

The blister rust first reached the West at Vancouver, B. C. in a shipment of pine seedlings from France. It was discovered by forest officials in Washington and British Columbia in 1921 and in Oregon in 1922. By 1924 a program was under way to keep it under control, in which Federal and state officials as well as private interests were coordinated.

The vast acreage of western forests, running into millions, made the problem much more difficult than in the East. The first step was to put into effect a field quarantine to prohibit any of the host plants of the rust being shipped into the West. Next a systematic effort was made to completely eradicate the black currant from the states of Montana, Washington, Idaho, Oregon, and California. Through this foresight it is hoped to cut down the chances of infection before it can make any very damaging spread in these states. Already the end of 1925 has seen Idaho and Oregon, practically clear of dangerous black currants.

Effective control work can only be done before the trees are seriously attacked. In consequence a general campaign is under way to educate the people in the knowledge that if the timber is to be saved the currants and gooseberry bushes must go.

PROTECTION AGAINST VOLCANOES URGED

Precautionary measures to prevent loss of life from volcanic disaster are being urged by European scientists.

In a paper published by the Geographical Society of Geneva, Dr. Albert Brun stresses close scientific observation of all the phenomena attending active volcanoes as the best means of guarding against catastrophe. He mentions the study of earthquakes at the volcanoes, registration of sound waves, chemical analysis of gas, use of aviators for reconnoitering and the steady observation of the performances of craters and hot springs as necessary means of being forewarned for trouble.

Dr. Karl Sapper, of the University of Wurzburg, maintains, on the other hand, that the disturbances characteristic of active volcanoes such as appearance of new vents, underground noises, earth tremors, exhalation of gas and the like are not sufficient evidence of a coming eruption. He cites Cotopaxi, Kilauea, Keliet and others as eruptions that have broken out without any such advance warnings. 190,000 people have been killed by volcanoes in the last four centuries, he says. 93 per cent. of which were about the Pacific, the maximum loss having occurred at volcanoes erupting only once with much violence and after a period of long inactivity.

Dr. Sapper advocates as the most effective method of attack, popular propaganda and education of the public in the schools concerning precautions, building sites, steep roofs to shed ash, and readiness to migrate in case of danger. Valley bottoms, the natural paths of the lava flows, should be avoided as places in which to settle. Governmental insurance reserves and rehabilitation are the only means of meeting the emergency of famine and disease, caused by the heavy fall of ash, destructive to plant and animal life alike.

Already some results of the progress in knowledge and education about volcanology have been seen in the handling of the Vesuvius and Etna eruptions. Still better preparation and protection were in evidence at Sakurajima in Japan. Java and Hawaii have cared for disasters with science and forethought and many of the countries which have native volcanoes within their confines are devoting attention to careful building, transportation, and organization for crisis, as never before.

TABLOID BOOK REVIEW

THE RELATION BETWEEN SCIENCE AND THEOLOGY, by C. Stuart Gager. Chicago: Open Court Publishing Co. \$1.00.

A very clear, good tempered and sane discussion of the principles underlying the present evolution controversy. The author explains the method of science and shows that it is not inimical to religious faith. A useful book for the general reader who desires to be fairminded.

CHEMISTRY AND CIVILIZATION by A. S. Cushman. New York: E. P. Dutton & Co.

A new edition of a popular chemistry rich in historical and biographical material. A unique feature that may interest school teachers is a sort of chemical dance, illustrating the Bohr atomic structure, where boys play the part of protons and girls electrons.

E. E. Slosson.

The Guaharibas, a savage mountain tribe of Venezuela, are said to be still ignorant of the use of fire, and eat their fish and other food raw.

Aviators who maintained a forest fire patrol on the west coast last summer discovered 217 fires and were first to report news of 61 fires.

Uncivilized tribes have the ability to see in the dark, not because of especially superior eye sight, but because they have been trained to use their eyes at night.

Descartes, famous mathematician, was a long sleeper, and is often mentioned in support of the theory that the most active brains require long periods of sleep.
