

Out of 384 tornadoes, he stated, seventy-eight per cent. moved northeast. Out of 452 tornadoes, eighty per cent. happened between noon and six o'clock in the evening.

NEW WORLD MADE FOR PLANTS AT BOYCE THOMPSON INSTITUTE

How plants respond to strange conditions never found in nature, such as day-light arbitrarily set at anything from zero to twenty-four hours a day, carbon dioxid ten times as concentrated as it is in normal air, and atmospheric moisture held anywhere that the manipulators want it, was told in an illustrated discussion before the American Association for the Advancement of Science by John M. Arthur of the Boyce Thompson Institution, Yonkers, N.Y.

One lot of plants was given ten times the normal amount of carbon dioxid and at the same time had its daylight period lengthened six hours with powerful electric lights. Red clover plants in this lot blossomed and produced a good crop of hay in 38 days, when under ordinary agricultural conditions two years would have been required for the same results. Spring wheat, barley and oats in the same group produced taller plants, yielding larger crops of both grain and straw, than control plants under normal conditions.

A second series of plants was given light for 24 hours a day, but no extra carbon dioxid. These did little better than the control plants, and on the whole not nearly as well as those that were given the extra gas. Apparently plants need a rest, for a tomato plant subjected to continuous light treatment finally died. A second tomato plant, given 19 hours of light and 5 hours's rest, survived and grew slowly, while a third, with 7 hours' rest each night, bore fruit.

With its facilities for complete and accurate control of all conditions affecting plant life, the Boyce Thompson Institute plans a long and extensive campaign of research into the fundamental problems of plant physiology.

DOCTORS' CHARGES CHANGE WITH MEDICAL PROGRESS

What should a doctor charge his patient? This is a question that was brought up before the American Association for the Advancement of Science meeting recently by Dr. Michael M. Davis of the United Hospital Fund of New York.

Since the advent of the specialist, the increase in the importance of the laboratory analysis, X-rays and therapeutic services, radical changes have come about in medical fees, Dr. Davis said. In the old days when most physicians did practically the same work, the fees charged were, so to speak, fixed by custom and were fairly uniform.

At the present time fees in cities, and to a less extent in the country, vary from \$1.00 a visit to the office of a country practitioner, to \$10,000 for a major operation by a surgeon of national reputation. Other costs besides doctors' fees have arisen, such as expenditures for laboratory and X-ray tests, nursing, and hospital charges.

Over a fourth of the entire medical profession gives a portion of its time free to hospitals and charitable institutions and clinics. These are usually the best trained and best known doctors and their fees to the paying patients are probably increased in proportion to the amount of time they give away, Dr. Davis said.

Studies of family incomes show that the average middle class person can never afford to have any but very minor illnesses, if well trained physicians and most approved forms of diagnosis and treatment are secured. Important adjustments will have to be made in the future to fit the fee to the average pocketbook, and to pay the doctor at the same time, Mr. Davis' report showed.

INTELLIGENT STUDENTS SHOW MOST SPEED

The rate at which an individual thinks and acts appears to be as much a part of his particular personality as his smile or the tone of his voice. He is characteristically fast, or slow, or medium. How this constant rate of speed, is revealed in intelligence tests was described by Prof. E. G. Boring and Dr. C. C. Pratt, of Harvard University, before the American Psychological Association recently.

Harvard students were given intelligence tests in which they had to solve puzzles, complete sentences, and do a wide variety of mental tasks, all as quickly as they could. The student who made the highest speed record in one test made the highest in most of the others, and the other students kept pretty closely in the same order for all the tests.

The possibility had been suggested that individuals who take such tests vary in speed according to their ability to concentrate and to organize their forces for difficult mental effort. But the experiment showed that the student who is slow at mental gymnastics is also slow when told merely to press a key as soon as he hears a signal.

The two psychologists pointed out that very little is known about the nature of intelligence, and that speed may turn out to be the most important factor,

SHOW FARMERS HOW TO CURE SWEET CORN QUICKLY

Sometimes unexpected early frosts have cheated farmers out of their seed corn, and corn growers have tried all sorts of tricks to force the corn to dry early, so that when the frost does come it can do no harm.

Prof. A. T. Erwin of the Iowa Agricultural Experiment Station has tried to find if there is any way of drying full grown corn out ahead of time and making it more sure of escaping the frost. He told of the results of his tests before the American Association for the Advancement of Science meeting.

The old fashioned method used by some farmers of cutting the tops of the corn a joint above the ear while the corn is in the denting stage, cutting its teeth, did not help the curing or drying of the corn, Prof. Erwin found. When the corn was cut and shocked, the results were also unsatisfactory.