BOTANY

NATURE RAMBLINGS

Hepatica

➤ MOST OF us can bring at best only a patient acceptance to the spring's earliest flower offerings—skunk cabbage and pussy willows and the like. We admit without argument that the naturalists are right when they tell us these are flowers; but what we actually hanker for is a real flower, one with bright petals strung around into a collar with some leaves to back it up.

The hepatica satisfies this demand, and it is among the earliest of flowers to do so. It will be out in force to greet the earliest robin, while the branches of the trees above it are still bare, while the first violets are making the most timid of bows.

The little white or bluish flowers nestle down on their short, hairy stems among the dead leaves and frequently you can find them by brushing aside these brown blankets, still flecked with the last light fall of snow.

The hepatica is a hardy little plant in any case, for its last year's leaves hang on through the winter, and the new spring crop of foliage does not develop until after the blossoms are gone. A little closer examination of the stems will show that the leaves are thickly clothed with stiff little hairs. These, of course, are not of use to the plant for keeping warm as an animal keeps warm with its fur. Apparently their role is to keep the hoarfrosts of spring from a too close contact with the stem.

Although we are apt to give it little thought, it is nevertheless true that the woods harbor many more kinds of evergreens down at the roots of the trees than can be counted among the pines and spruces and cedars. Of this lesser evergreen population the hepatica is one of the most frequently found specimens.

The sturdy little hepatica appears to have little concern for the length of the winter season, for it will send forth its delicate white or bluish flowers at about this time every year. It does so even though later storms may force it to close its flowers about the stamens and pistil and wait with patience until the last of winter's storms have passed.

Then again it unfolds its flowers to the warm kiss of spring's sunshine, harbinger of the many flowers to come.

Science News Letter, March 19, 1955

MEDICINE

Meningitis Caught Like Cold; Germs Spread It

➤ MENINGITIS, WHICH has struck soldiers at Fort Dix, N. J., killing at least two, is not a highly infectious disease. The meningococcus germs enter and leave the body by the lining of the nose and throat, so the disease is caught like a cold by contact or coughing or sneezing.

It may spread from a patient or from a healthy carrier of the germs.

The disease has been on the down-grade in the nation generally for the past year or so. North Carolina, Texas and California have reported more cases in recent weeks than New Jersey. Latest report from New Jersey, for the week ending March 5, shows five cases compared to three in New Jersey the previous week.

Before the advent of the sulfa drugs, meningitis was treated by a serum. Sulfadiazine is now used both as a preventive and as treatment and penicillin is now also used as treatment.

During World War I meningitis was a big problem among recruits in training camps. During the second World War it was no longer a grave problem.

The word meningitis means inflammation of the membranes that cover the brain. The kind that comes in epidemics and that hits recruits in Army camps is caused by a germ called the meningococcus. This kind of meningitis is also called cerebrospinal fever and spotted fever. This last name comes from the rash that is one symptom. Headache, severe chill and vomiting and fever are other common symptoms.

Meningitis may also be caused by a germ called *Hemophilus influenzae*. This form is called influenzal meningitis, but has nothing to do with influenza.

One very severe form of meningitis starts suddenly and may kill in 24 hours, before any treatment can help. Massive adrenal gland hemorrhage is a feature of this kind, known as Waterhouse-Friederichsen disease or syndrome. This is reported the kind that killed one of the Fort Dix soldiers.

Science News Letter, March 19, 1955

METALLURGY

Titanium Aircraft Bolt Resists Fatigue Tension

➤ AN AIRCRAFT tension bolt of titanium alloy that resists fatigue and is pound for pound twice as strong as steel has been developed by Standard Pressed Steel Co., Jenkintown, Pa.

New forging and threading techniques for the titanium alloy containing four percent manganese and four percent aluminum allowed the production of the lightweight fastener for frames and engines of aircraft.

Science News Letter, March 19, 1955

Questions

ELECTRONICS—How do the conduction properties of the new semiconducting liquid differ from those of an ordinary liquid? p. 181.

How large is the new airborne electronic "brain" expected to be and how fast can it add? p. 178.

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GEOLOGY—What are some of the uses for volcanoes? p. 187.

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MEDICINE—What do the stop-and-go chemicals at nerve junctions do? p. 179.

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PHYSICS—What are the three heavy fissionable elements? p. 178.

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