

recourse to the mediation of Her Majesty's Minister at Washington with the Government of the United States. It will also be proper that you should, from time to time, keep that gentleman acquainted generally with the progress which you are making in the work intrusted to you.

You will also place yourself in communication, whenever it may be necessary, with Her Majesty's Colonial Authorities, either in Canada or in New Brunswick.

I am, &c.,
(Signed) ABERDEEN.

Inclosure in No. 2.

Memorandum, drawn from suggestions by Professor Airy.

IT will probably occur in several parts of the Boundary Line to be traced and laid down, that astronomical determinations of the same thing will be required, at or about the same time, from the British and from the American astronomers, with a view to the comparison of those determinations. In these cases, the British astronomer ought, if possible, to arrange that his determination shall be made at least as early as that of the American astronomer's.

2. In all cases whatever, the observations should be reduced as quickly as possible. Thus the observations for the errors of chronometers, whether made with the transit instrument or with the altitude and azimuth instruments, should be reduced immediately; the observations for latitude, made at night, should be reduced the next morning; and so for others. And the selection of stars and other objects of observation, is to be made, and the general plan of observations to be arranged with special reference to this rule.

3. The astronomer should also consider it a matter of great importance to keep all his observations and calculations arranged in the most clear and distinct shape possible; so that if any discussion with the American astronomers should arise in the Boundary Country itself, or if it should be necessary to publish any part or the whole of the observations and computations, the manuscript books may be found in a state which will admit of examination or printing by other persons, without a moment's delay.

4. Every entry of observation, and every calculation, should be fairly made out in duplicate.

5. The first part of the Line of Boundary to be traced under the Treaty of Washington, is the north line, from the monument at the head of the River St. Croix to the River St. John, which, by the terms of the Treaty, is to follow an exploring line, run and marked in 1817 and 1818. In the event contemplated by the Treaty, it is probable that no astronomical observations will be required,

6. Should astronomical observations, however, be required, there are two plans of operation, both unexceptionable in a scientific point of view, and between which a selection may be made. One is the determination of the difference of longitude between the monument and an assumed north end, with the view of shifting that north end until the difference shall vanish. The other is, the laying down a north line from hill to hill, by planting a transit instrument in each place, adjusting it accurately to the pole, by transits of circumpolar stars, and then fixing (by signal) a mark on the next hill, corresponding to the position of the transit wire. It will be extremely desirable that the same method should be adopted by the British and by the American astronomers; and for this purpose, it may be necessary that the British astronomer should confer with the American.

7. The next part in which it is contemplated that astronomical operations may be called for, is in the tracing of the straight line from the outlet of the Lake Pohenagamook to a certain point on the north-west branch of the St. John. The difficulty of tracing this line by survey being considerable, it will be the duty of the astronomer to collect accurate