BOTANY

NATURE RAMBLINGS

by Frank Thone

Whence May Flowers?

➤ PERENNIALLY, as sure as it rains in the spring, we hear the chirping reassurance: "April showers bring forth May flowers!" This is true in a way, but in a larger way it isn't.

It is true that the warm rains of April trigger the explosion of bloom that comes in May. They provide moisture to fill the rapidly expanding leaves and stems and flower-buds, and the warmth speeds up the growth. But it could be possible for flowers to bloom in May if not a drop of rain fell in April—though that latter contingency is hardly imaginable in most places. If there were deep snows and a slow thaw in March, and a bit of rain as May came in, the flower show would still go on.

For the flowers are all there long before April showers evoke them. Packed away as fairly well-developed, though small, beginnings in bulbs, corms, rootstocks, tubers are the leaves and stems and flowers that will unfold as the rising warmth stimulates them and as they greedily suck moisture through the roots into their expanding cells. You can prove this for yourself, if you like, by sacrificing a hyacinth or tulip bulb, splitting it fairly down the middle and searching for the tightly-packed flower primordia within the innermost scale.

In most spring-blossoming plants, the flowers and new leaves that gladden our eyes in May are actually formed and put in winter storage some time during the preceding year. This is certainly true of flowers on woody plants, such as lilacs, magnolias and tulip-trees, in which next year's buds begin to form even as this spring's buds begin to unfold. It is true also of the perennial herbs that depend on underground storage organs, which are stocked with food, principally starches and sugars, during the post-flowering time in late spring and summer.

But is not merely the forming and stocking of what are to be next spring's flowers that predetermine the beauty we are to see in May. Winter helps, too. A very large proportion of our best spring flowers will not unfold unless they get a thorough chilling after the buds are formed. This is true of such familiar and favorite flowers as dogtooth violet, trillium, spring-beauty, lily-of-the-valley, lilac, weigelia and many others. April showers may bring forth May flowers, but December freezes must come first.

Science News Letter, April 26, 1947

MINERALOGY

Tektites Are Moon Chips

➤ STONES from the moon are in a number of American museums and private mineralogical collections, if the hypothesis advanced by H. H. Nininger, director of the American Meteorite Museum in Winslow, Ariz., is valid. He holds that the puzzling stones called tektites, found in several parts of the earth, are really chips off the surface of our satellite, blasted loose by the impact of large meteorites coming in at super-V-2 rocket speeds.

Tektites are glass-like stones, usually of rounded shape as if formed from blobs of molten stuff spinning through space. Many of them bear on their surfaces signs of a secondary melting, which Mr. Nininger thinks may have occurred when they struck the earth's atmosphere and suffered somewhat from the friction that erodes away most meteorites as "shooting stars" before they reach the ground. Coming the relatively short distance from the moon, he explains, they would not have full meteorite velocities, hence would undergo much less frictional losses.

Getting them off the moon offers no great difficulty to Mr. Nininger's hypothesis. The moon, like the earth, is the target of constant bombardment by meteorites. Only, having no atmosphere to shield it, the moon takes the full impact of all that come its way. Really big ones hit so hard that they are gasified, with terrific explosions. A major explosion of this kind would spin a shower of fragments of the moon's own rocky material far up into space, and at the same time the heat would melt it to something like liquid glass. These blobs would soon cool into rounded, glassy pebbles—tektites.

Most of the explosion-shower debris would of course fall back on the moon, but some pieces would be thrown out at high enough velocities to escape the moon's weak gravitational field—only one-sixth that of the earth. Part of these would drift into space and become a part of "chaos and old night", but others would get caught by the earth's gravitational field and fall as quasi-meteorite showers.

There are other theories of the origin of Tektites—volcanic birth, explosion-showers from meteorites striking the earth, etc.,—but Mr. Nininger has answers for them, and believes that his hypothesis has a greater chance of being correct.

Science News Letter, April 26, 1947

CHEMISTRY

Chlorinated Hydrocarbons Kill Bacteria in Water

➤ OBJECTIONABLE bacteria and algae in water supplies can be killed with chlorinated lower hydrocarbons, for example trichlorobutane, trichlorohexane, etc., instead of straight chlorine, which is itself often objectionable, states Charles W. Harnden of Berkeley, Calif. Patent 2,419,021, which he has obtained on this discovery, is assigned to the Shell Development Company.

Science News Letter, April 26, 1947