PLAIN AND FANCY SCIENCE

THE HEAVENS ABOVE. By J. B. Sidgwick. Oxford University Press, through Geoftrey Cumberlage.

FLOWERING EARTH. By Donald Culross Peattie. Phoenix House.

GREAT deal depends on how you like your science. If you are interested in the author's complicated state of mind. Peattie is your man. If you are anxious for your author to get to the horses, Sidgwick may be your meat, for he aims to bridge the gap between text-book astronomy and purely descriptive works. The sub-title of The Heavens Above is "A Rationale of Astronomy." A rationale may be defined as a comprehensive description together with causes and reasons connected with the matter under discussion. It takes a little mathematics to follow some of Sidgwick's reasoning, but he has thoughtfully provided verbal explanations of all these points as well.

The first part of the book is concerned with naked-eye astronomy, with the size and shape of the earth, moon and sun and the relations among them. These relations are analysed more or less as they were discovered historically

and a very exciting story it makes. Later, instrument astronomy is introduced and the telescope, camera, and spectroscope are called upon to probe further and yet further into space. This portion of the book, not quite half, ends with an attempt to estimate the distribution of stars in the universe.

The second part deals, not with distances, numbers, and motions of stars, but with their natures. The role of the spectroscope in enabling us to examine the composition of stars is emphasised. The components of the solar system, the stars of our local cluster and the outer nebulae are all so examined.

The text is well illustrated by numerous figures and diagrams, all simple and clearly set out to cover one point only in each. The reproductions of stelar photographs are as mysterious and as oddly beautiful as such photographs usually are. The beauty would be spoiled but the reader's understanding served by an over-printing of arrows or similar diagrammatic devices to guide the lay-reader through the mass of detail.

There is an ample table of contents and the chapter sub-headings are all referred to pages in the text, but the absence of a subject index will assuredly

and a very exciting story it makes, prevent the book being used as freely Later, instrument astronomy is intro- as it might. The buyer of this book, as



distinct from the library borrower, will want to use it as a source of reference. A reader, wishing to refresh his memory as to whether Beta Librae really is a green star or not would have to read to page 231

to find it so. The index of names provided is of merely biographical interest.

Those who find Jeans to their taste may think Sidgwick heavy going. He does not offer easy generalisations, but neither does he convey an adequate impression of the grandeur of the universe. A pedestrian approach, however surefooted, does seem inadequate in the face of the splendour of the stars. As Sidgwick observes "the war-time black-out made visible the night sky to the townsman of Europe for the first time since the introduction of street lighting." This book will give that person a sound factual groundwork in such knowledge as we have. If he hopes for some grandiose theory of the universe he will not find

it. And if he is seeking for a clue to that passion which has driven men, from the Chaldeans to the present day, to search the heavens . . . he will not find that either.

If Sidgwick is pedestrian Donald Culross Peattie is aerial. He floats along on a stream of florid metaphor. Not that he isn't a sound naturalist: it just happens that the science of *The Flowering*. Earth is so overlaid by sweetness and light that sometimes it is cloying and occasionally nauseating. What is one to make of this?

And if it should occur to you that here protoplasm, with mortal Adamite finger, touches the finger of universal and immortal power, science will not gainsay you.

Yet when D.C.P. gets down to cases it is possible to follow with ease and pleasure a natural account of certain plant families, algae in particular. It is when he is generalising or seeking to formulate some odd theory of the "green universe" that he is most tedious. To those who like a "green-fingers" story written in the prose style of the early Romantic Revival this will no doubt appeal. The pity is that occasional peretrating and incisive comments stand out to shame the fustian. For example, these are clear enough

Hormone research is the growing tip of biological science.

The ocean population is all supported on this fundamental existence of distoms.

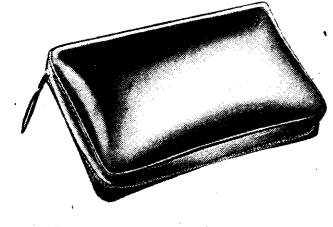
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