of the alteration he speaks of in 1835. The rule by which he determines the rate of exchange we of course knew, and it was that we alluded to as being unintelligible to ordinary readers. His not understanding why silver is brought into the gold calculation we are surprised at—he himself introduces it when he speaks of francs; and it must, we think, be obvious, that the introduction of some such measure is indispensable. The variations in the price of gold or of any other commodity cannot with any degree of consistency be expressed in terms of the commodity itself. An ounce of gold can never be worth more or less than an ounce of gold.—Ed. *A. M.*

ON THE SAME SUBJECT.

To the Editor of the Assurance Magazine.

Sir,—In reply to your note, appended to my communication of the 22nd ultimo:

You state you are surprised at my not understanding why silver is brought into the calculation.—To this I answer, that silver has no more to do with the calculation than corn, lead, or tin.

You observe, that I myself introduce it (*i. e.*, silver) when I speak of francs. Here I join issue, and require to be instructed that there are no such things as gold legal tender francs, as well as silver legal tender francs.

You make the interpellation, that the introduction of some such (silver) measure is indispensable.—This I cannot concur in. What we want, and what the daily papers properly show, by their method which in my former communication I tried to defend, is the real comparative value of gold, in one country or place, as measured by its value in another country or place.

The theoretical or intrinsic par of exchange between two places is the metallic equation or comparison of the respective ratios in which the pure metal exists in any given weight of Mint coinage of the same metal at the two places.

When we talk of the par of exchange between England and France, our comparison should be between gold money of England and gold money of France. By so doing we ascertain that 10,000 English gold sovereigns are equal to 252,079 French gold francs, the weight of pure gold in the former being equal to the weight of pure gold in the latter.

Thus we arrive at the normal par of exchange between the two countries—viz., £1=25·2079 francs. But this estimate is based on weight of metal, *not* on its comparative value, and therefore is no verification of your remark, that "an ounce of gold can never be worth more or less than an ounce of gold." The question as to the worth of an ounce of gold is never entertained in such an estimate.

The fluctuating commercial par of exchange—*i. e.*, the real exchangeable value for the time being—is quite another matter, and, as I still consider, is estimated correctly by the method of the daily papers in the case of gold—viz., by comparison of its value in this country (as affected by our Mint regulations and our market price of gold) with the value in another country (as affected by its Mint regulations and its market price of gold).

Under such conditions, and the countries for comparison being England and France—the premium on gold being 4 per mille in the latter country, and the Mint regulations of the two countries being as pointed out in my

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former letter—silver has nothing to do with the question, and the newspaper statement of the exchange being 25·27 is confirmed. And such a statement of the rate of exchange clearly means that 10,000 sovereigns in gold, instead of exchanging at the normal par of exchange for 252,079 francs in French gold coin, would have exchanged for 252,700 francs of French gold coin under the conditions of the problem as to the real commercial rate of exchange at the time being.

I remain, Sir, yours very truly,

FREDERICK HENDRIKS.

Globe Insurance Company,
28th February, 1856

NOTE.—We are prevented by want of space from replying to this second letter of our correspondent. We hope in a future Number to go fully into the subject; at present its bearings are by no means patent.—ED. *A. M.*

MR. GALLOWAY'S METHOD OF ADJUSTING HIS TABLES.

To the Editor of the Assurance Magazine.

SIR,—Mr. Galloway, in his able *Treatise on the Tables of Mortality deduced from the Experience of the Amicable Society*, after having described the method adopted by him in the adjustment of the series showing the probability of life for one year at each age, gives the result in Col. 9 in Table II., and also in Col. 8 in Table III. But, as he states, this last series still presented considerable anomalies; he therefore had recourse to another method, laid down by Mr. Gompertz, and which he describes in the note at the foot of page 9. It is, however, I think, at present impossible for any student to investigate, for the sake of practice, the correctness of this last quoted table, as Mr. Galloway has omitted to state the interval for interpolation corresponding to "m" which was made use of.

It is with the hope that some reader of your valuable *Journal* may be able to furnish this information, that I venture to intrude on your limited space, presuming on my experience of the readiness you at all times evince to clear up any difficulty attending the study of life assurance.

I am, Sir, your very obedient servant,

CHARLES WATKINS.

Pelican Life Insurance Office,
3rd March, 1856.

NOTE.—We know of no better means of obtaining the information our correspondent seeks than by calculating the number of survivors from age to age by the *unadjusted* probabilities of living (*see* Col. 8, Table III.), commencing with a radix of 10,000 at age 45. The intervals denoted by m will then be discovered by observing the ages at which the numbers living so found, and those in column 10, exactly correspond.—ED. *A. M.*

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