

THE
MATHEMATICAL GAZETTE

EDITED BY
T. A. A. BROADBENT, M.A.
62 COLERAINE ROAD, BLACKHEATH, LONDON, S.E. 3

LONDON
G. BELL AND SONS, LTD., PORTUGAL STREET, KINGSWAY

VOL. XXII.

FEBRUARY, 1938.

No. 248

**Professor L. N. G. FILON, C.B.E., M.A., D.Sc., F.R.S.
1875-1937.**

THE Association will mourn the untimely death of its President, Professor Louis Napoleon George Filon, less than a week before the Annual Meeting to which he had looked forward with such keen anticipation and at which he had hoped to preside and to give his Presidential Address. It is easy for those who knew him and his work to understand how strongly the objects of the Association appealed to him and how deeply he appreciated his election as its President.

He was of French descent, educated and trained as a mathematician in England. In his life and work he presented a peculiarly happy combination of much that is great in the characteristic traditions of the two countries in mathematical thought. He was intensely interested in the systematic and logical presentation of mechanics. His Presidential Address is the outcome of many years of thought and study devoted to this topic which was of all topics perhaps the nearest to his heart. The views he there sets out were modified and developed in the course of his work as a practical teacher of students. One great loss by his death, to many of us second only to the loss of a dear friend and a good colleague, is that his hope and intention to write a comprehensive book on the subject can now not be realised.

At the same time he had a very practical and experimental approach to his subject. His mind worked very much after the manner of Newton whose devout disciple he was. To him mechanics was an experimental science and he was impatient with those who would use it merely as an opportunity for pure mathematical manipulation. After he had lectured to his students on Lagrange's equations and the theory of oscillations he sent them into a laboratory where they could handle and experiment with tops and gyrostats and observe and measure their precessions.

The same practical bent showed itself in other directions. Earlier in life as a teacher of pure mathematics he did a great deal by his teaching and writing to give pure geometry its rightful place in university studies. How many of us who know that a conic can be drawn through any five points have ever marked five points at ran-

A

dom on a sheet of paper and actually drawn the conic which passes through them? Filon firmly believed that every student of geometry should have this experience and others like it at least once in his life. Accordingly side by side with his lectures on projective geometry there were practical classes in which his students with drawing-board and compasses made an experimental exploration which gave them a more vivid appreciation of geometrical truth than they otherwise would have had.

Under the same impulse he transformed the teaching of astronomy in his College. He found it largely theoretical in its treatment, though under his predecessor and revered teacher Karl Pearson practical instruction had been given in a small observatory in the College grounds. He left it as a highly developed subject in many of its branches and as Director of an active University Observatory at Mill Hill.

All his old students will remember his lectures. Prepared with a characteristic thoroughness, they were delivered in a clear and unhesitating manner and illustrated by a supreme command of the blackboard. When in later life responsibilities crowded upon him, and his friends were amazed at the amount of work of different kinds that he could get through, nothing was allowed to diminish the care and attention he gave to his teaching work.

It is appropriate that in this place special emphasis should be given to his work as a teacher of mathematics, but any adequate account of his life and work would have to include other aspects of the activity of this many-sided man. It would have to speak of his distinguished service to the University of London. That the old antagonism between its Internal and External sides is now but an unhappy memory of a receding past is due very largely to his statesmanship and his ability to work hard, long, and patiently to achieve a purpose he had set before himself. It would have to speak too of his important contributions to the advance of his subject, notably by his researches in the Theory of Elasticity. Throughout his academic life, even when other claims on his time and energy were most insistent, he never forgot his duty as a professor to extend the knowledge of his subject by his own researches.

But to those who knew him best and worked most closely to him, it is the memory of the man himself that will be most reverently cherished. He had a spirit that was matched to the dimensions of his physical frame. He was a man of steady loyalties and simple honesty. He had strong convictions and held them strongly. He could so easily have been intolerant if it had not been that his deepest conviction of all was of the value of freedom and of liberty. Behind it all, known in a measure to many but known to the full by the few, there was a great spirit of simple kindness and unflinching loyalty. If Filon was your friend, you knew that his was a friendship that would stand in fair weather or in foul, and that at its call he would give of himself generously and to the full.

G. B. J.