

capitalism found justification in the works of Darwin. The chief inspiration of the Nazis is a false biological hypothesis—that of the superiority of a non-existent Nordic race. The fact that the Deinosaurs and Deinotheria failed to adapt and were extinguished does not really presage the imminent extinction of *Homo sapiens*. Man is an unusual animal, capable, unlike the *Diplodocus*, of envisaging his own extinction. The new environment to which he has to adjust himself is created by his own inventive faculty and not by cosmic forces. Rapid advance to super-civilization or degradation to sub-human levels, in accordance with the hopes and fears of Mr. Wells' impatient mind, both seem improbable. But there is no doubt that this view of man as a precariously adapted and momentarily dominant species, not automatically destined for survival and dominance, is important and provocative. Seen against that background, many of our behaviour-patterns, patriotic attitudes and religious and mystical convictions become sheer nonsense.

In this pamphlet, as in many of his other writings, Mr. Wells appeals to scientists to take the lead in creating a "world mind" which will be ready to accept bold schemes of federation, economic adjustment and educational development. He has, perhaps, somewhat exaggerated views about the

wisdom and influence of scientific workers. But a study of "Nature" and other scientific periodicals shows that some of the leaders of scientific thought are in fact thrashing out ideas for the creation of a more sensible world. Recently the editor of an English monthly rebuked "Nature" for its growing tendency to discuss such matters; it was becoming, he said, a political journal. Scientific workers should stick to their technical work. An obvious reply is that unless we succeed in ordering our affairs more successfully, scientific work may become impossible and its achievements cease to be of practical benefit to humanity.

Mr. Wells is a provocative and often an irritating writer, at once too hopeful and too pessimistic. We can agree with him that our species is passing through a period of danger and that the greatest and perhaps the only hope for ordered progress lies in "adaptation" of the type he describes. We can also agree that scientific workers can play a prominent part in creating an enlarged and more lucid "world mind". At the same time, we must realise that the creation of a better world, after the war has been won, will be a complicated and tremendous task, beset with disappointment. That is all the more reason why it should be faced with boldness and enthusiasm.

W. R. A.

## THE GEOLOGICAL, MINING AND METALLURGICAL SOCIETY OF INDIA

THE Eighteenth Annual Meeting of the Society was held on Saturday, 22nd August 1942, in the Mathematics Hall, Central College, Bangalore. Pradhana-siromani Rajamantrapravina N. Madhava Rau, Esq., B.A., B.L., Dewan of Mysore, was the "Chief Guest". After Tea, Mr. S. Lakshmana Rao, Local Secretary (in the absence of Mr. N. N. Chatterjee, the Hon. Secretary of the Society), presented the Annual Report for the Session 1941-42. There was a marked increase in the membership of the Society during the year, there being 3 Honorary Fellows, 193 Ordinary Fellows, and 45 Associates at the close of the Session. Eleven Ordinary General Meetings were held at which a number of papers were read and discussed. With a view to encourage the study of Geology and allied subjects, the Society has decided to

award this year three Silver Medals to the best papers on Geology, Mining, and Metallurgy, to be submitted by the Student-Associates of the Society from all over India. The proceedings of the several scientific meetings organised by the Society were, as usual, published in the *Quarterly Journal*, of which five parts were issued in the course of the year.

After the reading of the Report, Mr. B. Rama Rao (Director of Geology in Mysore), President of the Society, delivered his Presidential Address on "Mineral Deposits of Mysore". Mysore, he said, contains deposits of more than forty different types of useful minerals including the metalliferous ores, non-metallic minerals, rare earth minerals, and the gem stones. The principal metalliferous ores found in the State are those of gold, iron, manganese, chromium



and copper; while ores of lead, arsenic, and antimony are also found to a very small extent. Among the non-metallic minerals, there are more than thirty different types and many of them like quartz, felspar, china clay, limestone and graphite are now being largely mined and used in the ceramic, cement and other local industries which have been set up within the last ten or twelve years. On others like asbestos, bauxite, corundum, garnets, etc., investigations are being conducted as to how best to use them locally; and as a result of these, some more industries may be set up in the near future, which would require these minerals as their essential raw materials. Among the rare-earth minerals, small quantities of monazite, columbite, samarskite, and beryl are found in some of the pegmatites in the State, and they have not as yet been used for any purpose. Referring to the future development of the mineral resources of Mysore, Mr. Rama Rao concluded: "Till recently minerals were being mined solely for export, and without any forethought; the richest and the readily accessible portions of the deposits were being extracted leaving behind much of the material as unworkable, useless waste. This suicidal policy of mineral development needs a drastic change. To minimise such avoidable waste of the State's mineral wealth it is very necessary to open the deposits systematically, winning all but the absolutely worthless portions, and to classify the products obtained into several grades by careful sorting and blending, so that the different grades of the material may be supplied to the different industries, all of which may not need the best grades for their purposes. This can only be done by a centralised control, and the Geological Department in Mysore has, consequently, taken up the large-scale mining of some of the minerals which are needed for several of the local industrial concerns, so that it may distribute these minerals in the most economic and best means possible. The Department has also been conducting investigations as to the best means of utilising the portions of the mineral deposits left over, by improving their quality by concentration and by trying to use such grades in local industries. It needs a considerable amount of patient research to make the best use of the available mineral resources and by concerted efforts and continued co-operation of the several industrial concerns

in the State, a very large portion of this mineral wealth can be utilised most satisfactorily and to the best advantage of the country."

After the Presidential Address was over, the Chief Guest, Pradhanasiromani Rajamantrapravina N. Madhava Rau, Esq., B.A., B.L., Dewan of Mysore, made a speech in the course of which he said that it was a real pleasure to him to have been able to participate in the function, and complimented Mr. B. Rama Rao, the President of the Society, on his most interesting survey of Mysore's mineral resources. He observed that the Mysore Geological Department was one of the earliest of its kind to be established in India, and that about 25 years ago the Government found it desirable to reorganise the Department with a view to expanding the scope of its activities to include not only geological surveys and theoretical research but practical work involving the exploration of the State's mineral resources for industrial purposes. This reorientation had beneficial results. The policy of allowing private enterprise to exploit the mineral deposits had not been very wholesome. This resulted in deposits of the best quality being removed indiscriminately for purposes of export and the mines being left with deposits of inferior quality which it was not economical to work. He instanced the cases of the manganese and chrome mines in the State. In his view it was best to be conservative regarding the exploitation of minerals.

Concluding the Dewan said that he was glad that the membership of the Society was open not only to geologists but also to persons interested in mining and metallurgy, for it was by the co-operative effort of all these that the mineral resources of the country could be utilised with the greatest advantage.

The President then declared the following members duly elected to the Council of the Society for the year 1942-43:—*President*: Mr. B. Rama Rao; *Vice-Presidents*: Mr. D. C. Nag and Prof. L. Rama Rao; *Joint-Secretaries*: Mr. N. N. Chatterjee and Prof. S. K. Bose; *Treasurer*: Mr. B. N. Maitra; *Librarian*: Mr. Santosh Kumar Ray; *Other Members of the Council*: Mr. K. V. Kelkar, Dr. C. Mahadevan, Mr. Chand Mall, Dr. Raj Nath, Dr. C. S. Pichamuthu, Prof. M. Chatterjee, Dr. A. K. Dey and Dr. Daya Swarup.