

of the Mississippi I should have been only too ready to accept the lacustrine hypothesis.

J. E. TODD.

A 'DRIFTLESS' RIDGE.

TO THE EDITOR OF SCIENCE: In reviewing, in the April 9th number of your journal, Professor Todd's report on the quaternary geology of Missouri, I mentioned a certain 'driftless' ridge in Pike and Calhoun counties, in Illinois, and referred its study to Mr. Frank Leverett. My attention has been called to the fact that the driftless nature of this ridge was discovered by Professor R. D. Salisbury (see Proc. A. A. A. S., Washington meeting, 1891, pp. 251-253), and that its study was largely accomplished by him.

In reference to the sections of the old and new gorges of the Mississippi river, between Montrose and Keokuk, Iowa, I wish to add to what I have said previously, that they were published through the courtesy of the Iowa Geological Survey, to which institution their preparation should be credited.

O. H. HERSHEY.

SCIENTIFIC LITERATURE.

Diseases of Plants Induced by Cryptogamic Parasites. An Introduction to the Study of Pathogenic Fungi, Slime-Fungi, Bacteria and Algae. By DR. KARL FREIHERR VON TUBEUF. English edition by WILLIAM G. SMITH. Longmans, Green & Co., London, New York and Bombay. 1897.

The German edition of this work appeared in 1895 and was the first attempt at a comprehensive treatment of the diseases of plants caused by parasites of the class Thallophyta, chiefly parasitic fungi. Such a work has been long needed, but there have been many difficulties in the way of the successful preparation of it. The fact that many of the diseases were but little known, that the organism causing them had been but little studied, and that important contributions were constantly being made to our knowledge of these forms, made it exceedingly difficult to get a book of such dimensions through the press before important changes would be necessary in order that it should properly represent the then status of the subject. While the German edition when

it appeared was welcomed because of the mass of information which was here for the first time brought together in a single book, it was notable for some important omissions, especially of work done in the United States. This was probably due in part to the fact that some of the investigations had not come to the notice of the author, and partly to a failure on his part during the press of the work to consult the American journals like the *Botanical Gazette* and the *Bulletin of the Torrey Botanical Club*. While it is evident there was no intent on the part of the author to ignore American work, the edition would have been more valuable had a little more time been given to investigations of this portion of the literature of the subject. Since, however, the work was intended primarily for the German-speaking people there is here some partial defence of the omissions.

The chief difficulty, however, that of keeping the work up to date while going through the press, was, from the very nature of the state of our knowledge of these subjects, an insurmountable one. This is forcibly illustrated in the fact that in the English edition, which appears within two years after the first edition, it was necessary to recast and rewrite the whole portion of the book which treats of the family Exoasceæ and the genus *Gymnosporangium*, so rapidly have investigations in these groups followed each other, and so greatly have the limitations of species been changed by a study of the physiological effects on the hosts on the one hand and of biological studies on the other.

In the preparation of the English edition the author, Dr. von Tubeuf, privatdocent in the University of Munich, has added much that was omitted from the first edition and has rewritten the sections already alluded to above. The English translator, William G. Smith, lecturer on plant physiology in the University of Edinburgh, has also assisted in enhancing the value of the work in some additions for which he alone is responsible. It is not often that an author is so fortunate in the selection of his translator as Dr. v. Tubeuf has been. Dr. Smith was at one time a pupil of the author in the laboratory of the University of Munich, and at the very time when the book was being prepared for the first edition, so that he was