## Arthur Everard Levin

It is with great regret that we announce the death of Major A. E. Levin, T.D., which took place on November 8 after a short illness. To many it will seem almost impossible to imagine either the Council or the Ordinary Meetings without his presence, and the Association deplores yet another of its leading members removed from its activities.

Levin was born on 1872 February 17, and took up electrical engineering as a profession. On the outbreak of the South African War he enlisted in the London Electrical Engineers, and on the conclusion of that war held a Government appointment for some time. Later on he returned to his profession and joined the firm of Mordey & Dawbarn, consulting engineers, and after some years entered into partnership with Mr. Mordey, with whom he remained until the end of 1928. Most of his engineering training was done in Switzerland, where he perfected his knowledge of German, which he was able to read and speak with considerable ease. He spent two years in Egypt, after completing his training in Switzerland, before returning to England.

As an old Volunteer he remained with his unit when the Volunteers became Territorials, and on 1914 August 5, the day after declaration of war, was mobilised for service. After a year spent in charge of the lights at Newhaven he went to France in charge of the first Electrical and Mechanical Company to be sent to the Western Front. He was mentioned in dispatch in 1918 April, and later on was sent to Italy, where he remained until he was demobilised in 1919. His knowledge of Italian as well as of French served a useful purpose during the War, and he was retained in Italy for some



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time after the cessation of hostilities to settle various matters relating to the purchase of stores by the Italian Government. After demobilisation Levin's interests turned chiefly towards

astronomy, though he had other scientific interests as well, being a member of the Queckett Microscopic Club. He was elected a Member of the B.A.A. in 1919 and a Fellow of the Royal Astronomical Society in 1921, serving on the R.A.S. Council 1931-32. Computing Section of the Association was formed in the 1920-21 session, and after Dr. L. J. Comrie's resignation from the first Directorship in 1922 Levin was appointed Director. He remained Director of this Section with a few minor interruptions until 1938, when he began to feel the strain of the work, and suggested that someone younger should undertake the responsibility. It is not too much to say that the very satisfactory condition of the Computing Section to-day is due to the kindness and courtesy of Levin in teaching potential computers, to whom he would devote any time and labour so long as he could initiate them into the difficulties as well as the interests of computing. The remark made by one whom he had taught is an interesting commentary on his ability. Speaking to the present writer of his skill in making the obscure plain, he said, "Levin should have been a University Don." His kindness to those who wanted to learn will never be forgotten by members who derived so much assistance from his teaching. It is unnecessary to say anything about the value of the Handbook, which ranks as a production of primary importance amongst the publications of the Association and is accepted with considerable interest at many of the great observatories. It is a very fine piece of work for a body of amateurs, and it is doubtful if many other similar bodies would undertake such a responsibility.

Levin's chief interest was connected with the phenomena of satellites, and some of his early papers in Journal, 31, 2, 3, 4, 5, 10, dealt with the Phenomena of Saturn's Satellites. An Interim Report, "Occultation of Jupiter's Satellites," appeared in Journal, 32, 5, and in Journal, 37, 4, he had a paper with the title, "Mutual Eclipses of Jupiter's Satellites in 1926." The subject was one that gave him intense interest, and his first Presidential Address in 1931 dealt with the Mutual Eclipses and Occultations of the four principal Satellites of Jupiter. It is unnecessary to mention all the subjects with which he dealt at various times in the Journal up to the time of his death, but reference may be made to the last piece of work that he undertook in collaboration with Mr. J. G. Porter, his successor as Director of the Computing Section. This was the computation of the perturbations of the planets on Comet Pons-Winnecke during the revolutions 1927-33 and 1933-39. The usual method of applying the perturbations to the elements, Crommelin's Tables being used, was not adopted, but the much more tedious and also more accurate method used by Cowell and Crommelin for Halley's Comet was utilised. As is well known to readers of the Journal, the Comet was rediscovered

1921, he had an important paper entitled, "The Correction of Declination and Hour Angle for Atmospheric Refraction." In the second Memoir, 1934, he had a long paper with the title, "Mutual Eclipses and Occultations of Jupiter's Satellites," in which he recorded various convenient methods that he had developed, and these are available for future use in this branch.

by van Biesbroeck very close to its predicted position. Up to a few weeks before his death Levin was engaged in improving the elements of the Comet's orbit from the observations that were supplied since

Something should be said about his papers that appeared at various times in the Reports of the Computing Section. In the first of these,

its rediscovery.

Navy.—M. D.

He was Secretary of the Association from 1921 to 1930 and President from 1930 to 1932, and his efficiency and popularity in both offices are so well known that it would be superfluous to enlarge upon this side of his work. Amongst his hobbies may be mentioned mountain climbing and photography, both of which occupied some of his time during his

stay in Switzerland. After his return from his visit to the Southern Hemisphere in 1936 he addressed the Association on his experiences, of which delivering a lecture on astronomy at Sydney was one of chief interest. Although his main astronomical work lay in the computational side he was also interested in observational work, and he went to Leyburn to see the 1927 total solar eclipse but unfortun-

ately it was missed owing to clouds. He presented his 4-inch refractor to the Association this year, and requested that his 6-inch refractor and observatory at Selsey, together with his astronomical books, should also be given to the Association. This is typical of his

whole nature, unselfish, courteous, keenly developed cultural interests, and a wonderful sense of humour which often alleviated the seriousness of some abstruse matter under discussion at the meetings. The Association can ill afford to lose one who has done so much in the cause of astronomy, and he will not soon be forgotten by his many friends. He leaves a widow and one son, the latter serving in the