

honours in biology, has been in no better position as regards his medical curriculum than he would have been had he taken an ordinary pass degree. For the statute now in force, which we hope in a week or two will be replaced by a better, does not permit him to present himself for his medical examination in anatomy and physiology until two years after his degree. In future it will be possible for him to do this at the same time with his examination in the Honour School in the same subjects; the practical effect of the change being that two years will be saved, and that he will be enabled and encouraged as an *undergraduate* to study human anatomy and physiology in their relation to medicine.

In Oxford, as is well known, every man who intends to take a degree in Arts, which is a necessary precursor to that in Medicine, must have passed the examination in classics and mathematics, which is known as "Moderations," and inasmuch as he is not permitted to present himself for this examination until the fourth term after matriculation, it is obvious that he is practically precluded (supposing him to have Medicine in view) from beginning his scientific education until after this period. Consequently, of the four years which intervene between matriculation and his final examination in the Natural Science School, only three at most are at his disposal for the study of physics, chemistry, anatomy, and physiology.¹ Of these three years one at the very least is occupied in acquiring a sufficient knowledge of the four subjects to pass the very thorough and practical "Preliminary Examination." In the scanty remainder of time which is thus left to him he has to get through the most important part of his Oxford work. He has to acquire such proficiency in physiology as will enable him to obtain a class in the Natural Science School, in addition to a very detailed knowledge of human anatomy and a limited acquaintance with organic chemistry. Under present conditions this can only be accomplished by men of exceptional power of work. The rest find it to their advantage to defer their anatomy and chemistry for another year, and consequently are not in a position to enter on their hospital studies until five years after matriculation. As this is more time than men of moderate means can spare, our system cannot be considered satisfactory until the medical student is enabled to devote the four years of University residence entirely to scientific education. The occupation of the first year in studies which, however excellent in themselves, do not fit him for the hard work before him is a grievance of which he may justly claim to be relieved. As, however, the exemption of natural science students from Moderations has already in principle been accepted by Congregation, there can be little doubt that, in the course of a year or two, the desired change will be carried into effect.

The great success of the School of Medicine at Cambridge, although no doubt chiefly due to the ability and energy of the men who are at the head of it, affords evidence that the conditions under which medical education is there conducted, are in themselves well adapted to the requirements of students. It is therefore of interest to compare our own proposed arrangements with those of Cambridge. Assuming that, with the aid of the new Faculty of Medicine, we succeed in giving effect to the views above indicated, there will still be fundamental differences between the two schools.

The first of these is that whereas here every aspirant to the degree in Medicine must have first graduated in Arts, the Cambridge student becomes from the moment that he has passed the "Previous Examination" free to devote himself exclusively to medicine. This of course means that, whereas in Oxford at least four years must intervene between Matriculation and the first examination in medicine, in Cambridge the corresponding point is reached in

three years, or even in two,—a loss of time which is chiefly due to the circumstance already referred to, that the year which intervenes between Responsions and the First Public Examination, is by the Cambridge medical student devoted to physics, chemistry, and biology. It is not, however, in this way only that our Oxford system tends to lengthen the course of medical study. Our "Preliminaries," which are adapted to the requirements of an Honour School, are at Cambridge represented by a pass examination in the same subjects, specially intended for medical students, and therefore presumably easier. But it is a point of much more importance that our medical candidate is required, before he presents himself for any medical examination, to have obtained a class in one of the branches of biology. On general grounds there seems reason for thinking that this is disadvantageous, for it does a man harm to compel him to pass an honour examination for, if one may so express one's self, pass purposes. Of the two subjects open to him, the medical student naturally chooses physiology, not only because it is more closely related to medicine, but because he may hope, by obtaining a first or second class, to exempt himself from further examination. In that subject the schedules are framed for the purpose of affording first or second class candidates the opportunity of showing their knowledge. Consequently, in attempting to prepare for it, the medical student who studies physiology specially for the sake of its applications to medicine, acquires a knowledge of wider range than he requires, but of imperfect quality. The evil is a serious one, but happily not difficult to remedy—either by establishing a pass examination in physiology, or, more simply, by marking off in the schedules those subjects which are of less importance to the medical student than the rest.

Enough has been said to show that, however insignificant the position of medicine in Oxford may seem to be at present, it is not likely to remain so. One of the difficulties in the way of medical study here—the non-recognition by the licensing bodies of Oxford teaching—was removed a year ago. The other is the occupation of time, of which the student requires every moment for his preliminary training in physics, chemistry, and elementary biology, with studies which, excellent in themselves, are not conducive to his purpose. From the moment that we are relieved from this drawback, we shall have everything in our favour, and success or failure will depend on our own exertion. In the meantime, it is not too soon to proceed with the organisation of our system of studies, so that, when the opportunity is offered for efficient action, we may be prepared to take advantage of it.

J. B. S.

CHARLES WILLIAM PEACH

AT the ripe age of eighty-six this genial and enthusiastic naturalist has at last passed away. Never was there a more notable example of the irrepressible instinct of a true lover of nature. Born in Northamptonshire, he eventually joined the Coast-Guard service, and was stationed at various parts of the coast where smuggling went on apace and where his shrewdness and tact were often more than a match for the daring spirits who defied the revenue laws. But in the intervals of his duties he found time for close observation of the living things he met with along the shores and of the plants, insects, birds, and fishes he saw inland. Working in the pre-Darwinian days, when the adding of new species to the known list was one of the chief aims of natural history students, his zeal was early enlisted on behalf of the species-makers. Some twenty species and several genera of sponges were first made known by him as inhabitants of our seas. He considerably augmented our list of native hydrozoa and polyzoa. Among the naked-eyed medusæ, echinoderms, mollusks, and fishes he also materially increased our know-

¹ For more detailed information as to the course of study in Oxford see an article by the writer in the *Oxford Magazine* for January 27, 1886.

ledge. One of his distinguishing characteristics was his readiness to tell everything he knew to any naturalist engaged in the investigation of the departments of zoology in which he himself had worked. He was a keen observer rather than a trained naturalist. He published little himself, but he contributed rich materials to those who knew how to make the best use of them. He was consequently a valued correspondent of many of the leading naturalists of his day, who gladly acknowledged their indebtedness to his generous aid. Nor were his observations confined to the living things of the existing creation; he searched the rocks around him for traces of former plants or animals, and found them in places where no one had ever seen or suspected them before. His keen eye detected the first relics of fossil fishes in the Devonian rocks of Devonshire, and when, after his transference to the north of Scotland in 1849, he had an opportunity of looking at the limestones of Durness, he soon brought to light a series of fossils which, in the hands of Murchison and Salter, proved of the utmost value in fixing the geological age of the rocks of the North-West Highlands. After his retirement from the public service he went to reside in Edinburgh, and devoted himself with all his old enthusiasm to the exploration of the fossil flora of the Carboniferous rocks of that neighbourhood. Nothing seemed ever to escape his notice, and hence even from the quarries and sections where many a practised eye had preceded his own he was able to glean materials which no one but himself had noticed. In recognition of his important services to the cause of natural history, the Royal Society of Edinburgh in 1875 awarded to him the Neill Gold Medal. His health has for some time past been failing, and he has now gone to his rest with the affectionate regrets of all to whom the progress of natural science in this country is dear. His son, Mr. B. N. Peach, of the Geological Survey, with all his father's enthusiasm and more than his father's range of acquirement, will, we hope, for many a long year, preserve among the naturalists of this country a family name that is familiar as a household word.

PROFESSOR EDWARD MORREN

CHARLES JAMES EDWARD MORREN, whose death on the 28th ult. we announced in our last issue, was the son of Charles Morren, a Professor in the University of Ghent, and was born in that city in 1833. Shortly afterwards the father removed to Liège as Professor of Botany. The son, Edward, as he was usually called, was educated for the law, but evincing a strong tendency towards the natural sciences and chemistry, took his degree in the Science Faculty with much distinction. Owing to the ill-health of the father, Edward Morren was early called on to undertake the professorial duties, but the continuation of his licence to teach was made conditional on his undergoing a "special" examination for the Doctorate. This was the occasion of the publication of his dissertation on green and coloured leaves, by which he first became known to the botanists of Europe. After the death of Charles Morren, in 1858, the son was appointed in the father's stead, and from that day to this, the aim of the son seemed to be to walk in the steps of his father, and to complete and extend his work. Both devoted themselves not only to botany but to chemistry, and in particular to horticulture and agronomy. Both were imbued, as so many of the Belgian savants are, with an ardent patriotism which led them to devote their science to the practical good of the nation, and to hold up to honour and respect the work of their celebrated predecessors. Hence, from father or son, or both, we have memoirs of Dodoens, of de l'Obel, of de l'Escluse, of Fuchs, and other worthies of Flemish nationality.

Both were impressed with the necessity of extending

and adapting to the necessities of the times the system and the means of botanical education. The Botanical Institute of Liège, which Edward Morren lived to found and to see completed, was but the modified outcome and extension of the plans and schemes originally proposed by the father. The result is that Liège is now equipped with a compact and well-ordered laboratory for botanical tuition and research, such as some of our own Universities might envy. In order to perfect this institution Morren availed himself of his frequent travels to study the method of instruction followed in the Universities of Germany, and the organisation of the scientific establishments of Holland, Paris, London, and other centres. With his professorial work, his ceaseless duties in connection with official horticulture and the publication of the *Belgique Horticole*, Edward Morren necessarily found little time for the preparation of any separate work, but his memoirs and academic dissertations are numerous. The most important of them, as may be gleaned from what has been said, referred to questions of chemistry and vegetable physiology. A paper published in this country in the Report of the London Botanical Congress, 1866, comprises a most elaborate investigation into the action of sulphurous acid and other vapours on plants.

His academical discourses and popular lectures were remarkable both for their method and their matter. With the fluency and elegance of style of a practised orator, Morren combined the fulness of knowledge and accuracy of exposition of a man of science. Botanists, however, were looking forward with expectancy to a monograph of the Bromeliaceæ from his pen. It was known that the Professor had been accumulating for many years material for this purpose. His collection of living examples is, we believe, the largest and best selected in existence, and the materials in his herbarium and very extensive library (the most complete of its kind in Belgium) are in their way equally remarkable. Beyond detached fragments, however, Morren published little on this curious family.

Death has overtaken him, as it did his father, when little or not at all beyond the prime of life, and it has caused a void which only those who knew the warm-hearted, genial, liberal-minded Professor can fully appreciate.

THE WEATHER

OVER the greater part of the British Islands last month was one of the coldest Februaries on record, the mean temperature at Greenwich being only 33°·8, or 6°·8 below the average of the month. Throughout Great Britain generally, from the Grampians to the Channel, temperature was from about 5°·0 to 7°·0 below the means of the stations. But in the northern and western divisions of these islands temperature was only from about 2°·0 to 3°·5 below the monthly averages. This difference was mainly occasioned by the distribution of temperature during the second week of the month, owing to the higher temperature in the north and west accompanying the storms which prevailed in the far north during the time. Thus during the week ending February 13, the mean temperature of Parsonstown was 43°·5, whilst at Oxford it was so low as 33°·8, or nearly 10° lower.

From the middle of February, however, to the memorable snowstorm in the beginning of March, the weather-maps of Europe presented several remarkably persistent noteworthy features. The commencement of the period was marked at the Ben Nevis Observatory by forty-eight hours of singularly dry clear weather, such as occurs in connection with anticyclones and the settled weather attendant on them. Eastern and Northern Europe was now even more pronouncedly than it had been in the earlier part of the month the theatre of a widely extended anticyclone, which slowly shifted its position from day to day, and sent out from its central regions winds in all