

## CORRESPONDENCE.

## ON THE INADEQUACY OF EXISTING DATA FOR DETERMINING THE RATE OF MORTALITY AMONG SELECT LIVES.

*To the Editor of the Assurance Magazine.*

SIR,—Will you be so good as to insert the few following observations in reference to Mr. Farren's letter in last Number, commenting on the paper which appeared there upon the inadequacy of existing data for determining the rate of mortality among select lives?

First, in regard to the deduction made by me in Section VII.—that the Gotha experience exhibited a rate of mortality of about  $\frac{1}{2}$  per cent. during the first year—let me say, that it seems to me a necessary consequence of the statements to which I have referred; but I have been informed by a gentleman conversant with the original tables, that the result inferred is not legitimately deducible. I am not acquainted with the tables myself, but, in

the circumstances stated, I would rather at present withdraw altogether the qualified statement I have made on this point.

I do not propose to revert here *directly* to the special question of the agreement or difference of the rate of mortality for one year among select lives of 21 to 25, and 41 to 45, to which Mr. Farren has principally directed his attention. The object of my paper was to show that the data on which Mr. Farren had founded his general table of the rate of mortality among select lives for the first year were not data worthy of credit for that purpose. The general result of his data showed a rate of mortality of about 1 per cent. among the whole lives during the first year; the result of my observations is, that a half of this is a much nearer approach to the truth. Now most parties reading Mr. Farren's letter will be led to infer that the experience on which I have founded is isolated and fractional, as compared with the apparently large body of data which it might be surmised, from his letter, support his deductions. The facts, however, are directly the reverse.

The amount of insurances on which I have founded is £50,000,000; and assuming that the average amount of sums assured is £800, the number of persons would be 62,500; and, as they support my conclusion and contradict his, I am surely as much entitled as he to take credit for the numbers of the Equitable, 21,398; together, 83,898. Now, the whole number of his policies is 62,014; but these include the 21,398 Equitable lives, which, as I have said, support me and contradict him; and they also include 9,236 Irish lives, which it seems quite out of the question to found on as data for deriving the value of select life; indeed, one of the principal advantages of the Experience tables was to show the badness of the Irish lives, and to inculcate the necessity of more care in their selection.

I hope that the above statement may satisfy your readers that, whatever may be the true rate of mortality among the general mass of select lives during the first year, the experience on which I have founded is of a much more extensive character than that relied on by Mr. Farren.

I see I have been misunderstood as having stated 0·55 as the mortality per cent. during the first year among lives from 21 to 45. This is the average rate of mortality exhibited on lives *at all ages*; and from this, in the last section of the paper referred to, it appears to me to be fairly argued that the average rate of mortality among lives at 45 and under cannot exceed 0·4 per cent. during the first year.

I will only add, that I am gratified by the attention which Mr. Farren has kindly bestowed on the paper, though I confess I am disappointed that it has made no alteration in his views. We agree in one point—that the principal question at present is not as to the correctness of the deductions which he has made from the data, which deductions I readily admit to be correct, but as to the value of the data themselves. That the data are valuable for many purposes I also admit; but that they are of any value as indicating the real rate of mortality among select lives during the first year of selection, the investigations I have made most completely disprove: nor do I suppose that the actuaries who collected and arranged them can consider them as affording legitimate data for the solution of this important question.

I am, Sir,

Your most obedient Servant,

WILLIAM SPENS.

Glasgow, 23rd November, 1853.