wide range, dealing with the production and application of dyestuffs, the chemistry of textile fibres and textile processes, etc. He also developed an entirely new series of analytical processes based on the use of titanium salts. He was the author alone or in collaboration of several standard works on dyeing, printing, and allied industries, the best known being the "Manual of Dyeing" by Knecht, Rawson, and Loewenthal. He also contributed a number of articles to the last edition of the "Encyclopædia Britannica."

Dr. Knecht was in good health until July last, when he underwent a serious operation from which he made a good recovery. Going to Switzerland to recuperate, he remained there until November, but during the whole time kept in close touch with the investigations carried on by his assistants in Manchester. Arriving in England during one of the worst fogs experienced for years, he caught a chill which developed into bronchitis, and he succumbed quite suddenly to heart failure on December 8 last, at his home at Marple, Cheshire.

As a teacher Prof. Knecht acquired a great reputation, not mainly through formal lecturing but by personal contact and example in the laboratory The letters received from past students in many parts of the world at the time of the presentation recently made to him indicate the abiding affection in which many of them held "the Doctor."

Dr. Knecht was never married, but is survived by three sisters. He had the gifts of humour and good comradeship, but to hide an excessive sensitiveness and shyness he had also a natural reticence which was penetrated only by his intimate friends. His publications are characterised by sound judgment and lucidity, and frequently by those flashes of vision which connote genius. To no other man does the Society of Dyers and Colourists so largely owe its present considerable reputation; and it may truly be said that no man in any country has done more to enrich our scientific knowledge of textile materials and processes.

WALTER M. GARDNER.

MR. R. B. NEWTON, I.S.O.

RICHARD BULLEN NEWTON, lately senior assistant in the Geological Department of the British Museum, was born in London on February 23, 1854. His father was Librarian and his uncle (Mr. E. T. Newton, F.R.S.) Palæontologist to the Geological Survey. He was educated at the Central London Foundation School, Cowper Street, entering there as one of the first scholars. At the age of thirteen years, Newton obtained work at the Geological Survey, and in 1873 became one of the assistant naturalists under Huxley. In 1880 he was transferred to the British Museum and was soon engaged in the removal of the geological collections from Bloomsbury, and the rearrangement in their new home at South Kensington. He became an expert conchologist and especially interested himself in the Tertiary Mollusca, issuing a systematic list of the Edwards Collection in 1891. Other contributions flowed from his pen, to the number of about a hundred; many of them, though professedly systematic reports on collections of fossils sent to the Museum from distant regions, constituted considerable additions to our geological knowledge of Africa, Asia, and the near East. Another branch of his work was the study of the Foraminifera as guides to geological horizons.

In 1914 Mr. Newton received the Wollaston Fund from the Geological Society of London. He was president of the Malacological (1910–12) and of the Conchological Society (1913–15). His wide knowledge of fossils and their literature and his familiarity with the national collection made his services of much value to the British Museum and to the Empire at large. Since his retirement from the service he had continued to work in his old room at the Museum, and was hard at work there until, only a few days since, he left to undergo the operation to the effects of which he succumbed on January 23, in his seventy-second year. His helpful presence will be greatly missed by all his colleagues.

F. A. B.

WE regret to announce the death of Dr. Karl Goldschmidt, chairman of the directors and for many years head of the executive of the firm of Th. Goldschmidt and Co., of Essen, who succumbed to an operation on January 5 at Stuttgart, at the age of sixty-eight. He and his brother, the late Prof. Hans Goldschmidt, were well known as the inventors of "thermit," and in a recent monograph entitled "Aluminothermie," Karl Goldschmidt has described fully the nature and importance of the thermit-reaction. The brothers inherited from their father a chemical manufacturing business, which they transferred from Berlin to Essen thirty-five years ago. Under the management of Karl Goldschmidt, the business developed enormously and in 1911 it became a public company.

WE regret to announce the following deaths:

Dr. Charles A. Doremus, formerly professor of chemistry and toxicology at the University of Buffalo, known for his work on foods and on the chemistry of sanitation, on December 2, aged seventy-four years.

Mr. C. M. Doughty, honorary fellow of Gonville and Caius College, Cambridge, traveller and poet, the author of "Travels in Arabia Deserta," on January 21, aged eighty-two years.

Dr. C. Iris Fox, senior assistant pathologist at the Royal Free Hospital, Gray's Inn Road, London, who died as the result of a poisoned finger sustained during a *post-mortem* examination, on January 21.

Prof. C. Golgi, emeritus professor in the University of Pavia, Nobel prizeman in medicine with Prof. Ramon y Cajal in 1906, and distinguished for his work on the histology of the nervous system, on January 21.

Prof. H. A. Gossard, chief of the Department of Entomology of the Ohio Agricultural Experiment Station and president of the American Association of Economic Entomologists, on December 18, aged fifty-seven years.

Dr. W. R. Lang, formerly professor of chemistry in the University of Toronto, known for his work on low-temperature phenomena and on the chemical industries of Canada, on November 20.

Prof. Edward S. Morse, formerly professor of comparative anatomy at Bowdoin College, and also of zoology at Tokyo, an authority on Mollusca and on Japanese ceramics, who was president in 1886 of the American Association for the Advancement of Science, aged eighty-seven years.