

BOTANY

American Thanksgiving Plants Fifty Years After Columbus

"A Classic of Science"

"When the Frost is on the Turkish Cucumber
And the Turkish Corn is in the Shock . . ."

NEW KREUTERBUCH . . . Durch den hochgelerten Leonhart Fuchs . . . Betruckt zu Basell/ durch Michael Isingrin/ 1543.

NEW HERBAL, in which not only the whole history, that is, name, form, place and time of growth, nature, power and effects of the greater part of the plants that grow in German and other lands, described with the closest application; also of the same all roots, stems, leaves, flowers, seeds, fruits, and in summa the whole form, elegantly and artistically pictured and counterfeited, so that the like hitherto has never been seen nor come to the light of day.

By the most learned Leonhart Fuchs, Doctor of Medicine, and lecturer therein at Tübingen. . . . Printed in Basel by Michael Isingrin, 1543.

Translated for the Science News Letter by Frank Thone.

Of Cucumbers. Chap. CCLXVII

Name

Cucumbers are called in the Greek tongue Sicys and Sicys hemeros. In Latin they are called Cucumis and Cucumer, which name is favored by apothecaries. Aetius calls such growths Angurium. We have indicated the reasons for the Greek and Latin names in our Latin herbal.

Species

There are many species of cucumbers, but there are six which are most important. The first species is quite common, and is called Anguria by some. Hence its fruits are called, by some, by the German name Gurken. Another species is called Turkish Cucumber, doubtless because it came into our country first from Turkey. A third species is called, in Latin, Cucumer marinus; hence the plant is also called Zuccomarin. It might well be called the Sea Cucumber. The fourth species is called Citrullus by apothecaries, and in German Citrullen. [watermelon—ed.]. The

fifth species is called Pumpkins [apparently squashes—ed.]. Pepones is their name in the Greek and Latin speech. The sixth is the Melon; they are called in both the aforementioned languages and by apothecaries, Melones. The differences between all these we shall indicate clearly in the description of their forms.

Form

The first species, called Cucumbers by the apothecaries, has a rough stalk and creeps upon the earth. Its leaves are rough and blackish-green, angular, tapering at the end, not unlike the small ivy leaves, but larger and broader. It also has its tendrils with which it takes hold of nearby vegetation. The flowers which grow between the leaves and the stem are yellow. After the flower has fallen the fruit comes, which is long and curved and covered with points, and filled within with broad pointed seeds. These fruits are at first green and then in time become yellow, marked with many lines or furrows. The root is weak, covered with many white threads. The Turkish Cucumber is somewhat similar to the common one, in its stem, tendrils, leaves, flowers and fruits, but in general larger. The leaves are more deeply incised, greener, and are cut inward toward the stem, unlike the leaves of the ivy. The flowers are much larger, shaped like bells, but in front split into five or six parts, quite saffron-colored. The fruits become very large and are wholly and entirely yellow. The root is quite woody. The Zuccomarin or Sea Cucumber is quite similar to the Turkish in stem, tendrils, leaves, flowers and root, but in general smaller. The leaves are more similar to those of ivy than are those of the Turkish. The fruits are quite round, lined, and in color first green and afterwards yellow. The Citrullen are quite like the foreign Coloquinten in stem, leaves (which are split into many divisions or

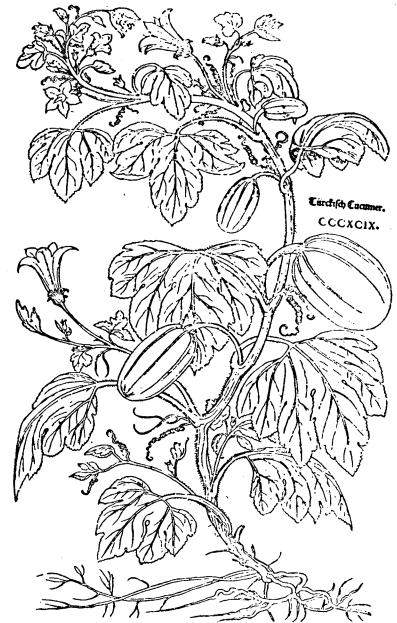
parts), and flowers. The fruits are round also, green, but much larger, inwardly stuck full of large brown broad seeds.

Pumpkins and melons have almost the same kind of growth, stems and flowers. They lie on the ground more than they scramble over themselves. Their tendrils are much smaller than those of other cucumbers. The leaves are round and rough, resembling the leaves of the vine. The various branches bear two kinds of yellow flowers, like the cucumbers; the former fall off, while the latter leave behind themselves little tips out of which the fruits grow. Some of these are long and yellow, and these are called pumpkins. Others are round and green, and these are called melons, because they are round, and shaped like apples. These two fruits are lined and somewhat rough, inwardly quite yellow, juicy, and with seeds all set in order, pleasant in odor, sweet in taste.

Of Turkish Corn. Chap. CCCXX

Name

The plant here considered has been brought to us only recently from Turkey, Asia and Greece; therefore it is called Turkish Corn. Thus far it has



PUMPKIN

The 100 per cent. American relative of the gourd was confused with the similarly-growing cucumber by its early European observers, and credited to Turkey on the principle, apparently, that that country was the source of exotic things in general. From Fuchs' drawing, probably the first published figure of this plant.



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.

Science News Letter, November 28, 1931

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)

Homes of Ancient Egypt

with their gardens and duckponds, will be described by

MASPERO

in the next

CLASSIC OF SCIENCE