

### A strange sassafras-leaf.

The observations upon the sassafras-leaves — a report of which appeared in *SCIENCE*, no. 36 — have been continued through the year, with results which do not differ materially from those already given. Three other forms, however, have been found, which are given in the accompanying outline-engravings. Fig. 1 shows a peculiar modification of the three-lobed form, and differs from it in having the main central lobe reduced to a slightly raised emarginate end to the leaf. At first sight it seemed as if the leaf had lost its middle lobe by some foraging animal; but the absence of any roughness in the outline, and other characteristics of the edges, preclude this view. The form shown in fig. 2 helps to confirm the above view. In this we have a three-lobed form, with the lateral lobes unequal, and the central and upper portions of

course; and the lower lobes are neither equal, nor at the same distance from the base of the leaf.

It is due the reader to state that these three forms were all found upon the same shrub, — not a large one, — and that only a single specimen of each was

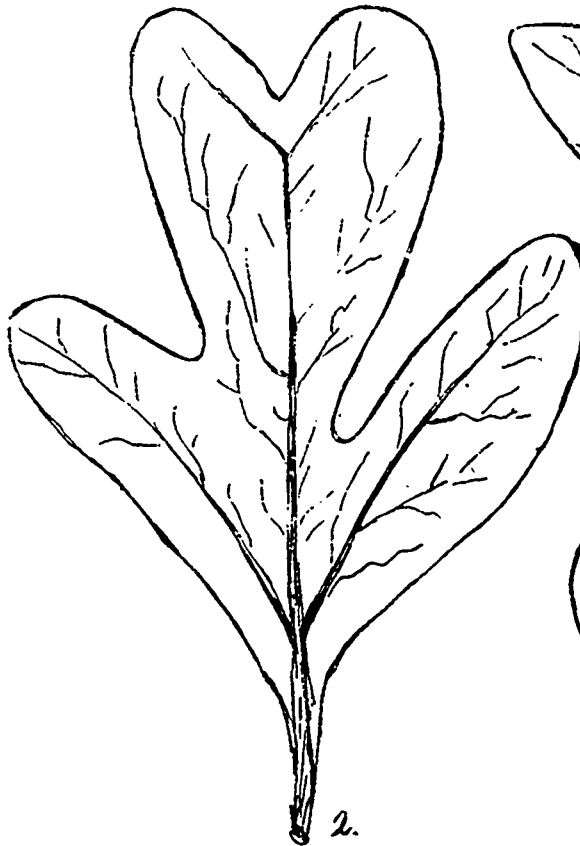


FIG. 2.

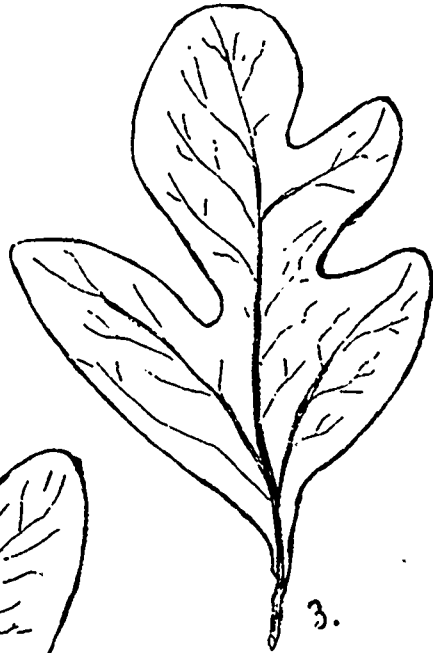


FIG. 3.

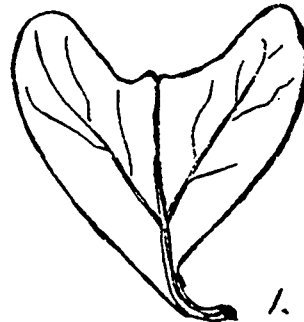


FIG. 1.

the leaf inverted heart-shaped (obcordate). The mid-rib has stopped short, and divided into two equal parts, which run to the tips of the two diverging lobes. If this failure of the mid-rib to extend had taken place earlier, a leaf might have been produced similar to the one shown in fig. 1.

The most interesting of the three new forms is shown in fig. 3. Here we have a happy combination of the three-lobed and the 'mitten' form. The manner in which this has been accomplished is simple, and is fully shown by the outline given. The middle lobe has become lobed upon one side, — a 'thumb' has formed; and, were the lower portion of the leaf removed, it would leave a 'mitten' of good shape. The whole framework of the leaf has become somewhat distorted: the mid-rib does not take a direct

course. These were all upon the same branch, though scattered among fifty or so of leaves of the three forms before described, and which, from their uniform presence, may be considered normal. How shall these deviations be viewed? Is the foliage of the sassafras passing through a period in which different forms of leaves are being tried to see which is best adapted to the surroundings? It may be that there is a tendency from the simple towards the more complex; and fig. 3 shows the form which even the philosophic botanist know but little; but, when one finds these deviations from the common form, he cannot help wondering after what end the plant bearing them is striving.

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