in this country few developments have been made. More attention has been given probably in England to the binocular microscope than to any other form of stereoscopic instrument. Quite recently Theodore Brown has experimented with a method of monocular bio-stereoscopic projection, which will doubtless one day be perfected and become widely known. But only his earlier work is mentioned by von Rohr, who does not carry his account beyond 1900. For the same reason, perhaps, we find no mention of the Forbes stereoscopic range-finder, or of the Aitchison prism binocular.

To those interested in the history of optics, and more especially to workers in stereoscopy, von Rohr's compilation will be of great value. For the general reader it is to be feared the technical manner in which the subject is presented throughout will prove somewhat of a stumbling block. This is, we think, a matter for regret.

AMERICAN PHYSICAL GEOGRAPHY.

Physiography. By Prof. R. D. Salisbury. Pp. xx+770; xxvi plates, 707 figures. (London: J. Murray, 1907.) Price 21*s.* net.

THE large three-volume text-book of geology by Profs. Chamberlin and Salisbury has gained a firm place in this country owing to its full treatment of many questions, inadequately discussed in previous available English text-books. This companion volume on physical geography by Prof. Salisbury will accordingly be welcomed by British teachers of geology and geography. It is of great educational value owing to its wealth of lucid illustration and its clearness of exposition, while it will be indispensable as a reference work in geographical libraries owing to its detailed information regarding the physical geography of the United States.

The book is entitled "Physiography," but the term is used, as the author remarks in his introduction, as a synonym for physical geography, for it excludes many subjects which are included in physiography as that science was defined by Huxley and is accepted in the British Isles. The book consists in the main of a description of the structure of the earth's crust, of the working of the various agencies that attack it, and an account of the atmosphere and the oceans in so far as they affect the surface of the earth. Perhaps the most striking feature of the book is its illustrations, which are very numerous, well selected, and excellently reproduced. They are so clear that the author has been able to abridge his text, leaving his series of photographs to tell their own story. The excellence of the illustrations is probably in part secured by the use of heavy paper, so that the volume is of such weight as to hamper its use as a student's text-book.

As a book of reference its especial value is in its descriptions of the phenomena of physical geography taken from a country where the illustrations are unusually clear and suggestive; and it gives most useful summaries of such well-known geographical incidents as the San Francisco earthquake and of the fault which caused it; of the storm which destroyed Galveston in 1900, and the tornado which devastated Louisville in 1896.

In the chapter on the "weather-maps," the author summarises various reasons for the failure of weather predictions, and he remarks that occasional mistakes are inevitable, and that one mistake is remembered longer than many correct forecasts. He claims that in many cases the American forecasts have been of immense economic value; for example, fifteen million dollars' worth of property were saved in 1897 by warnings of impending floods; on one occasion half a million dollars' worth of fruit about Jacksonville, in Florida, and during 1901, 3,400,000 dollars' worth of produce were saved by warnings of approaching cold; the forecasts also render it possible to avoid unnecessary risks, as when, in September, 1903, vessels valued at 585,000 dollars were detained in ports on the coast of Florida, and thus avoided a heavy storm.

In a work of so wide a scope there are naturally many points on which there is room for difference of opinion, but the author is cautious and fair in his treatment of all controverted questions. We are glad to find that he is emphatic in his statement that the term "Gulf Stream" is of doubtful propriety for anything beyond Newfoundland, and that the climate of north-western Europe would be much more temperate than that of corresponding latitudes of North America even if there were no Gulf Stream (pp. 544–5).

He holds that the only explanation of glacial periods which has not been discredited is that based on variations in the composition of the atmosphere. In his discussion of the question there is no criticism of Schloesing's view as to the control of the amount of atmospheric carbonic acid by the sea. The author is a firm adherent of the view of the ice erosion of fiords.

Each chapter is followed by a table of useful exercises, and by a list of references to literature. *I*ney are mainly from American sources, which is natural in a book designed for American students, but an English edition might have included more references to work easily available to British students; for instance, among the excellent illustrations and account of the eruption of Mt. Pelée and St. Vincent, there is no reference to the reports of Anderson and Flett. It may also be remarked that the Aconcagua ascent no longer holds the record, and that while it did, Zurbriggen was not the only man who had made it.

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POLYPERIODIC FUNCTIONS.

An Introduction to the Theory of Multiply-Periodic Functions. By Dr. H. F. Baker. Pp. xvi+336. (Cambridge: University Press, 1907.) Price 12*s.* 6*d.* net.

THE saying that *Il n'y a que le premier pas qui coûte* certainly does not hold good of mathematics; and, oddly enough, it conspicuously fails in cases where it might be expected to justify itself. It is but a step from elliptic to hyperelliptic, from single to double Theta-functions; yet whereas Jacobi reduced all the essential theory of elliptic functions to a most elegant, and for some purposes a final,