

shown that in the month of August there are likely to be about 1,000 ragweed pollen grains in every cubic yard of air.

There doesn't seem to be anything one can do about the ragweeds. They are among our most abundant roadside and wasteland vegetable hoboos. Except for cleaning up vacant lots in cities, cleaning them out by cutting is prohibitively expensive. The low ragweed species survives well in over-grazed pastures, for it is so tough and bitter that even a goat will not eat it.

The only thing that seems to help is the traditional "hair of the dog that bit you." Ragweed pollen is harvested by workers for some of the great therapeutic manufacturing companies and used in the preparation of immune serums that give lasting relief to at least some of the army of hay-fever sufferers.

Science News Letter, August 3, 1935

PLANT PHYSIOLOGY

Heavy Water Lowers Plant's Food-Making Efficiency

HEAVY water, in which the recently discovered double-weight hydrogen atoms replace the commoner single-weight ones, slows down the rate at which green plant cells can form food substances, Drs. James Curry and Sam F. Trelease of Columbia University have discovered. (*Science, July 5.*)

They used cultures of the simple one-celled water plant known as *Chorella*. Equal measured quantities of these cells were put into ordinary water and nearly pure heavy water, and their respective food-making efficiencies tested by measuring the amounts of oxygen given off as a by-product of the process. The results show that the cells in heavy water were only about two-fifths as active as those in the plant's normal medium of ordinary water.

The research was aided by a grant from the Rockefeller Foundation.

Science News Letter, August 3, 1935

● RADIO

Tuesday, August 6, 3:30 p. m., E.S.T.
THE PROGRESS OF MEDICINE, by Dr. Elliott C. Cutler, Professor of Surgery, Harvard University Medical School.

Tuesday, August 13, 3:30 p. m., E.S.T.
THE HISTORY OF HOUSES, by Dr. Laurence V. Coleman, Director, American Association of Museums.

In the Science Service series of radio addresses given by eminent scientists over the Columbia Broadcasting System.

PSYCHIATRY

Brief Treatment In Clinic Improves Mental Patients

Follow-Up of 500 Cases After Lapse of Three Years Shows That More Than Half Are Still Doing Well

THE VALUE to patients with mild cases of mental disease of a short course of treatments at a clinic is demonstrated by a follow-up of 500 cases treated at the Institute of Medical Psychology, London.

More than half of these patients were not only relieved at the end of the treatments, but still in an improved or much improved condition after an interval of three years, reports Dr. Mary C. Luff, assistant director of the Institute, and Marjorie Garrod, registrar, in the *British Medical Journal*.

The greatest success was observed in cases classified by the physicians as "anxiety states." This is the type of psychoneurotic illness so frequently masked as gastritis, irritable heart, nervous debility, and so on. It is considered as probably the most important form of psychoneurosis as far as industrial disability is concerned. At the end of the treatment, 80 per cent. of these patients showed considerable improvement, and 64 per cent. were still improved after the lapse of three years.

The Institute of Medical Psychology was founded in 1920 as the Tavistock Clinic. Since then the number of patients treated each year has steadily increased. Most are sent in by their own private physicians. Others are referred by hospitals, social organizations, and even the police courts. They are given interviews once, twice or three times a week, according to their needs, and these interviews are spaced more widely apart as they improve. If the patient is employed in the daytime, his appointments are arranged in the evening so as not to interfere with his work.

In case the home of the patient is not favorable for his improvement, or in case he lives too far away to come frequently to the clinic, he may be admitted to an in-patient department.

They pay according to their incomes up to a maximum of 7 shillings, 6 pence (about \$1.85) a treatment.

A course of 20 interviews or fewer was found to be sufficient treatment for 50 per cent. of the 500 patients. Another 39 per cent. were seen from 20 to 60 times, and only 11 per cent.

more than 60 times. The staff member in charge of the patient was required to call a colleague into consultation before continuing any course of treatment beyond 60 interviews.

The follow-up showed that the proportion of improved cases was just about the same regardless of the length of the treatment, demonstrating that brief, relatively inexpensive courses of treatment give satisfactory results.

"The question of length of treatment deserves serious consideration," the investigators comment, "for the number of applications to the Institute is very large, and it is important that no patient should be given lengthy treatment unless it is essential.

"The question is also serious from a wider point of view. Halliday has recently published a survey of 1,000 patients referred to him as regional medical officer under the Insurance Acts on account of prolonged incapacity. He estimates that roughly one-third of these patients are in reality incapacitated by psychoneurotic symptoms.

"If, as is probable, this proportion holds good throughout the country, the number of such patients requiring treatment is so great that it behooves all those concerned to use the shortest methods compatible with efficiency in dealing with their cases."

The policy of the Institute has been to avoid so far as possible the orthodox Freudian analyses which normally take two years of almost daily visits.

Science News Letter, August 3, 1935

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