money for himself and other people. After all, while the effect of science on the world is almost incalculable, that effect can only be gained in the future, as it has only been gained in the past, by men of science pursuing knowledge for the sake of knowledge and for the sake of knowledge alone; and if I thought that by anything that had dropped from me to-night I had given ground for the idea that I looked on science from what is commonly called a strictly utilitarian point, that I measured its triumphs by the number of successful companies which it had succeeded in starting, or by the amount of dividends which it gave to capitalists, or even by the amount of additional comfort which it gave to the masses of population, I should greatly understate my thought; but I know that this great Society, while it has in view these useful objects, still puts first of all the pursuit of truth as its object and as the cause to which every man of science pays his devotion. Truth, not profit, must necessarily be the motto of every body of scientific men who desire to be remembered by posterity for their discoveries. These things can be done only from a disinterested motive, and it is because I believe that societies like the great Society I am addressing do more than any other organisation to attain that great object, because I think they bring together men engaged in congenial pursuits, because the stimulus of minds brought close to other minds with honourable motives, and the honourable rivalry of men engaged in the same great task, must lead to an enormous expansion of our knowledge of the secrets of nature, that I, as an outsider, not belonging to your body, but in the name of the public for which I venture to speak, wish you all success and all prosperity.

The President briefly responded to the toast.

Mr. Vernon Harcourt proposed "Learned Societies," coupled with the name of Lord Rayleigh, who briefly responded.

Sir Henry Roscoe proposed "The Visitors," and Sir Owen Roberts and Prof. Rücker responded.

Dr. W. J. Russell proposed "The President," who concluded with the toast of "The Secretaries," coupled with the name of Prof. Thomson.

SIR HENRY CRESWICKE RAWLINSON, BART.

HENRY CRESWICKE RAWLINSON was descended from the family of Rawlinsons who, in the last century, settled down at Chadlington, in the county of Oxford; he was born April 11, 1810, and in 1862 he married Louisa Caroline Harcourt, daughter of Henry Seymour, of Knoyle, Wilts, and he died on March 5 last. At the early age of seventeen he went out as cadet to India, and in a very short time made himself an excellent Persian scholar; in 1833 he was sent to Persia, his fine command of the language of that country, no doubt, influencing his selection by "John Company." For six years he served diligently, and filled many military posts in the great cities of Persia, and he succeeded in infusing something nearly akin to order in the forces of the "King of Kings." In 1839 the relations between England and Persia became "strained," and Rawlinson left the country for Afghanistan; in 1840 he was appointed Political Agent of the Indian Government in Kandahar, a post which he held until 1842. During these years he wielded the sword as often as the pen, and his courage and personal bravery in the field made him a terrible opponent of the wily Afghan. In 1844 he was sent to Bagdad as H.B.M.'s Consul for Turkish Arabia, and in 1851 he was made Consul-General, the importance of Bagdad being, thanks to Rawlinson's labours, fully recognised. In 1855 he was made Crown Director of the East India Company, and in 1856 he was promoted to the dignity of K.C.B.; two years later he was elected Member of the India Council, and in 1859 he was sent to Teheran as Minister Plenipotentiary. He represented in Parliament for a short time (1865–1868) the borough of Frome, but a Member's life offered no attractions to him.

The above brief statement of facts will indicate sufficiently the abilities of Rawlinson, who was a man equally able as a statesman, diplomat, and soldier; but there is yet another side of him of which nothing has been said, and it is that of the scholar. Before Rawlinson had been five years in India, he had read the greater part of the literature of Persia, and he was even at that time (1832) a skilled and fluent talker in Persian; long passages from the finest poets he had learned by heart, and his conversations were so full of extracts from them, that a native once described his talk as "a garden of pearls in metre." From modern Persian to the ancient language is, relatively, but a step, and when Rawlinson found himself in Persia in 1833, he turned his mind to the study of the remains of the kings who had cut their records in the rocks in the cuneiform characters. So far back as 1835, he copied the tablets at Hamadān, and without the help of books, or even any knowledge of the alphabet worked out by Grotefend in 1802, by making the same guesses as Grotefend, he identified correctly the names of Hystaspes, Darius, and Xerxes. In 1836 he collated the first paragraphs of the great Behistun inscription with the tablets at Elwend, and identified the old Persian forms of the names Arsames, Ariaramnes, Teispes, Achaemenes, and Persia; by this time he had made an alphabet of eighteen characters. Early in 1837 he had copied all the other paragraphs of the Behistun inscription, and in the winter of that year he sent to the Royal Asiatic Society his translation of the two first paragraphs which recorded the genealogy and titles of Darius Hystaspes. Without any desire to belittle the work of other investigators, we must say that these would have been inexplicable if the systems of transliteration followed by Grotefend and Saint Martin had been employed, and whatever else may be theirs, Rawlinson's discovery at this period of the phonetic values *kh*, *b*, *m* and *n* is beyond all doubt. About this time he decided that the translation of the Persian cuneiform texts could only be effected by a knowledge of Zend, and he set to work to master the contents of the work of Anquetil du Perron and M. Burnouf's commentary on the Yacna, which was, however, not in his hands until 1838; he obtained some assistance, too, from a priest of Yezd, who translated for him some Zend MSS. In 1838 Rawlinson discovered the phonetic values of *h*, *w*, *i*, *v*, *th* and *jh*, and in 1839 he had practically settled the alphabet, which in all essential points agreed with that of Lassen, published in his *Alt-persischen Keilinschriften*. Here must be noted the fact that Rawlinson never contested the priority of alphabetical discovery with Lassen, even though there is abundant proof that all he owed to Lassen was a single phonetic value; but what he did claim, and claim rightly, was the credit of having translated literally and grammatically two hundred lines of cuneiform writing which contained historical statements of the greatest value, *for the first time*, as early as 1839. In this year, while he was putting the final touches to his work, political necessity caused him to be sent from Persia to Afghanistan, and his studies were so much interrupted during the next five years, that he was unable to publish the result of his labours until 1847.[1]

Meanwhile the mound of Kouyunjik, which marks the site of the palaces of ancient Nineveh, was being explored by Mr. Layard, and the mound of Khorsabad, some few miles off, had begun to yield splendid results to its talented excavator, M. Botta. That Kouyunjik formed part of old Nineveh was always well known, and so far back as 1820 Mr. Rich picked up three fragments of clay tablets inscribed in cuneiform writing. As soon as Rawlinson could obtain copies of the inscriptions dug out by Mr. Layard, he devoted himself to the study of them, and the practical outcome of these labours were his publications:—"A Commentary on the Cuneiform Inscriptions of Babylonia and Assyria; including readings of the inscription on the Nimrud Obelisk, and

[1] In the tenth volume of the *Journal of the Royal Asiatic Society*. (London, 1847.)

a brief notice of the ancient kings of Nineveh and Babylon," London, 1850; and "Outline of the History of Assyria," London, 1852; and "Notes on the Early History of Babylonia," 1854. He had also in 1850 and 1851 revised the "Inscriptions in the Cuneiform Character from Assyrian Monuments," which Mr. Layard published in 1851. Curiously enough, though Rawlinson's translation of the Behistun inscription was accepted generally, there were many, and Sir G. C. Lewis was among them, who stated unhesitatingly that the cuneiform inscriptions had not yet been accurately deciphered, and we owe it to Mr. Fox Talbot that this view was proved to be erroneous. Rawlinson had undertaken to publish a series of cuneiform texts with English translations of the same for the Trustees of the British Museum, and Talbot, having obtained a set of the plates of the text of the great Tiglath Pileser inscription, began to work at an independent translation which, when finished, he sent in a sealed packet to the Council of the Royal Asiatic Society, pointing out that if his own translation and that of Rawlinson, when it appeared, should agree, a strong proof of the accuracy of Rawlinson's system would be established. The Council appointed a Committee consisting of Dean Milman, Whewell, Gardner Wilkinson, Grote, Cureton, and Prof. Wilson as examiners, and they asked Rawlinson, Oppert and Hincks to send in versions of the same inscription by a certain date. Talbot's arrived first, Rawlinson's next, Hincks's next, and Oppert's next; the last two scholars could not, however, translate all the inscription for want of time. The four independent translations[1] were carefully examined, and it was found that they agreed as to general sense in a marvellous manner, and the Committee rightly judged that the decipherment of the cuneiform inscriptions was a *fait accompli;* Rawlinson, however, translated the whole text, while his three competitors left passages here and there unrendered.

In the matter of publication, Rawlinson's greatest work was undoubtedly the "Cuneiform Inscriptions of Western Asia" in five vols. folio, which he prepared for the Trustees of the British Museum; here he supplied material for generations of workers, and gave the proofs of his knowledge and ability in cuneiform matters, which have justly earned for him the title of "Father of Assyriology." Between the years 1858 and 1875 he largely assisted his brother Prof. Rawlinson in his works on Oriental history, and a large share of whatever credit attaches to them is due to him. His last published translation was that of the cylinder of Cyrus, which recorded his conquest of Babylon; it appeared in the *Journal of the Royal Asiatic Society*, new series, vol. xii. (1880) p. 70. As was to be expected, honours were showered upon Rawlinson from all parts of the civilised world. He was elected to a Trusteeship of the British Museum—a much coveted honour—in 1876; Oxford, Cambridge, and Edinburgh gave him honorary degrees; Prussia awarded him the "Ordre pour le Mérite"; and the Academies of other countries elected him to Memberships. In summing up his labours, it is hard to say whether he did most for cuneiform scholarship, or to advance the interests and empire of Her Britannic Majesty in the East. Small-minded men, wishing to lessen Rawlinson's merits, have harped upon the fact that Lassen made his alphabet before Rawlinson; but this he freely admitted, only saying in reply that he never saw it until 1839. That Rawlinson was the first European who translated cuneiform inscriptions, is beyond all doubt, and from first to last, *i.e.* from 1835 to 1895, he exercised a wise and beneficent influence over cuneiform studies which cannot be overrated. His position in Persia gave him unrivalled opportunities, which he used to the best of his ability, and as Consul of Bagdad from 1844 to 1855, his strong but silent power was freely exerted on behalf of Mr. Layard while carrying on his work at Kouyunjik; beyond all doubt is it the fact that he has done more for cuneiform research and excavation than any other man living or dead. It must never be forgotten, too, that he was the only early excavator who had fully qualified himself to understand his work, and of them all he was the only one who could read cuneiform. He was a fine example of the English soldier, now only too rare, for to the bravery of the warrior he added the courtesy of the diplomat, and a wide knowledge of Oriental countries, languages, and history; his modesty was as great as his learning was deep. His ready wit and honest straightforwardness made him a favourite at every Oriental Court, and helped greatly to bring his plans to a successful issue; and his fearless bearing and manly love of warlike exercises attracted to him the admiration of the Indian and Persian soldiers who came in contact with him. His tolerance led men, both in the East and in the West, to confide in him, while his natural good-heartedness often made them like him as much as they trusted him. Other Englishmen have left behind them in the East fame for a certain exploit, or renown as great horsemen, &c., but no man was more feared and liked throughout the East than Henry Creswicke Rawlinson. He was a thorough Englishman, and with him English interests were paramount everywhere; he never forgot, too, in spite of his gracious bearing to all, that he was a trusted servant of the "Right Honourable John Company Sahib Bahadur." Wherever he went he impressed his personality in a marvellous degree, and an idea of the reputation which he left behind him in Bagdad may be gained from the remark which an old native of that city made to a British merchant some years ago. "Sahib, in the days of Rawlinson Sahib, may God lengthen his life, if you had put an English hat on the head of a dog and sent him through the bazaar, the Turks would have made way for him and bowed to him on the right and left as he passed, and now they spit on us as they pass us."

[1] See Rawlinson, "Inscription of Tiglath-Pileser I., King o Assyria, about 1150 B.C." (London, 1857.)

NOTES.

WE are glad to learn that Prof. Huxley is now rapidly recovering from his recent attack of influenza.

REFERENCE was made last week to the activity and great development of the Brooklyn Institute of Arts and Sciences. Among the most successful of its recent enterprises must be counted the establishment of a summer school of biology by the sea. The first session was held in July and August 1890, at Cold Spring Harbour, on the north shore of Long Island, in a building lent by the New York Fish Commissioners. The school annually increased in size and importance, and a specially designed laboratory, capable of accommodating fifty students, was last year opened for work in the same locality. The laboratory is well arranged for the purposes of lectures and practical instruction, and possesses private laboratories for investigators, a library, aquaria with running water, both salt and fresh, boats, microscopes—indeed everything needed to make profitable a summer at the sea-shore. It is impossible to over-estimate the advantages which marine laboratories afford for the purpose of biological instruction; and America may be congratulated upon the successful inauguration of an institution specially adapted to subserve this important end.

WE drew attention a short time ago (NATURE, vol. xlix. p. 597) to the fact that the late Sir W. Macleay had willed to his executors the sum of £12,000, for the foundation of a chair of Bacteriology in the Sydney University. The terms of the