

Obituary.

EDGAR CORBLE, Associate of the Institute, Private, 1st Battalion London Rifle Brigade.

Killed in Action 6 January 1915.

FREDERICK CHRISTMAS MANN, Associate of the Institute, 2nd Lieutenant, 1st Battalion North Staffordshire Regiment.

Killed in Action 12 March 1915.

CHRISTOPHER JONATHAN ELLIOTT, Probationer of the Institute, Private, 1st Battalion London Rifle Brigade.

Died of Wounds received in Action about 26 April 1915

GEORGE HENRY POLLOCK, Probationer of the Institute, Lieutenant, 4th Battalion South Staffordshire Regiment (attached to 1st Battalion Royal Warwickshire Regiment).

Killed while on Patrol Duty 18 June 1915.

Obituary.

FREDERICK WELLISCH, Student of the Institute, Sergeant, 2nd Infantry Battalion 1st Australian Expeditionary Force.

Killed in Action 25 April 1915.

CLAUDE BIDWELL, Probationer of the Institute, 2nd Lieutenant, 10th Battalion Loyal North Lancashire Regiment.

Killed in Action 21 September 1915.

HUBERT HENRY PHILLIPS, Probationer of the Institute, Lieutenant, 3rd (attached 2nd) Battalion Leicestershire Regiment.

Died of Wounds received in Action 25 September 1915.

DAVID GOLDIE YOUNG, F.F.A., Associate of the Institute, Lieutenant, 10th Scottish Rifles.

Killed in Action 25 September 1915.

ALEXANDER JENNINGS, Student of the Institute, Private, Honourable Artillery Company.

Killed in Action 30 September 1915.

Obituary.

ERNEST HAROLD MARDEN GUMPRECHT, B.Sc., Probationer of the
Institute, Private, London Rifle Brigade.

Killed in Action 3 May 1915.

RICHARD CLIFT FIPPARD, Fellow of the Institute, Captain, 14th West Yorkshire Regiment (attached Lancashire Fusiliers).

Killed in Action in June 1915.

JOHN BERNARD EVELYN TOMBS, Probationer of the Institute, Lance-Corporal, 9th Battalion Middlesex Regiment.

Died from Dysentery 23 September 1915.

HUBERT CHARLES ALFRED GRAVATT, Associate of the Institute, Private, Honourable Artillery Company.

Killed in Action 30 September 1915.

Obituary.

Mr. T. G. Ackland.

It is with great regret that we have to record the death, on 28 June 1916, of Mr. Thomas Gans Ackland. Although he had not been in good health during the last three or four years, and had been obliged to resign the editorship of this Journal, he continued his consulting practice, and the active interest which he took in actuarial matters seemed to justify the hope that he would be able to do good work for some years to come. For Mr. Ackland was emphatically a worker, and the Institute has lost in him not only a Fellow of 40 years' standing, a former Vice-President, an ex-Treasurer, and a member who had received the distinction of the Honorary Fellowship of the Faculty, but also one who, throughout his membership, was an earnest student of actuarial science.

Mr. Ackland was born in 1851, and was elected an Associate of the Institute in 1869. The first 25 years of his business life were spent in the service of the Gresham Life Assurance Society, of which he became Actuary in 1883 and Manager in 1888, and it is to his connection with that Society that we are indebted for his first important contribution to actuarial literature—the well-known Report by himself and Dr. Smee on War Risks and Extras. At an earlier period of his official connection with the Gresham, he had acquired some academic reputation by his paper on the Summation Method of applying Woolhouse's Graduation Formula, and had filled for a time—from 1883 to 1886—the position of Part II Lecturer at the Institute—a practical teaching experience which led to his collaborating with the late Sir George Hardy in the compilation of "Exercises and Examples."

The insurance period of his career was not, therefore, by any means unproductive from an actuarial point of view, but the administrative responsibilities of an insurance company were not, perhaps, best suited to his temperament and abilities, and it was during the 20 years after he left the Gresham that his name became widely known, and that he did his best work. In the varied activities of consulting practice he found his vocation. As a consulting actuary to insurance companies he was eminently successful—firm in upholding actuarial principles and in the support he gave to the permanent actuarial staff, yet, at the same time, not insensible to practical managerial difficulties, and with a mind open to conviction when conviction was consistent with what he believed to be sound finance. And the qualities which made him a good consultant were of great service to him in the responsible and by no means easy position of Actuarial Adviser to the Board of Trade. In this capacity he had to deal during recent years with two matters of the first importance, namely, the legislation affecting insurance companies and the Unemployment part of the National Insurance Scheme. His Reports on the latter were published in the *Journal*.

While the occupations just mentioned afforded scope for the exercise of Mr. Ackland's judgment and knowledge of affairs, the new problems of private practice, and still more, perhaps, his appointment in 1896 as Official Supervisor of the British Offices Mortality Investigation, gave a marked impulse to his natural inclination for academic work. Shortly before his appointment as Supervisor of the Mortality Investigation, he had submitted to the Institute a voluminous paper on methods of determining rates of mortality and withdrawal and the application of such methods to the special case of Clerks' Associations, and this paper, in conjunction with the paper which he submitted in 1902 on the British Offices' Tables and with the first part of "Principles and Methods," give a sufficient indication of the immense amount of time, thought and labour he devoted to the questions involved in the Investigation. The two papers we have mentioned, in common with his full dress papers on other subjects, may be felt to be over-elaborated, but they cannot fail to be recognized and admired as good honest work executed with conscientious thoroughness. It was not in Mr. Ackland's nature to pass over a doubtful point without investigating it, and if it was a point that lent itself to detailed algebraical and numerical elucidation he was the more attracted by it. His methods may not always have been elegant, but they were fine examples of courage and perseverance. Moreover, they afforded more than once (in unpublished as well as published work) occasions for the exercise of one of his best qualities—a generous readiness to recognize and welcome improvements upon his own methods. Few men have been less prejudiced in favour of their own ways of doing things. We may recall two instances in connection with the paper on Approximate Valuation with Allowance for Selection—his cordial appreciation of Mr. Lidstone's method of obtaining the coefficients in the formula for the difference between the select and non-select probabilities, and his handsome acknowledgment (as Sir George Hardy characterized it from the Chair) of the superiority in certain respects of the method of valuation subsequently suggested by Mr. E. H. Brown. A closely-related and not less attractive trait was his prepossession in favour of original work, especially if it were of a mathematical type. There was a certain fresh enthusiasm—associated more often with youth than with middle age—in his attitude towards new work. Without any thought of appropriating any part of the credit of it to himself, but with the zeal of a student in furthering actuarial science, and perhaps a certain pride in being "in" the advanced movement, he was as ready to help in developing the ideas of others as most men are to develop their own. Thus he joined actively in the exploitation of Z —applying it to joint life endowment assurances; he frequently used and applied the ideas of the late Sir George Hardy, for whose work he had the warmest admiration; he employed the method of moments for the determination of constants; in one of his last and most important investigations—on the subject of the Indian Census—he adopted the frequency curve method for the distribution

of the populations, and even if in this case his belief in modern methods should be thought to have led him into an error of judgment, it was an error which may be readily forgiven for the sake of the sound instinct which prompted it.

Mr. Ackland was a frequent speaker at Institute Meetings, especially in recent years, and his intervention in a debate was always welcome, not on account of any oratorical gift of style—although he spoke fluently and with an unaffected simplicity which is one of the essentials of style—but because he had almost invariably something useful to contribute to the discussion. His speeches gave the impression, whether on delivery or in the published abstract, that he had done the author the justice of studying his paper, and that he had endeavoured to enter into his point of view. He was a candid, but courteous critic when he believed that criticism was justified, but he started with a presumption in favour of a paper and would devote himself loyally to developing its methods or principles and to suggesting further applications.

One of Mr. Ackland's services to the Institute that deserves special mention is his work in connection with the Examinations. Probably no member of the Institute has examined on so many occasions, and none ever undertook the task more readily or did more willingly his fair share of the labour involved. Whether from the point of view of the candidate or from the not less important point of view of his colleagues, he was an excellent Examiner. His teaching experience and his sympathy with students (of whom he was always at heart one) inclined him to temper justice with mercy in the one capacity, while his openness of mind and willingness to compromise rendered him most acceptable in the other. We are glad to believe also that he found a real pleasure in making up questions, especially on the more theoretical subjects. For Interpolation he had a special affection, and it may be recalled that his first and last contributions to the *Journal* were on this subject.

We may be permitted to add a few words on Mr. Ackland's association with the *Journal*. Among the many activities of his professional life there was probably none to which he attached more importance, or to which he devoted more time and energy, than the Editorship of the *Journal*. During the seven years over which his Editorship extended he personally prepared in almost every case the Abstracts of the Discussions, expending on them very considerable time and thought. But of more importance than the painstaking fidelity with which he performed this routine work was the conscientious labour he bestowed on anything of the nature of an original contribution. Here his genuine interest in actuarial research found scope. He did not, as a rule, rely solely on his own judgment of such contributions. Yet when he wrote submitting some new contribution to a member of the profession whom he considered specially qualified to pronounce upon it, his letter, while deferring with characteristic modesty to the opinion of the person to whom it was addressed, would show invariably that he had given

the contribution careful consideration and often that he had anticipated all that could be said about it. His services as Editor were rendered in a truly scientific spirit, and the expression of appreciation with which the Council of the Institute acknowledged them when announcing his resignation may be recalled as a fitting tribute to his memory.

WALTER SYDNEY EMERY, Student of the Institute, Private,
Infantry Battalion 1st Australian Expeditionary Force.

Killed in Action 8 August 1915.

JOHN MORTON FIELD, Student of the Institute, 2nd Lieutenant,
Royal Sussex Regiment.

Killed in Action 11 April 1916.

HARRY WALLIS, M.A., Associate of the Institute, Naval Instructor,
H.M.S. "Indefatigable."

Killed in Action 31 May 1916.

DONALD KERR, M.A., B.Sc., Probationer of the Institute, 2nd
Lieutenant, 2nd Battalion London Scottish Regiment.

Killed in Action — July, 1916.

ERNEST CHARLES KEMP, Student of the Institute, Lieutenant,
9th Service Battalion Yorkshire Regiment, and Royal Flying
Corps.

Killed in Action 6 September 1916.

GEORGE HENRY GRANTHAM, Student of the Institute, Private,
15th Battalion County of London Regiment.

Killed in Action 15 September 1916.

SIDNEY FRANK SNOWDON, Student of the Institute, 2nd Lieutenant,
1st Battalion London Regiment, Royal Fusiliers.

Killed in Action 15 September 1916.

LESLIE DAVIES, Probationer of the Institute, Captain, 15th Battalion
County of London Regiment.

Killed in Action 17 September 1916.

Obituary.

JOHN VICTOR MCLEAN, Student of the Institute, Lieutenant,
6th Battalion Royal Berkshire Regiment.

Died of Wounds 17 July 1916.

FREDERICK JOHN GRANT, Student of the Institute, Private,
20th Battalion Royal Fusiliers.

Killed in Action 20 July 1916.

PERCIVAL JAMES DAVIS, Probationer of the Institute, Private,
2nd Battalion City of London Regiment.

Died of Wounds 16 October 1916.

STANLEY OCTAVIUS BENJAMIN, Associate of the Institute,
Bombardier, Australian Expeditionary Force.

Died of Wounds 23 November 1916.

GEORGE EUSTACE BURROWS, Associate of the Institute, Private,
Royal Army Medical Corps.

Killed in Action — February 1917.

ROBERT JOHN LEDGER, Student of the Institute, 2nd Lieutenant,
Royal Sussex Regiment.

Died on Service 11 March 1917.

AUSTYN JAMES CLAUDE FYFE, F.F.A., Associate of the Institute,
Lieutenant, R.F.A.

Killed in Action 25 March 1917.

Obituary.

MELVILLE ELLIOTT LOBB, Student of the Institute, Lance-Corporal,
3rd Battalion, Canadian Expeditionary Force.

Killed in Action — April 1915.

FRANCIS SEYMOUR BLAKE, Associate of the Institute, Captain,
King's Liverpool Regiment.

Killed in Action 1 July 1916.

GILFRID MONTIER REEVE, Fellow of the Institute, Captain, 9th
Battalion, Essex Regiment.

Killed in Action 7 July 1916.

EDGAR ROWE WILLIAMSON, M.C., Student of the Institute, Lieut.
5th City of London Regiment.

Killed in Action 10 September 1916.

LIONEL FRANK HAWKINS, Associate of the Institute, Private,
17th Battalion, Middlesex Regiment.

Killed in Action 17 September 1916.

JAMES HOGG, F.F.A., Associate of the Institute, Captain, 14th
Battalion Argyll and Sutherland Highlanders.

Killed in Action 24 September 1916.

JAMES HAROLD MARLIN, Associate of the Institute, Lieutenant,
3rd Battalion, South Staffordshire Regiment.

Killed in Action 12 April 1917.

REGINALD GEORGE GREGSON ELLIS, Fellow of the Institute, Captain,
Oxford and Bucks Light Infantry.

Died of Wounds 17 April 1917.

HERBERT DUDLEY SANDS FROMANT, Probationer of the Institute,
2nd Lieutenant, 3rd Battalion Northumberland Fusiliers.

Killed in Action 29 April 1917.

THOMAS HOLGATE, Student of the Institute, Private, 2nd/5th
Battalion, London Regiment.

Killed in Action 17 June 1917.

GILBERT SUTCLIFFE FIELDEN, Associate of the Institute, 2nd Lieut.
King's Own Royal Lancashire Regiment.

Died on Service 18 July 1917.

Obituary.

HARRY ORRELL, Student of the Institute, Private, 20th Battalion,
Manchester Regiment.

Killed in Action 23 April 1917.

BRIAN NEEDELL, Student of the Institute, Sergeant, 5th Battalion,
City of London Regiment.

Killed in Action 2 May 1917.

WALTER ERNEST SMITH, Probationer of the Institute, Captain,
King's Own Yorkshire Light Infantry.

Died of Wounds 5 July 1917.

SIDNEY GEORGE WEATHERDON, Probationer of the Institute,
2nd Lieut., 11th Battalion, Essex Regiment.

Killed in Action 19 September 1917.

THOMAS NOWELL ASKWITH, Student of the Institute, 2nd Lieut.,
Royal Field Artillery.

Killed in Action 26 October 1917.

GERALD DANBY DOUCET, Fellow of the Institute, 2nd Lieut.,
7th Battalion, Northumberland Fusiliers.

Killed in Action 26 October 1917.

HUGH JERROLD HAMMOND, Student of the Institute, Captain,
12th Battalion, Royal Warwicks (attached 2nd Battalion,
Gloucestershire Regiment).

Died of Wounds 23 March 1918.

WILLIAM ASKHAM, Probationer of the Institute, Lieut. (Acting
Captain), Army Cyclist Corps.

Killed in Action 11 April 1918.

Obituary.

FREDERICK GEORGE GOODYEAR, M.C., Probationer of the Institute,
2nd Lieutenant, London Regiment.

Died of Wounds 9 December 1917.

EDWARD MADDISON DOVE, M.C., Probationer of the Institute,
Lieutenant, 8th Battalion East Surrey Regiment.

Killed in Action 23 March 1918.

HUGH THOMAS KAY ROBINSON, D.S.O. with Bar, Fellow of the Institute, Lieut.-Colonel, Royal Sussex Regiment.

Killed in Action 26 April 1918.

ALAN DAVIDSON STEED, Probationer of the Institute, Private, 15th London Rifles (Queen's Westminsters).

Killed in Action 30 April 1918.

GEORGE LESLIE LEWIS CARTER, Student of the Institute, Naval Instructor, Royal Naval College, Dartmouth.

Died on Service 29 July 1918.

EDWIN CHARLES KAYE CLARKE, M.C., Probationer of the Institute, Captain, London Regiment.

Killed in Action 31 August 1918.

HENRY BATTEN KEABLE, Associate of the Institute, Lieut., R.N.V.R., H.M.S. "Manxman."

Died on Service 11 September 1918.

ARTHUR SKELTON GREGORY, Probationer of the Institute, 2nd Lieutenant, 6th Battalion Loyal North Lancashire Regiment (attached 2nd Batt. East Lanes.).

Killed in Action 21 September 1918.

Obituary.

FREDERICK LIGHTON BRISTOW, Probationer of the Institute,
Lance Corporal, 7th London Regiment.

Killed in Action 20 March 1916.

JOHN WILLIAM EWART ALEXANDER, Probationer of the Institute,
2nd Lieutenant, 10th Battalion, Norfolk Regiment.

Died on Service 14 April 1916.

VINCENT JOHN AUSTIN, Probationer of the Institute, Private,
5th City of London Regiment.

Killed in Action 1 July 1916.

RAYMOND COLE, Probationer of the Institute, Private, 16th
Middlesex Regiment.

Killed in Action 1 July 1916.

THOMAS MIDDLETON, B.A., Student of the Institute, Captain,
97th Brigade, Highland Light Infantry.

Killed in Action 1 July 1916.

CHARLES SIDNEY SHILSON, Probationer of the Institute, Private,
5th City of London Regiment.

Killed in Action 1 July 1916.

MALCOLM HOWARD GRIGG, Probationer of the Institute, 2nd
Lieutenant, 26th Battalion, Manchester Regiment.

Killed in Action 9 July 1916.

HARRY WALTER BROWN, Probationer of the Institute, Private,
Royal Naval Division.

Died on Service 23 January 1917.

THOMAS GRAHAM CUNLIFFE, Probationer of the Institute, Private,
20th Battalion, Royal Fusiliers.

Killed in Action — May 1917.

JOHN CROMWELL HURLEY, Associate of the Institute, Lance
Corporal, 22nd Battalion, Australian Imperial Force.

Killed in Action 3 May 1917.

RALPH GEORGE GALE, Probationer of the Institute, 2nd Lieutenant,
8th Battalion, South Staffordshire Regiment.

Killed in Action 12 October 1917.

WILFRED BRADLEY, Probationer of the Institute, Private,
Honourable Artillery Company.

Died of Wounds 6 November 1917.

CYRIL PERCY MADDOX, Probationer of the Institute, Private,
16th County of London Regiment.

Killed in Action 20 November 1917.

JAMES HENRY ORR, Probationer of the Institute, Captain, 210
Siege Battery, Royal Garrison Artillery.

Killed in Action 30 November 1917.

GEORGE FREDERICK THOMAS ASCOTT, Probationer of the Institute,
Private, London Rifle Brigade.

Killed in Action 25 March 1918.

FREDERICK DEFRIES, Associate of the Institute, Captain, 5th
Battalion, Middlesex Regiment.

Killed in Action 6 April 1918.

HENRY JACKSON MILLS, Student of the Institute, Lieutenant,
19th Battalion, Machine Gun Corps.

Killed in Action 30 May 1918.

ALFRED RICHARD HARRISS, Probationer of the Institute, Private,
1/15th London Regiment.

Died of Wounds 13 September 1918.

CHARLES GEORGE GIFKINS, Probationer of the Institute, Gunner,
139 Heavy Battery, Royal Garrison Artillery.

Killed in Action 15 October 1918.

EDWARD ALBERT NEWLAND, Student of the Institute, 2nd
Lieutenant, 24th Battalion, Royal Fusiliers.

Killed in Action 23 October 1918.

DONALD ARTHUR ROBERTS, Probationer of the Institute, Flight
Lieutenant, Royal Air Force (attached H.M.S. "Iron Duke").

Died on Service 30 January 1919.

Obituary.

GEOFFREY YATES HEALD, Probationer of the Institute, Captain,
15th Battalion, Lancashire Fusiliers.

Killed in Action 1 July 1916.

Obituary.

JAMES MILES LANGSTAFF, Fellow of the Institute, Major, Canadian Expeditionary Force.

Killed in Action, 1 March 1917.

ERNEST MILTON MARTIN, Probationer of the Institute, Lieutenant, 24th Battalion, 2nd Division, Australian Imperial Force.

Killed in Action, 31 March 1918.

JOSEPH JEFFERSON TWENTYMAN, D.C.M., Probationer of the Institute, 2nd Lieutenant, Highland Light Infantry.

Died on Service, 11 February 1919.

ERRATA.

Vol. xlviii, p. 126, 6th line from bottom:

for "Reversionary Bonuses" read "Sums Assured."

„ lii, p. 103, Equation (1): \bar{v} should be $\frac{1}{v}$.

„ „ „ line 13: 1 12 „ „ $1/12$.

„ „ p. 105, 4th line of § 7: for $e^{-1/12n}$ read $e^{1/12n}$.

„ „ „ 6th „ „ „ 1600 „ 1200.

„ „ „ 12th „ „ „ A.S.E. „ R.S.E.

„ „ „ 3rd line from bottom:

for $\log_{10} 100!$ read $\log_{10} 100!$

„ „ p. 106, 9th line: for $e^{-1/12n}$ read $e^{1/12n}$.
