

cover them. Mr. Emley suggested that it might be used directly in food products, or possibly industrially as a raw material for alcohol, acids and other chemicals.

It takes about half a second for the eyes to change from looking at a near object to a more distant one, Herbert H. Jasper, of the University of Iowa's Psychopathic Hospital, reported. By testing the time it took the eye to change from converging on one of three lights 17, 30 and 70 inches away in an otherwise dark room to one of the others, Mr. Jasper found that the average time on first trials varied from 557.1 thousandths of a second for the two nearest lights to 626.2 thousandths for a change from the nearest to farthest. A second set of measures showed improvement. Investigations of how the world looks to rats were reported by Professor Paul E. Fields, of the Ohio State University. The rat is supposed to have eyes which are not capable of discriminating forms, such as the triangle, Professor Fields explained. But in his experiments twenty-five white rats learned to discriminate between a triangle when the apex was pointing up and when the apex pointed down.

YOUNG oak trees must have plenty of sunlight if they are to develop strong root systems, Professor A. E. Holch, of the University of Nebraska, told the Ecological Society of America at its Des Moines meeting. He studied young burr oaks on an open hilltop, in an open stand of oaks and in a more densely grown stand of linden. Year-old seedlings in the full light of the hilltop developed a root

depth of five feet and a total spread of 2.25 feet. Trees of the same age in the 12 per cent. light of the oak forest had a root depth of 1.6 feet and a spread of nine tenths of a foot, while in the shade of the lindens, where there was only a 3 to 4 per cent. light, the roots reached a depth of only eleven inches and had a three-inch spread.

ULTRA-VIOLET light is a stimulant not only to the health of humans but to the vitality of a microscopic fungus as well, said Dr. G. B. Ramsey and Mrs. Alice A. Bailey, of the U. S. Department of Agriculture, speaking before the American Phytopathological Society. It causes the production of more numerous and more vigorous spores in the organisms which give rise to the nailhead rust of tomatoes and Fusarium bulb rot of onions, two destructive diseases that attack vegetables while being shipped to market. As with people, the light will have a disastrous effect if too long an exposure is made.

A WELL-CONSTRUCTED office building has little to fear from earth vibrations caused by heavy traffic, Professor C. C. Williams, of the University of Iowa, told members of the association. Man's senses usually exaggerate the vibrations caused by street traffic, passing trains or rotating machinery. A movement of only one thousandth of an inch ten times a second seems a rather violent shaking to ordinary senses. Even the little street vibrations cause pictures to become askew on the wall and make dishes move because there is a more rapid movement in one direction than in the other.

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