

be improved. But the geography of commerce, the end to which physiography is a means, will ever be the most practical side of the study. Because of its utilitarian aspect, it has clearly a commanding place among *Brodwissenschaft* sciences. A knowledge of this department of geography is indispensable to the commercial man, to the editor, and to the political economist. The public school pupil has a right to demand a knowledge of it, and the public school teacher ought to be well instructed in its fundamental principles; but alas! there is no source to which the teacher may go where this knowledge may be systematically acquired. Commercial geography belongs properly to the more advanced years of the school course; a knowledge of its principles, moreover, is just as essential to citizenship as a knowledge of any other department of political economy, a part of which it is.

Cartography is another department of geography to which, in the future, attention must be given. It may not be necessary to train every pupil in the science of laying off projections, editing maps, compiling maps, constructing charts, and the like; but there are some pupils who require this instruction, and the teacher should be master of the situation. Moreover, if the map be a truthful one, the physical geography of the region can be read quite as readily from its face as from the printed pages of the text. Cartography is a wonderfully fascinating study, and the untrained student little dreams of the wealth of information that may be drawn from a very ordinary map, if it be truthful.

The modern science of geography is now a sealed book, not only to the teacher, but to the great majority of university students as well. But the rank and file of teachers are beginning to pry at its lids, and this disposition I believe is the wedge that, sooner or

later, will open the way to reformation. Reformation in geography teaching is certainly needed, but it should begin with the reformer. If the teachers who compose the rank and file are once impressed with the fact that they need knowledge rather than a method, they will promptly set about acquiring it. Considering his starvation wages and his very slight hold upon his position, the average school teacher is decidedly a remarkable character. He may be a trifle narrow-minded, but he commonly has greater breadth of character than the people among whom he lives. Once impress him with the fact that he needs development and he will willingly undertake the task himself. The study of any aspect of nature tends to broaden character, but I know of nothing that will so thoroughly put one *en rapport* with the broader intellectual life as the study of physiography—the story that nature has written in the Great Stone Book.—*The Educational Review*.

ALUMINUM.—The latest application of aluminum is to visiting cards, which are described as being thin, flexible, brilliant with a metallic lustre, light, and admitting an impression of the names as distinct as it is made on paper. They can be made at a cost of about a dollar a hundred.—*The School Journal*.

NEW USES FOR ALUMINUM.—This metal is now much used in plated ware and kitchen vessels. In Germany it is used for the metal parts of the equipment of soldiers, on account of its lightness. Its alloy with the rare metal titanium, while still light, is very hard and tough. The Russians have used it for shoes for the horses of the Finnish dragoons and the animals gained perceptibly in speed. It has been used for canoes and some of the parts of bicycles.—*The School Journal*.