Letters

Legibility

The current intensified effort to make foreign technical literature more accessible raises questions about the legibility of the translations scientists are expected to review and ways in which such deficiencies as occur in this respect can be corrected. Scientists must do enough reading as it is without the additional burden of having to read material that seems better designed to increase eyestrain than to impart information.

The copies of translations which have come to our attention leave much to be desired. Many of the original translations were poorly typed—letters were faded or smudged, and so on. Some reproductions have been negatives—that is, white type on black background—making for very difficult reading. In a number of cases reductions in size of type and in spacing between words and lines have compounded the illegibilities and compacted the text beyond acceptable minimum standards.

Such conditions undoubtedly contribute to eyestrain, and thus to an increased drain on our energies—and perhaps even to a build-up of psychological resistance to the reading matter as a whole.

Since requirements for effective scientific work undoubtedly encompass the well-being of the scientists themselves, we suggest that information on standards be summarized and disseminated for the express purpose of promoting necessary improvements in the materials we have to read. (We recognize, of course, that other conditions may contribute to eyestrain, such as poor lighting or improperly designed fixtures or furniture. Here, too, ample information is available on desirable standards.) To that end we propose the appointment of an AAAS committee to (i) collect and report on technically established legibility standards for reading matter; (ii) determine the extent to which such standards are being met by translation services (public or private), and (iii) work with such services toward meeting standards where they are not now being met. The following illustrates how standards can be formulated. Maximum acceptable number of lines per (vertical) inch may be taken as 10. Maximum number of characters (letters, punctuation marks, and so on, and word spaces) per line may be 60, with 25 to 50 an ideal range. Incidentally, the American Council of Learned Societies reported on a study on this general subject in a 207-page "Manual on Methods of Reproducing Research Materials," by Robert C. Binkley and others (Edwards, Ann Arbor, Mich.), in 1936.

One objection that may be raised to higher standards (one physicist of our acquaintance did raise it) is that the cost of reproducing translations might be materially increased. Probably so, at least in the beginning. However, the benefits to the individuals and their work should be well worth the higher costs, if any. And in any event, technical ingenuity can surely be counted upon to bring down costs if the incentives to do so become strong enough.

We hope this letter will arouse discussion leading to positive action.

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ROBERT T. HALL

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U.S. Department of Agriculture

Blood-Group Nomenclature

The undersigned object to the report in the *Journal of the American Medical Association* for 31 August 1957 on "Medicolegal applications of blood grouping tests." In our judgment this report is a highly biased document, and certain of us have already expressed contrary opinions during the course of the report's formulation, without much effect. The Subcommittee on Medicolegal Problems responsible for this report consisted of four members all of whom are from the United States and two of whom were the chief protagonists for one of the nomenclatures under dispute. Therefore we, the undersigned, do not intend to abide by the recommendations of the report, and we shall continue to use the C-D-E nomenclature until such time as a properly representative international body arrives at a definite nomenclature.

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The report of the Subcommittee on Medicolegal Problems, published in the *Journal of the American Medical Association,* contains a recommendation on Rh nomenclature that can hardly be conceived as a restriction on the liberty of the signers of the protest, or of anyone else active in the field, to use whatever terminology they choose. The desirabil-

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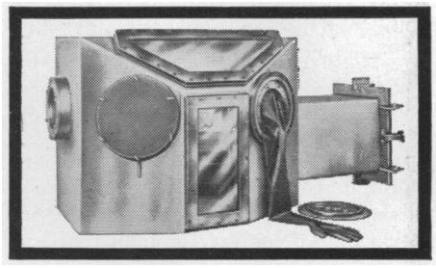

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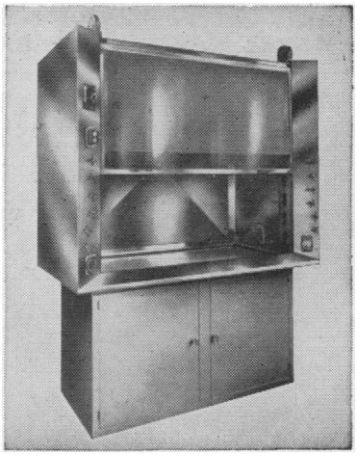

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ity of a *uniform* nomenclature appears to be a matter of common recognition; to quote from the summary and conclusions of the report: "Of the two available systems the Committee favors the Rh-Hr over the C-D-E for what it considers strong reasons. It recognized faults in both systems and suggests that the achievement of an internationally acceptable terminology is a desirable objective." The report contains a long section on "contrary opinion on nomenclature" (pages 2037–2039), recognizing a sharp and almost equal division of opinion on this matter and attempting a fair presentation of the contrary opinion that had come to the attention of the subcommittee. This diversity of opinion was further noted in the "summary and conclusions," where the recommendation is clearly identified as an "interim" one, to apply "unless and until some other convention can be agreed upon."

Perhaps the only conclusion that can be stated at present is that this issue will remain unsolved until "a properly representative international body arrives at a definite nomenclature." The virtually identical phrasing of the protest and the report itself in this connection (". . . suggests that the achievement of an internationally acceptable terminology is a desirable objective") may indicate a greater degree of concordance of opinion on the main issue than has previously been evident. If the report, and the protest it evoked, serve to point compellingly to the desirability of an acceptable solution to this issue, a useful service will have been performed.

COMMITTEE ON MEDICOLEGAL PROBLEMS,
AMERICAN MEDICAL ASSOCIATION
Chicago, Illinois

Editor's note: The report referred to was prepared by a subcommittee consisting of A. S. Wiener, Ray D. Owen, Clyde Stormont, and Irving B. Wexler. It contains the following recommendation, under the heading "Summary and conclusions":

> Because the use of two systems of nomenclature for the Rh-Hr system leads to confusion and misunderstanding, the Committee on Medicolegal Problems of the American Medical Association recommends the adoption of a single uniform system for medicolegal reports. Of the two available systems, the Committee favors the Rh-Hr over the C-D-E for what it considers strong reasons. It recognized faults in both systems, and suggests that the achievement of an internationally acceptable terminology is a desirable objective. In the interim, it is recommended that, unless and until some other convention can be agreed upon, the original Rh-Hr notations be kept as the standard and sole nomenclature for preparing approved medicolegal reports on Rh-Hr types.

For those who are uninformed about the long-standing controversy over the Rh nomenclature, it may be pointed out that the Rh-Hr nomenclature, developed and elaborated by A. S. Wiener, has priority in time and is generally favored by workers who regard the varieties of Rh antigens on human red blood cells as being determined by members of a multiple allelic series of genes. The alternative nomenclature, deriving from R. A. Fisher and R. R. Race, assumes a pseudo-allelic relation between three closely linked genetic loci, C-D-E. This nomenclature, which to some extent is used in the United States, is used very widely, if not exclusively, in Great Britain and in Europe, where it is generally regarded as being considerably simpler to use in teaching the complexities of Rh inheritance. Repeated efforts have been made to arrive at a universally accepted nomenclature; but in the absence of certainty about the genetic realities of the situation, no compromise has been reached.

Obviously, the use of some standard and sole nomenclature would be desirable. On the other hand, the imposition of such a standard by an American group representing only one side of the controversy can serve only to sharpen international divisions of practice and opinion.—BENTLEY GLASS