

## TECHNOLOGY

**Dirt Clings to Nylon  
Rough Edges and Seams**

► **SOIL PARTICLES** cling to nylon rough edges and seams with such determination that cleaning the fabric becomes very difficult. Since nylon fibers have a smooth, hard surface, dirt does not penetrate the fiber to make cleaning the body of a nylon garment difficult.

Research in the Home Economics Research Branch of the U. S. Department of Agriculture has shown, however, that the dirt particles that collect at the rough edges and seams can be almost impossible to get out. The particles appear to be held to the fiber by a kind of attraction.

The recommended practice is to soak the garment in water containing a non-precipitating water softener before washing. This loosens the soil somewhat. Since several of the new synthetic fibers have this quality of attracting soil particles, manufacturers are studying the problem.

Yellowed white nylon can be bleached with sodium perborate or with a very weak chlorine bleach. The Home Economics Branch recommends that white nylon never be washed with other colored fabrics.

Science News Letter, March 13, 1954

## AERONAUTICS

**Rockets Rescue Plane  
In Tailspin Tests**

► **ROCKETS MOUNTED** on the unswept wings of a training plane have successfully rescued the craft in tailspin tests.

Sanger M. Burk Jr. and Frederick M. Healy, both of Langley Aeronautical Laboratory at Langley Field, Va., reported to the National Advisory Committee for Aeronautics that the results of a test involving an actual plane closely matched those of wind tunnel tests. A scale model of the trainer was used in the indoor tests.

If these findings are used, pilots who spin-demonstrate new military planes during acceptance tests may be in a safer spot than ever before. Until now, parachutes have been attached either to the wing or tail to rescue the craft in emergencies.

Science News Letter, March 13, 1954

**Samples in DisOrder?**

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**Hepatica**

► **IF YOU** look sharp as you make your way about the woods, you may see the hepatica in flower. It is the earliest of the common woodland plants.

The flowers are white, pink or bluish. They stand in fresh contrast to the tough winter-purpled leaves of the previous season's growth.

The striking feature of this earliest of spring harbingers is the characteristically shaped leaves. Long ago it was noticed that the three-lobed leaves are suggestive of small livers. Hence the name "hepatica," which means liver-like.

Hepatica is an evergreen that is found frequently in association with pines, spruces, and cedars. It is usually found in shady spots standing in a rich well-drained loamy soil. It has a thickish hairy stem and the foliage lasts from one season to the next.

The liver-shaped leaves do not wither and die. Instead they seem to weather the cold in much the same way a boy's lips do when he swims in the creek too long: that is, they take on a purplish cast. It is usually easy for this reason to distinguish between this spring's leaves and last summer's. The newer leaves are not only smaller, they are also greener.

Following the ancient doctrine that any plant or plant part that looked like an animal or animal organ was supposed to be good for the ailments of that organ, medical men of bygone days used to make pungent brews and potions of the little hepatica plant which were used to treat liver ailments.

Because of its early springtime appearance, some gardeners favor using it in borders, or in a rockery where it thrives on the north or east slope. It is very easy to propagate by dividing the roots. This method is favored over seed propagation, because with seed you have to wait until next season for flowering.

Science News Letter, March 13, 1954

## ELECTRONICS

**New Tube Designs Ease  
Radio-Gear Maintenance**

► **THE TROUBLE-FREE** life of airborne radio and radar is being extended through new vacuum tube designs worked out at Aeronautical Radio, Inc., a research firm in the District of Columbia under contract to the Navy.

Akin to the tubes in home radio or television sets, these vacuum tubes form the heart of the specialized equipment that guide commercial and military planes on their flights, and that aim anti-aircraft guns at enemy planes.

Commercial tubes were found to be too frail to withstand the gaff of service in the skies and rough handling by ground crews, an ARINC study revealed.

After analyzing 88,500 tube failures, the research group worked out new specifications and arranged for small-scale production of the experimental designs. Over 14,000 of these new tubes were checked in service and were found to last two to four times longer than their commercial brothers.

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**Questions**

**BIOPHYSICS**—How much energy does a bacterium use to move for three minutes? p. 168.

**ENTOMOLOGY**—When and how was the chigger introduced into Africa? p. 169.

**GERONTOLOGY**—When does a person start growing old? p. 169.

**MEDICINE**—How could a betatron help those with mental disease? p. 164.

**TECHNOLOGY**—What is a suggested solution to the wheat surplus problem? p. 169.

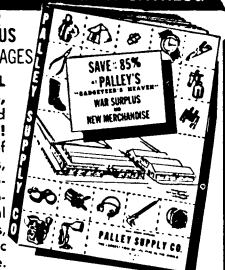
What new type of baseball bats are now being tested? p. 170.

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