January 31st., 1927.

Dear Dr. Simpson,

The calculation of odds is appropriate only as an answer to Captain Cave's conclusion that the forecasts are no better than random guesses. On that point it is decisive, for the fact that some successes were repeatedly predicted correctly, is in itself inconsistent with random guessing, and is rightly given credit in the calculation.

Of course if Cave had used tolerably sensitive statistical methods he would never have made such a charge in view of this particular series. The conclusions he gives appear to be prima facie significant, but he only gives one significant figure, so perhaps little attention should be paid to them.

I do not understand your last sentence, "That there is some mistake in his method is clear from the fact, pointed out by Captain Cave in his reply, that with odds of a billion to one there should be very few failures."

Whatever the proportion of failures provided that is consistently less than that of the random guesser, any odds whatever may be obtained merely by accumulating sufficient data.

Yours sincerely,