and Artists' Year-Book,* 1914. Edited by G. E. Mitton. Pp. x+157. (London: Adam and Charles Black.) Price 1*s.* net.

(1) THE best praise which can be given to the sixty-fifth issue of "Who's Who" is to say that it maintains the high standard of excellence of previous editions. We notice that it has increased in size by nearly a hundred pages, and that, as