

SIR ARCHDALL REID in his letter to NATURE of December 9, p. 769, tells us that medical students in their biology course learn "facts about . . . the vascular system of the sea-urchin, the digestive system of the leech, the bones in the cod's head, and so on."

Now at this university we have nearly finished the three months' course of zoology for medical students held under Prof. Graham Kerr, and not one of our medical students could answer a question on the subjects named by Sir Archdall Reid. It is a pity, as they are interesting subjects, but there is no room for them in a zoology course for medical students. There is none too much time for the students to learn what they really are taught, namely those parts of zoology which will be, or should be, directly useful to them either as anatomists or medical men.

The point which seems clear is that in the first part of his letter Sir Archdall Reid is asking us for information about "facts" which are not facts, as King Charles II. is said to have done with the Royal Society. What then is the value of his comments based upon these "facts"? J. S. DUNKERLY.

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I HAVE no desire to enter into a discussion with Sir Archdall Reid of the value of the "biology of their own" which medical men "are in a position to construct, and for all practical purposes have already constructed," but it is necessary to point out that his description of the "biology which medical students learn" is not correct. He describes the latter biology as consisting of facts about the classification of plants, the vascular system of the sea-urchin, the digestive system of the leech, the bones in the cod's head, and so on.

Whatever may have been the case when Sir Archdall Reid was a medical student at Edinburgh, not one of the animal types he mentions is now included in the syllabus of elementary practical zoology of the medical curriculum in that university, nor are they included, so far as I know, in the corresponding syllabus in any English university. It is surprising that a member of the medical profession, which is not yet emancipated entirely from the empiricism of earlier times, should write so contemptuously of the leech, once so closely associated with that profession. J. T. CUNNINGHAM.

East London College, Mile End Road, E.,
December 13.

Scientific and Industrial Pioneers.

THROUGHOUT the past year it has been my privilege to contribute week by week to these columns a Calendar of Industrial Pioneers. This now comes to an end. This Calendar and the Calendar of Scientific Pioneers, which appeared last year, contain some 930 names, and the lists are believed to be thoroughly representative of that great and ever-increasing army of workers by whom the secrets of Nature are unravelled and natural riches are made available for the benefit of mankind. In selecting the names to be included this year I was assisted by Dr. W. C. Unwin, Professors Eccles, H. C. H. Carpenter and Abell, Mr. F. S. Marvin, and others, and to them I am indebted for suggestions of which I have been glad to make use. EDGAR C. SMITH.

5 Cotehele Terrace, Devonport.

W. H. Hudson Memorial.

At a meeting of friends and admirers of W. H. Hudson, held at Messrs. Dent's on November 28, it was agreed that a fitting memorial in stone should be placed in or near one of the sanctuaries in the London

parks which should be dedicated to his memory, subject to the consent of H.M. Office of Works.

It was also decided that Prof. Rothenstein's portrait in oils of Hudson should be presented to the National Portrait Gallery subject to the permission of the trustees, and that all monies over and above those spent upon these works should be devoted to the preservation of wild bird life. An executive committee was appointed to carry these proposals into effect.

Hudson's works are imperishable, but we need a national memorial to the great Englishman whose Nature writings are inspired by that change of heart towards wild life which is replacing the old indifference and spirit of destruction. There were two sides to his genius, that of the man of letters and that of the naturalist. Both these elements are, we feel, properly represented in the suggestions outlined, and we earnestly appeal to the public to make it possible for them to be finely executed. Donations should be sent to the hon. treasurer, Mr. Hugh R. Dent, Aldine House, Bedford Street, W.C.2.

R. B. CUNNINGHAM GRAHAM.

[Human Blood Relationships and Sterility.

It is not, I think, generally known that the late Alphonse Milne-Edwards made curious and interesting investigations and suggestions with regard to these matters, but did not live to publish them. A record will be found in Sir Ray Lankester's "Secrets of Earth and Sea" (p. 141). Briefly, his view was that the serums of separated species are toxic to one another—as in the tables given by von Dungern and Hirschfeld and in this country by Back and Edwards, and thus prevent the fertilisation of the ovum of one species by the spermatozoon of another. "He proposed to inject one species by 'serums' extracted from the other, in such a way as seemed most likely to bring the chemical state of their reproductive elements into harmony, that is to say, into a condition in which they should not be actively antagonistic, but admit of fusion and union" (E. R. L.). I would suggest that the perplexing sterility of many normal, healthy young married couples is closely linked up with this question, and it may be that a great future is in store for the surgeon who would boldly adopt the suggestion of Milne-Edwards with the view of harmonising the serums of married persons whose relative sterility would appear to be capable of tabulation after the manner of the hæmolytic charts given by Back and Edwards and by the writer of the article in NATURE of December 2. CHRISTOPHER BLAYRE.

So far as I know, the blood groups dealt with in the article on "Human Blood Relationships" in NATURE of December 2 concern only the agglutination (and sometimes lysis) of red corpuscles and not any other of the obscure differences which determine incompatibility between species and subspecies. These no doubt include the qualities of tissues other than blood, and the project to alter them by transferring blood or serum from one species or individual to another seems very unlikely to succeed: the blood is only one tissue among many and its qualities certainly do not dominate those of the body as a whole. In the course of working out the inheritance of the agglutination groups a great deal of germane information has been obtained, but there is no indication that one combination of groups in parents is more likely to be sterile than another. The failure of many normal healthy young married couples to produce children is probably capable of a much simpler explanation.

THE WRITER OF THE ARTICLE.