

Gullstrand pointed out, such anastigmatism cannot be secured in high-power cataract lenses without the use of non-spherical surfaces. The design of such lenses by Prof. von Rohr and their production by Zeiss is one of the most interesting matters dealt with in the book. The importance of this work to ophthalmological science cannot be too fully emphasised.

A number of terms and phrases are found which should not be adopted in Great Britain without question. There are good reasons against the term "point-focal" as applied to any lens whatever, and there is no need to replace the familiar term "bending" (as applied to a lens) by "co-flexure." Other examples will be found.

The number of tables and charts which the book contains render it in fact a very useful work of reference for the ophthalmologist, though it is undoubtedly more than an "introduction to the theory of spectacles"; its scientific importance is unquestionable.

*The British Journal Photographic Almanac and Photographer's Daily Companion*; with which is incorporated "The Year Book of Photography and Amateurs' Guide" and "The Photographic Annual," 1925. Edited by George E. Brown. Sixty-fourth issue. Pp. 816. (London: H. Greenwood and Co., Ltd., 1925.) Paper, 2s. net; cloth, 3s. net.

This almanac continues to occupy the unique position that its editor has earned for it, and to have lived down all its previous contemporaries. Its general character is too well known to need description, and is maintained in the present volume, but a few welcome changes have been introduced. The most notable of these is the replacement of the tables of chemical formulæ by a series of short articles dealing with the properties of the commonest of the chemical substances used in photographic processes. These will be found of real practical utility, though they need a little revision. One might, for example, be led into error by the statement that iodine is insoluble in water or by the representation of oxalic acid as if its crystals were anhydrous. There does not seem any valid reason for calling ammonium, potassium, and sodium salts as ammonium, "potass," and soda salts respectively, and when uniformity means simplicity and offers no disadvantages, it is always desirable. The editor as usual contributes a long article, this year on "The Plain Facts of Lenses," which is eminently practical and easily understandable even by non-technical photographers. There is also a second article by Mr. T. L. J. Bentley on how to get the best results with the very small cameras that are now in vogue. It appears that  $3\frac{1}{4}$  in.  $\times$   $2\frac{1}{4}$  in. is by far the most popular size as compared with either larger or smaller sizes of spools of roll-film.

*Life and Science*. By Prof. David Fraser Harris. Pp. 204. (London: Andrew Melrose, Ltd., 1923.) 7s. 6d. net.

THE author, in this little work, describes in simple terms the scientific aspect of certain vital phenomena. Written in pleasant style, it appears suitable for the layman of an inquiring turn of mind, who wishes to know something of vital mechanisms without the need of a knowledge of physiology. The work opens with a chapter on the thesis that there is nothing new under the sun, and shows how man's inventions have been

anticipated in the mechanisms found in his own body. After a chapter on mechanisms of defence, the author describes certain tissues which are characterised by possessing a rhythmic activity, thus leading up to a discussion of sleep, which is termed "life's great rhythm": stress is laid on the presence of fatigue products in the blood, a lessened blood supply to the brain, and a diminution in the number of sensory impressions reaching that organ. In the following chapter examples of "latent life," taken from both the vegetable and animal kingdoms, are described: in the next, the rather uncommon subject of "coloured thinking" is dealt with; in these persons certain words or sounds are associated with certain colours, especially when a concept has to be visualised: the condition occurs in perfectly normal people and has no relation to visual hallucinations. The book closes with a plea for a greater recognition of the mutual influence of the mind and body upon each other, illustrated by the subject of faith-healing.

*Sunshine and Open Air: their Influence on Health, with special reference to the Alpine Climate*. By Leonard Hill. Pp. vii + 132 + 8 plates. (London: E. Arnold and Co., 1924.) 10s. 6d. net.

PROF. LEONARD HILL has brought together in small compass a mass of valuable material bearing on the health-giving properties of sunshine and open air. He analyses the scientific facts which explain the curative effects of the Alpine climate, contrasting the composition and physiological effects of high and low atmospheres. The value of this section is enhanced by a large series of comparative observations, not only on the hours of bright sunshine in numerous stations, but also by the exact measurement of the intensity of the sunlight and that of light reflected from the sky and the ground. These measurements are made both in terms of heat and of their biological action. The chapter on the influence of moisture, mist, temperature is well worthy of careful consideration, as it offers explanations of the morbidity of the town dweller and the risks of infection run in confined sunless communities. In the chapter on the biological action of light, the author has summarised a large amount of valuable work done under his supervision in the Department of Applied Physiology in the National Institute for Medical Research. This work comprises the development of instruments for the precise measurement of actinic light both chemically and by its action on protozoa, the depth of penetration of various radiations, and their influence on the blood of animals and man. The introductory chapter gives a practical account of the writer's personal experiences of the "sun cure," and the work is illustrated by some very clear half-tone reproductions.

*The Chemistry of Crop Production*. By Prof. T. B. Wood. Second edition. Pp. vii + 193. (London: University Tutorial Press, Ltd., 1924.) 4s. 6d.

THE first edition of Prof. T. B. Wood's admirable little book on the scientific principles of crop production was reviewed in NATURE for March 24, 1921 (vol. 107, p. 101). We are glad to note that a second edition has been called for, and that the publishers have found it possible to reduce the price from 5s. 6d. to 4s. 6d. The text is unchanged, save that the examples are now based on prices current in 1924.