## DESPATCHES

FROM THE SECRETARY OF STATE TO THE GOVERNOR OF NEW ZEALAND.

## No. 1.

COPY of a DESPATCH from the Right Hon. the Earl of KIMBERLEY to Governor Sir G. F. Bowen, G.C.M.G.

(No. 69.)

Downing Street, 12th September, 1871. SIR,-

I transmit to you a copy of a correspondence with the Astronomer Royal, on the subject of a suggestion made by the Governor of Tasmania, that Hobart Town should be selected as a site for the observation of the transit of Venus in 1874.

With regard to Professor Airy's proposal that a station in New Zealand should be adopted, I should be glad to receive your opinion whether there are any reasons for preferring Auckland to Canterbury.

I have, &c.,

Governor Sir G. F. Bowen, G.C.M.G.

KIMBERLEY.

## Enclosure 1 in No. 1. Mr. HERBERT to Professor AIRY.

Downing Street, 24th August, 1871.

I am directed by the Earl of Kimberley to transmit to you for your information a copy of a Despatch from the Governor of Tasmania, forwarding a Memorandum from the Colonial Treasurer on the subject of the arrangements for the observation of the transit of the Planet Venus in 1874, with the paper of observations and volume of Proceedings of the Royal Society of Van Diemen's Land, which accompany it.

G. B. Airy, Esq., M.A., F.R.S., Astronomer Royal.

I have, &c., R. G. W. HERBERT.

## Enclosure 2 in No. 1.

Professor AIRY to the UNDER SECRETARY, Colonial Office.

Royal Observatory, Greenich, S.E., 8th September, 1871.

I have the honor to acknowledge your letter of the 24th August, transmitting to me, by instruction of the Earl of Kimberley, copy of a Despatch from the Governor of Tasmania, dated 15th June, and copy of a Memorandum from the Colonial Secretary and Premier of the Colony, dated 14th June, expressing the wish of the authorities of the Colony that Hobart Town might be selected as a station for the observation of the transit of Venus, 1874, together with some printed papers (Results of Meteorological Observations at Hobart Town, by Francis Abbott; and Papers of the Royal Society of Van Diemen's Land, containing Captain Kay's memoir on the longitude of Hobart Town). I retain these enclosures until I shall receive your instructions for the return or other disposal of them, and I have the honor to offer, for the consideration of Earl Kimberley, the following remarks on the general subject:

general subject:—

2. In order to obtain the desired results from the observation of the transit of Venus, it is necessary to secure one place of observation, or more than one, in the South Australian seas. The most favourable place, in respect of purely geographical and astronomical considerations, is Canterbury, in New Zealand; but, having regard to the possible advantage of fixing on the seat of government, I had proposed to adopt Auckland. As compared with Hobart Town, there is a sensible but not very important difference in favour of Auckland. Canterbury is clearly superior.

3. It does not appear that the authorities of Tasmania have any advantage to offer, except locality and buildings (which may or may not be adapted to the wants of the expedition). It does not appear that they have an observing telescope suitable to our wants. If perfect reliance could be placed on the determination of geographical longitude, a great labour would be spared to the expedition for the transit of Venus; but I doubt whether the longitude can thus be accepted, for the following reason:—The best part of Captain Kay's determination rests on lunar transits, and (in the absence of explanation) I suppose that these were compared with the lower places in the "Nautical Almanac," which were then computed from Buchhardt's Tables, known to be sensibly erroneous. I do not think, therefore, that the expedition, if located at Hobart Town, would be exonerated from the labour of itself determinin the longitude. the longitude.