has not wished for a standard series of symbols. The question is not a new one; it was considered by a committee of the American Association for the Advancement of Science many years ago, but its efforts were shattered in the attempt at international cooperation. Such cooperation is very desirable, but if it is not available that is no reason why America should deny herself the benefits of coordination which she, with her scientific resources, may devise. Every monograph, every textbook that is written adds to the confusion of symbols, for there are no standard tables to guide one. It seems to me not only possible, but practicable that a list of symbols could be compiled under various headings—mathematical, astronomical (with subdivisions), physical (with subdivisions), geophysical, electrical, etc. The various headings would be necessary because the same symbol is frequently used under different headings, and, of course, with different meaning. Whether we write g for terrestrial acceleration or a is fundamentally quite immaterial, so it is whether we write L, or ϕ, or λ for latitude, but it is not immaterial for the person who reads it. He will probably wonder why the writer doesn't use such and such symbol. We want uniformity, uniformity to as great an extent as possible. Personal preferences should be waived and sunk in the greater scheme of uniformity. There are already many constants, many expressions, many concepts that await being labeled for common recognition. Who is to undertake this work, who is to do the labeling? I can see, or rather I can hear rumbling—"I'm not going to be bound by any such tables." Quite so, they would have no authority whatever. However the dictates of common sense would be their propelling force and I think the vast majority of American scientific writers would avail themselves of their usefulness. Anything that promotes readiness of understanding and ease of reading mathematical expressions and equations should be encouraged.

In order to give definiteness to my ideas, which I hope will arouse discussion, I would suggest that the tables of symbols spoken of be prepared by the Carnegie Institution of Washington. It is work that so eminently falls within its scope, and it is so well equipped with material and other resources, that one can look forward with confidence to a well-matured publication. Should the work be undertaken by the Carnegie Institution nothing would further the general adoption of the symbols promulgated more than the wide distribution of the publication and that could be profitably effected by sending to every scientist—to every man in "American Men of Science"—gratis a copy of the Carnegie publication.

My closing word: Don't let details smother uniformity. Make a start.

OTTO KLOTZ
DOMINION OBSERVATORY,
OTTAWA,
August 4, 1917

BACTERIAL LEAF SPOT OF TOBACCO

A BACTERIAL leaf spot of tobacco has been found to occur within certain sections of North Carolina. This disease, because of the rapidity with which it spreads, has appropriately been given the name "wild fire." It first manifests itself in seriously destructive form at the time of transplanting, so that in some fields it has been necessary to replace the seedlings by a second and a third transplanting. Plants in the seed beds from which these seedlings were taken have been found to be diseased, indicating that the malady was introduced from the seed beds.

The disease first appears as circular yellow spots about 1 cm. in diameter. A minute brown area indicates the center of the spot. Within a few days the brown area will have enlarged to 2 or 3 cm. in diameter with a translucent border and surrounded by a wide chlorotic halo. When the spots are numerous they fuse, forming large brown irregular areas which in severe cases involve most of the leaf tissues.

Isolation and inoculation work has shown that the disease is due to a grayish white bacterial organism which is heretofore undescribed. This organism is rod shaped, about three times as long as wide, and actively motile

by a single polar flagellum. It is therefore referable to Cohn's Bacterium as amended by Smith and is given the name *Bacterium tabacum.* The detailed account of the cultural studies and inoculation experiments which have been made, and of the distribution and dissemination studies which are in progress, is reserved for subsequent publication.

F. A. Wolf,
A. C. Foster
North Carolina Experiment Station

PLANT DISEASES IN CANADA

To the Editor of Science: Two plant diseases have recently been observed in the Dominion of Canada which have not been recorded before, viz., *Dothichiza Populea* Sacc. et Briard, on Lombardy poplar, St. Andrews, N. B., and *Colletotrichum cereale* Manns, on spring wheat, Charlottetown, P. E. I.

A third disease affecting seed pods of turnips grown for seed in P. E. I. caused by *Leptosphaeria Napi* (Fuckel.) Sacc., of which the conidial form *Sporidesmium exitiosum* was found, does not appear to have been recorded as causing trouble on the continent of America. It is well known in Europe, where it is disastrous to seed turnip cultures.

H. T. Güssow

COMMON PLANT NAMES

To the Editor of Science: May I draw attention to a point in the discussion on popular names of plants, which M. A. Bigelow, in Science of July 6, seems to ignore; that is, the great literary value of a good common name and the danger that such names may be lost through being ignored by teachers. Of course children can learn any name—they memorize far more easily than grown people—but do not let us give them scientific names to learn as a part of nature study, unless they are going in for botany as a science. Scientific names are usually clumsy and pedantic, almost always lacking in character, and often can not be gracefully absorbed into the English language.

The names which Professor Bigelow cites as being both popular and scientific are sufficiently euphonious, but are almost all those of garden plants, which may be allowed to bear florists' names. The few wild flowers he mentions all have good common names, which apparently he is willing to discard. Primrose is an older name than *Primula,* I fancy, and for the matter of that, surely rose, lily and violet antedate the systematists! *Clematis* and *Trillium* are pretty enough, but virgin's bower and wake-robin are names to make a poet sing for joy. Most eastern wild flowers have fairly good names and even in the west—a young civilization is apt to be content with variations of "bells" and "roses"—they have some fine names, such as "our Lord's candle" (*Yucca Whipplei*), "sweet-after-death" (*Achlys triphylla*) and "flaming sword" (*Fouquiera splendens*). Such names as these enrich our language and should be preserved at all costs.

Shall we encourage children to gather nosegays of *Blepharipappus, Mesembryanthemum* and *Malacothrix?* Heaven forbid! Only give them time and children will evolve good names for all conspicuous wild flowers, if we do not thwart them by teaching the scientific ones unnecessarily. Cat's breeches, named by Utah children, may not be elegant, but it is quaintly appropriate and is certainly better for every-day use than *Hydrophyllum capitatum.* Let us go slowly in these matters and so long as men like Dr. Jepson are continually on the lookout for good common names we need not despair.

Margaret Armstrong

A SIMPLE EXPLANATION

In Science, August 31, 1917, page 212, Professor C. A. Mooers writes as follows:

> The writer has assumed that Dr. Hopkins could give a simple explanation for his conflicting estimates, as given in Science, November 3, 1916, p. 652, and in Science, March 2, 1917, p. 214. In the former article he says: "For each dollar invested rock phosphate paid back $2.29," but in the latter article he says, with regard to the same data, "Easy computations show profits per dollar invested of . . . $1.29 from phosphate rock."