

CORRESPONDENCE.

ON THE METHOD OF VALUING WHOLE-TERM ASSURANCES
ON SINGLE LIVES BY CLASSIFICATION.

To the Editor of the Assurance Magazine.

SIR,—In endeavouring to put into practice the plan proposed by Mr. Samuel Brown (one of the Vice-Presidents of the Institute of Actuaries), in an excellent paper read before that Institute in March, 1854, one or

two ideas presented themselves to my notice which may, perhaps, be interesting to the younger portion of your readers.

Acting on Mr. Brown's suggestion, I endeavoured to combine sufficient facts to form a table of mortality, together with the particulars required for valuing the assurances. Finding, however, that Mr. Brown's plan applied to single lives, whole-term assurances only—and conceiving that all lives on the books of an Office, in whatever position they stand, should be included in the enumeration to form a table of mortality—I abandoned the idea of the combination, and proceeded to class the policies under the different years under which the assured lives were born (or supposed to be born), and to arrange the headings of the columns of a Valuation Book, that I might obtain in the most simple manner all the facts necessary for a correct valuation. The following are the headings of the book, which will require some little explanation:—

Assured Lives born in 18—.

LEFT-HAND PAGE.

<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>e.</i>	<i>f.</i>	<i>g.</i>	<i>h.</i>	<i>i.</i>
Date of Entry.	Policy No.	Sum Assured.	Full Annual Premium With and Without Profits.	Full Annual Premium Without Profits.	Pure Premium on all Policies.	Pure Premium on Without-Profit Policies.	Blank.	Remarks.

Right-hand page a repetition of left.

The pure premium, according to any table of mortality, may be entered in Col. *f*; then the values of the sums of Cols. *c* and *f* being obtained, the difference will be the value of all whole-term assurances on single lives born in one and the same year.

The full and pure premiums respectively, in without-profit policies, would have to be repeated in Columns *e* and *g*. Then (Col. *d*—Col. *e*)—(Col. *f*—Col. *g*) equals the loading in with-profit policies, a very important item, the value of which may be ascertained; and (Col. *c*—Col. *g*) equals the loading in without-profit policies. Any policies lapsing by death or otherwise may be written off on the right-hand page, and the book can be balanced as often as may be necessary.

To facilitate the entry of pure premiums in Col. *f*, for the different sums assured, a small table could be constructed, giving the pure premium for any number of hundreds up to £1,000, which would meet the majority of cases. Thus much time and labour would be saved; and it is, I believe, generally acknowledged that this plan of valuation is sufficiently accurate for all practical purposes. A blank column left in the Valuation Book would admit of an alteration in the pure premium, should it be required.

I am, Sir,

Your obedient Servant,

JOHN COLES.

*The Grange, Haverstock Hill,
May, 1857.*