of that method have been made by some of the authorities whose own criteria are criticised by our author. Behold, now, the day of retribution!

The author gives a useful general account of the important find made by Dr. Pernier, of the Italian Archæological Mission, at Phæstos, Crete, in 1908. It was a clay disk inscribed on both sides with lines and pictographs. Judged by such standards as the author himself questions, the inscription is supposed to belong to the eighteenth century B.C. The authorities cited are very much divided as to what the inscription is and the affinities of the strange characters with known forms. Not one of those cited seems to have gone so far as Prof. Hempl, in *Harper's Magazine* for January, and Miss Stawell, in the *Burlington Magazine* for April, as to attempt a more or less complete interpretation.

In neither of the interpretations referred to is the possible calendric character of the document taken into consideration, and as I think it is a calendar, the opportunity for reproducing our author's illustrations of the document is my excuse for appending a brief outline of my findings.

In form the calendar is a rough copy of the use made of concentric circles. The pictographs on face A number 123, and not 122, as stated by our author; those on face B number 119. Each pictograph represents one degree of angular distance, and it is to be multiplied by three to make up the number of days in a year. Year A was $123\times3=369$ days, which on evidence given by Mommsen was once the length of a Roman year. Year B was $119\times3=357$ days. Assuming such a rotation as A B A, the sun would have travelled 365 pictographs or degrees in three years of the average length of 365 days. If the exact *locale* of the calendar were certainly known, its date might be made out by means of established formulæ. Its physical basis was a latitude where the apparent distance between the solstices was about 60° 50′. Of that figure I am fairly sure, and it would have roughly suited Crete in 1800 B.C. The latitude of Phæstos on an Admiralty chart is 35° 25′ N. It is much doubted, however, that the disk originally belonged to Phæstos, so that any calculation on the basis I have suggested would not materially help in fixing a date.

The calendar is quite complete, and a marvellous compendium of calendric contrivances. It is all based on the intersolstitial distance, expressed in integers, and divided by 3, 7, 17, and other numbers, an artificial system, it is true, but a very convenient one. The calendric significance of many of the pictographs stands clearly revealed when the numbers are noted. Some of them are very curious rebuses, a proof of considerable antiquity. For instance, the pagoda-like structure I felt sure stood for the number 20 in degrees and 60 in days, but for many a day I could not see either number in it. It is a four-storey building, the beams of each section numbering 5; hence $5\times4=20$, and $15\times4=60$. It indicates a legislative assembly, corresponding in significance and dates to the Tiocobrextio of the Coligny Calendar, and the entries under March 24 and May 24 in the Roman Calendar.

In all I have said so far there is hardly an element of speculation, and none of the ingenuity shown in such interpretations as those referred to. There is a precedent and an established formula to aid the inquiry at every step. A complete astronomical interpretation of the calendar will strike all students of our monuments, astronomically considered, as something quite familiar, while a sufficient scope will be left for authorities on ancient scripts to do all they can to determine the linguistic values of the pictographs, a subject I can hardly touch.

JOHN GRIFFITH.

MILITARY AVIATION AT HENDON.

THE demonstration of flying organised by the Parliamentary Aerial Committee, which took place on Friday last at Hendon, cannot be described as other than an unqualified success. If experts learnt no new lesson, if aviators acquired no new experience, the onlookers, including almost all those whose opinions would be sought and whose dicta may become law, must have had their eyes opened to the great possibilities as to the utility of the aeroplane in war.

A number of different types of machine, Farmans, Blériots, Cody, Roe, and Valkyrie were to be seen, and their respective merits compared. Besides exhibitions of rising quickly from the ground, descending near a given spot, turning and planing in the air, all of which were carried out in a superb manner, there were many tests having reference to warlike operations. A number of small dummy bombs were dropped from different machines on to ground marked out to represent the deck of a battleship. The idea was to test the possibility of attack by such means, but, although many good shots were made by dropping the missiles while travelling at a speed of perhaps 40 miles an hour, yet most of them were made from a height of only a few hundred feet, whereas to be of use in war they should be discharged from machines at least 2000 or 3000 feet above the ship. However, it is evident that if good shooting can be made in this way, it is only a matter of judgment and practice to be able to achieve good results at a much greater range. Another purpose to which such a method of attack is applicable is that of destroying dirigible balloons, and in such case the aeroplane might well be within a hundred feet of the target below it.

A more important experiment was that of discharging heavy weights, said to be 100 lb., from a flying biplane. It seemed probable that this might affect the balance of the machine, and cause it to pitch or jump, but careful observation showed that the aeroplane maintained a perfectly steady course, and was unaffected by the sudden loss of this load.

But the finest display, and perhaps the most practical experiment, so far as the immediate use of aeroplanes is concerned, was that of sending off a dispatch to a distance. Mr. Hamel went off on a Blériot monoplane to Aldershot, a distance of 32 miles "as the crow flies," though, as a matter of fact, the aviator went in a not perfectly straight line, in order to pick up familiar landmarks, and so make sure of his way.

Having handed in the dispatches at Aldershot, he returned with the reply, and it was a very impressive sight for those at Hendon to descry, high up in the sky, to the south-west, a small speck, estimated at 4,000 feet, which gradually approached and became recognisable as the monoplane, which, sweeping round a large circle, glided downwards and landed within a few feet of the starting-point. The message had been delivered and returned within two hours, the actual times being:—

Left Hendon	3.35
Arrived Aldershot	4.20
Left ,, ...	5.0
Arrived Hendon	5.35

Other events were the ascents of two staff officers on biplanes piloted by experienced aviators, who, without any previous experience, were to report on the position of certain troops which had been posted in the neighbourhood. This was most successfully accomplished. Short trips made by Mr. Balfour and by Mr. McKenna, First Lord of the Admiralty, tend

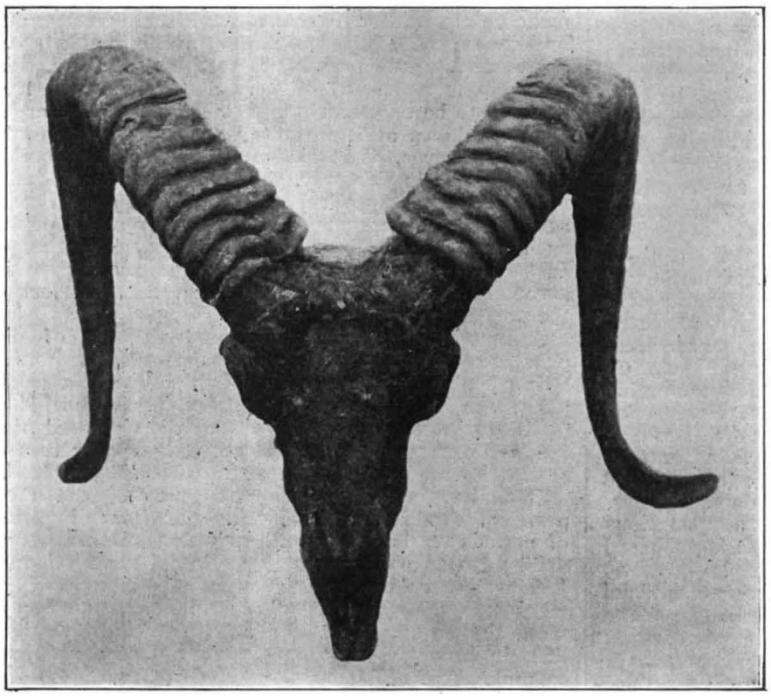
to bring home to the public the ease and safety of aeroplane travel.

One important item of the programme was not carried out. It was announced that if the circumstances were favourable the Army dirigible "Beta" would come up from Aldershot and take part in the proceedings. The weather proved perfect, it being almost a dead calm with bright sunshine. The "Beta" was ready and actually made one ascent, but for some reason which has not been given out she did not attempt the journey. Advocates of the aeroplane as being a more practical apparatus than the dirigible claim this as a triumph for their cause.

B. BADEN-POWELL.

SPORT AND TRAVEL IN CENTRAL ASIA.[1]

THIS book, as its writer says, is merely "a plain record of a year's wanderings in the lesser known parts of Central Asia for the purpose of sport and travel." Its author had eyes for little else than the quest of large game for the sake of their heads as trophies. Of the country through which he passed or of its people, he tells us little, and nothing at all of its other fauna or its flora, and of many of the topics of human and scientific interest which the general reader expects to find in travel-books of little-known regions. Even in regard to the large game themselves the bald narrative provides no new facts nor any intimate study of the animals or their haunts. The photographs of the heads, however, are of some interest, as the specimens hitherto figured are not numerous and the limits of several of the species are not yet clearly defined. The account of the camp outfit also may supply some useful hints to sportsmen who contemplate an excursion in those regions.



Ovis Karelini. From "Across the Roof of the World."

Starting from Kashmir, the author crossed the Pamirs by the usual route, shooting on the way an *Ovis poli*, the horns of which measured (doubtless along their inner curve, as usual) "under 50 inches"; but he saw a pair on a tomb at Kashgar which were 72 inches. Beyond Turkestan, in the Thian Shan, he shot two specimens of the great stag generally termed the "Asiatic Wapiti" (*Cervus canadensis songdricus*), locally known as "Boga" by the Mongols, with horns measuring respectively 48 and 49 inches, the latter pair carrying 14 points or tines. A specimen of the *Ovis karelini*, with horns "just over 40 inches," was shot there, also the Turkestan ibex, with a horn length of 55 inches—the record being 57½ inches—and several Siberian roedeer (*Capreolus pygargus*). It is rather surprising to read that the skins were merely rubbed with crude wood ashes as a preservative and nothing else. Continuing northwards through Dsungaria, Lieut. Etherton sighted, on the plain of Lake Ebi, what he believed were wild horses (*Equus prejevalski*). The Altai was crossed in mid-winter, too late to attempt following the *Ovis ammon*, for which that range is famous, so our traveller turned down the steppes of the Irtish and Obi valleys to the Trans-Siberian Railway near Tomsk, where civilisation was reached once more.

[1] "Across the Roof of the World."—A Record of Sport and Travel through Kashmir, Gilgit, Hunza, the Pamirs, Chinese Turkistan, Mongolia and Siberia. By Lieut. P. T. Etherton. Pp. xvi+437 (London: Constable and Co., Ltd., 1911). Price 16*s.* net.

NOTES.

IN consequence of the Whitsuntide holidays, the annual visitation of the Board of Visitors to the Royal Observatory, Greenwich, will take place on Friday, June 2, instead of on Saturday, June 3.

THE newly erected Cancer Research Institute at the Cancer Hospital is to be opened by H.R.H. the Duke of Connaught on Tuesday next, May 23, at 3 o'clock.

AN earthquake shock was felt at 8.50 a.m. on Tuesday last in the Ullswater Valley.

WE regret to learn from a Reuter telegram that Prof. Ernst Haeckel met with a serious accident on Tuesday. In endeavouring to reach a book from a high shelf he fell, breaking his hip bone.

WE regret to notice the death, at the age of eighty-two years, of Sir Nathan Bodington, Vice-Chancellor of the University of Leeds.

THE death is announced, at the age of sixty-five years, of Mr. Emerson M. Bainbridge, well known for his work in connection with coal-mining. In 1867 he was selected to report to the North of England Institute of Mining Engineers on the haulage of coal, and received for his services a valuable premium. Two years afterwards the Institution of Civil Engineers awarded him the Manby premium for a paper upon the probability of working coal at a depth of 4000 feet. Another paper, on the prevention of colliery explosions, was rewarded by the conferment of one of the Herman prizes. Mr. Bainbridge was a member of the Royal Commission on Coal Dust in Mines in 1891, and a juror of the Inventions Exhibition of 1883.