

cause of the present condition of things, which is giving rise to so many comments that we can no longer neglect them is, we think, further evidenced by the arrangements that have been made for the Jubilee ceremonial in Westminster Abbey. The Lord Chamberlain and his staff, who are responsible for these arrangements, have, we are informed, invited only one Fellow of the Royal Society, as such, to be present in the Abbey; while with regard to literature we believe not even this single exception has been made. It may be an excellent thing for men of science like Prof. Huxley, Prof. Adams, and Dr. Joule, and such a man of literature as Mr. Robert Browning, that they should not be required to attend at such a ceremonial, but it is bad for the ceremonial. The same system has been applied to the Government officials themselves. Thus, the Department responsible for Science and Art has, we believe, received four tickets, while thirty-five have, according to Mr. Plunket's statement in the House on Tuesday, been distributed among the lower clerks in the House of Commons. Her Gracious Majesty suffers when a ceremonial is rendered not only ridiculous but contemptible by such maladministration. England is not represented, but only England's paid officials and nobodies.

While we regret that there should be these notes of discord in the present condition of affairs, there can be no question that Her Majesty may be perfectly assured that the most cultured of her subjects are among the most loyal to her personally, and that they join with their fellow-subjects in many lands in hoping that Her Majesty may be long spared to reign over the magnificent Empire on which the sun never sets, and the members of which Science in the future will link closer together than she has been able to do in the past.

IMPERIAL GEOLOGICAL UNION.

NO one interested in geological science could fail to be impressed with the evidence afforded by the Colonial and Indian Exhibition, in its display of natural products, in the conferences connected with it, and in the number of scientific men collected from all parts of the Empire, of the amount of geological work represented by Great Britain and its dependencies, and the commanding position of the Empire with reference to the geology of the world. The same fact was apparent in the importance attached to Colonial and Indian geology and geography at the meeting of the British Association at Birmingham. Influenced by these facts, I was induced to speak somewhat strongly in the address which I had the honour of delivering at Birmingham on the position of Britain and its colonies and the English-speaking world in general with reference to scientific progress. On my return to Canada, and more particularly after the (temporary, as I hope) failure of the project to hold a meeting of the British Association next year in Australia, it seemed desirable to give the matter some definite form; and after correspondence and consultation with friends, I was induced, in February last, to address a letter on the subject to Prof. Stokes, the President of the Royal Society. The reasons for this course were that both Prof. Huxley and his successor in the Presidential chair of the Royal Society had suggested an Imperial Scientific Union, and the subject was understood to be under the

consideration of the Council of the Society, which from its central and commanding position has a right to the initiative in any movement of this nature. In this letter geological science is alone directly referred to, as being that with which the writer is more immediately connected and that which in some respects has already the best organization; but without excluding other departments of science. Special reference is also made to Canada, as affording an apt illustration of the extent and value of the geological domain of the Empire. I need scarcely add that the present year, distinguished as it is by many movements in the direction of Imperial Union, in connexion with its being the fiftieth year of the reign of Her Gracious Majesty Queen Victoria, seems especially auspicious for such a project. The following are extracts from the letter referred to.

"It is, I think, evident from the report of the last meeting of the International Congress of Geologists, that great, if not insuperable, difficulties lie in the way of any general agreement as to geological classification, nomenclature, and mapping. These difficulties, however, depend so largely on difference of language and of habits of thought, that they would not affect a union for scientific purposes on the part of the geologists of the British Empire, and ultimately of all English-speaking countries. It therefore appears that such a more limited union might with advantage be undertaken in the first instance, and with the view not of obstructing but of aiding the wider movement.

"The British Empire also possesses exceptional facilities for taking the lead of other nations in so far as geology and physical geography are concerned. The British Islands, as is well known, are remarkable for the great variety of their formations and the excellence of their exposures, and much of the present classification and methods of representation in geology has originated in Great Britain, and has been adopted with slight variation in all English-speaking countries, and to a considerable extent in other countries as well. In Canada we have the larger half of North America, and much of this very satisfactorily explored. We have also the advantages of the best exposures of the older crystalline rocks, of a development of the Palæozoic series in the Eastern Provinces, more closely allied to that of Europe than to that of the interior American plateau, and of Pleistocene deposits so extensive and complete that they must ultimately decide many of those questions of glacial geology which have been so much agitated. In India, Australasia, and South Africa, with the western districts of Canada and various smaller dependencies, we hold a controlling influence in the geology of the great Pacific and Indian Ocean areas. Arctic and Antarctic geology and modern oceanic deposits have been worked principally by English observers, and English-speaking geologists have been and are exploring in many countries not under the British flag. More especially the large amount of geological work done in the United States is based on English methods, and is published and discussed in the English language, and the most intimate and friendly relations subsist between the geologists of the United States and those of Great Britain and the colonies.

"In these circumstances it would seem that a union of British and English-speaking geologists might overcome the difficulties which appear so formidable as between the different European nations, and might lay a broad foundation of geological fact, classification, nomenclature, and representation, which would ultimately be adopted by other countries as far as local diversities and differences of language might permit. Such a geological union would naturally be accompanied or followed by similar co-operation in other departments of investigation in natural science.

"It seems probable that the Geological Survey of Great Britain and the Geological Surveys of the Colonies and of India, with the British Association and the Geological Societies and geological sections of Societies in all parts of the Empire, would be willing to co-operate in such a movement under the auspices of the Royal Society, and that the Council might usefully invite communications on the subject from public departments and Societies, beginning with those of the mother country and its colonies and dependencies, but looking ultimately to union with those of the United States also.

"In the meantime, I propose to mention the subject to the Council of the British Association, to the English and American Committees of the International Congress of Geologists, and to the Council of the Royal Society of Canada, and shall be glad to have your permission to regard this communication as an open letter to be used in any way likely to promote the object in view."

Copies of the above letter were sent to representative men in every part of the Empire, and a large number of replies have been received, expressing an interest in the proposal and readiness to aid in carrying it out. In so far as Canada is concerned, Lord Lorne, the founder of the Royal Society of Canada, and his successor as Patron of that Society, Lord Lansdowne, have signified their hearty concurrence, and the Council of the Society appointed a Committee on the subject, consisting of Dr. Selwyn, F.R.S., Rev. Prof. Laflamme, and the writer, whose report was adopted at the recent meeting of the Society in Ottawa. The following are the conclusions and recommendations of this report:—

"(1) That the objects referred to seem of the greatest importance to the advancement of geological science, and deserve the consideration of this Society, and more especially of its Geological Section.

"(2) That the present year, when all the subjects of the British Empire are united in a common desire to celebrate the fiftieth year of the reign of Her Most Gracious Majesty, when the public mind is impressed with the recent gathering of the resources of the Empire in the Colonial and Indian Exhibition, when plans for Imperial Federation are before the public, and when a Conference of delegates from the colonies, for the purpose of promoting a more intimate connexion, is being held in London, appears eminently favourable to the realization of the idea of an Imperial Geological Union.

"(3) It would appear that the first steps towards such union should be taken by scientific bodies in London, and that the Royal Society of London should be requested to begin the movement by inviting in the first instance to a Conference, representatives of the Geological Survey of Great Britain and of the various Societies and Associations in Great Britain and Ireland prosecuting geological work, with representatives from similar bodies in the colonies. Such Conference might define the objects to be attained, might prepare a constitution and arrange for subsequent meetings and for reports to be sent in on important questions.

"(4) It appears to your Committee that when thus organized, the work of the 'Imperial Geological Union' might be carried on by local and general conferences and conventions; by regular reports from local branches for publication annually by the Officers or Council of the Union; by correspondence and conference with geological bodies abroad, and possibly by other methods which would develop themselves.

"(5) In so far as Canada is concerned, this work might be aided by the Geological Survey of the Dominion, by this Society and the Societies affiliated with it, and possibly also by the Universities.

"(6) The Director of the Geological Survey of the

Dominion has intimated his willingness to co-operate in sending representatives of the Survey to any conference or convention, and also by furnishing information as to the work and methods of the Survey.

"(7) It appears to your Committee that this Society might co-operate by empowering the Council to continue its Committee and to select delegates to represent the Society in the event of a preliminary conference being called in London, and by inviting all the affiliated Societies which prosecute geological work in the Dominion to take similar action.

"Your Committee would therefore recommend that this report, with the letter appended, be printed and circulated to the different local Societies connected with this Society, and to such other bodies as may be interested in the matter, and that their aid and countenance be solicited in carrying out the scheme, and that the Society empower the Council, or a committee appointed for the purpose, to represent the views of the Society by correspondence, or by attending any conference on the subject which may be summoned. It will, however, be understood that no expense shall be incurred without consent of the Council of the Society.

"It appears to your Committee that while the usual language of the Union would necessarily be English, communications should be received in any language used within the Empire, and that in this Dominion the English and French languages would be recognized as in this Society."

It will be seen that we hope the initiative will be taken by the Royal Society, and the present communication is intended to aid in securing that general co-operation throughout the Empire which is essential to success. With the same object I have asked the Council of the British Association to throw its influence on the side of union; and propose, in resigning the office with which the Association has honoured me, to make it a personal request that this great Society, which, by its meeting in Canada and its proposed meeting in Australia, has assumed an Imperial character, will take a leading part in the promotion of Imperial union both in reference to geology and to other sciences.

I need scarcely add that the project is not intended to interfere with the operations of the International Congress of Geologists, which is to meet in London in 1888; but it would appear eminently desirable that the contemplated Imperial Geological Union should be organized before that meeting, so as to enable British geology to present a united front, and to assume the importance to which it is entitled.

J. WM. DAWSON.

SOCIAL HISTORY OF THE RACES OF MANKIND.

Social History of the Races of Mankind. Second Division: "Papua and Malayo Melanesians." By A. Featherman. (London: Trübner, 1887.)

MR. FEATHERMAN does not improve. Those who have read the severe criticisms evoked by previous volumes, and still more those who have read the volumes themselves, will understand how much is implied in these few words, which could be justified only by a stern sense of duty, and regard for the interests of scientific truth. But, as the huge work grows under his hands, it becomes more and more evident that he has undertaken a task entirely beyond his strength. The present volume brings especially into painful evidence the

inherent defects of his method, his inadequate grasp of the subject-matter, and his many shortcomings betrayed at every step in the treatment of details.

And first as to the method. A "social history of the races of mankind," which, as he is careful to tell us, eschews both anthropology and ethnology "in the technical sense of these words," necessarily resolves itself into a history of social progress, such as, for instance, is presented in Mr. E. B. Tylor's "Primitive Culture," or his "Researches into the Early History of Mankind." But Mr. Featherman's work is in no sense a "history," that is, a systematic and orderly treatise on the various phases through which mankind has passed, or is passing, in its upward development from the crude beginnings to the highest aspects of human culture. Any such broad and philosophic exposition of the subject is at once excluded by his method, which consists of a disconnected and more or less accurate account of the habits and customs, social usages, language, religion, and tribal or national organization of the various races and their subdivisions, classified according to a system peculiar to the author. Here we have an interminable series of minute ethnographic pictures, involving endless repetitions, without unity, without point, without those comprehensive generalizations which are essential to give coherence to the whole, and which would flow of themselves from a systematic treatment. These *dissecta membra* may to some extent supply the raw material, but they never can "be considered as a manual of sociology," as is claimed for them by the author.

But owing largely to his inadequate grasp of the subject-matter, this raw material itself is often of a highly unsatisfactory nature, and is so arranged as to be almost worthless to the ordinary student, or in fact to any except those few anthropologists who have the leisure and knowledge needed to re-arrange it for themselves. When Mr. Featherman passed from the "Nigritians" (African Negroes) of the first to the "Melanesians" of this second division, he was at once confronted by one of the most tremendous difficulties in the whole range of anthropology; but of that difficulty, turning upon some rational or at least working classification of the Oceanic peoples, he seems to be absolutely unconscious. Hence in his grouping of these peoples he has fallen into an abyss out of which there is no redemption. It is all very well for him to protest that "it is not the object of this work to discuss contested ethnological questions"; but he himself feels the necessity of some kind of grouping, in establishing which he is fain to discuss some very abstruse questions touching the origin of mankind, the nature of species, the value of language as a racial test, and the like. In general he professes to base his classifications "principally upon physical characteristics and language" ("Nigritians," p. xv.), and this leads him to a classification in the present volume, which confounds the yellow and dark races, which identifies the Malays with the Papuans, which ignores the presence not only of the fair Indonesians, but of the pygmy Negritoes in the Eastern Archipelago, and which, as shown on the very title-page, recognizes in that region, and in fact in the whole of Australasia, eastwards to Fiji, one stock only—the "Melanesian." Of this stock there are two groups, the "Papu-Melanesians," and the "Malayo-Melanesians,"

which is like saying the "Black-Blacks" and the "Yellow-Blacks," the latter comprising the Malay race in its widest sense, the former all the rest—that is, the Melanesians proper of Melanesia, the Papuans of New Guinea and neighbouring islands, the natives of New Britain and New Ireland, the Negritoes of the Philippines, of the Malay Peninsula, and Andaman, the Nicobarese, the Australians and Tasmanians. Certainly the Negritoes are nowhere mentioned by name, being ignored as such; but they are nevertheless described as Papuans or Melanesians under other names, such as Ayetas (in the Philippines), Semangs (in the Malay Peninsula), and Mincopies (in the Andaman Islands). On the last-mentioned he quotes somewhat disparagingly (p. 227) Mr. E. H. Man, to whom we are indebted for the very best memoir on this race. Yet even from him he might have learnt that the Andamanese "are Negritoes, *not* Papuans" (Journal of the Anthropological Institute, August 1882, p. 70), just as from the photographs taken by Mikluho-Maclay, and Dr. A. B. Meyer, whom he does not quote, he might have seen how profoundly the Negritoes of the Malay Peninsula and the Philippines differ from the Melanesians. This term Melanesian, which here receives such a prodigious extension, is nowhere very clearly defined, and from its free application to the yellow Malays, one is tempted to ask whether Mr. Featherman is aware that it is Greek for "black."

Of these Malays, again, it is dogmatically asserted (p. 420) that they "did not originate in Asia," although nearly all anthropologists regard them as true Asiatics, a branch of the Mongolic stock, who migrated southwards to the Archipelago while it possibly still formed part of the mainland. But Mr. Featherman has a curious theory about migrations, denying, in fact, "that either animals or plants ever migrate." Hence, for him, the Malays cannot be a branch of the Mongolic race, which they closely resemble, but must be "an island people," a branch of the Melanesians, whom they do not resemble at all. With the Melanesians they constitute one of his six stock races, which, although "zoologically varieties of the same species," nevertheless originated in six different centres, and are consequently not genetically connected. This inference he doubtless seems to repudiate in the present volume (p. viii.). But it is clearly and unequivocally stated in the passage in the previous volume, which he omits to quote in his reply to the critics who had, as he now says, "erroneously if not purposely" affirmed this of him. The omitted words run thus: "The peculiar physical characteristics and the *habitats* of the existing races tend to show that they sprang from distinct individual pairs, developed under a variety of surrounding conditions in different parts of the world" ("Nigritians," xxii.). In fact, the assumption is that like conditions inevitably produce like results, that "the same causes must necessarily produce the same effects under any given circumstances," hence that "plants and animals must have been produced and evolved not by a single pair, but by an indefinite number of pairs in different parts of the world" (xiv.). It follows that crocodiles, for instance, have not migrated, but have been independently evolved under like surroundings in the Old and New Worlds; and so with the "six" human types, "zoologically varieties of the same species," but nevertheless independently evolved

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