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9th December, 1952.

My dear Hospers,

I am really very much obliged for the magnificent collection of data that you have just sent me. It has been of very great interest, even apart from the use to which I propose putting some of it.

To this end, I should like to refer to the publication in which you expect it will later appear, a reference which can be made more detailed or complete later in the career of my own paper if you have not full details already.

I thought of using the nine specimens from the eruptive lava of 1947 to 1948 given on your page 3, but have been puzzled by the fact that in this table the totals of the sets of nine similar components do not tally. In place of your values + 8.2357, + 2.7396 and + 1.1593 I find from your data in the body of the table the three values + 8.2841, + 2.6232 and 1.1849. Something similar seems to have happened to the three specimens from the 1913 lava flow. In other cases I make the totals to tally.

I should like, in presenting this table as an example, to give the original angular measurements for each specimen from which the direction cosines were obtained since the theme of my whole paper lies in the correct analysis of angular measurements. I imagine that I could reconstruct the angles from the direction cosines you give, but it would be better to use your

original determinations, especially as you will probably be looking at this case again in view of the discrepancies in the totals.

I found most interesting the summary on the same page 3 of the mean directions obtained from five different historic lava flows, and the application to these means of the same process as was applied to single specimens. I think this is absolutely right. I wonder if the same procedure would be appropriate to the fifteen sets of three specimens each which you give for the flows showing reversed polarisation. I suppose these are fifteen distinct flows rather than forty-five observations divided serially in groups of three. Are these directly comparable with your flows A to H given on page 7, for, I imagine, flows of normal polarisation? I am looking forward greatly to doing some work on the data, but you will see what is holding me up.

Sincerely yours,

R. A. Fisher