SUPPOSED EXTINCT MAPLES

IN A. P. Coleman's posthumous publication, "The Last Million Years,"[1] which is a history of the Pleistocene in North America, the statement is made on page 189 that "as for the trees, only four interglacial species have been reported as extinct, two maples (*Acer pleistocenicum, A. torontoniensis*), a locust tree (*Gleditschia donensis*) and a tamarack (*Larix churchbridgensis*), and these seem closely related to modern trees, one of the two species of *Acer* being probably the ancestor of our existing sugar maple." These species, with the exception of *Larix churchbridgensis,* which is from Manitoba, were described by D. P. Penhallow[2] from the noted fossiliferous interglacial beds of the Don Valley at Toronto. Associated with them, according to Penhallow, are: *Picea nigra, Populus grandidentata, Quercus alba, Ostrya virginiana, Ulmus americana, Maclura aurantiaca, Carya alba, Platanus occidentalis, Prunus* sp., *Robinia pseudacacia, Cercis canadensis* and *Tilia americana.*

It would not be surprising to find maples among such an assemblage, but the illustrations given by Penhallow, and repeated by Coleman, of the type specimens of the supposed extinct maples are not those of maples but of variant leaves of the plane-tree or sycamore, *Platanus occidentalis,* a species already listed as being present in the Don Valley collections. That these maples are in fact sycamores is corroborated by Penhallow's description of *Acer torontoniensis.* Of these leaves he says: "Two principal veins extend from the base of the midrib to the corresponding lobes, and two subordinate veins of varying prominence extend diagonally downward from near the same point into the two minor and variable lobes which form the base of the leaf blade." The last clause gives the clue to the distinction between full-formed, typical maple and sycamore leaves. In palmately-veined maple leaves all the strong primary veins and an occasional pair of lesser veins radiate from the same point at the top of the petiole. In sycamores, however, only two primary lateral veins arise from the top of the petiole; but from each primary, a short distance from the top of the petiole, a strong secondary vein branches into the lower lobe of the leaf.

An inspection of Coleman's upper illustration on page 188, which is a reproduction of one from Penhallow, shows the strong secondaries branching from the primaries at about a half inch from the top of the petiole. The basal sinus of this leaf also is platanoid, with the margin concave inward, rather than convex outward, as it would be in maples. The marginal teeth on the fossils are not well-preserved and could perhaps be duplicated in some living maples. They can be matched readily in *Platanus.* In view of the misidentification to which attention is called here, and in order to avoid further perpetuation of this error, the names of the two supposed extinct maples should be stricken from fossil plant lists.

The writer has not seen specimens or illustrations of *Gleditschia donensis* and *Larix churchbridgensis* and therefore has no opinion as to their status.

ROLAND W. BROWN

GEOLOGICAL SURVEY,
DEPARTMENT OF THE INTERIOR,
WASHINGTON, D. C.

[1] University of Toronto Press, Toronto, Canada, 1941.
[2] D. P. Penhallow, *Am. Nat.,* 41: 443–452, 1907.

THE OBJECTIVES OF THE SCIENTIFIC SPEAKER

IN the May 15 issue of SCIENCE, Mr. Potter, in his enthusiasm for popular presentation, seems to overlook the primary purposes of the scientific meeting. In taking a place on the program of such a meeting, a scientist, who is actively engaged in research, has two objectives in mind. First, it gives the opportunity to publish in the proceedings of the society, at least in abstract, and thus to establish the priority of his work; second, he presents his methods, results and conclusions to workers in the same or related fields in the hope that he will receive some help in the form of well-considered criticism.

The position of the speaker on such a program is difficult. He is faced with the problem of presenting in 15 minutes the results of several months' work and do it in such a way that his audience can get a sufficiently complete picture of what has been accomplished to enable them to judge correctly of its merits. To do this he must use technical terms because of their concise and exact meanings, and since his audience consists of workers in the same field such use is expected and requires no apology. All that a popular science writer can expect to get from such a talk, unless he happens to have been trained recently in the same science, is to determine whether or not the work is of such a character that it can be put into a form that will have popular appeal. If so, he should interview the speaker later and secure the necessary background for his story.

Mr. Potter's error is in assuming that the scientist is under an obligation to present his work in popular form. It is the popular science writer rather than the scientist who is supposed to be expert in the use of popular language and to know what will appeal to the public. The science writer, in training himself to fulfil this function, must acquire a broad scientific vocabulary and a real interest in science in addition to a facility in putting scientific facts into a form that will interest and instruct the general public.

O. F. EVANS

UNIVERSITY OF OKLAHOMA