

SEARCH-EPHEMERIS FOR COMET 1896 V. (GIACOBINI).—A further instalment of the ephemeris of this comet is published in the *Astronomische Nachrichten*, No. 3881, by Herr M. Ebell.

The following is an extract from the ephemeris, which takes June 22.5.1903 as the time of perihelion passage:—

Ephemeris 12h. (M.T. Berlin.)

1903	a	δ	log r	log Δ	Brightness.
	h. m. s.	°			
July 16	1 59 36	+17 33.9	0.1697	0.1065	2.55
„ 24	2 20 51	+18 16.6	0.1749	0.0970	2.60
Aug. 1	2 40 51	+18 41.6	0.1814	0.0874	2.64
„ 9	2 59 22	+18 49.1	0.1889	0.0776	2.67
„ 17	3 16 7	+18 39.7	0.1975	0.0676	2.69
„ 25	3 30 50	+18 14.0	0.2068	0.0573	2.70
Sept. 2	3 43 15	+17 33.2	0.2168	0.0468	2.70
„ 10	3 53 10	+16 38.3	0.2272	0.0364	2.70

The continuation of this ephemeris indicates that, after the last-mentioned date, the comet will slowly decrease in brightness.

THE LIMITS OF UNAIDED VISION.—Lick Observatory Bulletin No. 38 gives an account of some interesting observations made by Mr. Heber D. Curtis, at Prof. Newcomb's suggestion, on the inferior limit of magnitude obtainable in naked-eye observations.

A preliminary examination of previous naked-eye catalogues showed that the mean magnitude of the faintest stars included in Ptolemy's *Almagest* was 5.38 on the scale of the Harvard Photometric Durchmusterung, whilst Houzeau in his "*Uranométrie Générale*" stated that stars of the sixth magnitude were constantly seen in a clear atmosphere, and those of magnitude 6.7 could be seen at intervals; the latter value corresponds to 6.40 on the Harvard scale. Gould, in the introduction to the "*Uranometria Argentina*," states that 6.5 was the average limit at Cordoba, but on exceptionally clear nights the seventh magnitude was possible. These two values are respectively equivalent to 6.16 and 6.71 on the Harvard scale.

In his own observations Mr. Curtis used two large blackened discs to screen off the diffused sky-light, these two discs being attached to the 12-inch telescope at a distance of 178 inches from each other, and the front one pierced by a circular hole half an inch in diameter, the rear one by a quarter-inch hole. By this arrangement he was able, on a night when a 6.53 magnitude star could be seen without using the discs, to see the following stars in the regions about T Virginis and T Ursæ Majoris respectively:—

Bonn DM. number	Declination	Magnitude		
3219	− 4 40	7.31	HP ¹	Seen quite easily.
3459	− 5 23	8.3	H ²	Seen with considerable difficulty.
3463	− 5 37	8.1	H	Seen without difficulty.
1413	+60 18	8.3	H	Seen with difficulty.
1415	+60 13	8.5	H	Glimpsed at intervals; very doubtful.
1457	+59 30	8.2	H	Seen.

Mr. Curtis found that the screening off of the diffused light was even of more importance than knowing exactly where to look for the object.

AN ETHNOGRAPHICAL EXPEDITION TO BRITISH NEW GUINEA.

THERE are few areas of equal extent that present so many interesting sociological and cultural problems as British New Guinea. It is necessary these should be studied on the spot, and that, too, with as little delay as possible, for, even there, the remorseless activity of the white man is rapidly making itself felt.

We know there are various cultural provinces in British New Guinea which, in certain respects, are markedly distinct from each other; for example, we recognise districts that may, for the present, be conveniently distinguished by the geographical terms of Western, Fly River, Papuan Gulf, Central, South-Eastern, and North Coast, and some of these districts are capable of further subdivision. In most cases it is possible to tell within comparatively narrow limits the provenance of a decorated object by its

¹ HP = Harvard Photometric Durchmusterung.
² H = Hagen's "Atlas Stellarum Variabilium."

form, technique, and the motive of its ornamentation. Although these general facts are well known to ethnological experts, there is still lacking an immense amount of detailed information of even these relatively superficial data that can be acquired only in the field. It is one thing to know what an object is and where it comes from, but it is much more important to understand the meaning of its form and decoration, and arm-chair musings, or even comparative study in museums, will be of little avail in this inquiry; on the contrary, they are liable to lead one astray.

It is becoming more and more recognised that the religion of primitive peoples is manifested in their arts and crafts, and that it is itself a reflex of their social condition. A student begins by being interested in patterns, is led into a study of comparative religion, and ends in sociology. In British New Guinea these several subjects have a peculiar interest. The decorative art is rich, varied, and distinctive. Concerning the religion very little is known; we are aware that true totemism occurs in the west, and it is probable that all stages, from animal reverence, through a hero-cult to an actual hierarchy of gods can be traced from the Netherlands boundary to the bight of the Papuan Gulf. The recognition of personal powers superior to man seems to be lacking in the Central District, and in the South-east District totemism again appears, and there is, or has been, a regard for the frigate bird, which in any case is probably not now totemic, but of the significance of this probable cult of the frigate bird we have at present not a particle of evidence. As to sociology, we have indications that British New Guinea possesses many varied and interesting aspects, and there is every reason to suspect that a gradation in social structure will eventually be revealed that will illustrate some important phases of social evolution.

These are but one or two of the many promising fields of inquiry that British New Guinea affords to the ethnologist. At present we have but enough knowledge to appreciate the fact that there are these unsolved problems—the information being merely sufficient to emphasise our ignorance. It was his appreciation of this fact that led Major W. Cooke Daniels to organise an expedition to British New Guinea which will leave this country in August.

Major W. Cooke Daniels served in the United States Army during the Cuban campaign as Adjutant-General of Division. He has travelled extensively in British Guiana and elsewhere, and has consequently had much experience of travel and of organisation. He proposes to make observations in experimental psychology, and will undertake ethnological investigations. Dr. C. G. Seligmann, of St. Thomas's Hospital, was a member of the recent Cambridge Anthropological Expedition to New Guinea and Sarawak, and consequently has had considerable experience in anthropological field work. As the representative of the Cancer Commission on the expedition, he will investigate the question of the prevalence and incidence of tumours, especially those of a malignant type. He has care of the health of the expedition, and will help in the ethnological inquiries.

Dr. W. Mersh Strong, of Trinity College, Cambridge, will be responsible for the geographical and geological observations, and will undertake pathological and medical research as opportunity offers.

Preparations have been made for the taking of a very large number of photographs, including kinematograph records; this department is in charge of Mr. A. H. Dunning.

Major Daniels is sending to Australia for the expedition's use a schooner yacht fitted with auxiliary power; a sea-going launch is being taken out for river work. The expedition is fitted with a large amount of scientific equipment, so that all departments of anthropological research can be prosecuted. The majority of the surveying instruments have been lent by the council of the Royal Geographical Society. The Government Grant Committee has shown its appreciation of the expedition by giving a small grant, and the Royal Society has furthered its objects in various ways. The expedition is also recognised by the Cancer Commission.

It will be seen that the Daniels Ethnographical Expedition to New Guinea is thoroughly equipped, and we wish it the success it deserves.