4 January 1933.

A.D. Buchanan Smith, Esq., M.A.,
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Dear Buchanan Smith:

You certainly find some teasing problems. I am afraid I only have two suggestions:

(i) If there is a big sex-linked milk yield factor, and a lot of genetic variance besides, it is possible that Robinson's herd is homozygous or nearly so for the sex-linked factors. It stands on the graph higher than Hobbs' so that probably Robinson has got all the sex-linked milk yield to be had, at least as far as this one big hypothetical factor is concerned.

(ii) In Hobbs', yoursub-division shows that the difference between paternal half sisters and paternal half brothers lies in the frequency with which the pair of cows lie one above with the other below 700. Thus only 520 out of 2083 or about a quarter of the paternal half brother pairs are so split, while 2709 out of 6883 or about 40 per

cent. of the paternal half sister pairs are. These big differences naturally weigh in heavily in the totals. I do not see that the sub-division evolves the curious result, though it shows how the selected Ayrshire data might have been misleading, as luckily it appears not to have been.

In any case so long as you keep on getting some cases like Hobbs' in the right direction but none distinctly the reverse, I think the case for sex linkage, which I used to be very sceptical about goes on getting stronger.

Yours sincerely,