

tract had become exhausted by use and evaporation, and the livestock were dying, while the women and children were beseeching the conductor of the Government water train—sent for the use of the line repairers' camp—to give them water. Along the dried-up beds of creeks and lagoons, miles of bleached bones of dead cattle and sheep lay exposed to view. The poor brutes, in their intense suffering, had ventured for a drink of the last water left, and sinking down, weak and helpless, had perished in the vain attempt to quench their dying thirst. Overhead a scorching sun was shining like molten brass, and the heat waves of the atmosphere rendered the eyesight powerless to define objects at a distance; all vegetation lay withered. The birds dropped gasping from the trees. The experience of that drought was sufficient to impress any man, engineer or other, with the need of finding a remedy."

The process of sinking artesian wells for irrigation is fully and practically described, from those of shallow depth that can be sunk by hand labour, to the more extensive and deeper sinkings that penetrate to a depth of 6000 feet, and require the use of a 50 h.p. engine, and cables for raising and lowering the drills which weigh  $6\frac{1}{2}$  tons; the cost running up to 8000l. The question of irrigation and the distribution of water, treatment of alkaline water, and drainage are dealt with in separate chapters. In the appendix the statistics are given of the public artesian borings with their depths and yield. It shows that these range from 46 feet in depth and a yield of 9000 gallons a day to 4086 feet and a yield of 1,000,000 gallons a day, the highest temperature of the water flowing out being  $135^{\circ}$  F.

This book should be of great service to colonists settled in arid districts.

*Through the Telescope.* By James Baikie. Pp. xv+292. (London: A. and C. Black.) Price 5s. net.

THIS handsomely illustrated volume bears the impress of having been written by a practical observer who has suffered all the little worries and difficulties inevitably encountered by the amateur astronomer in his days of inexperience and meagre instrumental equipment. Whilst treating of the sun, moon, planets, &c., in special chapters Mr. Baikie writes of things he has observed and of difficulties he has overcome.

The two opening chapters deal with the telescope, first from the historical, secondly from the practical standpoint. The latter may be heartily recommended to beginners, who by carefully digesting and mentally assimilating it may save themselves much worry and, mayhap, expense. We question, however, whether some of the advice is not a little too detailed; some things are better left to actual experience, others to common sense, e.g. the instruction on p. 44 for the observer to wrap up well and keep his feet warm.

The phenomena of the celestial bodies are described in plain language, interspersed with practical hints as to observing them, which cannot fail to help the beginner in "star-gazing," and, if he follows the author's advice, in the specialised study of some particular class of objects.

The historical narrative in each case is lucid and instructive, although there are notable omissions of important work. The two appendices containing the designations and brief descriptions of "lunar formations" and "double stars, clusters and nebulae which may be fairly well seen with instruments up to 3 inches in aperture" form a valuable addition to this volume.

W. E. R.

*The British Journal Photographic Almanac and Photographer's Daily Companion, 1907.* Edited by George E. Brown. (London: Henry Greenwood and Co., n.d.)

THIS annual is so well known to our photographic readers, that in dealing with the present issue we can say that the volume, as in former years, maintains its high position as a mine of photographic information. In fact, its presence in every studio becomes year by year more necessary, for as a book of reference on almost every photographic manipulation it is most valuable.

In the present issue one of the features which has attracted our special attention is the excellent editorial article bringing together brief summaries of the various three-colour photographic printing processes. To-day the subject of printing in colours is so absorbing the time of many ardent workers that such a survey of the various processes in use is very opportune. Another section which will be read with much profit is the epitome of progress. Here we have brought to our notice a classified summary of the advances made in the numerous branches of photography during the past twelve months. The matter is arranged under various subheads, such as "Apparatus and Equipment," "Photographing Various Subjects," "Negative Processes," "Printing Processes," and "Colour Photography," so that for purposes of reference any particular subject can be easily found. As in former years, the formulæ for the principal photographic processes and of the principal plate and paper makers, useful miscellaneous information, and numerous tables complete the volume. Very complete indices add greatly to the utility of the work.

*British Flowering Plants.* By W. F. Kirby. Pp. vii+215. (London: S. Appleton, 1906.) Price 5s. net.

THERE are many pleasing features in this small book that treats of flowering plants in a popular way. The illustrations, if a trifle over-coloured, are characteristic, and the author describes the plants in a sufficiently technical manner to permit of their identification; on the other hand, the book hardly gives an adequate idea of the importance of the different orders, and so many foreign plants are selected for illustration that the most popular method of determination is not provided for commoner British plants.

The title furnishes no indication of the most useful information in the book afforded by the numerous notes which the author has added from his own special branch of natural history, relating to the insects that frequent plants either for destruction or indirectly for construction. This information is of value alike to the botanist and the entomologist, and the observer who proceeds to verify the references to plant-visiting insects is likely to obtain a deeper insight into the structure and ways of flowers than is necessary for mere identification. The introduction is not a botanical success and requires careful revision.

*The Fauna of British India, including Ceylon and Burma. Coleoptera. Vol. i. (Cerambycidae).* By C. J. Gahan. Pp. xviii+329. (London: Taylor and Francis, 1906.)

THE series to which this volume is the latest addition is being published with the authority of the Secretary of State for India in Council under the editorship of Lieut.-Colonel C. T. Bingham. The present book is only the first part of the contemplated volume; another part, which will give an account of the Lamiidæ, is to be published later. Other volumes on Indian Coleoptera will follow in due course.