

way, it was found to total 0.000079m³. It is seen that the amount of new growth is 18 times that killed in the same year.

Not only are saplings showing recovery of growth but older trees as well. Near the writer's home is a fine grove of chestnut trees of 30 to 40 years age; the tops were killed, but the trees are producing new crowns, in some cases recovering half their former height, and are now well set with fruit.

This condition seems common in southeastern Pennsylvania, the trees flourishing more on Chester and Manor soils than on the more sterile Dekalb. It may also be rather a widespread condition, for in passing through the mountains from Harrisburg, Pa., to Buffalo, N. Y., many trees were seen similar to those described. In the Niagara Peninsula of Ontario, especially near St. Catharines, recovery seemed evident.

The improved condition may not be due wholly to greater resistive powers but to a lessened supply of spores, for it is evident that the total production of *Endothia* spores is vastly lessened. The trees have also shown their ability to heal serious cankers, although ultimate recovery is not a necessary consequence.

Those trees, however, which seem most likely to survive and produce seed are in danger of extinction, since the public has been educated to believe that cutting of all chestnut trees from a woodlot is a virtue. Instead living ones should now be preserved. It might prove advisable to locate the best groves and to protect them from cutting and from fire.

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THE SCIENTIST AND AN INTERNATIONAL LANGUAGE

ON reading the article of Dr. R. G. Kent on "The Scientist and an International Language" (SCIENCE, No. 1538, June 20) I am particularly glad to hear from a scientist of an English-speaking nation, of the need of an international language for scientists. I fully agree with Dr. Kent in discarding any existing national language as such. I want to call attention to a great handicap on the part of scientists belonging to a nation whose language is not widely intelligible. For instance, in the *Annotations Zoologicae Japonenses* and the *Folia Anatomica*, both published by Japanese biologists, all articles written in Japanese are excluded, and the editors of the Swedish journal *Acta Zoologica* will not accept papers written in Swedish. It is true that for some scientists writing in other languages this may not be felt as a serious handicap. But it remains true that some have the advantage of publishing papers in the mother language, while others have the disadvantage of endeavoring to write in a foreign language.

Dr. Kent proposes the use of Latin as an international auxiliary language among scientists. This was proposed by Zamenhof in his boyhood half a century ago. He soon discarded it, however, because of the extreme difficulty of learning that complicated language, and after years of painstaking effort he finally succeeded in inventing a language, which is now well known by the name of Esperanto.

It is not necessary to explain how easy it is to learn Esperanto, and how freely one can express one's opinion and can describe what he has in mind, even in scientific terms. Every Esperantist will tell you of it. For this reason it would not be desirable to adopt Latin as the spoken language in an international congress. Even if "we give Latin a preferred place in our study of foreign languages" I wonder how many of us would succeed, after a few years' course, in speaking Latin! Esperanto has already experienced a brilliant success in this respect. I believe that it is Esperanto that fulfills our desire of having a neutral auxiliary language in scientific circles.

I may be allowed to add, further, that in Japan some original papers have already appeared in this language in the fields of anatomy, pathology and veterinary science, and that there is a project among a few biologists of publishing an Esperanto bulletin of zoology. This, together with the fact that there exist international as well as local Esperantists' associations in the medical sciences and that several journals are published by them, is sufficient to show the practicability of this language in scientific publications.

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BALL LIGHTNING

IN SCIENCE for August 8, Mr. W. J. Humphreys, of the U. S. Weather Bureau, requests information as to ball lightning.

Several years ago my home was struck by lightning. A ball of fire seemingly about nine inches in diameter was thrown into the center of my bedroom and exploded with a terrific noise, just as if a bomb had been exploded. Brilliant particles seemed to have been hurled into every direction, but I felt no effect other than that of sound and sight.

The electric wires throughout the house were affected, and there is an inch hole through the plastered wall on the ground floor where an electric spark seems to have found its path between the radiator in the room and the metal support to the water spout on the outside of the building.

I took the matter up with Dr. T. C. Mendenhall, with whom I was associated on the board of trustees of Ohio State University, and on expressing a doubt