26 April 1932.

The Secretary,
The Linnean Society,
Burlington House,
London, W. I.

Dear Sir:

I enclose a statement of my remarks on Dr. Hinton's paper, or to speak more precisely, a rather fuller and better authenticated statement of my observations, than I was able to give verbatim.

Yours sincerely,
Dr. Fisher said he would like to associate himself with Dr. Calman's comments upon the scientific value and general interest of Dr. Hinton's paper. With respect to the K.O.F. campaign he believed that everyone would agree with Dr. Hinton's strictures on the sensational statements which had been circulated. He was not sure, however, that Dr. Hinton had been entirely fair to the promoters of the movement in stating that the only effect of an excess of males would be to ensure the immediate fertilisation of all female rats ready to be fertilised. Some observations which the speaker had been led to make during the last few years upon a colony of mice, which he had kept for genetical purposes, seemed to show that other effects would be not improbable.

For the purposes of his experiments it had been necessary that the successive litters of each doe should be sired always by different bucks. At first he had tried waiting till the litter had been born before changing the buck. But this course was quickly found to be disastrous. Mice seem to have a strong sense of territory and the doe usually flees at the intruder, who, for his part, weekly defended himself and displayed every anxiety to escape.
after they have settled down, they are left for the night, it is found in the morning that the litter has been slaughtered and is being quietly eaten by both adults. It is considerably safer to introduce the doe and her litter into the buck's cage, for his infanticidal instinct appears to be conditioned chiefly by finding himself on alien territory.

In the light of these facts the practice was next adopted of changing the bucks before the litter was born, in fact as soon as the pregnancy could be detected, so as to give the buck introduced as long as possible to settle down, and feel at home in his new surroundings. It is particularly interesting that this plan worked well for old bucks, but generally failed when a young buck was introduced into the experiment. The infanticidal instinct is in fact, very finely adapted to the biological needs of the male mouse. If a buck, which had been capable of engendering for only 10 days, is confronted with a litter, which was begotten certainly as long as 19 days ago, calculation might show him that he could not be its father. In practice, he may not do the calculation, but he does slaughter the litter.

Wild bucks certainly possess the same instinct.
Until recently, before the old cages had been replaced, the first sign of an incursion by a wild buck was always the loss of one or more litters already born, and often, what was equally annoying, the replacement of the next experimental litter by one of obviously wild parentage. The small rodents, as Dr. Hinton had said, were undoubtedly not salacious animals. But the mice, in the speaker's experience, had unquestionable infanticidal instincts, and, without knowing what practical successes the method could claim, the speaker suggested that it could more fairly be judged by its success in practice, than by the rather absurd theories of how it was supposed to act.