

January 11 he passed away he left a memory of human character and of unselfish devotion to professional ideals which we who were privileged to know him shall long cherish.

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SCIENTIFIC EVENTS

BRITISH SOLAR ECLIPSE EXPEDITIONS¹

THERE will be a total eclipse of the sun on May 9, at 6 o'clock in the morning by Greenwich time, invisible in any phase in England, but to be seen as a total eclipse from a track that lies in the Indian Ocean south of Madagascar, in the west, and crosses Sumatra, the Malay States, Siam, Cambodia and the Philippines, in the east. In these eastern regions the sun will be high in the sky and the duration of totality on the central line will be about five minutes. This long duration justifies the effort of making much preparation and a long journey for observation of the eclipse, and at the end of next week expeditions made up of observers from Greenwich and Cambridge will set out for that purpose.

Dr. John Jackson, chief assistant of the Royal Observatory, and Dr. Carroll, assistant director of the Solar Physics Observatory at Cambridge, will proceed to Alor Star, in Kedah, in the Malay Peninsula, where they will be joined later by Dr. Aston, of Cambridge. Professor F. J. M. Stratton, lately called to the chair of astrophysics in the University of Cambridge, who was the leader of an expedition to Sumatra to observe the solar eclipse of January 14, 1926, when the duration was about four minutes, will, accompanied by Mr. P. J. Melotte, of the Royal Observatory, Greenwich, occupy a station at Pattani, on the east coast of southern Siam, where they hope to have the help of Dr. Royds, director of the Observatory at Kodaikanal, southern India, and Colonel J. Waley Cohen, who took part with Professor Stratton in the eclipse of 1926.

At both places the experiment will be made to detect the Einstein effect of the bending of rays of light by the attraction of a massive body that they pass. In other words, the endeavor is made to find whether the relative positions of the individuals of a group of stars are precisely the same when the sun lies among them as when it does not, since by theory the supposed Einstein attraction is not the same for all of them. The answer to the question is looked for by photographing the stars that may be

seen round the sun when the sky is darkened by eclipse, and comparing the result with a photograph taken some months later when they are seen in the night sky. To do this Dr. Jackson will take with him a telescope of comparatively small diameter, 7-inch, but of 21 feet focal length, to be used with a cœlostast, or rotating mirror, that will feed it with light from the celestial scene, the telescope itself remaining horizontal and stationary during the exposure of the plates.

At Pattani the instrument to be used for the same purpose is the Greenwich Astrographic telescope of 13-inch aperture and 11 feet focal length on an ordinary equatorial mounting. It is necessary in measuring the photographs when taken that their linear scale shall be accurately known, and to ensure this a program has been arranged for photographing not only the stars immediately round the eclipsed sun, but also a field a little distance away alternately, and several times during the precious five minutes—a task which will necessitate deft handling by the operators.

The combined program includes other tasks no less important, dealing with problems in solar physics—a study of the relative intensities of the lines H and K and the triplet X of ionized calcium in the infra-red, to test Professor Milne's theory of the calcium chromosphere; spectrophotometry of the chromosphere with a four-prism quartz spectrograph, formerly the property of the late Colonel Grove-Hills; determination of wave-lengths of lines in the corona and of its rotation and of the state of polarization of its light. It need scarcely be said that direct photographs of the corona with varying length of exposure and on varying scale will be taken if the weather permits, to continue the comparatively long series of these records that already exists.

THE FORESTRY PRIZE

A FRIEND of forestry, who wishes to remain anonymous, has given the Society of American Foresters (headquarters, Lenox Building, Washington, D. C.) \$1,250 to be awarded as prizes of \$1,000 and \$250 for the best essays describing the present forestry situation in the United States and proposing a nation-wide remedy for its solution. The purpose of the donor is to stimulate the study of the national problem of forestry and to bring out constructive suggestions for meeting it in an effective way.

The conditions of the prize are as follows:

(1) Essays submitted in the contest shall cover: *First*, the actual forestry situation in the United States to-day; *second*, a nation-wide remedy which (a) will, if applied, solve the problem of a permanent and sufficient supply of forest products and secure other benefits of forests essen-

¹ From the London *Times*.