

leys to render them immune to hay fever is now under way and the serums prepared from the black walnut pollen are the ones most used. It is expected that by this means the spring type of the malady can be largely eliminated in those districts. A more direct method would be to remove the trees, or, better yet, to graft the tops over to English walnut, which rarely, if ever, causes hay fever. By this latter method the beautiful and stately trees along the highways and in the parks could be preserved, but it would doubtless be difficult to bring about unanimity of action.

The relation of the eastern black walnut to hay fever should now be determined since that species is closely related botanically to our western form. It may also be pointed out that perhaps the most significant result of our studies, which cover the region from the Rocky Mountains west, is the discovery that hay fever is here produced by an almost entirely different flora from that which causes it in the eastern states and in Europe, and that the exact species involved must be determined in each case before treatment for immunity is undertaken. Botanical surveys and clinical tests have been carried on by Dr. Selfridge and the writer in order to determine the most important species for each district and these will be continued as opportunity offers.

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THE CANONS OF COMPARATIVE ANATOMY

IN a recent number of this journal¹ Professor E. C. Jeffrey uses "an article on the vessels of *Gnetum* in the January number of the *Botanical Gazette*" as a "flattering testimonial" to the soundness of what he has called the canons of comparative anatomy and at the same time (to modify his pun) as an illustration of poor marksmanship in the use of those canons. As the author of that article and as a firm supporter of those canons, I am glad to offer my work as a testimonial to their soundness and to their effectiveness in anatomical offensives. But, according to Profes-

sor Jeffrey, my marksmanship was defective because I stated—and in so doing showed "surprising ignorance"—that the vessels of *Gnetum* are different from those of angiosperms. Aside from the fact that this statement does not involve the use of the canons at all, the whole theme of the article was that the *same* type of vessel has been evolved in *Gnetales* and angiosperms in entirely different ways. On page 90 for example I wrote:

The possession of vessels by the two groups . . . is to be used as a remarkable illustration of development by different plants of the *same* highly specialized structure.

Again on page 89 after speaking of the perforation of the *Gnetalean* vessel I said:

We have also seen that the similar single large perforation of the angiosperm vessel, etc.

Professor Jeffrey seems to have misunderstood what was in my mind because of my statement that the vessel of *Gnetum* is like the *highest* angiosperm type except that as a rule it exhibits a narrow border. Yet every anatomist will agree that this statement is absolutely correct because the *highest* type of angiospermic vessel *has no* border on its perforations. Of course every anatomist knows that the perforations of many angiospermic vessels do show a border as do those of *Gnetum*, but these are not of the highest type.

It appears, therefore that our modern scientific promulgator of canons is in certain respects remarkably like his ecclesiastical predecessors.

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ALBINO TURKEY BUZZARDS

IN a recent issue of *SCIENCE*¹ there appeared an interesting note on the supposed occurrence of albino turkey buzzards (*Cathartes aura aura*) in Mexico, to which Mr. E. W. Nelson has called the writer's attention. This was based on the account of white "Carrion Crows" given by Captain William Dampier in his "First Voyage to the Bay of Campeachy." That Dampier mentions these white birds as of more or less common occurrence in that locality at once raises a doubt of their identification as turkey buzzards; and this

¹ *Gudger*, *SCIENCE*, N. S., Vol. XLVII., No. 1213, March 29, 1918, pp. 315-316.

¹ *SCIENCE*, N. S., Vol. XLVII., No. 1214.