Dear Rothschild,

Thanks for your letter of 3rd, December in re Gordon's breeding experiments. The logical connection of the three objects set out in Gordon's letter of December 2nd, is not altogether clear. Object 1 (to provide hornless animals suitable for disease investigations) seems to be accomplished by programme 3, which for the first three or four generations requires the production of a large number of heterozygous hornless animals progressively approaching the Ayrshire type.

For this purpose, however, programme 2 (the establishment of a herd of brown and white polled cattle from Red Poll and ayrshire) seems to be superfluous. All that is said for it is that their performance in respect of milk and beef can be compared with pure bred Ayrshires and others produced by programme 3.

On your last question as to whether I think the experiment is worth doing, I do not think programme 2 is, but programme 3, the introduction of the dominant polled gene by successive backcrossing into Ayrshire stock should be harmless and cost little, if the cows are worth keeping at all. Of course, after three or four generations, which is a long while to look ahead, intercrossing of polled animals will be started, and, if
homozygous polled bulls can be recognised by absence of scours, the whole herd will rather rapidly become homozygous, and certainly one never need see a horned animal again from such material. I would not however myself be tempted to give much trouble to testing for homozygosity, the only value of which is to give a buyer a stronger guarantee than he is used to in practice as regards breed characteristics.

I am taking advantage of your kindly advice to get Miss Speyer to send back the Reading Report at once, though I have looked through it. I have not, however, picked up what you must have had in mind in respect of trying to influence general policy, and so I do not know just what results require more critical examination.

Yours sincerely,