

the series. Hence it would seem that the age  $D$  is more likely to be the true age than the age  $D'$ ; and, further, the higher the rate of interest, the more likely is the approximation to be correct. And thus the answer to the question proposed, is, that the present mode of approximation by means of the values of annuities is preferable to that by the curtate expectation of the lives.

I am, Sir, your obedient servant,

PETER HARDY.

London Assurance, April 11, 1853.

### QUALIFICATION AND ENROLMENT OF ACTUARIES.

*To the Editor of the Assurance Magazine.*

SIR,—With reference to the “Sketch of a Plan for the Establishment of a Professorship in connection with the Institute,” that appeared in the last number of this *Magazine*, and particularly with reference to the remarks made by Mr. E. J. Farren at the special meeting held on the 19th April last, on the subject of one of the resolutions, moved by that gentleman, to the effect that “no legislation on Life Assurance Associations can be permanently effective that does not exact tests as to the respectability and acquirements of persons allowed to practise as actuaries,” I beg to offer a few remarks.

Mr. Farren has suggested that there should be a register of persons who desire to practise as actuaries; and he proposes that, as a test of general attainments, the candidates for enrolment should be required to have passed the Matriculation Examination of the University of London.

Full particulars of the regulations of that body will be found in the *University Calendar* for the current year. I enclose, however, for your own information, a schedule of the subjects of that examination, as well as of those for the Degree Examination, and an extract from the prospectus of one of the affiliated Colleges of the University; from which you will see that the opportunity of attending the courses required by the University for a degree is, by a recent alteration in the regulations, now afforded to those whose daily engagements might, under the former régime, have prevented them from availing themselves of the advantages offered.

Mr. Farren's scheme stops short, I regret to say, at the Matriculation Examination; after passing which, the candidate becomes only an undergraduate of the University, and is still supposed to be *in statu pupillari*. This examination may be passed by a youth of sixteen. Now I feel sure that upon reflection Mr. Farren will see that this examination is not sufficient, and that he will probably agree with me that the degree of B.A., at least, should be one of the qualifications for registration as an actuary.

Mr. Farren would also require the production of certificates of attendance at the lectures at some recognised Institution.

It is well known that the mere attendance at lectures is no test whatever of the attainments of the student (unaccompanied, I mean, by examination in the subjects of the lectures). Now if the candidate for registration is to be required to produce certificates of attendance at lectures, he may as well at once be required to attend such particular courses as will entitle him to be examined for the degree of B.A.

I think the possession of this degree, in addition to the diploma of the

Institute, together with a certificate of having been actually engaged in a Life Assurance Office of a certain standing for at least five years, and that he is practically acquainted with the business of life assurance in all its details, should fairly entitle the candidate to enrolment as an actuary. This certificate should be given by the actuary of the Company, *being himself a qualified actuary.*

The examination in bookkeeping I have not lost sight of ; but Mr. Farren forgets that this subject forms part of the regular Institute examination.

Of course, a graduate of Oxford, Cambridge, Dublin, and Durham, and probably of some of the Scotch Universities, should be exempt from the Degree Examination by the University of London, but not from the examination required by the Institute of Actuaries; nor, of course, from the production of the certificate of practical knowledge of the business of life assurance.

I may here remark, that the University of London was incorporated by royal charter in the year 1837, and that it receives annually a grant from the Crown.

The London University is now upon an equal footing with Oxford and Cambridge as regards the regulations respecting attorneys and solicitors, and (with the exception, I believe, of Lincoln's Inn) all the Inns of Court now treat graduates of these Universities alike ; and it is considered beyond doubt that before long the London graduates will be constituted a parliamentary constituency.

The unwarranted assumption of the title of actuary by persons totally incompetent to perform the functions that properly appertain to what I should be disposed to call the *profession* of an actuary, needs some immediate check ; and this, it appears to me, is the time to press the question, now that a Parliamentary Committee is investigating the state of life assurance generally.

The examinations of the Institute may tend in some degree towards the desired end ; but of course, in proportion to the incompetence of an individual, will he be likely to stand aloof from any voluntary examination : and the more ignorant the man, the less he is aware of the responsibilities he incurs, and shows how true it is that

“ Fools rush in where angels fear to tread.”

The Institute certificate, however, is not enough by itself ; the mere acquaintance with mathematical formulæ is not sufficient test, *per se*, of the qualifications of an actuary. A considerable amount of general knowledge is necessary, as well as an acquaintance with monetary and financial questions. *Experience*, too, is a most essential element in the materials of an actuary. Now I fear many of the so called actuaries, whose names we see blazoned forth in the public papers, are wanting in this essential element at least.

I am forcibly reminded of the following lines of Horace, when speaking of the way in which men arrogate to themselves the name of poets. He says,

“ Ludere qui nescit campestribus abstinet armis,  
Indoctusque pilæ, discive, trochive, quiescit ;  
Ne spissæ risum tollant impunè coronæ.  
Qui nescit versus, tamen audet fingere.”

We never hear of a man totally ignorant of the law daring to assume the functions of a legal adviser, nor of an unqualified quack being appointed as physician to a public hospital ; and yet we hear of people calling them-

selves actuaries, assuming a title the very meaning of which they do not perhaps know, and presuming to advise public companies on questions involving points of mathematical theory, monetary questions, and business experience, and actually assuming the duties of managers of institutions in which hundreds of thousands of pounds may be at stake, and to which the social interests of thousands are confided. Truly these gentlemen are not so nice as the "*indocti pile*" of old; they do not seem to mind a laugh at their expense; and, reckless of the consequences of their rashness, are content to say (again to quote the satirist),

"Occupet extremum scabies, mihi turpe relinqui est,  
Et quod non didici, sanè nescire fateri."

With reference to the question of the establishment of a Professorship in connection with the Institute, I will add a few words.

It will readily be admitted, should the Degree Examination be insisted on (which of course would necessitate the Matriculation Examination, as proposed by Mr. Farren), that the present plan of the Institute examination may be in some degree modified, so as to dispense—say, with the arithmetical part of the examination, the more easy algebraical portion, and the geometrical altogether, by making a greater point of those portions of mathematics on which the theory of annuities and assurances depend; and by extending the practical questions, and introducing not only such questions as occur in the business of life assurance, but those of a higher class, such as come before the actuary in his private practice, and before the actuaries of Reversionary Companies; and, above all, by introducing the study of subjects, the necessity of which to the well informed actuary Mr. Jellicoe has, I believe, on more than one occasion pointed out, and among which I may mention political economy.

Now with the view to satisfactory preparation for such an examination as this, it would of course be highly desirable that a well qualified Professor should be appointed, attendance at whose lectures for a certain term I would make compulsory on the Associates; and, farther, after due notice if any Associate should not within a reasonable time pass the necessary examinations, or at least offer himself for examination, and enable the examiners to report that he had attained a certain *minimum* of knowledge, such Associate should cease to be a member of the Institute.

One of the principal objects of the Institute is to train up actuaries; and no Associate can have any proper reason for belonging to the Society except that of qualifying himself for an actuarialship. If, therefore, he does not intend to offer himself for examination, the sooner he leaves the Institute of Actuaries, and joins the "Whittington Club" instead, the better.

I have to apologise for the length of this letter; but the subject is an important one, and I trust that, with the help of the Institute and of such legislative interference as may be necessary, in course of time the undue assumption of the title of actuary will be prevented, and that no longer will it be in the power of a satirist to say, as it is at present—

"Actuarius nascitur, non fit."

I am, Sir, your obedient servant,

A FELLOW OF THE INSTITUTE OF ACTUARIES.

London, 19th May, 1853.