

Other uses for which ephedrine may replace adrenalin, it is anticipated, are to arrest bleeding in hemorrhage in difficult cases, and to maintain the circulation following excessive loss of blood.

The chemical formula for ephedrine and its pharmacological effects on lower animals have been known for decades, but its wide clinical scope was not shown until Dr. Chen tried the drug on animals and studied it clinically. This was done first at Pekin, and now at the University of Wisconsin under the direction of Dr. A. S. Loevenhart and Dr. W. J. Meek.

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#### RUSSIA TO HAVE LARGEST REFRACTING TELESCOPE

Not much longer will the United States have the honor of having the largest refracting telescope in the world within its borders, for the new telescope of the Russian Central Observatory that will have a lens 41 inches in diameter. This will be an inch larger than the 40 inch telescope of the Yerkes Observatory of the University of Chicago, the supremacy of which has been undisputed for the last 30 years. However, the United States will still have the largest telescope, for the 100 inch reflector of the Mt. Wilson Observatory, using a concave mirror to form the image instead of a lens, is still unsurpassed in size.

In a statement to Science Service, Dr. A. Ivanoff, director of the observatory, stated, "The order for this telescope was made in 1912 by the Russian Government to the firm of Grubb, in Dublin, but the circumstances of the war and the following events in Russia delayed its execution. In 1922 the Soviet Government renewed the order. According to the original plan, the instrument was to have a photographic lens 32 inches in diameter, with a focal length of 35 feet.

"The mechanical parts were finished by the Grubb firm before its liquidation but the attempts to get the necessary glass discs for the lens met with considerable difficulty. The Parsons firm at Newcastle, however, finally succeeded in preparing the glass for a lens 41 inches in diameter, so the original plan was changed. It was decided to build a photographic telescope with the lens this size, but with the original focal length of 35 feet, and so the instrument was completed by Parsons. It has been set up in England, for testing but it will be taken to Simeis, on the southern coast of Crimea, 60 kilometers east of Sevastopol, where the observatory and dome have already been completed. At Simeis is a branch of the Pulkovo Observatory, and it is noted for its excellent atmospheric conditions. At the present time the installation of a reflecting telescope of 40 inches diameter is almost completed."

As the 41 inch telescope will have a photographic lens it will not be adapted for visual observations, as is the 40 inch of the Yerkes Observatory. In this respect it will be similar to the 30 inch refractor of the Allegheny Observatory at Pittsburgh. At the Potsdam observatory in Germany is a photographic telescope with a lens 32 inches in diameter, and attached to it is a visual telescope of 20 inches aperture. A visual telescope can be used to take photographs by the use of a yellow filter which cuts out the blue light that such a lens does not focus sharply. But this lengthens the exposure, necessary, and a specially designed photographic lens has many advantages. Because its focal length is so

short, only 35 feet as compared with 75 feet for the 40 inch at Yerkes, the 41 inch telescope will have tremendous light gathering power and will be especially useful in the study of faint nebulae and other such objects.

This will not be the first time that Russia has had the largest telescope, for the first of the modern telescopes, built about a century ago for the observatory at Dorpat, which then was in Russia, had the then unprecedented size of nine and a half inches. The 30 inch refractor, still in use at Pulkovo, when finished in 1885 was the world's largest telescope also. The lens for this one was made in the United States by Alvan Clark, in Massachusetts. Before it was completed, the 26 inch telescope of the Naval Observatory in Washington completed in 1874 held the world's record, while after it the 35 inch at the Lick Observatory held the honors, only to have them taken away by the 40 inch Yerkes telescope, located at Williams Bay, Wis.

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#### SAME FROG BOTH MALE AND FEMALE

A big bullfrog that is both male and female is the unusual animal reported by Mrs. W. D. Hammontree, teacher of biology at Tennessee Wesleyan College.

"After removing a large handful of eggs from this frog, it was discovered that the animal is hermaphroditic," Mrs. Hammontree states. "There is a perfectly developed set of male organs and also perfectly developed female organs."

Many of the lower animal groups are both male and female. The common earthworm is practically always bisexual, though it does not function as male and female at the same time. Among the higher animals female organs are sometimes found in males, and vice versa; but in these cases such traces are usually not normally developed. Fully developed bisexual conditions in a higher animal, such as this frog, are very uncommon.

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#### EVOLUTION UNMOLESTED AT NEBRASKA UNIVERSITY

Evolutionary teaching in Nebraska is free and unmolested, reports to the contrary notwithstanding, according to Prof. Franklin D. Barker of the University of Nebraska, writing in a recent issue of "Science". Prof. Barker takes issue with a statement made by Dr. Henry Fairfield Osborn of the American Museum of Natural History, to the effect that on a recent trip in Nebraska he learned that "even in the state university there was a 'hush' at the word."

"The departments of botany, geology, sociology and zoology," says Prof. Barker, "teach evolution with the utmost freedom. The department of zoology teaches evolution in every course and offers a special course each semester to a large group of students under the specific title of "Evolution."

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