

THE HUXLEY LABORATORY FOR  
BIOLOGICAL RESEARCH,  
AND THE MARSHALL SCHOLARSHIP.

SCIENTIFIC friends and former pupils of Prof. Huxley will alike be gratified to learn that an appropriate method has been devised for establishing a permanent memorial of his great services to the institution with which his name has been so long identified. The late Sir Warrington Smyth, whose loss we had to deplore rather more than a year ago, was the last surviving member of the original staff of the School of Mines, as founded by Sir Henry de la Beche in 1851. Prof. Huxley, who, as long ago as 1854, succeeded Edward Forbes in the Chair of Natural History, continues to hold the post of Honorary Dean of the Royal College of Science, with which the School of Mines is now incorporated; and although, since 1885, compelled by ill-health to discontinue the work of lecturing, he is still, we are happy to say, able to take a kindly interest in, and to exercise a general supervision over, the biological studies carried on in the school.

How much the Central Institution for training teachers in science, which is now located at South Kensington, owes to the organizing faculty and unremitting labours of Prof. Huxley, only those who have been associated with him in the work can form any just estimate. During the first twenty years of its existence all attempts at practical teaching in the School of Mines were restricted to the subjects of chemistry and metallurgy, the space available in the Jermyn Street buildings only permitting of the existence of very small and inconvenient laboratories in connection with those two branches of science.

Soon after the first establishment of the school, larger and more convenient premises for carrying on the chemical instruction had to be obtained in Oxford Street; and in 1872, on the unanimous recommendation of the Council, the teaching of chemistry, physics, and biology, was transferred to the building at South Kensington, which had been originally designed as a School of Naval Architecture. At subsequent dates, as the inadequacy of the Jermyn Street buildings to accommodate both the school and the Geological Survey made itself more strongly felt, the divisions of geology, mineralogy, metallurgy, applied mechanics, and mining, were successively removed to the same place.

No sooner did Prof. Huxley find an opportunity afforded to him, than he energetically devoted himself to the realization of a long-cherished scheme for establishing a system of practical laboratory-instruction in biology, including both its zoological and its botanical aspects. The ground was broken by a short vacation course, in which an attempt was made to supply such practical instruction to persons engaged in teaching; this course was given in the summer of 1871, and in the following year the same system of laboratory-instruction in biology was introduced into the ordinary School of Mines curriculum. In establishing at South Kensington the biological laboratory which has become the model of so many similar institutions at home and abroad, Prof. Huxley sought and obtained the advice and co-operation of many of his fellow-workers in science, among whom may be specially mentioned Profs. Michael Foster, Thiselton Dyer, Ray Lankester, and Rutherford, with Dr. Martin and Dr. Vines. In carrying on and further developing the work, he has had the assistance of Profs. Jeffrey Parker and F. O. Bower, in the zoological and botanical departments respectively, and, in succession to them, of Mr. G. B. Howes and Dr. D. H. Scott.

From the period of the first foundation of the School of Mines, the importance had been kept in mind of combining original research with the work of teaching. No one at the present day needs to be reminded of the numerous important investigations which have been

prosecuted by Prof. Huxley, both at Jermyn Street and South Kensington. Memoirs of the highest value on various branches of comparative anatomy and palæontology have been interspersed with notable contributions to geology, to anthropology, and to botany; and from time to time excursions have been made still farther afield (predatory excursions they were regarded by some), into realms of thought more remote from the ordinary domain of the zoologist. But in all these varied avocations the interests of the teaching work were never forgotten; and it was made evident that the teacher, while carrying on investigations himself, was ever ready to suggest, stimulate, and supervise the investigations of others.

When, in 1885, ill-health compelled Prof. Huxley to relinquish his daily occupations in the school, it was found that, during the more than thirty years' occupancy of his post, he had accumulated a most valuable library of research, composed of treatises and journals dealing with every branch of biological science. This library he generously determined to present to the institution, the interests of which he had so long and earnestly laboured to promote. The Council of the School, in accepting this valuable gift, recommended that the room where these books were kept, and in which Prof. Huxley had so long carried on his work, should be entirely set apart for biological research; and the proposal at once met with the sanction of the Lords of the Committee of Council on Education.

The Huxley Laboratory for Biological Research is now arranged to accommodate two students, who will undertake investigations in connection with some branch of zoology, botany, or palæontology, the work being carried on under the supervision of the professors and assistant professors of the school. With a valuable library and all necessary appliances for work supplied to them, it may be hoped that the *genius loci* will not be without its influence upon these research students, and that a long series of important observations may be made, which will constitute an enduring and a worthy memorial of Prof. Huxley's connexion with the school.

It happens, very opportunely, that something in the way of a small endowment has already been provided to aid this scheme of biological research. As long ago as 1882, Miss Sarah Marshall, of Warwick Gardens, Kensington, wrote to Prof. Huxley, informing him of her intention to bequeath the sum of £1000, and her scientific books and instruments, to the Department of Science and Art, with a view to the establishment of a prize or scholarship in biology, in memory of her father, the late Mr. Marshall of the Bank of England. By the recent death of Miss Marshall, this bequest has now passed into the hands of the Lords of the Committee of Council on Education, and, by the advice of the Council of the Royal College of Science, it has been decided that the interest of the legacy shall be annually paid as a scholarship to a meritorious student, to aid him in carrying on some biological investigation in the Huxley Laboratory. We can only hope that this modest attempt at the endowment of research may be attended with success; and that this success may be so conspicuous as to encourage others to imitate the example of Miss Marshall, so that bequests of a similar character may be made in connexion with this and other institutions where scientific researches can be carried on.

ON VAN DER WAALS'S TREATMENT OF  
LAPLACE'S PRESSURE IN THE VIRIAL  
EQUATION: IN ANSWER TO LORD RAY-  
LEIGH.

MY DEAR LORD RAYLEIGH,—From the heading of your first letter, and from the wide scope of the passage you quoted from my paper, I imagined that you intended to raise the whole question of Van der Waals's