## CORRESPONDENCE

(To the Editors of the Journal of the Institute of Actuaries)

DEAR SIRS.

May I bring to your notice that in addition to the allusions to Staple Inn quoted in the Institute *Year Book* there is also a reference in Anthony Trollope's *Can you Forgive Her?*, which first appeared in monthly parts during 1864 and was published in two volumes in 1864/65.

The following extract is taken from Chapter LXI:

Of Staples' Inn, who knows the purposes or use? Who are its members, and what do they do as such? And Staples' Inn is an inn with pretensions, having a chapel of its own, or, at any rate, a building which, in its external dimensions, is ecclesiastical, having a garden and architectural proportions; and a façade towards Holborn, somewhat dingy, but respectable, with an old gateway, and with a decided character of its own.

It is interesting that both Dickens and Trollope express a query as to the purpose or use of the Hall, and that in the various references the description should vary between Staples' Inn, Staples Inn, and Staple Inn.

Yours faithfully, L. W. Collingwood

10 Park Place, St James's Street, London, S.W. 1 1 August 1956

DEAR SIRS,

It has been brought to my attention by Dr H. L. Seal that the main proposition demonstrated in my recent article Laws of Mortality which Satisfy a Uniform Seniority Principle (J.A. 82, 114) is easily deduced from a theorem proved by Maurice Hochart and published in the Bulletin Trimestriel de l'Institut des Actuaires Français, no. 113 (June 1923), p. 72. It will be recalled that I showed that a law of mortality satisfying a uniform seniority principle is characterized by the fact that  $\mu_x$  must be a solution of a second-order differential equation of the form

$$py'' + qy' + ry = s. (1)$$

Hochart considers the problem of determining the laws of mortality which, for all values of t, satisfy the equation

$$\prod_{i=1}^{m} {}_{t} p_{x_{i}}^{(i)} = G(\lambda, \rho, \dots \omega, t), \qquad (2)$$

where the superscript (i) indicates that the m lives may be subject to different mortality tables, and where  $\lambda, \rho, \ldots, \omega$  are n independent functions of the m ages  $x_i$ . He finds that the m expressions for  $\mu_x$  must all be solutions of the same differential equation of order n with constant coefficients, and with a constant in the right member, as in equation (1).