

try under the late Dr. Robert Hare. He was graduated from the university as doctor of medicine, but never practised regularly. In 1838 he was appointed assistant geologist of the first geologic survey of Pennsylvania. In 1845 he was elected professor of natural philosophy and chemistry in the Central High School of Philadelphia and retained this position for fourteen years.

In 1839 he was associated with Robert and James Rodgers, in analyzing limestone, coal, iron ore, etc. While engaged in these analyses he discovered a new compound of platinum chloride with nitric oxide. Because of this discovery he was elected to the American Philosophical Society, and in 1840 helped to organize the American Association of Geologists. He was the only surviving founder of this association and of its successor, the American Association for the Advancement of Science, of which he was a fellow for sixty years. In 1848 he also discovered the first of the violent explosives, perchloric ether, which he proved was ten times as powerful as gunpowder. He also found a safeguard against its unexpected explosion by dilution with alcohol. He was thus an important pioneer in the field of smokeless powder.

Dr. Boyè was the author of many papers on scientific subjects. In 1845 he invented a process of refining oil from cotton. Heretofore the product refined was almost black and very thick. His method produced a bland and colorless oil adapted for cooking or for salad dressing. At the age of eighty-one Dr. Boyè made an extended trip to Alaska, and at the age of eighty-five visited Honolulu and witnessed the transfer of the Hawaiian Island to the United States.

In his will Dr. Boyè devised the sum of \$12,000 to the University of Pennsylvania Hospital.

THE DARWIN CENTENARY

THE council of the senate of Cambridge University reports that the committee appointed by the council has informed the council that in July of last year letters signed by the chancellor were sent to more than 300 universities, colleges, academies and other cor-

porate bodies inviting them to appoint delegates to attend the Darwin celebration from June 22 to June 24, 1909. In answer to these invitations more than 200 delegates have been appointed. Since the beginning of the year individual letters of invitation have also been sent by the vice-chancellor to certain distinguished men of science, benefactors of the university and others.

A letter containing an invitation to a banquet on June 23 has been sent to about 150 resident members of the university, including heads of colleges, officers, professors and readers, members of council, university lecturers, demonstrators and other teachers connected with biological departments, fellows of Christ's College, contributors to the volume of essays, "Darwin and Modern Science," to be published by the University Press, and a few others selected on account of their official position or because of their connection with biological science. It is proposed to hold the banquet in the new Examination Hall, and it is estimated that between four and five hundred of those who have been invited will be present.

It is proposed that a letter of invitation to the reception by the chancellor in the Fitzwilliam Museum, on June 22, should be sent by the vice-chancellor to every member of the electoral roll.

A copy of the provisional program has been sent to all delegates. The committee has furnished the council with an approximate estimate of the expense likely to be incurred in carrying out the program. This amounts to considerably more than £500, but it is hoped that it may be possible to provide the excess above that sum by private subscriptions, and the council does not therefore ask the senate to authorize the expenditure of more than £500 from the university chest.

SCIENTIFIC NOTES AND NEWS

THE many friends of Major J. W. Powell, both in this country and abroad, will be glad to learn that congress appropriated \$5,000 for the erection of a memorial to him, on the brink of the Grand Canyon of the Colorado which he explored.