The sandal with the loops around the edges may be compared with a specimen figured in 'Wiener's Peru,' made of hide fitted around the foot and slashed around the border to receive the lacing.

It may be also compared with sandals of vegetal material in collections from northern Japan and the Aino country.

Yours truly, O. T. Mason. U. S. National Museum.

## THE PIGNUTS.

There is some question as to the exact distribution of the common Pignut (Carya porcina or Hicoria glabra) and the related Carya or Hicoria microcarpa, and the undersigned will be grateful for herbarium specimens, and especially nuts with their husks, representing both. In the recently published seventh volume of Professor Sargent's Silva, the range of glabra is given as southern Maine to southern Ontario, through southern Michigan to southeastern Nebraska, southward to the shores of the Indian River and Peace Creek in Florida, and to southern Alabama and Mississippi, through Missouri and Arkansas to eastern Kansas and the Indian Territory, and to the valley of the Nueces River in Texas. H. microcarpa (treated in the Silva as a variety of glabra, under the varietal name odorata) is said to occur in eastern Massachusetts, Connecticut, eastern and central New York, eastern Pennsylvania, Delaware, the District of Columbia, central Michigan, southern Indiana and Illinois, and Missouri. WILLIAM TRELEASE.

ST. Louis, Mo.

## SCIENTIFIC LITERATURE.

A Students' Text-book of Botany: By SIDNEY H. Vines, Sherardian Professor of Botany in the University of Oxford. First half pp. x., 1–430, Fig. 279. 1894. Second half pp. xvi., 431–821. 1895. London, Swan, Sonnenschein & Co. New York, Macmillan & Co. 8vo.

The completion of this, the best general text-book of botanical science yet published in any language, and just now the only adequate presentation in compact form of the subject-matter within its scope, is an event of more than ordinary interest in the annals of book-making. It is not too much to say that in this work Dr. Vines has surpassed even the high expectations of his friends. The volumes in hand have all the admirable literary quality and firm grasp of recent research that characterized so notably the Lectures on the Physiology of Plants by the same author, which appeared in 1886 and immediately took its place among the leading authoritative manuals in its line. The later work gains, perhaps, over the earlier in its somewhat more concise and transparent style and in its more perfect subjection of the material to the logical classification adopted at the outset. Certainly nothing could be better than the chapters on the general morphology of the members, on the tissues and on the general physiology. It is a great gain to botanical teaching in England and America to have the modern point of view in anatomy and physiology thus brought forward without the confusion and archaisms that diminished in a degree the availability of older texts in common use.

In general, it should be said that the perspective of the work is most admirable. About the right relative amount of space is given to each of the four principal subdivisions—Morphology, Anatomy, Taxonomy (here called anglicé, the 'Classification of plants') and Physiology. As has been pointed out by previous reviewers, it might seem that the third division has been somewhat unduly extended at the expense of the fourth. Doubtless this is a natural result of Dr. Vines having specialized in physiology, for under such conditions he would possibly desire to err rather on the side of understating than of overstating the prom-