"Geology in Nubibus." An Appeal to Dr. Wallace and others.

In his timely and important letter to you, Dr. Wallace congratulated us all on having got rid of a real glacial nightmare by sweeping away the tropical glaciation which has been favoured
by some high authorities, including himself, Mr. Darwin, and Mr. James Geikie. While we may all shaze in this congratula-
tion, I think it may be remembered what it involves.

It has been the fashion with an extreme and aggressive school of glacialists to postulate an excavating tendency in ice to which the formation of lake basins and valleys-without-outlets in mountain districts has been attributed. They will not allow that rock basins are due to any other cause than ‘omnipotent ice.” In the majority of other countries, like Prof. Bonney and Mr. E. H. H. What they jeer at those who have devoted much patience to unravelling the mysteries of Plutonic action, like Prof. Judd and others, who attribute a large number of lakes to dislocations and to foldings of the subjacent rocks. It is no use, in arguing with them, to refer to mechanical difficulties like those involved in conveying thrust of ice over rivers, and the transport of a considerable substance of ice, which is known to crush under a moderate pressure, nor to produce any number of mechanical arguments against the capacity of ice to erode lake basins such as those in question; nor is it any use appealing to the stupendous geological difficulties against their theory, much of which has been accumulated by quite a number of skilled geologists at home and abroad. All these efforts are futile, for we are told that the ice to which appeals must be made is quite a different thing to any ice we can experiment upon or examine, and that it must not there be measured by the ordinary laws that govern ice such as we know it, and that appeal to transcendent ice is considered to be orthodox science. In the nineteenth century, an age when induction is supposed to have become a supreme law to us all, and when a priori postulates are generally discarded from the realm of physical research. Let this pass, however, and let us test the question in another way. Let us test it, in fact, by this very case of Brazil.

There has never been a glacial period in, nor are there traces of glacial action in the highlands of Brazil, we are told by Dr. Wallace. Granted. How then can Dr. Wallace, and those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil? There is absolute unanimity among those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil. There is absolute unanimity among those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil. There is absolute unanimity among those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil. There is absolute unanimity among those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil. There is absolute unanimity among those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil. There is absolute unanimity among those who agree with him in this matter, explain the existence of lake basins and valleys, without outlets, in the highlands of Brazil.

Let me quote from Mr. Allen’s graphic description of these rock basins. Speaking of the plateau of Bahia, he says: “Over this whole region there is an almost entire absence of loose materials covering the surface...the slopes are usually gently inclined, and the valley is occupied by shallow lakes, the basins of which are generally filled with water, forming shallow lagoons varying in area from less than ten to more than 500 acres, from most of which the water evaporates in the dry season...” So numerous were these lakes, ranging in area from less than ten to more than 500 acres, that seemed to them natural to speak of this region in my notes as the “Lake Plain.” Almost everywhere the elevations are evenly rounded, indicating that the rocky crust has been exposed to rain and probably long continued abrasion. But the absence of abraded materials seemed most remarkable; very rarely were even loose boulders observed, though a few such which have been accumulated by quite a number of skilled geologists at home and abroad. All these efforts are futile, for we are told that the ice to which appeals must be made is quite a different thing to any ice we can experiment upon or examine, and that it must not therefore be measured by the ordinary laws that govern ice such as we know it, and that appeal to transcendent ice is considered to be orthodox science. In the nineteenth century, an age when induction is supposed to have become a supreme law to us all, and when a priori postulates are generally discarded from the realm of physical research. Let this pass, however, and let us test the question in another way. Let us test it, in fact, by this very case of Brazil.

My attention has been called to an oversight in my previous letter. Among those who many years ago did good work in dissipating the particular glacial monster that was generated in the valley of the Amazon, was my old friend Dr. Woodward, whose papers on the subject in the volume of the Annals and Mag. of Nat. Hist. for 1871, pp. 59 and 101, I had overlooked.

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30 Collingham Place, Cromwell Road, October 27.