## SCIENCE.

geographical periodicals into one publication; with a department for teachers. The plan of adding such a department to an existing journal was proposed to the editors of the *Journal of School Geography* and the offer declined because they believed:

1. That the cause of geographical education warranted a separate periodical.

2. That teachers would not and could not subscribe to so expensive a journal as a valuable scientific periodical must be.

3. That educators would many of them shun pedagogic assistance vended by a society whose aims were primarily scientific.

4. That the organ of no one society or combination of societies could be advertised so as to reach the greater number of teachers.

5. That a journal for teachers should be edited by teachers.

I believe that the new journal has a legitimate right in the educational world for all these reasons and many more. The knowledge of the world may be enlarged for the few by the geographical societies, through the promotion of exploration and research and the publication of the results thereof. It may be enlarged for the many by such a journal as the one in question, if the editors sift and select new and old facts and put them in a form and dress for the larger public, who are not in touch with modern geographic progress. The increasing of the geographic knowledge of the world at large by either of these methods is a proper aim for those interested, and one may be as useful and necessary a task as the other. It may be that success can better be attained by specialization than by a combination of efforts. The Journal of School Geography will continue to select facts from the great mass of geographic information, to try and express them in a simple and straightforward manner, and do what it can to help the geographic societies and publications in the wider dissemination of knowledge of the world. This work with the teachers and youth in this generation may bear fruit in the next generation in a larger demand for the consolidation and improvement of the publications of a scientific character.

I agree with Professor Russell that there is need of bettering all the scientific geographical

publications in this country. I disagree with him in his idea that there is no room for a journal whose aim is not the publication of new scientific results, but the broader dissemination of geographical knowledge, expressed not in childish, unscientific or pedagogic terms, but in simple English, with a knowledge, on the part of the editors, of the needs and tastes of the readers to whom they would appeal.

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THE DRAINAGE OF THE SAGINAW VALLEY.

TO THE EDITOR OF SCIENCE: Professor Davis has asked me to add a few more instances apropos of his note on the drainage of the Saginaw Valley (p. 337, issue of Feb. The peculiar circuitous drainage 26, 1897). due to moraines of retreat, in which streams do not flow directly to the water of the bay near by, but fetch a compass and make backhanded branches, has numerous other examples in Michigan. Among the most striking are the Sturgeon, which heads in the Huron Mountains, Sec. 9, T. 49N., R. 32E., and flows clear around Keweenaw Bay to empty into Portage Lake, and the region of Grand Traverse Bay, where the Rapid River, Boardman River, Platte River and the Betsie River show a similar type of drainage, which we may call willowy. For in discussing a relation of branches it seems natural to use a term borrowed from botany. A comparison of a drainage map of the Saginaw Valley with the pendent branching of the willow will show the appropriateness of the comparison, and the term can easily be changed by those who prefer Latin terms into salicious.

## ALFRED C. LANE.

## SCIENTIFIC LITERATURE.

A Dictionary of Birds. By ALFRED NEWTON, assisted by HANS GADOW, with contributions from RICHARD LYDEKKER, CHARLES S. ROY, etc. London, A. and C. Black. [The Macmillan Company, 66 Fifth Avenue, New York.] 1893-1896. 1 vol., 8vo, pp. *i-xii* + *1-124*, *i-viii* + 1-1088. Map and unnumbered figg. in text.

The ninth edition of the Encyclopædia