



**The Living Fossil**

➤ VISITORS TO Washington, D.C., are always much impressed with the beauty of the avenues of ginkgo trees that line the approaches to the Department of Agriculture and that ornament the city in many other places.

There is no good reason why Washington should be the only city in the country especially favored with this famous tree, sacred to the Chinese and Japanese and grown for centuries in their temple courts. It does very well in all parts of the United States where the winters are not too severe and can at least survive as far northwest as central Iowa.

#### MEDICINE

## Molecule Affects Sight

➤ CERTAIN TYPES of blindness may be related to a large, thread-like molecule which helps trap water in the vitreous humor, the jelly-like component of the eye.

This is suggested in research at the Medical Center of the University of California at Los Angeles by Drs. Robert Brunish and John Rowen of the physiological chemistry department and the Atomic Energy Project. The research is being supported by the Estelle Doheny Eye Foundation.

The molecule is that of a hyaluronic acid which is found in the vitreous humor and in connective tissue.

The vitreous humor helps hold the retina, or visual sense cells, in place. In old age and following cataract removal, the peripheral vitreous tends to liquefy, allowing the more central part to contract. This condition may lead to blindness.

This jelly-like mass is 99% water. This remaining one percent is hyaluronic acid, certain proteins and simpler compounds such as salts and sugars.

The study by Drs. Brunish and Rowen has shown that certain salts cause the hyaluronic acid molecule to contract to one-half its length. This suggests that the molecule's response to changing salt and acid concentrations may play an important

The ginkgo tree can also stand a good deal of city smoke and dust. There are a lot of young ginkgos growing in Battery Park, New York. China is the native home of the ginkgo tree, although it has been much disputed of late whether there are any more really wild trees left in that country, because the species has been cultivated so long.

Of the several genera and fairly numerous species in the once widespread ginkgo family, only one species, known botanically as *Ginkgo biloba*, is living today. It would probably have perished centuries ago, too, but for the fact that Chinese priests fostered it in their temple grounds. It has now become fairly well distributed as a street and park tree in the United States, although it is still not as generally appreciated as it deserves to be.

A ginkgo tree has a somewhat columnar shape when young, becoming bushier as it reaches full size. Its glossy green leaves are wedge-shaped, usually deeply cleft. They turn a beautiful pale-gold hue in early autumn.

A great virtue of the ginkgo is the almost complete freedom from the fungus disease and insect pests that bedevil practically all of our other ornamental trees. Perhaps the last thing that ever wanted to chew its leaves was a herbivorous dinosaur.

There are fossil ginkgo leaves and twigs in American rocks, proving that the present importations are not a premiere, but a return engagement for this familiar handsome tree.

Science News Letter, March 26, 1955

#### ASTRONOMY

### Discover Nova In Southern Sky

➤ A NOVA has been discovered in the southern sky by Guillermo Haro of the National Astrophysical Observatory, Tonantzintla, Mexico.

The new star was already past its greatest light output when Dr. Haro spotted it on Feb. 16. Its magnitude then was 11, too faint to be seen without a telescope. The nova is in the constellation of Sagittarius, the archer, which lies in the direction of the center of the Milky Way galaxy to which the sun and its planets belong.

News of the nova's discovery was telegraphed to astronomical observatories by Harvard College Observatory, Cambridge, Mass.

Science News Letter, March 26, 1955

#### MEDICINE

### Abnormal Red Color Discovered in Blood

➤ DISCOVERY OF a new abnormal hemoglobin in human blood is announced by Drs. Demetrios A. Rigas, Robert D. Koler and Edwin E. Osgood of the University of Oregon Medical School at Portland, Ore.

Hemoglobin is the chemical that gives the red color to blood. The new abnormal hemoglobin was found in two members of a Chinese family. One of them had come to the doctors because of severe anemia. Both had suffered all their lives from getting tired too easily. Neither parent has the abnormal hemoglobin.

The new abnormal hemoglobin is the sixth discovered since Prof. L. C. Pauling of California Institute of Technology, Pasadena, characterized the first abnormal hemoglobin in sickle cell anemia. The new one is to be called hemoglobin H. Studies of it were reported in *Science* (March 11).

Science News Letter, March 26, 1955

## Questions

**AERONAUTICS**—How big is the Air Force's new Falcon missile? p. 197.

**ASTRONOMY**—Who first observed the moons of Saturn? p. 202.

**BOTANY**—From what country is the ginkgo tree believed to have originated? p. 207.

**CHEMISTRY**—What are some of the uses for petroleum coke? p. 197.

**GEOPHYSICS**—How many degrees has the earth warmed up in the past 50 years? p. 206.

**PSYCHIATRY**—What is meant by "screening in"? p. 199.

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