

out the forty years the work has been in the hands of students of physics, it has remained the pet child of its creator, and every page bears evidence of the care he bestowed on it. In the work of revision for the present edition, Kohlrausch was assisted by a number of his former pupils, now distinguished for their researches in special branches of the subject, so that it embodies the experience of the leading physicists in Germany. As an example of a section of the book only possible under a system of collaboration of this kind, that on radio-activity, by Prof. E. Dorn, may be mentioned as of special value. As a result, we have a book thoroughly up-to-date, which, as a work of reference for the physical laboratory, stands in a unique position, both on account of the large amount of valuable matter it contains, and for the completeness of its references.

In the second place, the author gives us in the preface a glimpse at the physical laboratories of Germany fifty years ago. There were then about two dozen professors of physics, a dozen assistants, and possibly about two dozen senior students engaged in research in the whole of the country. Apparatus was scanty, and had to be purchased out of a very meagre annual grant. A new professor who could bring with him his own apparatus, was regarded as a special windfall. Systematic instruction in practical physics was given at Königsberg, Berlin, and Heidelberg Universities only, but the need for better organisation of the universities in this respect soon became pressing, and was met by the appointment, in the later 'sixties, of a number of professors who had received their practical training in the above laboratories under Neumann, Magnus, and Kirchhoff. The change which has come about since then is remarkable. There are now many single laboratories in which a greater number of senior students are engaged in research than were so occupied in the whole of the laboratories of the country half a century ago.

*The Schoolmaster's Year-book and Directory, 1910.*

A Reference Book of Secondary Education in England and Wales. Pp. lxxi+448+700. (London: The Year-book Press, c/o Swan Sonnenschein and Co., Ltd., 1910.) Price 7s. 6d. net.

This is the eighth annual issue of what has become an indispensable source of information to the educational worker. It consists of three parts, containing respectively general information, alphabetical lists of secondary schoolmasters, and a list of secondary schools. We are able to say from experience that the educational particulars provided by this work are accurate and up-to-date. Among new features of the book this year are important alterations in the section dealing with county and borough education authorities. It is interesting to note that the directory now contains more than 14,000 names, and that the list of secondary schools numbers about 1500. Altogether, the book deserves a wide circulation.

*Egypt and the Egyptians.* By the Rev. J. O. Bevan. Pp. xxii+224. (London: George Allen, 1909.) Price 5s. net.

This is a compilation of miscellaneous information about "Egypt and the Egyptians, their History, Antiquities, Language, Religion, and Influence over Palestine and Neighbouring Countries," written in old-fashioned style. It has no particular plan, and meanders about from one subject to another, but not unpleasantly. Sir G. H. Darwin, who disclaims "anything more than the superficial knowledge of Egypt which is open to any hurried tourist," has done Mr. Bevan the honour of writing a preface to his little book, which will no doubt give considerable pleasure, and convey a good deal of information and instruction to many readers.

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#### LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

#### The Term "Radian" in Trigonometry.

DR. THOMAS MUIR, in his letter in NATURE of April 7 (p. 156), corrects the misapprehension implied in the "New English Dictionary," viz. the supposition that the word "radian" was first introduced in the "Treatise on Natural Philosophy" by Thomson and Tait.

Dr. Muir says he used the word in 1869 in St. Andrews, and goes on to say that it was after conversation with my father, the late Prof. James Thomson, in Glasgow, that the word was finally adopted in 1874.

I should like to point out that my father adopted the word some years before he came to Glasgow and before he met Dr. Muir. I have a memorandum in my father's writing saying that this name was proposed by him in July, 1871, and it appears in the printed examination questions set by him in the general class examination in Queen's College, Belfast, on June 5, 1873, and published, I believe, in the college calendar.

I will remember several conversations between my father and Dr. Muir with regard to the use of this and other words, but "radian" had already been adopted publicly by my father, and apparently had been already independently used by Dr. Muir.

JAMES THOMSON.

22 Wentworth Place, Newcastle-on-Tyne, April 12.

#### The Yellow Colour in the Stoat's Skin.

In her letter to NATURE of March 24 Miss I. Sollas remarks on the "canary-yellow" colour "in members of the stoat family when the winter whitening is incomplete," adding, "there can thus be little doubt that the yellow body produced artificially in the fur of the albino rat is a substance similar to the yellow pigment of the stoat's winter coat. . . ." I do not know whether it has been recorded, though I should have thought so, that a stoat's fur of the purest white will, after exposure to light in a museum case for a time, varying with the intensity of the light, invariably turn distinctly yellow—fainter, however, than "canary-yellow." I have made no chemical or microscopical examination of fur so yellowed, but the usual reason assigned for the change is the absorption by the hairs of a small amount of fat out of the skin, induced by the light and heat of summer. I understand, also, that ermine kept in a dark chamber or box the temperature of which is high will also turn yellow. Stoats in this part of the country often become white early in the season before any real cold weather has occurred.

HENRY O. FORBES.

The Museums, Liverpool, April 12.

#### Transit of Halley's Comet across Venus and the Earth in May.

I BEG to direct attention to the following:—

It is my intention, at Kaafjord, in Finnmarken (in the north of Norway), together with my assistant, Mr. O. Krogness, to take magnetic and atmospheric observations during the period May 7 to June 1 next in connection with the transit of Halley's comet across the sun's disc on May 18-19.

It is conceivable that the tail of the comet may consist chiefly of electrical corpuscular rays; and, if this be so, we should expect that these rays, owing to earth-magnetism, would be drawn in, in the Polar regions, in zones analogous with the aurora zones, assuming the tail of the comet to be of sufficient length to reach the earth.

These rays will then, in such a case, exercise, amongst other things, magnetic influences and electric inductionary effects, especially strong in the Polar regions, and it is particularly such effects we are desirous of tracing. The tail of the comet, if it should consist, as above assumed, of such radiant matter, will alter its shape at a very considerable distance from the earth, and we may expect to