In Example (d), $n = 5$, $m = 4$, and the number of squares occupied is 13.

Remark. Clearly the number of squares occupied is 1 more than the number of *moves* required to reach another corner for the first time.

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OBITUARY

W. G. Bickley

The death of Professor Bickley has removed one of the most remarkable of our members. I myself first met him when I was an external examiner for the University of London, at a time when his sight was failing. His care and alertness were at once apparent. I next met him at meetings of our Association some years later, when blindness had struck, and was immediately impressed by the courage and cheerfulness with which he faced a devastating blow. Characteristically, he continued to " serve " but could not " stand and wait ", and his work on behalf of blind mathematicians, especially those in training, turned his own loss to the great gain of many. His ability and readiness to help others in similar plight was undoubtedly assisted by the calm objectivity with which he could explain to his friends the measures which he had taken to ensure that his loss of sight should not be allowed to prevent the continuance of his teaching and research.

Professor Bickley's contributions to the *Gazette* covered many years. There is, for example, a note, *A graphical treatment of simple harmonic motion* in 1920; an article, *An introduction to exponentials* in 1926; and a note, *An adventure with limits* in 1938. Two valuable collections of formulae, for numerical integration and numerical differentiation, appeared in the *Gazette* in 1939 and 1941; these were very popular with numerical analysts and offprints were in great demand. Readers will remember, too, three more recent articles: *Series solutions of differential equations*, in 1963, *Mathematics for engineering students*, in 1964, and *Some thoughts on mathematical thinking*, in 1966 — the latter based on a Presidential Address to our London Branch, a branch to which he had given much devoted service.

Two short quotations put him into perspective: " Understanding without rigour is infinitely more valuable than rigour without understanding."

" There are two good reasons for doing mathematics — it's useful, and it's fun. If you do it because it's useful, you get a rich bonus harvest of the fun!"

Mr. H. B. Courchée, of Ulverston, Lancs., himself partially sighted, writes of correspondence with Professor Bickley and of the complete clarity of those letters. He attributes to Mr. Combridge the recollection of Professor Bickley's " almost uncanny memory of just where something was on the blackboard and of being able to refer back to it ' spot on ' ".

Bickley had been a member of our Association for many years. When, in 1951, he was elected an Honorary Member, he was very pleased; so, too, were his numerous friends in the Association, for they saw in this a recognition of one who was always so ready to give and so reluctant to take.

[This Obituary was written by the Editor, with much valuable help from Professor Broadbent.]

L. Harwood Clarke

After the inspection of Bedford School in 1932, the Inspectors commented that " the staff contains a young mathematics teacher of exceptional ability ". Jack Clarke had gone up to Pembroke College, Cambridge, in 1927, and after taking a First in each part of the mathematical Tripos had been appointed to Bedford School in 1930. There he remained until his retirement in July, 1969 : Housemaster for 15 years, Head of the Mathematics Department and finally Vice-master. His death in February of this year was a great shock to his very many friends who shared his interests in teaching and in mathematics.

There are many of Jack's pupils who will testify to the exceptional clarity of his teaching and the simplicity of the explanations which he gave, and it was these qualities which enabled him to write so many successful text-books. Author of 18 books, and part-author of 3 more, with sales approaching 1,000,000 copies, the name of L. Harwood Clarke was well-known throughout the English-speaking world.

But those who knew him only from his books could not know the most notable characteristic of Jack; his unfailing courtesy and kindness to all with whom he had any contact. Those of us who were privileged to have worked with him, at Bedford or on the many Examining Boards for whom he was Chief Examiner, will think of him as a friendly and well-loved man, who was also a most gifted mathematician.

Rugby School.   F. G. J. NORTON