Association Affairs

Harlow Shapley: President of AAAS, 1947

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ABOUT A YEAR AGO IT WAS MY PRIVILEGE to accompany Dr. Harlow Shapley to an international conference of astronomers at Copenhagen. At the Shannon airport in Eire, which is rapidly becoming a meeting place of transatlantic airline passengers from all over the world, we noticed among the large crowd in the waiting room a gentleman whose face looked vaguely familiar. An attendant furnished the information that "he is our own Dev, like whom there is no other man on earth." Since we were being delayed by bad weather and Mr. Eamon De Valera was apparently in no great hurry (he was waiting to receive the three newly-created American cardinals, on their way from Rome to the United States), Dr. Shapley arranged for an introduction, and a few minutes later he had in his pocket an outline for the joint operation in South Africa of an Eire-Ulster-Harvard photographic telescope of the Baker-Schmidt type. The formal announcement of the agreement joining together the Armagh Observatory in Northern Ireland (with E. Lindsay as the director), the Dunsink Observatory of Dublin, and the Harvard Observatory was made by Dr. Shapley last September at a meeting of the American Astronomical Society in Madison.

This incident is characteristic of the new president of the AAAS. Problems of international cooperation in science have taken him to Russia and to India, to Mexico and to Great Britain. He was one of the American scientists most active in the organization of UNESCO, and he proposed to that body—as one step toward the internationalization of science—that a new international observatory be created in a favorable location, perhaps south of the equator, where astronomers of all nationalities could work and collect observational material.

Dr. Shapley's own scientific work began almost 40 years ago, when, as a student of F. H. Seares at the University of Missouri, he started a series of photographic observations of eclipsing variable stars. The high precision of this work brought him to the attention of H. N. Russell, at Princeton, and in 1912 Shapley was awarded a fellowship at that University. His doctor's thesis, which was devoted to the discussion of the orbits of 90 eclipsing binaries, forms the most significant single contribution toward our understanding of the physical characteristics of very close double stars.

Shapley's next, and perhaps greatest, scientific work was carried out at the Mount Wilson Observatory. In some respects it created a revolution in scientific thought that was analogous to the revolution set off by Copernicus. From his studies of closely-knit star groups, which are designated as globular star clusters, Shapley concluded that the galaxy is enormously larger than had previously been thought probable. He boldly abandoned the geocentric system of the galaxy which had been proposed by earlier workers, and proved conclusively that the solar system is located near the outer fringe of the stellar system. His determination of the angle of longitude, along the Milky Way, at which the center of the galaxy is seen from the earth yielded a value of 325°, and this number has assumed a significance to astronomers quite similar to that which the number 3×10^{10} cm./sec. carries to physicists.

In 1921 Shapley became director of the Harvard Observatory, as successor to E. C. Pickering. His own work during the past 25 years has been devoted largely to studies of the distribution of galaxies in "metagalactic" space. As an administrator, he has set a new high in the quality and quantity of the research work of his observatory. He wisely continued the policy of his predecessor in concentrating upon great projects like the classification of several hundred thousand stellar spectra or the cataloguing of vast numbers of exterior galaxies; but he also encouraged individual research and brought to Harvard some of the most brilliant research workers in astrophysics and stellar astronomy.

Since the beginning of the war Shapley has been devoting a large part of his time to the broader problems of the organization of science and the preservation of our civilization throughout the world.

No doubt all astronomers sometimes experience a feeling of regret that even a small fraction of the mental energy of so brilliant a research worker should be lost to astronomy. But they must recognize that Dr. Shapley is fighting a battle for all science. His election as president of the AAAS is a symbol of the overwhelming support which American scientists are prepared to give him in his courageous effort to advance world peace.