

In submitting this detail of the barometric reconnoissance of the disputed territory, it is not intended to insist, that the observations and results are the most perfect that could have been made under any circumstances. A slight examination of the map will show, that the elevations determined apply to a distance upwards of 250 miles in length, viz.—from the Bay of Chaleurs to the head waters of the Penobscot. Owing to the pressing emergency of the case, two months only of open season could be devoted to the examination, including all the difficulties of exploring an almost unknown region, not admitting of celerity of movement, by the total want of roads, or the use of animals for transport of any kind.

Under these circumstances it would be obviously presumptuous to pretend, that the results are, in all cases, absolutely correct, even as far as the nature of barometers will allow.

But as the difference between the real and assumed elevation of the starting point at the Great Falls is no less than 1500 feet, and as the assumption of the American highlands, at the lake Metise result from that assumed difference, it was not a *small quantity* which was required to be determined.

Barometers of a far inferior construction to those employed for the purpose, and observations far more loosely made, and less carefully registered, would have been amply sufficient to determine the existence, or non-existence, of the assumed facts.

Were not the proofs ample to show, as ascertained by the corresponding height of the Great Falls, deduced barometrically from the Bay of Chaleurs, and by actual level from the tide at Chapel Bar, that the atmospheric influences, in the lower strata at least, are continuous and correspondent over a considerable space of the earth's surface, it might be supposed that the distance of the standard barometer at the Great Falls was, in most cases, too great for comparison within reasonable limits of accuracy. This is, no doubt, the fact to a certain extent. An examination of the simultaneous observations at the Great Falls, and at other distant places, with the intervals between them, will make manifest that an error must frequently result from the differences of condition of the atmosphere, then prevailing at the respective places. But a similar investigation will also prove, that in no case did such a want of accordance exist, to render the argument of a continuous line of maximum elevation liable to dispute, beyond comparatively insignificant limits.

The British Association for the Advancement of Science have instituted a series of barometric observations, including the record of other atmospheric phenomena, which has been carried on uninterruptedly and hourly, day and night, for a period exceeding three years. The results have demonstrated a prevailing law which is found to affect the height of the mercurial column, between the morning and evening observations. They are not yet made public; but an opportunity has offered of testing some of the observations made at the Great Falls by this law, and it is found that the same inferences are deduced in both cases. It will hereafter be expedient, with the permission of Her Majesty's principal Secretary of State for the Foreign Department, to examine analytically the whole series of observations made in the disputed territory, with a view to lay them before the scientific world in a more mature form than is now practicable.

It is only necessary to observe further, that whatever might have been the result, obtained by establishing the standard barometer at the Great Falls, it was the only place in or near the disputed territory, the actual height of which had been previously determined, or could be ascertained; and that after personal examination of the district, experience has shown it to be the best which could have been selected, even had a more perfect knowledge of the country existed before commencing the operations.

The barometric observations as detailed are complete and faithful copies from the original registers, in the hand-writing of the respective parties, which are deposited in the Foreign Office.

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