## Obituary.

## Arthur Neville Brown. Allusion has already been made in these pages to the heavy

loss sustained by the Association through the death of A. N.

Brown, Hon. Secretary to the Variable Star Section, who died at his residence, Brackenhurst, Bucklebury Common, Berks., on 1934 November 4, after a short illness, at the age of seventy years. He was buried on November 7 in the quiet churchyard of Bucklebury, the Astronomer Royal and several members of the Council of the Association attending his funeral. The important part A. N. Brown has played in the development of variable star astronomy in England, more especially on its observational side, through the medium of the B.A.A., is well worth recalling, as an example of most excellent work, and as an encouragement to all fellow observers.

Arthur Neville Brown was born on 1864 June 18 at Nayland, Suffolk, the eldest son of the Rev. J. T. Brown, afterwards Vicar of Holy Trinity, Preston. He was educated at St. Edmund's

a Classical Exhibition in 1883. Upon leaving the University in 1888, he was appointed First Classical Master at the late Canon Lovett Cameron's Preparatory School at Mortimer, Berks., and, ten years later, he joined the late Mr. Arthur T. B. Dunn's staff at the well-known preparatory school for Eton at Ludgrove, near New Barnet, where he was to have a most successful scholastic career of twenty-five years. Following upon Mr. Arthur Dunn's death in vector he became as Haddward of Ludgrove in

School, Canterbury, and Queen's College, Oxford, where he won

career of twenty-five years. Following upon Mr. Arthur Dunn's death, in 1902, he became co-Headmaster of Ludgrove, in partnership with Mr. G. O. Smith and Mr. W. J. Oakley. To his educational skill, one of his pupils testified in the following terms, to which nothing could be added: ".... He roused in me a love of learning for its own sake, which has stood me in good stead ever since." This ability to interest people in their work was one of the chief traits of A. N. Brown's character, and it served him as well in his later astronomical pursuits as it did at Ludgrove. In 1923, upon his retirement from scholastic life, he was able to fulfil one of his most cherished ambitions, which was to devote all his time to his chief hobbies, astronomy and gardening, and he spent twelve most active and happy years at his charming residence, Brackenhurst, where, amidst lovely surroundings and a wealth of flowers, he was always pleased to receive his friends.

His general interest in astronomy seems to have dated back as far as the 'nineties, but his activity as an observer only began in 1905, with the acquisition of a 5-in. Watson-Conrardy refractor on an altazimuth tripod, soon supplemented by a 3-in. O.G. The first object he observed with the 5-in. was Saturn, on 1905 September 30, followed by clusters, double stars, fine fields, and so on. The same year he joined the Association, being elected a Life Member on 1905 November 29, and, soon feeling the need of systematic observation, he almost at once communicated with Colonel E. E. Markwick who, at that time, had for five years been directing the Variable Star Section with

being elected a Life Member on 1905 November 29, and, soon feeling the need of systematic observation, he almost at once communicated with Colonel E. E. Markwick who, at that time, had for five years been directing the Variable Star Section with catching enthusiasm. Although his observing place in the garden at Ludgrove was not of the best, A. N. Brown set himself to work with characteristic energy, and on 1906 February 23 he began the long series of 40,000 observations of Variable Stars which he continued for twenty-seven and a-half years until a few days before his death, with amazing continuity, always observing in the open, without shelter of any sort. His joining the Section brought about a real turning point in its life history. At one stroke, A. N. Brown placed himself first in the list of contributors, considerably increasing the value of their joint work. To this Colonel Markwick eloquently testified in his Interim Report No. 17, on Long-Period Variables in 1906:

work. To this Colonel Markwick eloquently testined in his Interim Report No. 17, on Long-Period Variables in 1906: "There has been an immense infusion of energy into the Section during the year 1906," he wrote, "the total number of observations, 2,865, being more than three times that in 1905. Out of these Mr. A. N. Brown contributes 950, just about one-third; and the quality of his work is as good as the quantity. Both he and Mr. P. M. Ryves [with 580 observations] have made some very fine series of light-determinations; in several cases, the light curves can well be deduced from the work of these two energetic

observers taken separately. They have not hesitated to prosecute, their researches far into the early morning hours, whereby observations of a star are obtained which are well distributed

over the year."

Colonel Markwick, however, sounded a warning note on this noteworthy occasion: "The Director heartily congratulates the Association in general, and the Section in particular, on the flourishing condition of the study of Variables at the present time. At the same time, he remarks that, if progress continues at this rate, it will be necessary to distribute some of the work of dealing with such a large mass of observations among a few of the Fortunately, help has been freely given in the past, and will no doubt be forthcoming in the future." (Journal, 17, 343, June 1907.) In fact, the Director had already received the aid of Mr. C. L. Brook (who, later, was to succeed him) in the preparation of Vol. 15 of the Memoirs (1906), and A. N. Brown came in almost at once as a compiler in the publication of Vol. 18 (1912), thereby beginning another task in which he was to render signal service to the Association, and to variable star astronomy. He took an ever-increasing share in the heavy clerical labour involved in the preparation for the press of Vol. 22, 25, 28, and 31, which were largely his work, and the magnitude of such a performance may be judged by the fact that, during this period, more than 160,000 observations made by Members of the Variable Star Section, including over 22,000 by himself, were checked, listed, arranged in chronological order and put in final manuscript form (which involved a rough and a fair copy) by A. N. Brown, not to speak of the reading and revising of proofs. Only those who helped him in this great task can fairly appreciate the immense care with which he achieved it, his careful attention to the minutest details, and how he left no stone unturned to avoid errors or misprints, from which, as is well known, the Variable Star Section Memoirs are remarkably free. Those variable star observers whose work passed through his hands owe him a large debt for the full justice which was done in this way to their observations.

Upon Mr. C. L. Brook's retirement, in 1921, A. N. Brown was quite appropriately offered the Directorship of the Variable Star Section, but, though he was fully qualified to fill the position, he, after due consideration, declined the offer. kindly undertook, however, to act as the Director's representative in England, and, in 1924, he consented to accept the title of Hon. Secretary to the Section. In this capacity he performed a large part of the routine work for the preparation of the yearly reports, more especially the checking, listing, and plotting of the observations, whose numbers, from less than 3,000 a year in Markwick's time, have grown steadily to over 15,000. also kept up a lively correspondence with Members of the Section, especially beginners; all those who received his friendly advice and clever hints will have admired his masterly grasp of the problems of variable star observing, founded upon his experience of many years of hard work in the open, at all hours

of the night.

A. N. Brown was primarily an observer, and his practical mind was little interested in the theoretical side of variable star astronomy. But he was fully able to make the most of his own work, as may be seen from the seventeen papers which he communicated to the Royal Astronomical Society, of which he had been elected a Fellow in 1907. His observations, published in this way in M.N., first yearly, afterwards at longer intervals, refer to four interesting stars not on the programme of the Variable Star Section: V Cas, RT Cyg, U Per, and X Per. Those of the latter are especially noteworthy, as they tend to prove that this variable, at least in 1907-1925, failed to reveal R CrB type characteristics. Miss Blagg discussed A. N. Brown's observations of the three first-named stars in three papers also published in M.N., which show the high value of the results obtained by the observer and their independence from any preconceived bias. A. N. Brown also published in this Journal, 33, 143, 1923, jointly with the writer, a paper on "The Observation of Variable Stars," which embodies part of his experience as an observer and a compiler. He contributed most generously towards the publication of several of the Memoirs which contained the best part of his observational work.

He served for several terms on the Council of the Association, where his sound advice was greatly appreciated, and he represented the Association on the National Committee for Astronomy from 1931. He had been a member of the Variable Star Com-

mission of the I.A.U. since 1925.

Besides astronomy, he had several other special interests. He was a true lover of nature, a keen gardener, and his knowledge of bird life had become extensive during his last years. He had been an accomplished organist and a good pianist, displaying a lively appreciation of the best music, and he took a deep interest in the work of Cecil Sharp on folk-songs. For many years before the War, he acted as Hon. Secretary of the Ludgrove Branch of the Navy League; the writer well remembers his truly prophetic views on the subject of naval defence. He was an extensive traveller, having seen most of Continental Europe, where his knowledge of German, and more especially of French, was of service to him, and he visited Canada and the United States, about which he lectured delightfully with the aid of his own fine snapshots. Roman and Greek archæology were among his favourite subjects. In his college days, he was a fine oarsman. His modest and retiring nature made him a confirmed bachelor.

A. N. Brown was a charming personality, unassuming almost to excess, and endowed with a very beautiful and noble sense of duty. To all who knew him well, he was the best and most faithful of friends. He will be remembered as a very distinguished amateur astronomer, and the yeoman service he rendered to the Association, and more especially to its Variable Star Section, will set an example which will not easily be forgotten—nor equalled.—F. D. R.