

which something more than a name can be given; not that name and incident both need to be learned by heart, but that the incident supplied by the teacher serves as a little barb to hold the fact in the memory. If the teacher, with all his preparation, has no incident or illustration pertinent to the facts, let them pass hardly noticed; if they are so unimportant that he knows nothing more than their name and place, as given on the map, and as anyone might know them, in spite of his having given time to careful preparation on the various sides of geographical study, then omit them and turn the attention of the class to something that he can tell more about. It may be that the choice of subjects made by the teacher will not always include the most important places and subjects; but it should at least include the things he can best teach; and, as such, the things of the highest

value to the class under his instruction.

The incidents, illustrations, and explanations to which I have repeatedly referred should be introduced not only to help the pupil's memory, but also to increase the reality of the subjects that are studied. Take care that the names learned from the text or the map represent places and things, and not words or lines. We have all heard of the man who confessed that his chief recollection of Austria was as a red patch on the map hanging on his schoolroom wall. Last summer I heard of a similar example. A little boy was watching his aunt draw and colour a map of the United States: when Ohio was reached and a blue tint given to it the boy exclaimed, "Ohio is not blue; it is green." Emphasis in his teaching had been given to the unrealities of geography.—*The Educational Review.*

THE WATERWAYS OF THE NORTH-WEST.

BY H. N. RUTTAN, C.E.

THE three chief rivers of North America, east of the Rocky Mountains, are:

- (1) The Mississippi, drainage area 1,244,000 square miles.
- (2) The St. Lawrence, drainage area 510,000 square miles.
- (3) The Nelson, drainage area 480,000 square miles.

It is proposed at present to consider the two last named in connection with the facilities which they afford for the transportation of the surplus grain of the North-West to the seaboard and to Europe. Chicago may be taken as the principal head of navigation on the St. Lawrence, and Winnipeg on the Nelson route. The railway haul from the great wheat producing area of the continent

to Chicago may be stated at 1,000 miles, and to Winnipeg at 200 miles. The distance from Chicago to the head of ocean navigation at Montreal is 1,260 miles, and from Winnipeg to the head of ocean navigation at York is 660 miles. Montreal is distant from Liverpool 3,225 miles, and from York to Liverpool is 2,966 miles.

	Inland Navigation	Ocean Nav'g'n	Total Miles
Chicago to Liverpool . .	1,260	3,225	4,485
Winnipeg to Liverpool . .	660	2,966	3,626

The total distance from the centre of the wheat area to Liverpool is: via Chicago, 5,485 miles; via Winnipeg, 3,826 miles. The saving in distance by the Nelson route being 1,659 miles, made up as follows: