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SOME PROBLEMS IN FUNDAMENTAL ASTRONOMY¹

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IN presenting the subject of fundamental astronomy before this section it has seemed proper to consider in an elementary manner, and from an observational standpoint, some of the more important phases of the work, such as the general problem of determining positions in space, the progress of work on star places and some of the problems in the solar system.

There are possibly fifty observatories in this country where some form of astronomical observations are carried on at the present. By far the larger part of this work is in the line of astrophysics or the new astronomy. The advances in this line are remarkable. We are living in an era of creation of great reflecting telescopes. In this country alone there are eight or

¹ Address of the retiring vice-president and chairman of the Section on Astronomy, American Association for the Advancement of Science, Atlantic City, N. J., December 31, 1936.

ten great mirrors with reflecting surfaces of from 20 to 200 square feet, now in use or under construction. Explorations into the space of the galaxies appeal to the imagination, and large sums of money are subscribed for such work. There is great interest and activity in, and remarkable increase in our knowledge through, the use of the spectroscope and photography. Our publications are full of interesting information as to what is going on in the stars and galaxies, and a different size of the universe is presented for our consideration every few years.

No such expansion is noticeable in positional astronomy. Mass production of routine observations and endless computations are prosaic and uninteresting to the uninitiated, and only exceptional men revel in celestial mechanics.

In this country fundamental observations for posi-

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