

present only the "new" doctorates of Science and Letters connote any considerable intellectual achievement (though they all mean much spare cash), and so they are manufactured chiefly for export, and hardly half-a-dozen of the existing college tutors (of whom the present writer was unwise enough to become one) have found it desirable to take them.

There are, I know, difficulties of detail in the way even of these moderate suggestions; but even their partial and gradual adoption would abate the fascination of our examination system, and check the tendency to identify the good examinee, functioning as a good examiner, with the ideal of academic man.

F. C. S. SCHILLER.

PROF. C. A. YOUNG.

FEW astronomical books have acquired or have deserved a wider reputation than has been accorded to the "General Astronomy" of Prof. C. A. Young, and all who have profited by the accuracy and completeness of that work will regret to hear of the death of the distinguished author, who identified himself so closely with the progress of the Princeton Observatory (N.J.). Other popular works, such as "The Sun," have been well received, for Prof. Young's qualities as a writer and teacher were well known and acknowledged. But though accident may have given him distinction as a writer of elementary works, of which his long career as a teacher had shown him the necessity, he had far greater claims on our respect and gratitude. Son of a distinguished astronomer, Dr. Ira Young, of Dartmouth, he was early and severely trained in mathematics and astronomy, and for fifty years he gave of his best to forward the interests of the science he loved. Moreover, his activity synchronised with the recent development of physical astronomy; he was one of the pioneers of solar spectroscopy, and his continued and successful researches in various directions entitle him to ample recognition.

His first appointment was to the chair of mathematics in the Western Reserve College, a post from which he retired only to serve his country in a military capacity during the War of Secession. After the war, he succeeded his father as professor of astronomy at Dartmouth College, leaving that post in 1877 to accept a similar position at Princeton, where his energies found sufficient exercise during the remainder of his professional career.

Like most astronomers who have occupied themselves with solar phenomena, Prof. Young found it necessary to follow the track of many eclipses. The most famous of these is that of 1870, when he, for the first time, saw and described the now familiar appearance of the reversed Fraunhofer lines at the instant of the inner contact of the limbs of the sun and moon. Owing to the much-debated "reversing layer," which he suggested as the true cause of the flash, this eclipse has become historical. He took part in the observations of the solar eclipse of 1878 which passed over the American continent, and visited Europe in 1887 for the Russian eclipse, but without result, owing to bad weather. Onwards to 1900 he was a diligent observer of eclipses, and extended our knowledge of the sun's surroundings as well by his acute observation as by his luminous discussion of results obtained. His early explanation of the spectrum of the corona is now received practically as he gave it.

But Prof. Young's researches were not limited to exceptional opportunities. He gave constant and assiduous attention to the solar spectrum at all times, and was an indefatigable observer of the spectrum of

sun-spots, repairing to favourable situations in order to secure good observing conditions. The chromosphere, no less than sun-spots, was the subject of his care, and his catalogue of chromospheric lines, begun so far back as 1872, is a memorable piece of work. Further, he was among the first to determine the velocity of the solar rotation at various heliographic latitudes by measuring the displacement of solar lines due to motion at the source of light. The spectra of planets and comets, of stars and nebulae, were all made the subject of profound study, for his industry was as untiring as his resource was abundant. His work was recognised by the Royal Astronomical Society, which enrolled him among its associates in 1872, and many other learned societies paid him similar honours. He was the recipient of the Janssen medal of the French Academy of Sciences in 1891, but his great reward must have been the consciousness of the amount and variety of work he had accomplished for the promotion of astronomical science.

NOTES.

WE regret to announce that Prof. J. B. Pettigrew, F.R.S., Chandos professor of medicine and anatomy in the University of St. Andrews, died on January 29 in his seventy-third year.

WE observe with great regret the announcement that Mr. W. A. Shenstone, F.R.S., senior science master in Clifton College since 1880, died on Monday, February 3, at fifty-eight years of age.

A REUTER message from Brussels announces the death of M. A. Lancaster, director of the meteorological department of the Royal Observatory of Belgium at Uccle.

PROF. W. RIDGEWAY, professor of archaeology in the University of Cambridge, has been elected president of the Royal Anthropological Institute.

THE French Physical Society has undertaken the publication of a collection of physical constants. The general secretary, M. H. Abraham, has issued an appeal to members of the society to assist in the collaboration.

THE King, who is patron of the Society of Arts, has granted permission to the society to prefix to its title the term "Royal," and the society will consequently in future be known as the "Royal Society of Arts."

ON Tuesday next, February 11, Prof. Stirling will begin a course of six lectures at the Royal Institution on "Membranes: their Structure, Uses, and Products." The Friday evening discourse on February 14 will be delivered by Dr. C. W. Saleeby on "Biology and History," and on February 21 by Sir Oliver Lodge on "The Ether of Space."

SIR PHILIP WATTS, K.C.B., F.R.S., Director of Naval Construction, has been elected a member of the Athenæum Club under the rule which empowers the annual election by the committee of three persons "of distinguished eminence in science, literature, the arts, or for public services."

THE annual general meeting of the Iron and Steel Institute will be held on Thursday and Friday, May 14 and 15. The annual dinner will be held—under the presidency of Sir Hugh Bell, Bart.—in the Grand Hall of the Hotel Cecil on Thursday, May 14. The autumn meeting will be held in Middlesbrough on September 29 and following days.