4 January 1933.

A.D. Buchanan Smith, Esq., M.A.,
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West Mains Road,
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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', your sub-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,