

DISCUSSION

RECENT GERMAN MATHEMATICS

EVER since the times of the ancient Babylonians, mathematicians have been creating a special language for their subject, and hence mathematics has made considerable progress towards the creation of a universal language for the literature in this field of knowledge. As an illustration we may refer to our common number symbols and to the wide-spread use of the letter x for an unknown quantity. These elements of a universal language have made it easier for the student of this subject to become acquainted with new discoveries published in other languages than his own, and have been appreciated more and more during recent decades in view of the fact that effective mathematical investigations are increasingly wide-spread among peoples employing different languages. The history of this subject presents an almost uninterrupted series of advances and in recent years international mathematical congresses have tended towards increasingly cordial relations between the mathematical investigators of various countries.

In view of these facts it is especially noteworthy that serious efforts have been made recently in one of the leading mathematical countries of the world to replace this tendency towards greater internationalism in mathematics by a strongly biased nationalism, and that for the first time in the history of mathematics a periodical has been started whose explicit object is the fostering of this nationalism. The title of this periodical is *Deutsche Mathematik*, and the first number is dated January, 1936. On the first page thereof there appears the significant statement, "Wer ein Volk zum Stolz erziehen will, muss ihm auch sichtbaren Anlass zum Stolz geben." It is too early to express an opinion as regards the effectiveness of this periodical, but its appearance represents a unique fact up to the present time in the long history of the science of mathematics.

It is interesting to note that on page 10 of this periodical Isaac Newton is called a Germanic investigator, and that on page 3 it is explicitly stated that other nations have an equal right to exhibit their national mathematical characteristics. The earlier efforts to exhibit national mathematical characteristics do not seem to have been very successful, since great differences appear in works of men of the same nation. Some of the earlier historical writers emphasized the arithmetical attainments of the ancient Babylonians and the geometrical proclivities of the ancient Egyptians, but more recent discoveries exhibit the fact that in both of these countries the arithmetic and the geometric work supplemented each other. It has also been emphasized in recent times that many earlier writers on the history of Greek mathematics empha-

sized unduly the geometric form in which many Greeks expressed their results, since the Greeks had a kind of geometric algebra and contributed also towards the development of arithmetic and algebra. The geometric form was often only superficial.

For about sixty-five years the Germans have published an international mathematical review entitled *Jahrbuch über die Fortschritte der Mathematik*, which has been sufficiently fair also in its reviews of the work done in other countries to be favorably regarded throughout the mathematical world. This review is being continued and improved so that the periodical to which we referred above represents only one side of the German mathematical activity of the present day. This periodical aims to include a biographical section giving a bibliography of German mathematics, and outlining all important German mathematical publications published after January 1, 1936. Its spirit seems to be in harmony with the efforts to replace international technical scientific terms by purely German ones. Lists of such proposed changes appeared in recent numbers of an elementary periodical entitled *Zeitschrift für mathematischen und naturwissenschaftlichen Unterricht aller Schulgattungen*.

G. A. MILLER

UNIVERSITY OF ILLINOIS

FOLKLORE AND SCIENCE

WHILE the person who praises every century but this and every country but his own is apt to be placed on the "list" that W. S. Gilbert refers to in "The Mikado," nevertheless it is only proper that we should appreciate the past, give credit where it is due and not scorn the base degrees by which we did ascend. May I be permitted, therefore, to draw attention to some instances where earlier knowledge than that mentioned by certain authors should be recalled?

In *SCIENCE* for October 11, 1935 (82: 350), Dr. C. M. McCay pointed out that in 1833 Boussingault suggested the addition of iodine to cooking salt, having found by his experiences in South America that goiter was prevalent where iodine was lacking. Dr. McCay concludes: "One can only speculate concerning the human suffering that might have been evaded if some eminent physician had noted this contribution of the French chemist at an early date." From this it might be thought that Boussingault was the discoverer of iodine therapy for goiter. The following may therefore be of interest:

Goiter was, of course, known in ancient times, and is mentioned by Pliny among others. The use of burnt sponge as a remedy was common from the latter part of the thirteenth century and was probably based on earlier folk lore. Courtois discovered iodine in 1812. In 1819 Dr. Coindret, a well-known physician