principle. It provides one more example of the widespread abandonment of science in the name of science.

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Leadership of Science

THE leadership of science is vital to the preservation and rebuilding of civilization. No less vital, as the recent admirable editorials in NATURE have urged, is a unity of aspiration and effort on the part of the United States and the British Commonwealth of peoples. To create now a moral and intellectual unity of the English-speaking peoples is to lay the foundation of that mighty union of democracy, the prayer of Longfellow and the message of Roosevelt, upon which hangs age-long weal or woe for mankind. The leadership of science must exert itself most fruitfully when integrated with that immense work of political creation. Indispensable to such a synthesis is the saturation of the 'man in the street' with the spirit and aspirations of science, together with a lively comprehension in broad outline, of what it is doing from day to day. Not until science replaces football pools in popular interest will the common person be fit to sustain civilization or the men of science in a position to lead it. Notable work in popular education has been done by many gifted thinkers. But the situation calls for something more organized and comprehensive, corresponding to the world which science has brought into being, where continents and peoples are linked in ever greater interdependence.

Nothing less is needed than a pooling of the common stock of contemporary thought and achievement in science presented in a form assimilable by the common person.

But if science really does transcend frontiers, if Anglo-American unity is not a fantasy, why do we need dispersed and divided plans of educating the public in scientific matters just where the common approach bids to be most potent? Why cannot British and American men of science give a lead to the spirit of union, to thinking in terms of 'us' rather than of 'we' and 'they', which, as rightly suggested[1], is more important than cut and dried schemes of amalgamation? Should not men of science be the first to give an example of "pooling experience for the growth of mutual understanding", to use NATURE's words? Speaking for the common person, I say we want to know what American men of science are doing, as the common person in America doubtless wants to know the same of British men of science.

The collaboration of British and American men of science as a body in issuing a periodical publication, say, monthly, of scientific news and progress in popular form, is capable of becoming the greatest move ever made towards the enlightenment of humanity in the mass. The leadership of science in the direction of a world planned for freedom and abundance for all cannot afford to conceive its duty of education in relation to obsolescent conceptions of nationalist sovereignties. The man in the street, if he is to think at once internationally and scientifically, needs the assistance of a new sort of creative journalism which shares those qualities.

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Sept. 7.

[1] NATURE, **148**, 233, 263 (1941).

"The West Highlands and the Hebrides"

IN the review in NATURE of August 16 of the above book by Dr. Harker, which was recently published posthumously, attention is directed to certain omissions in a Table of Formations which was added to Dr. Harker's original manuscript. Perhaps I may be allowed to explain that the Table was drawn up as an adjunct to the stratigraphy as set out in the text, in order to serve as a handy means of reference for the non-professional reader, for whom the book was primarily written, and also for geologists not conversant with the local details. As a matter of fact, Dr. Harker found occasion in the text to refer to almost all the geological systems and their subdivisions, and in this way has drawn a picture of the stratigraphy which is essentially complete. Since he did not mention certain subdivisions of the Jurassic system which are represented somewhat meagrely, namely, the Kimmeridgian (which is specially referred to in the review), and the Corallian, Callovian and Cornbrash, these were purposely omitted from the Table of Formations. Similarly, the Durness Limestone was placed in the Cambrian, because this long-established British custom was followed by Dr. Harker in the text. It appeared to raise too many complications, and indeed to be unnecessary in this book, to direct attention to the fact that the custom requires modification.

May I take this opportunity to correct one omission? The New Red Sandstone of Arran was not subdivided by Dr. Harker into Permian and Trias. It became necessary to do so, since a previously published map showing this differentiation was being used as an illustration of the geology of the island. A footnote on p. 7 was therefore added, in which a recent identification of Permian lavas was mentioned. It should have been made clear, since it has so happened that the publication of the book has antedated that of the research paper concerned, that the identification was made by Dr. D. Leitch, of the University of Glasgow.

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Huygens' Pendulum Clock

THE interesting article by Mr. A. E. Bell on the "Horologium Oscillatorium" in NATURE of August 30 rather suggests that this was Huygens' first book on the pendulum clock. He published a description, with plates, of the clock in "Horologium" (The Hague, 1658) though without reference to the scientific principles. The book is very rare and is not generally known. Part 1 of the "Horologium Oscillatorium" repeats its contents.

Huygens' specially constructed marine clock was actually tried at sea, and received a favourable report. The report, by Major Holmes, "A Narrative concerning the success of Pendulum Watches at Sea for the Longitude", is in *Phil. Trans.*, 1, 13–15 (1665).

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