No. 13.

(No. 16.)

Christchurch, New Zealand, 28th February, 1882.

My Lord,-With reference to your Lordship's circular despatch of the 5th July, 1881, I have the honor to enclose the copy of a memorandum addressed to me by Ministers, giving cover to a memorandum from Dr. Hector, and expressing the intention of the Colonial Government to provide facilities for the observation of the transit of Venus in December next. I have, &c.,

ARTHUR GORDON.

The Right Hon. the Secretary of State for the Colonies.

Enclosure in No. 13.

MEMORANDUM for His EXCELLENCY.

MINISTERS present their respectful compliments to the Governor; and forward to His Excellency copy of a memorandum by Dr. Hector as to arrangements proposed to be made in New Zealand for observing the transit of Venus in December next, in compliance with the request for assistance made, on behalf of the Royal Society, in the Colonial Office Circular of July 5th, 1881.

2. It is intended to propose to Parliament next session to vote £500 to meet the cost of erections needed in the work of the proposed expedition. The members of the expedition will have free use of the telegraphs and railways of the colony; and, in other respects, facilities such as were given on the occasion of the transit in 1874 will be placed at the disposal of the expedition.

THOMAS DICK (In the absence of the Premier).

Sub-Enclosure.

Transit of Venus, 1882.

Colonial Museum of New Zealand, Wellington, 24th January, 1882. THE information to enable me to report on this question is just to hand, correspondence I had with Sir George Airey having been broken off owing to his resignation.

The transit takes place on the early morning of the 7th December next.

The phenomenon to be observed in New Zealand (retarded egress) begins at 7h. 21m. 46s., and

ends 7h. 42m. 9s., New Zealand mean time.

7h. 39m. 27s.; Auckland, 7h. 31m. 3s.; Wellington, 7h. 30m. 57s.; Burnham, 7h. 20m. 13s.; Queenstown, 7h. 5m. 16s. Reduced to the local time, this gives the time for the first phase at the following places: Napier,

As the higher the sun the more favourable the observation, the following is the time after sunrise at each of these places: Napier, 3h. 17m. 27s.; Wellington, 3h. 12m. 57s.; Burnham, 3h. 10m. 13s.; Auckland, 3h. 5m. 3s.; Queentown, 2h. 58m. 16s.

I do not understand why the Committee should have selected Auckland in preference to Burn-

ham, where the observation was made at the last transit, as it has no advantage on astronomical grounds. Both Auckland and Burnham have the disadvantage, for early morning observation, of having their eastern horizon cut off by high land, from which the overnight clouds may still be dispersing as late as 7 a.m.

Napier is free from these objections, and is in every way the best site that can be selected in New Zealand, as the observatory could be placed where it will have an uninterrupted eastern horizon for a considerable altitude and removed from the influence of mountain clouds. Queenstown is mentioned only as having been the U.S.A. station for the last transit, but the high mountain range to the eastward makes it unsuitable for this occasion.

JAMES HECTOR.

No. 14.

(No. 18.) My Lord,

Christchurch, New Zealand, 16th March, 1882.

With reference to your Lordship's despatch, No. 47, of the 10th November, 1881, which I have communicated to my Ministers, I have the honor to enclose a memorandum addressed to me by the Premier of New Zealand, giving cover to the copy of a letter in which the Colonial Secretary forwards to the Governments of the Australasian Colonies the opinion of Mr. Reid, the local Solicitor-General, upon "The Fugitive Offenders Act, 1881." I have, &c.,

ARTHUR GORDON.

The Right Hon, the Secretary of State for the Colonies.