THE BRITISH ASSOCIATION.

BRIGHTON, Aug. 18.

The last of the addresses introductory to the general work of the Sections was delivered on Friday by Dr. Burdon-Sanderson, the President of the Department of Anatomy and Physiology.

He said that it had in the first place been his intention to give a retrospective account of the progress of physiology during the past year, but that he had abandoned this intention on the ground that, although the work done had not been inconsiderable, we in England had had but little share in doing it. It was unnecessary for him merely to chronicle the achievements of German physiologists, who were now holding their own scientific congress at Leipsic. He found it more agreeable and encouraging to look forward than to look back, because, although English physiologists had been comparatively inactive during the great progress of the last two decades, they did not intend to continue so. He felt, therefore, that he might properly occupy the time of the department by considering in what direction efforts should be made to secure a more fruitful future. He would in the first place assert the general principle that one reason why physiological research is less successfully pursued in England than we could wish lies in the general want of scientific education, and he would illustrate this want under three principal heads,—first, with regard to that higher training which is required for practical workers or investigators; secondly, to what may be called the education of public opinion by the popularizing agency of books and lectures; and lastly, to the introduction of natural science as an element of education in our great schools and universities. At present if a man wished to be a physiologist he must study medicine, although the relation between the science and the art was not at present sufficiently intimate to afford any logical reason for such a connexion, which had its origin in a time when the medical schools gave the only opportunities for the acquirement of physiological knowledge. Physiology, which 20 or 30 years ago might be called the handmaid of medicine, has become a science independent of the art which first brought her into existence—learning little or nothing from it, based entirely on experiment, and claiming much closer relationship with the other experimental sciences. Twenty years ago a lecture-room and a gallery for showing preparations under the microscope was all that was thought necessary even in the largest and best appointed of our schools of medicine, but then how different was that time from the present. Ludwig had lately written his earliest papers on arterial pressure, and had thus, by the introduction of new methods, inaugurated a new era in the physiology of the mechanical functions. Du Bois Reymond had scarcely begun that series of researches, by which he, like Ludwig, might be said rather to have founded a new science than to have extended the limits of an old one. In France, Brown Séquard had made his great discovery of the functions of the vasomoter system, and Bernard his of the glycogenic functions of the liver. All of these were results of which the intrinsic value, great as it was, has been surpassed by the influence they have since exercised on the progress of that science. How rapid that progress has been may be judged of by any one who chooses to read any of the text books of 20 years ago in the light of recent researches. In this great progress we should rather not have to admit that Germany has done so much of the work, while France, notwithstanding her great leaders, has done less than she ought to have done. "In taking her part in it," said Dr. Burdon-Sanderson, "England has been represented by us, her medical teachers, but we, confessing ourselves to be possessed neither of the men nor the means of prosecuting an experimental science, have its influence on his mind through life. The details might fade away from his recollection, but the scientific habitude of mind would be retained." In conclusion Dr. Burdon-Sanderson said that he had referred scarcely at all to a pressing difficulty which physiologists had to encounter—the want of pecuniary resources—because he knew that in this country, if educated public opinion could be interested in behalf of any scientific object, and particularly if the intelligent classes of the community could be induced to see that the furtherance of abstract science was of vital importance to the national existence, the trifling public expenditure which would be required to enable them to compete, at least on equal terms, with Germany, Austria, Bavaria, and Russia, would be at once forthcoming. In the meantime, it was the function and duty of all who, possessing means, were also interested in scientific progress, and especially of the members of this section of the British Association, to afford such aid as they could to those who, supported by their own enthusiasm, rather than by the prospect of honour or emolument, were willing to devote their lives to physiological and anatomical researches.

At the termination of the address, a vote of thanks was proposed by Professor Michael Foster, seconded by Mr. Pye Smith, and carried by acclamation.

In the department of Zoology and Botany of the same Section, Dr. P. L. Sclater, the secretary to the Zoological Society of London, read a paper on a new Asiatic rhinoceros. On the 14th of February the society received at the gardens in the Regent's-park a female two-horned rhinoceros, which had been taken near Chittagong by Captain Hood four years previously. The animal was at first believed by the writer and others to be an example of the *rhinoceros sumatrensis* of Cuvier, that being the only species of two-horned rhinoceros then recognized by naturalists. The acquisition of a female of the veritable Sumatran Rhinoceros from Malacca had enabled Dr. Sclater to decide that the one first named belonged to a different species, which he proposed to call *Rhinoceros lasiotis*, on account of its most obvious external peculiarity, the long hairs which fringe the ears. He considered that there were now six well-defined species of rhinoceros, of which four belonged to the Asiatic and two to the African group. In reply to Mr. George Jefferys and Major-General Strachey, Dr. Sclater said it was not impossible that the rhinoceros referred to might belong to the same group as the taperine rhinoceros. He thought it desirable that a search should be made in the caves on the banks of the Indus for the remains of extinct specimens. Dentition had been so completely worked out by Dr. Falkner that if any teeth were found he could determine to what species the animal had belonged.

In Section E (Geography), on Thursday, three papers were read, and were followed by discussion on railway communication with India. The first paper (the Direct Highway to India), was by Captain Fehx Jones), late of the Indian Navy. After glancing at the efforts which had been heretofore made to connect India and Europe, he said:—

The direct route to India had long been acknowledged to