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OBITUARY.

R. W. H. T. HUDSON.

IT is with the deepest sorrow that we record the tragic death of Ronald Hudson, at the early age of 28, while spending a holiday with a friend in Wales. He and his friend started from the Penygwryd Hotel early on Tuesday morning, September 20, and after climbing one of the Glydyrs descended to the foot of the Devil's Kitchen by Lake Idwal, which they reached about one o'clock. Ronald Hudson was an enthusiastic rock climber, and would not be dissuaded from trying part of the ascent, although his companion was not sufficiently expert to go with him. A short half hour later he apparently dislodged a large rock, fell a considerable distance, and in all probability was instantly killed. When a search party with much difficulty found him some time after, he was dead. On the following Saturday he was laid to rest in Wandsworth Cemetery, by the side of his mother, whom he had lost when he was six years old. The heartfelt sympathy of his large circle of friends goes out to the sorrowing family, to his father, aunt and sisters, who have followed along the same path of knowledge as their brother with no less determination and success.

It is impossible not to associate this terribly sad accident with that which befell his intimate friend A. P. Thompson little more than a year ago. They were educated in the same school, but were never in the same class; and at Cambridge they were drawn together not so much by their common devotion to mathematics as by their love of music. On the evening of the day that proved fatal to Thompson they had arranged to go over some new music together. Hudson often repeated that he owed much to his friendship with Thompson, and there is no doubt that each exerted a profound influence on the character of the other.

Ronald William Henry Turnbull Hudson was named after his father, Professor W. H. H. Hudson, and his grandfather, Robert Turnbull; but his

first name was that by which he was best known and will always be remembered. He was born at Cambridge on July 16th, 1876, was the eldest of four children, and the only son. At the age of 12 he went to St. Paul's School, and before he was 15 was transferred from the Classical to the Mathematical 8th. In 1895 he entered St. John's College, Cambridge, was Senior Wrangler in 1898, and bracketed Smith's Prizeman with J. F. Cameron in 1900. The same year he was elected Fellow of his College, and shortly after declined the offer of an important post, the acceptance of which would have meant the abandonment of his favourite studies. In 1902 he became Lecturer at University College, Liverpool, and Secretary of the Mathematical Section of the British Association, and in 1903 was awarded the D.Sc. degree at London University.

His mathematical writings form a remarkable record for four short years of work after completing the University course. The following list, with the exception of the first paper, was recently made out by himself.

Mineralogical Magazine, 1900, vol. 12, p. 58. "On the Determination of the Positions of Points and Planes after Rotation through a definite Angle about a known Axis"; afterwards translated in the *Zeitschrift für Krystallographie, etc.*, 1901, Bd. 34, Heft 4.

Messenger of Mathematics.

Vol. 29, p. 191.   Note on Reciprocation.

„   31, p. 151.   A New Method in Line Geometry.

„   31, p. 159.   Note on the conditions of Equilibrium of a Flexible Membrane under Hydrostatic Pressure.

„   32, p. 31.   Dual Line Coordinates in Absolute Space.

„   32, p. 51.   Matrix Notation in the Theory of Screws.

„   33, p. 50.   The Surface of Floatation.

Proceedings of the London Mathematical Society.

Vol. 33, p. 269.   On Discriminants and Envelopes of Surfaces.

„   33, p. 380.   A Geometrical Theory of Differential Equations of the First and Second Orders.

„   34, p. 154.   The Puiseux Diagram and Differential Equations.

The Mathematical Gazette.

Vol. 2, p. 279.   An Elementary Introduction to the Infinitesimal Geometry of Surfaces.

„   2, p. 354.   The Use of Tangential Coordinates.

„   3, p. 56.   Univocal Curves and Algebraic Curves on a Quadric Surface.

Quarterly Journal of Pure and Applied Mathematics.

Vol. 34, p. 98.   The Discriminant of a Family of Curves or Surfaces (jointly with T. J. I'a Bromwich).

Bulletin of the American Mathematical Society.

Vol. 9, p. 308.   The Analytic Theory of Displacements.

In addition to the above he gave abstracts of some of his writings at meetings of the British Association, and wrote several reviews of important

works for *Nature* (vols. 67, 68, 69) and the *Mathematical Gazette.* He
had finished a treatise on "Kummer's Quartic Surface," which will be
published by the Cambridge University Press. He had just commenced
a book on Analytical Geometry, and had been requested to write another
on Elementary Pure Geometry, which it was hoped he would undertake
later.

Ronald Hudson's was a singularly strong, noble and lovable personality.
The writer of this note was attached to him by long and intimate friend-
ship, and experienced many an act of thoughtful kindness at his hands.
It is impossible to write of him anything but a bare record while the
thought of his death is so near and overwhelming. We can scarcely yet
realise that one who was so clearly destined to win fame if he had lived
has already gone from us.   F. S. M.

THE TEACHING OF MATHEMATICS AND PHYSICS.*

THE Association of Public School Science Masters fixed their annual
meeting for Jan. 16, and accepted a proposal by Mr. R. H. Thwaites to
read a paper for discussion at that meeting on the subject of the possible
fusion of the teaching of mathematics and science in public schools. I
wrote to Mr. Pendlebury, pointing out the interest of the subject to us, and
suggesting that our meetings ought not to clash. In reply, he requested
me to open a similar discussion at our meeting to-day. I hope I have made
it clear that the suggestion that the subject is ripe for consideration is
originally due to Mr. Thwaites.

As some of us were present last week at the Science meeting ; and as the
discussion there has been fully reported, I have taken advantage of Mr.
Pendlebury's alternative permission to continue the discussion rather than
to attempt any detailed account of what then took place. I am very con-
scious that I am risking the commission of two grave errors—I may be
preaching to the converted—and, even worse, I may appear to be trying to
instruct those who know more about the matter in hand than I do myself.
On these grounds I ask for your indulgence.

It seems to me that there are two main reasons why we who are as a
body teachers of elementary mathematics should be glad to consider
favourably any suggestion of the kind under discussion. In the first place,
there are signs that the true function of examinations is beginning to be
more clearly realised. Recent events have been very gratifying to those of
us who hold that the examiner is an excellent partner, but a very bad
master, for the teacher. But with the decay and disappearance of the
mechanical examination system there will pass away a powerful inducement
to work and a bond of sympathy between the teacher and the pupil, who
will no longer find themselves in alliance against their common enemy, the
examiner. Failing the unhealthy stimulus of examination pressure, we
shall have to do our utmost to develop and utilise the natural stimulus of
keen interest in the subject.

The second reason to which I refer as supporting the introduction of
experimental work is this. Professor Pascal has observed that the move-
ment towards increased rigour of demonstration has led in almost all
branches of mathematics to minute and critical discussions, in the course of

* A paper opening a discussion at the annual meeting of the Mathematical Association
Jan. 23, 1904.