

when he shared the association's annual thousand-dollar prize for a paper on his discovery. Like the termites, these woodland roaches are wood-eaters, and their internal protozoa apparently do their digesting for them.

DIETS for children are scrutinized for mineral contents, for the benefit of growing bones and teeth and other young tissues. From experiments reported before the American Society of Plant Physiologists by Dr. R. H. Carr, of Purdue University, it would appear that something of the same sort is in order for plants also. "It has been found," he said, "that the ashes of wheat, oats, alfalfa, tobacco and strawberries vary greatly according to the different soil types, even to such an extent that the 'mold' or 'pattern' of the plant and its degree of usefulness has been modified. Strawberries grown on a certain clay soil were found to be so highly mineralized that they remained firm and marketable four days longer than the same variety grown on a near-by loam soil. Wheat grown on a certain silt soil was found to contain 20 per cent. more ash and to produce a larger loaf of bread than the same variety grown on a productive loam soil in the same locality."

ARTIFICIALLY lengthening and shortening the daylight period for plants, for a number of years a scientific success, has been proved to be economically practicable by experiments carried on at Ohio State University by G. H. Poesch. He found that by shading his chrysanthemum greenhouses with black cloth he could produce an appreciably earlier marketable crop of flowers of correspondingly higher value. Conversely, he found that with plants responding to longer instead of shorter days, it was commercially practicable to give them four hours' extra illumination each day with 75- to 150-watt lamps. The current cost for one of the flower varieties used in

his test amounted to only half a cent a stalk of the marketable flowers.

ENGINEERS who two centuries ago first attempted to master the Mississippi River, should have begun at Cairo, Illinois, where the lower Mississippi begins, and not near New Orleans, where the river reaches the Gulf of Mexico, it appears from a report by Professor Floyd Nagler, of the University of Iowa. If engineers had started at Cairo with their dikes and levees and proceeded downstream, the folly of trying to exclude the Mississippi from all the surrounding plain would have been apparent. As it was, he stated, they began at the river's mouth and a full century of argument has been required to demonstrate conclusively that the Father of Waters must have several outlets into the gulf. The problem, he concluded, has been made one of flood protection where it should be one of flood passage.

A MILLION and a quarter square miles, or over forty per cent. of the area of the United States, comprising most of the best farm lands, is unwillingly shipping its tillable surface to Louisiana, which does not want the soil. The shipment is constantly on the way, *via* the Mississippi and its tributaries, to be dumped at the entrance to the Gulf of Mexico, as extensions of the troublesome and constantly growing Mississippi delta. The magnitude of the erosion menace was graphically shown in U. S. Coast and Geodetic Survey maps displayed at the scientific exhibit at New Orleans. Through two great breaches in its banks, called "crevasses," the Mississippi has poured silt to form over 40,000 acres of swamp, useful only for breeding muskrats. And constantly, under the waters of the gulf, this costly mud piles up new shoals which keep the scientists of the Coast and Geodetic Survey always on the alert because of their menace to navigation.

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