

Do You Know?

Baby birds are said to have a nervous mechanism in their throats which slows down the speed of swallowing progressively as they become more filled with food; this indicates to the mother bird which nestling needs feeding.

The *Altus project* in southwest Oklahoma is the first large scale irrigation undertaking in the state; construction, starting immediately, will put some 70,000 acres under irrigation when completed.

The first radar equipped *control tower* for civilian flying, recently installed by the Civil Aeronautics Administration at Indianapolis, uses a console screen to give the controller a "plan picture" of all planes within 30 miles.

One advantage of using *dynamite sticks* to blast out a farm ditch is that the soil removed may be evenly scattered by the blasting over an area 200 feet wide on each side of the opening.

Telegraph communication between Pittsburgh and the East was first established 100 years ago this year; railroad traffic from Pittsburgh to Philadelphia was opened four years later.

The short *electro-magnetic waves* used in radar pulses are harmless to guinea pigs, laboratory tests show, and undoubtedly are harmless to man.

Poultry manure has real value as a fertilizer for ornamental plants.

Australia is testing *grain sorghums* from Kansas and Nebraska.

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ASTRONOMY

Amateurs Plan to See South American Eclipse

➤ TENTATIVE PLANS for an expedition to South America to see the total eclipse of the sun next May and suggestions on how to get a planetarium for your own town where you can study the planets and take that imaginary trip to the moon will be discussed in Bloomfield, Mich., week-end of the Fourth of July.

For the first time since the war, amateur astronomers, many of whom made important military instruments during the war and were not able to study the stars, are going to have a national convention. Some are sending photographs they have taken of stars and comets, others are shipping home-made telescopes for display at the Cranbrook Institute of Science, where the Fourth National Convention of Amateur Astronomers takes place, Friday through Sunday, July 5 to 7.

Thousands throughout the United States who are enthusiastic about the heavens or telescope-making, whether members of an amateur group or lone star-lovers, are invited to this convention in the suburbs of Detroit. Amateurs not only from this country but from Canada as well are accepting the invitation of the Detroit amateur astronomers.

Science News Letter, June 22, 1946

PHYSICS

Energy of Betatron Is Being Increased

➤ THE 100,000,000-volt betatron atom smasher in the General Electric Research Laboratory is having its output energy raised to 160,000,000 volts.

Devised by W. F. Westendorp of the Laboratory's X-ray section, the method for increasing the voltage is called "DC bias." Briefly, this consists of applying a direct current to the electromagnet as well as an alternating current. This shifts the zero line from the middle of the current wave to its bottom and overcomes a difficulty caused by the fact that the magnetic field is in the wrong direction for guiding the electrons in their orbit while the voltage is passing from zero to its positive maximum, Mr. Westendorp explains.

Science News Letter, June 22, 1946

SURGERY

Spine Trouble May Cause Heart Disease Symptoms

➤ PAIN AROUND the heart, even when agonizing and of a constricting nature and radiating down the left arm, may be caused by trouble in the spine instead of the heart disease, angina pectoris, which it resembles, Col. Allen Izard Josey and Lt. Col. Francis Murphey, of O'Reilly General Hospital at Springfield, Mo., report (*Journal of the American Medical Association*, June 15).

The spinal trouble which they found causing the pain in 30 cases was a ruptured disk between vertebrae at the bottom of the neck.

The nerve pathway by which this condition produces pain around the heart is not known. Operation and sometimes treatment by neck traction relieved the condition.

The Army medical officers believe from their experience that ruptured disk should be suspected in all patients suspected of having either angina pectoris or coronary occlusion in whom the symptoms, physical signs and laboratory examinations are not conclusive.

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