



Trillium

► THE COOL, deep woods are shining about this time with the three-pointed white stars of the trillium.

Among them, but less conspicuous, glow the dark, purplish flowers of the red wake-robin, another species of the same genus. All told, the trillium tribe boasts some 30 species, most of them in North America, but part in Asia.

Wherever they live, the trilliums are all consistent exponents of the magic number three, that rules all the kin of the lilies. The broad leaves are three, the green sepals of the flower are three, the petals three. The stamens are set in two triangles of three each, and the pistil is either a triangle or hexagon when looked at from the top. So conspicuous is the plant for this constant recurrence of triple parts that one of its old and orthodox folk-names is "Trinity lily."

Though the trillium outdoes even the lily in its strict adherence to triple ar-

rangements, it departs from the habits of its clan in the structure of its leaves. In most of the plants of its division of the vegetable kingdom, the "monocotyledons" or "monocots" of the botanists, the leaf-veins are parallel, like those in grass leaves.

But in the trillium the veins are netted and irregular, resembling those of the "dicot" group, which includes practically all trees and shrubs, and many of the more conspicuous herbs, with flower parts arranged in fives rather than threes.

The trillium, however, is not alone in its departure from orthodox leaf venation; all the arums, the smilax genus, the water-plantain family and a number of other important members of its group also have netted instead of parallel veins.

Perhaps the handsomest of the trilliums is *Trillium grandiflorum*, which is fortunately also the most abundant. Its broad-petaled open flowers form veritable galaxies through the rich, moist woods almost everywhere east of the Mississippi, and reach in more scattering fashion through the timber-strips along the streams in the prairie states.

In the South, there is another trillium, not quite so large-flowered as the *grandiflorum* species, but worthy of note in another connection. It has a decided tendency to depart from the fundamental rule of three, and very frequently will turn up with four leaves and four petals.

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## RADIO

## Moon as Message Relay

► THE MOON may some day be used daily to send messages to distant lands. It may play an important part in getting vital messages through to their destination.

Shortwave radio signals come through clearly in the midst of a radio storm when the moon is used as a reflector to bounce the waves back to the earth. The moon can be counted on when the earth's upper atmosphere no longer functions as a "radio roof" and all signals using it are blacked out.

"It is practical to use the moon as a reflector for radio telegraph service," reports G. F. Montgomery of the National Bureau of Standards' Central Radio Propagation Laboratory.

"But special, expensive equipment would be needed to put the moon to work as a reflector," Mr. Montgomery hastens to add. "A fairly powerful transmitter and relatively large antenna are both essential. Whether it will be used or not depends largely upon how important, in dollars and cents, it is to get signals through during radio blackouts.

The difficulty involved in using the moon as a reflector is that it must be above the horizon of both sending and receiving stations. Thus there is a limited period, some-

## MEDICINE

## Isolate California-Type Virus, Relative of Polio

► "CALIFORNIA 1 (ONE)," a type of Cocksackie virus, has been isolated by Dr. Ruth A. Boak of the Medical School at the University of California at Los Angeles.

The Cocksackie virus causes a disease sometimes confused with polio. Dr. Boak's experiments, performed at the Long Beach Veterans Hospital, mark the first time that a Cocksackie virus has been isolated in California.

"Although no previous reports have appeared in medical literature, Cocksackie viruses are undoubtedly as prevalent in California as elsewhere," said Dr. Boak.

"Virologists, however, have not diligently searched for it. Poliomyelitis is well known to be constantly present in southern California. Inasmuch as one type of illness resulting from infection with Cocksackie virus is similar to non-paralytic poliomyelitis, it may, in some cases, be erroneously diagnosed as poliomyelitis."

The U.C.L.A. scientist explained that Cocksackie virus causes many symptoms similar to non-paralytic polio but is less severe.

The newly-discovered disease was first isolated from two children living in Cocksackie, N. Y., by Dr. Gilbert Dalldorf. It has helped explain many similar illnesses where the polio virus could not be detected.

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