the flanks of a leaf trace may be called "widening of medullary rays" if one finds greater satisfaction in such a designation. In teaching the herbaceous stem, however, the writer has found that the student grasps the situation better when he realizes that the subtending nodal ray and the parenchyma which flanks the trace on either side are but parts of one physiological system specialized for food storage. As to its actual phylogeny this tissue would seem to represent a complex of vertical parenchyma united with vertical series of rays, but since the same thing can be said of the subtending ray there is no real difference between them. The flanking tissue is certainly not a single ray broadened out. Our critics are in danger here of setting up the same subtle doctrine of specificity of tissues that animates those realists who are so obsessed by the Platonic Idea of the stele that they can sense imaginary lines running across a leaf gap to separate cortex from pith.

As to the fact that some trees and shrubs have foliar rays, that would seem to have been known for some time. In fact it serves as the very basis from which the theory takes its departure. The damning fact that certain herbaceous stems, on the other hand, have "essentially continuous vascular cylinders" is to be regretted, perhaps, but it only shows that nature refuses to be forced into ways of absolutism in her operations.

So far as the writer can see we have come to a substantial basis of agreement as to facts.

Messrs. Sinnott and Bailey admit that foliar rays may occur in aerial stems, and they realize that "high multiseriate rays" or flanking storage parenchyma of a leaf trace is not the same thing as a subtending ray, hence they won't search any longer for leaf traces on the central side of such a flanking band.

The writer, on his part, is willing to call flanking tissue a medullary ray, though truth to tell, both terms are poor ones for the tissue in question. Further he gladly admits the existence of trees with leaf rays and herbs without any.

So all considered we come to substantial agreement as to how a tree became an herb. As far as the writer is concerned the affair is closed.

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FEMORAL DEFORMATION

DURING an examination of skeletal material from an archeological site at Roebuck, Ontario, it was found that in many cases a certain amount of dissimilarity existed between the right and left femora of the same individual. When paired femora were placed side by side on the same level, and with their condylar extremities together, it was found that their heads were on different levels, the right being usually the higher. This difference in the heights of the heads was due to a difference in the forward angles of the necks of the femora, that is, the angle between the neck of the femur and the horizontal. No twists or other abnormalities were observed in the shafts.

The deformity seems to have been very general among the inhabitants of this site. Of twenty-three pairs of adult femora examined, only three pairs were normal. The deformity is noticeable also among the bones of children, and even among infants so small that it is quite certain that they never walked. This would seem to prove that the deformity was congenital, and shows that it was certainly not the direct result of any habitual occupation.

Detailed examination has been made only in the case of adult skeletons. It shows that of twenty-one pairs of bones seventeen had the right deformed and six the left, two pairs having both bones deformed. In the case of the latter, the inclination of the necks was in opposite directions.

Although it has been asserted that the apparent hereditary nature of the deformity shows that it was not the direct result of habitual occupation of any sort, still habitual occupation may have been its primary cause. If it had been caused for generations by occupation it would ultimately, it may be presumed, be handed on by heredity; and thus a theoretical cause for the deformity may be found both in the case of adults and of children.

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A CASE OF SUPERSENSITIVENESS TO THE POISONOUS ACTION OF THE CASTOR BEAN

THE frequency with which the castor bean seed is used in elementary courses in botany makes it seem advisable to record a case of supersensitiveness to the poisonous action of the castor bean plant which came under my observation.

The subject, Miss K., while taking the laboratory work in botany as a student developed a severe case of what appeared to be hay fever. It was apparently associated with something used in the laboratory. Not until a year later when she acted as an assistant in the same course was the castor bean found to be the cause.

The attacks were initiated with severe sneezing and some headache and general discomfort a few minutes after exposure. Her face became inflamed and puffy, eyes reddened and swelled, breathing was accompanied by a wheezy sensation. The mucous membranes were decidedly irritated and later cracked. The surface of the cornea of the eye in some cases became slightly wrinkled. After the heaviest attack