



MAIZE

The first picture of Indian, miscalled Turkish, corn. The illustration here reproduced is from Fuchs' German edition of 1543, printed from the same plates as the Latin edition of 1542 and identical with the earlier one except that the plates were not hand-colored.

no Latin name other than *Turcicum frumentum*.

Species

There are four species of Turkish Corn. One with brown, another with reddish, the third with yellow, the fourth with white grain. There are differences also in the ears, which however are all pointed. They blossom with many colors, after which the grain they produce is colored, one brown, the other red, and so on. In other respects they are like each other, so that we have shown them all by one painting and figure.

Form

The Turkish Corn produces a very high halm or stalk, which is round, thick, and brown toward the root, with many knots. The leaves are long, similar to the sharp leaves of reeds. On

the stem there are ears which are pointed and quite empty, for they have no seed in them; they flower . . . now brown, now red, white or yellow, after which they bear grain. The grains, however, are three-cornered, and lie in big round sheaths, all shaggy at the top, which grow up at the side of the stalk, [remaining] closed. These grains are pressed close together; one sheath may have eight rows, another ten, seldom more. The shaggy hair that grows at the top of the sheath has the same color as the corn within. The roots consist of many small hairs set together.

Place of its growth

As stated above, this corn has only recently been brought into our country from Turkey. It has been well liked, so that it is now almost common, and is cultivated in many gardens.

Time

Turkish Corn must be planted in the spring, to best advantage in April. It matures in our country toward fall.

Nature and Complexion

Turkish Corn has doubtless the same nature and complexion as wheat, as we have pointed out in our Latin herbal.

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PSYCHIATRY

New Drug Treatment Gives Hope for Relieving Insanity

All but Eight of Forty-Six Patients Respond Favorably To Medicines that Affect Consistency of Brain Colloids

HOPE for the rescue of the insane suffering from dementia praecox, manic-depressive and epileptic psychoses was contained in research results reported by Drs. H. Beckett Lang and John A. Paterson of Willard, N. Y., State Hospital, to the National Academy of Sciences meeting at Yale University.

Two simple drugs were used in testing forty-six cases of serious mental disorders. Each of the patients was first given sodium amytal by mouth; then later they were fed the other drug, sodium rhodanate, for a period of days. This was done to test the theory advanced last spring by Drs. Wilder D. Bancroft and G. H. Richter of Cornell University that many mental functional disorders are due to brain protein solutions being either too thick or too thin. The amytal was used to coagulate and the rhodanate was used to disperse the nerve colloids.

All but eight of the forty-six patients responded favorably to one or the other of the drugs, although Drs. Lang and Paterson made the tests to check the theory rather than to develop new methods of treating these serious mental diseases.

J. D., male, twenty-eight, ill five years with catatonic dementia praecox, was changed markedly by sodium amytal. He asked for work, fed himself, kept himself neat and clean, whereas before

treatment he was in a stupor, unable to care for his personal needs.

C. S., male, aged fifty, ill for eight months, was also aided by amytal and made worse by rhodanate. The favorable effect of the coagulating drug allowed the physicians to recognize his case as schizophrenia, instead of alcoholic insanity as it was first diagnosed.

After rhodanate treatment of F. P., aged fifty-four, in a manic-depressive condition for four months, it was possible to send him home. This was a case of the nerve colloids being too much jellied.

When Drs. Lang and Paterson began treating Mr. C. P., who had refused to speak for five years, he wrote on the wall a challenge to make him speak. Four days of treatment with small doses of sodium rhodanate started him talking steadily, and while his conversation was rambling and irrelevant, he showed a marked approach to normality.

Rhodanate also helped markedly Mr. J. K., aged twenty-four, ill for three years with epilepsy, who was uneasy, talkative, restless and threatening before treatment, but well-behaved and willing to work after treatment.

Details of many other cases were presented to the Academicians by Drs. Lang and Paterson. After observing that studies of cause, treatment and nature of these mental diseases have been bitterly dis- (Please turn to page 346)

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appointing in the past, the two doctors concluded from their tests that from a correct appreciation of colloidal states of the patients' nervous systems better treatment of serious mental diseases can be developed.

In the cases of schizophrenia or dementia praecox and the characteristic stupor of catatonia, the colloids of the brain are in a state of over-dispersion, it was concluded. In manic-depressive psychoses and a newly recognized state of benign stupor, the colloids are agglomerated.

Present methods of treating insanity will be aided and not replaced by the new drug treatment. The experimenters expect that the new method will also find use in diagnosis of mental ills.

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SAFETY

Pavement Stop Signs Have Letters Shaped Wrongly

THE COMMON stop sign painted on the pavement to halt motorists before a dangerous intersection usually is speedily run over, not because of carelessness but because a warning in ordinary shaped letters cannot be read until it is too late to stop.

However, let the letters be stretched until they are tall and thin, and then the warning can be read easily at three to four times the former distance, the National Safety Council suggests.

"At a distance of six or eight yards ordinary letters are so foreshortened as

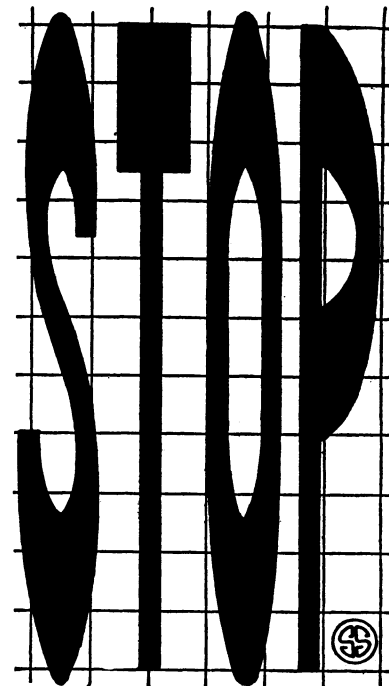
METEOROLOGY

Clouds Make Day Bright When Sun is Partly Hidden

THAT DAYLIGHT may be brighter when the sun is partly hidden than when the sky is clear, at the same time of day, is shown by an automatic photographic recorder invented by Prof. Wallace A. Thomson at the Manitoba Agricultural College, Winnipeg.

When the sky is covered with light clouds and the sun itself out of view the recorded illumination was found greater than in full sunlight in the absence of clouds.

Thus though a cloud in front of the sun might reduce the intensity by thirty-five per cent., this might on favorable



PROPER SHAPE

Stretching pavement letters makes them readable. Hold the page at eye-level to see the effect.

to become illegible," it was stated. "But if the letters are five and one-half feet high and seven inches wide, they will appear approximately square at a distance of fifteen yards, and may be read easily at a much greater distance."

Some letters have been designed to give best results for distances from 20 to 40 yards. This in general gives time enough to stop.

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occasions be more than balanced by the reflecting effect of a cloudbank. Of course, when the unobscured sun was also reinforced by reflecting clouds the brightness was at a maximum.

A continuous photographic record of the changes of illumination intensities was obtained with this apparatus, which consists of a photoelectric cell connected to a galvanometer. The photoelectric cell used for this work was mounted in a hemisphere silvered on the inside to reduce the intensity of the illumination incident on the cell.

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