

questions to which it is the purpose of this article to return an answer. My reply would be that an interest in astronomy is a part of the cultural heritage of India, and that we would be unworthy recipients of that heritage if we did not cherish that interest and do our utmost to promote the science. As has been truly said, man does not live by bread alone. Astronomy is not only the oldest but the grandest of the sciences. The interest which it evokes in all thinking and cultured minds is instinctive—an expression of man's desire to understand and comprehend the universe he lives in. Modern science is accused—perhaps not unjustly—of allying herself with powers of destruction and helping to make death-dealing weapons of all kinds. I do not know, however, of anyone who has had the hardihood of including the science of astronomy in such an indictment. Like all other sciences, astronomy is not without some practical applications—such as time-keeping and aid to navigation at sea—which have given it claims to support from public funds. But the real purpose of astronomy is very remote from such applications. Broadly, it may be described as the investigation of the nature of the physical universe. Defined in that way, we begin to realize that astronomy occupies the premier position amongst the sciences. Indeed, it may be described as a heaven-born river of knowledge which flows to the earth and fertilizes the

fields of learning and culture. That this view of astronomy is fully justified will be evident to any one who makes a comprehensive survey of the history of modern science during the past three hundred years.

As some of the outstanding results of astronomical research which have influenced the orientation of scientific thought, we may mention the discovery of the finite velocity of light by Romer, of aberration by Bradley, of the laws of planetary motion by Kepler, of the dark lines in stellar spectra by Fraunhofer, of helium in the sun by Lockyer, of the magnetic field in sunspots by Hale, and of the recession of the nebulae by Hubble. When we examine the structures of modern physical and chemical thought, we find that they are laid on foundations built out of the results of observational astronomy. *Vice versa*, observational astronomy calls to its aid all the resources of the experimental physicist, while astronomical thought and speculation have as their basis the well-established laws of experimental physics and chemistry.

It will be evident from what has been said that the organization of scientific research in India must be considered radically defective unless and until adequate provision is made for astronomical study and research of the highest grade in the country.

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