ical similarities are attended with geological ones. In the Malay Peninsula as well as in the Sierra Nevada granitic rocks of about the same Mesozoic age have a great extension. The original cover of these rocks has disappeared during the succeeding periods by long erosion and the erosion products fill up the geosynclinal basins of East-Sumatra and the valley of California, which both are characterized by important oil deposits of Tertiary age. And to the west young mountain ranges, in which strong earth movements still continue, have separated the geosynclinal basins from the ocean.

In the Dutch East Indies important transversal and diagonal fractures occur near the bending points of the horizontal projection of the geanticlinal axes. In the western mountains of North America striking examples of the same kind are found. Several depressions of the geanticlinal axes along which transcontinental railroads cross the mountain ranges, can be compared with straits near the bending points of the East Indian rows of islands. For instance, the traveler, who approaches the Sierra Nevada from the desert region on the Santa Fé route, can reach the Pacific coast along transversal and diagonal fractures, which exist near the bending points between the Sierra Nevada and the San Bernardino range.

H. A. BROUWER

DELFT, HOLLAND,
SEPTEMBER, 1922

RELIEF FOR RUSSIAN SCIENTIFIC MEN

THE "Friends of Russian Scientists," an organization sponsored by a hundred professors and social workers in and around Boston, for the purpose of raising contributions to be known as the Gorki Fund for the Relief of Russian Scientists, has just received the following letter from Maxim Gorki:

In reply to your letter let me make the following statement: "The House of Scientists" in Petrograd is a charitable organization for mutual benefit, founded by Petrograd professors. I have the honor to be its chairman. The full name of the organization is "Committee for the Betterment of the Condition of Scientists" (Kommissia Ulutschenia Bita Utschenich — abbreviated: KUBU). Address: C. Oldenburg, Member of the Academy, House of Scientists, 27 Millionaia, Petrograd.

The "House of Scientists" brings together all the scientific workers of Petrograd—there are about 3,000 of them, and together with their families they comprise about 12,000 souls. They are undergoing great privation, and are in particular need of sugar, flour and fats.

Most of the scientists are men of middle or advanced age, enfeebled by years of undernourishment and the numerous worries of present day life in Russia.

A ten dollar "A. R. A." parcel is a great help. The work of the American Relief Administration with Hoover at the head is one of the most brilliant pages in the history of the United States.

It seems to me that there is no need to describe in great detail the extent of misery among the scientists.

Do make every possible effort to sustain at least ten of these precious lives—precious in the broad sense of serving all mankind, the work of science being truly international and universal.

I wish you success in your good work!

M. GORKI

Steringsford, Sept. 1, 1922.

A large section of the American public, which has perhaps grown callous to the continued appeals for relief funds, has cherished the notion that the emergency in Russia is over. Gorki's letter shows that this is not true. Moreover, in a recent communication to the treasurer of the Gorki Fund, Mr. Herbert Hoover says:

There is no question of the need of the Russian intellectuals—they as a class have suffered more than any other class in the Russian debacle. Any funds raised for the relief of these people will contribute to a most worthy undertaking.

If the scientists and educators . . . will contribute to the support of their colleagues in Russia, we know of no more worthy cause to which they can lend their support.

Contributions are being received by Professor H. W. L. Dana, treasurer of the Gorki Fund, 105 Brattle Street, Cambridge, Mass. They are being transmitted to the Petrograd "House of Scientists," the non-partisan body of which H. G. Wells and others have written with enthusiasm, and are in turn distributed to the Russian scientific workers most in need. It may be added that the sums received here for this purpose are forwarded in full to Russia,

since the incidental expenses of printing and postage are being met independently.

ISIDORE LEVITT,
Secretary

CAMBRIDGE, MASS.

QUOTATIONS

THE BRITISH ASSOCIATION

THE meeting of the British Association at Hull ended yesterday. It will be remembered chiefly by Sir Charles Sherrington's presidential address, on which discussion did not cease during the week, nor is it more likely to die down when science and philosophy have had time to study the full text. So far as it was a positive statement it was definitely on the materialistic as opposed to the vitalistic interpretation of Nature. It explained the increasing number of mechanisms in the body of men and animals which are now understood, and definitely referred these to the order of chemistry and physics instead of to vague non-material principles. So far, its assault was limited to fashionable doctrines within the sphere of science, and should disturb only those who trace purpose and consciousness back to animalculæ, or attribute a *psyche* to the cells of the liver. With regard to the mind itself no positive statement of a materialistic interpretation was made; on the contrary, Sir Charles Sherrington, with a deliberateness perhaps in itself suggestive, reiterated our complete failure to interpret mind in terms of matter. But the president traced the relations between the evolution of the nervous system and the rise of mind in the animal kingdom with meticulous care, and insisted so coldly but so minutely on the correspondences between what he stated to be mechanism and what all regard as mind that it is at least open to read intention into his argument. No one can doubt but that the British Association, through its president, has fulfilled one of its highest functions this year. It has set men thinking and talking on one of the more fundamental problems that excite the human intelligence.

Otherwise the meeting at Hull was useful rather than distinguished. There were many solid papers, some valuable discussions, and no more than the customary number of attempts to reach the public ear by the methods of exaggeration, or of insistence on the dramatic side of a communication. The debate on nitrogen was a sound and instructive contribution to one of the branches of applied science most vital to the safety and the prosperity of nations. The coming together of zoologists, government officials, fishery experts and members of the fishing industry did much to enlighten both science and industry. We admit with pleasure that since we and others called attention to the diffuse and overloaded nature of the program of meetings of the association, the organization has been notably improved, especially with regard to the arrangement of joint discussions, in which two or more sections take part. Our special correspondents, however, inform us that there were still at the Hull meeting many cases of several papers or discussions of wide interest set down for the same day and hour. Unfortunately, moreover, not a few of the speakers and readers of papers had rudimentary ideas on public speaking, and attempted to cover far too much ground in the time allotted to them, or overloaded their contributions with unnecessary introductory matter. Science should not disdain the art of presentation.—The London *Times*.

SCIENTIFIC BOOKS

Respiration. By J. S. HALDANE, M. D., LL. D., F. R. S., Fellow of New College, Oxford; Hon. Professor, Birmingham University. Yale University Press, 1922. 427 pp., 104 figures, and an appendix of analytical methods.

THIS volume contains the Silliman Memorial lectures at Yale University for 1915, revised so as to bring the presentation of the material up to the date of publication. It is a monograph covering the field of respiration: a field which, largely as the result of the work of Haldane and his collaborators, has assumed outstanding importance in recent years, and promises further important developments in the near future in theoretical knowledge and in practical applications to clinical medicine and industrial hygiene.

In brief, this book is the carefully revised and coordinated presentation, while the author is at the acme of his productive powers, of