CORRESPONDENCE

THE DEATH DUTIES AND THE FINANCE ACT 1907

To the Editor of the Transactions of the Faculty of Actuaries,

SIR,—Referring to my paper on the Death Duties (*T. F. A.*, iii. 159) I should like to point out two alterations in the Law which have been made by the Finance Act 1907 (7 Edw. VII. ch. 13).

One is the revised Scale of the Estate Duty in the case of persons dying on or after 19th April 1907. The new Scale is given in the appended Schedule. These new rates do not, however, apply to the case of reversions dealt with before 19th April 1907.

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The other alteration is the abolition of limited aggregation—*vide* the paragraph on " Limitation of aggregation in certain cases," on p. 175 of my paper. The settled property there referred to now constitutes, in the case of persons dying on or after 19th April 1907, an " estate by itself " for the purpose of ascertaining the rate of duty payable.

May I take the opportunity of referring to my formula (p. 185 of the paper) for a deferred temporary annuity at two rates of interest ? It has been pointed out that a simpler expression is

$$\frac{s'_{\overline{n-t}|}}{1 + is'_{\overline{n}|}},$$

which not only has the advantage of being analogous to the usual formula for an immediate annuity under similar conditions, but also suggests a simple method of reasoning by which it can be arrived at.

For let x be the price of such an annuity. Then, if the necessary sinking fund for the entire period, viz. $\dfrac{x}{s'_{\overline{n}|}}$, and interest at the remunerative rate, viz. ix, be both accumulated at the re-investment rate j for the entire period, we must obtain the same amount at the end of the period as the accumulation, also at the re-investment rate j, of the annuity for the period $(\overline{n-t}$ years) during which it has been paid. That is to say,

$$\left(\frac{x}{s'_{\overline{n}|}} + ix\right)s'_{\overline{n}|} = s'_{\overline{n-t}|}$$

$$\therefore x = \frac{s'_{\overline{n-t}|}}{1 + is'_{\overline{n}|}}.$$

I am, etc.,

J. C. DENMEAD.

Estate Duty Office, Somerset House,
London, 11th October 1907.

SCHEDULE

SCALE OF RATES OF ESTATE DUTY IMPOSED BY THE FINANCE ACT 1907
IN THE CASE OF DEATHS OCCURRING ON OR AFTER 19TH APRIL 1907

Where the Principal Value of the Estate				Estate Duty shall be payable at the rate per cent. of
£			£	
Exceeds	100 and does not exceed		500	£1
,,	500	,, ,,	1,000	£2
,,	1,000	,, ,,	10,000	£3
,,	10,000	,, ,,	25,000	£4
,,	25,000	,, ,,	50,000	£4, 10s.
,,	50,000	,, ,,	75,000	£5
,,	75,000	,, ,,	100,000	£5, 10s.
,,	100,000	,, ,,	150,000	£6
,,	150,000	,, ,,	250,000	£7
,,	250,000	,, ,,	500,000	£8
,,	500,000	,, ,,	750,000	£9
,,	750,000	,, ,,	1,000,000	£10
,,	1,000,000	,, ,,	1,500,000	£10 on £1,000,000 and £11 on remainder
,,	1,500,000	,, ,,	2,000,000	£10 ,, ,, £12 ,,
,,	2,000,000	,, ,,	2,500,000	£10 ,, ,, £13 ,,
,,	2,500,000	,, ,,	3,000,000	£10 ,, ,, £14 ,,
,,	3,000,000			£10 ,, ,, £15 ,,