

BRIEFER ARTICLES.

NOTES OF TRAVEL. IX.

A PRECOCIOUS POPLAR BRANCH.

(WITH ONE FIGURE)

IN the plaza at Patras, the principal commercial port of Greece, are a number of poplar trees that have been recently planted out for shade. When I was there in March 1901, these trees were just beginning to unfold their leaves, and my attention was attracted by a remarkably precocious branch on one of them, which was so far ahead in its development that it stood out as prominently against the sky as a clump of mistletoe does on a Kentucky oak in winter. The leaves on this branch were fully developed, in fact seemed to me more luxuriant than usual, and the case was so striking that I took a kodak picture of the tree. On examining the branch somewhat closely, I found that it arose from a wound which seemed to have been produced by some wagon in its passage along the street. The wound had healed, and this most pre-



Poplar tree in Patras, Greece, with precocious branch.

ocious branch originated near the callus which had formed over it.

The importance of this curious case of precocity is its possible bearing upon the production of earlier developing varieties of shade or fruit trees. The literature may be full of references to the matter, but so far as I am aware no one has made the attempt to originate an early leafing variety of ornamental trees by wounding the branches and looking for precocious shoots from the wounds, from which to propagate by buds or cuttings. It is possible that cuttings taken from a branch originating in this way may prove no earlier than the mother plant, but there is also a possibility that the wound has led to the production of an adventive bud which has varied in the direction of precocity.

I am confident that in such cultures as the hop, where the plant has been propagated asexually for centuries, bud variation plays an important part in the formation of new strains or races; and new Citrus varieties are suspected to have originated in this way. Just how great this variation is, and how often it can be utilized, remains a question for research. The case here described seemed so striking that I thought it worthy of a short note and a photograph. There was no sign of the branch having been budded with a different variety, and, unfortunately, I do not know the species of the tree. In fact, the interest of the case only appeared to me after I was many miles away from Patras.

It would be interesting to know whether the same branch developed a second year much earlier than the other branches of the tree, *i. e.*, whether this precocity was the result of a direct but transitory stimulus of the wound, or a constant character of the bud produced near the wound.—DAVID G. FAIRCHILD, *Department of Agriculture, Washington, D. C.*

NUMERICAL VARIATION OF THE RAY FLOWERS OF COMPOSITÆ.¹

(WITH ONE FIGURE)

THE following observations constitute a preliminary report upon the variation, both numerical and morphological, exhibited by the flowers

¹Contributions from the Laboratory for Plant Physiology and Pathology of the Alabama Polytechnic Institute. I.