Planets, Stars and Galaxies. *A. E. Fanning.* Dover Publications. New York. (paperback), 1966. 189 p. $1.35.

One wonders after reading a book such as this just what sort of audience it is supposed to reach. Commander Fanning states that one of his objectives is to provide a comprehensive survey of the present state of astronomical knowledge. Though he does introduce many topics, including the sun, the earth and the other planets, the stars and the Milky Way, external galaxies, cosmology and Quasars, these topics are treated quite superficially, while others of importance, such as interstellar reddening and polarization, are neglected completely. A beginner in astronomy would probably find this sort of treatment of little value unless he knew quite a lot of physics, because such terms as shock waves, Roche limit, and fluorescence are presented as phenomena pertinent to celestial objects with little or no accompanying explanation. Those persons who do understand such physical processes and laws will undoubtedly find that the book contains little into which he can sink his teeth.

The author's second stated aim is to give "a brief insight into some of the methods used by modern astronomers." However, some of the most fundamental methods in contemporary astronomy are omitted, e.g. the determination of stellar radii from eclipsing binaries. In a work of this size, so little space can be devoted to any specific topic that no method can be adequately explained in terms of how good it is and where and why it may not be usable.

Most of the factual material in the text appears to be correct. However, some errors do appear. The most serious error occurs in the schematic drawing, figure 17b, which purports to indicate our galaxy as seen from above; while there may be some disagreement among professional astronomers as to just how many spiral arms our galaxy has, I believe the opinion would be unanimous that we do not have anything like *six* and the ones we observe do not at all have forms like those shown.

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