since 1891, and his translation (in collaboration with Professor M. W. Harrington) of Dziobek's "Mathematical Theories of Planetary Motions" (1892) is well known.

Brown University gave him the honorary degree of Doctor of Science in 1912, the Paris Academy of Sciences awarded him the Lalande Medal in 1906, he was a Foreign Associate of the Royal Astronomical Society and member of many other societies. During his residence at the Lick Observatory, he took a very active interest in the Astronomical Society of the Pacific, contributing many papers to the Publications, and serving as President in 1897.

Professor Hussey's untimely death is a sad loss to American astronomy, as well as to the University of Michigan and to the large circle of his personal friends.

HERBERT ALONZO HOWE, 1858-1926

By Donald H. Menzel

A few days after placing in the hands of the printer the scientific work which represented the fruit of a lifetime devoted to science and education, Dr. Herbert A. Howe, dean of the College of Liberal Arts of the University of Denver, succumbed to a stroke of apoplexy at his Denver home, only a few blocks from the Chamberlain Observatory of which he had been director since 1891.

Dean Howe, as he was known to everyone, was born in Brockport, N. Y., in 1858. As a boy he came to love the stars, his interest in astronomy being aroused when he observed the famous meteor shower of November, 1866. He received the degree of A.B. from the University of Chicago at the age of 17, followed two years later by an A.M. at Cincinnati, where he remained three years longer as observatory assistant, devoting his time to measures of double stars. In 1881 he came to the University of Denver, the pioneer school of Colorado, as Professor of Mathematics and Astronomy, returning to the East for a year to get his Sc.D. degree at Boston University.

The 20-inch telescope of the University of Denver was the

gift of G. H. Chamberlain. The object glass was by Clark with the crown lens reversible for photography. The mounting, by Saegmüller, was largely designed by Howe and still ranks in quality with more modern ones. It was about the first to discard the clumsy ropes of the Clark mounting. the right ascension as well as the declination controls being placed at the eye-end of the telescope.

About the time that the instrument was completed and Howe became director of the observatory, the University of Denver offered him the deanship of the College of Liberal Arts, which title he held until a year or so ago. when he was made Dean Emeritus.

For observation with the 20-inch, he first took up the redetermination of the positions and descriptions of two thousand neglected nebulae from the *N. G. C.* Some double star work claimed him, too, but almost all of his attention was confined to accurate positional work—comets, asteroids, etc.

It is to be regretted that his increasing university duties curtailed the time that Howe could devote to astronomy. Yet there were compensations, for otherwise few people would have learned to know him as a man, kindly, gentle, and good natured. As a teacher he was always patient and painstaking; his explanations were exceptionally clear and concise. and his memory for figures and formulae was remarkable.

Dean Howe was always interested in Celestial Mechanics and he derived various solutions of Kepler's problem in series, one of his important contributions to theoretical astronomy. For many years he, with student computers, had been developing a very complete and accurate table of Kepler's Equation, for different orbital eccentricities, and it was this work which he completed only a few weeks before his death on November 2.

Dean Howe's last appearance in astronomical circles was at the meeting of the American Astronomical Society at Yerkes Observatory in September, 1922. Shortly afterwards his health failed completely and, ever since, he has been trying to regain it. Nevertheless, with more time at his disposal—the

university having relieved him of all his regular duties—he applied himself more assiduously to astronomy, his task of Kepler's problem, and even attempted some observations with the telescope. He was determined to live until he completed the table which he had begun long before.

Of his published works probably the best known is his *Elements of Descriptive Astronomy* (revised 1910) which is a simple, interesting text-book of the subject. Its human appeal led to its adoption in many schools throughout the country until the rapidly increasing material demanded another edition which. unfortunately, Dean Howe did not have time to write. His second book, *A Study of the Sky,* is a delightful exploration trip for the uninitiated into astronomical realms. Here, again, in his lucid and captivating style, he acquaints the beginner with stars, planets, constellations, and astronomers.

I deem it a great privilege to have known Dean Howe, as a teacher, as an astronomer, and as a friend.

A COMPARISON OF THE SPECTROSCOPIC PARALLAXES OF YU WITH THE McCORMICK TRIGONOMETRIC VALUES

By S. A. Mitchell

Hearty congratulations are to be extended to Dr. Ch'ing-Sung Yü for his valuable contribution in *Lick Observatory Bulletin,* **380,** entitled "A Proposed Spectroscopic Method for Determining the Absolute Luminosities of Class A Stars." An independent method of deriving stellar parallaxes is of the very greatest interest to all astronomers. In his discussion, Yü states that "The spectroscopic method of Adams and Joy is applicable only to sufficiently large numbers of stars and not to each individual one," and he proposes to take care of the peculiarities of the individual star by a factor depending on the temperature of the star. This new method from the Lick Observatory seems to add a third unknown, temperture, to the two of Mount Wilson, spectral intensity and absolute magni-