



bigger, though only about a fifteenth as bright. The distance between the centers of the two stars is about 13,000,000 miles and the distance of the pair from us is approximately 125 light years. Several hundred of these eclipsing binary stars are known. Their periods vary upward from a few hours, where the two spheres are almost in contact. Others take several months for the change, and one, epsilon Aurigae, is eclipsed every 27 years, the reduction in light lasting for two years. Saturn, which is now so bright in the constellation of Taurus, is always a most interesting object through a telescope big enough to reveal its curious system of rings. Actually this is not a solid ring—many years ago it was shown that no solid ring, even if made of the strongest materials conceivable, would be able to withstand the strains to which it would be subjected. Instead, it is made up of a swarm of tiny moons, perhaps no larger than good-sized rocks on earth. There are so many millions and millions of them that from this distance they look continuous. The ring system is about 41,500 miles wide and 171,000 miles in outside diameter, while there is a space of 7,000 miles between the inner part and the surface of Saturn. The system is only about ten miles thick. In July, 1936, when the earth was exactly in the plane of the rings, they disappeared from view, even through big telescopes.

But since then they have been opening out, as the earth has moved farther and farther away from their plane. This month they are spread out the most, and there is an angle of nearly 27 degrees between their plane and the line to us. In 1951 they will again be on edge, and after that the other side will be presented to our view. The complete cycle takes 29 1/2 years, which is the time it takes Saturn to revolve around the sun.

#### CELESTIAL TIME TABLE December, 1943

Dec.	EW	WT
1	6:00 a. m.	Moon nearest, distance 228,-600 miles
4	7:03 a. m.	Moon in first quarter.
5	2:00 p. m.	Earth directly between sun and Mars.
8	5:32 a. m.	Algol at minimum.
10	7:43 p. m.	Moon passes Mars.
11	2:21 a. m.	Algol at minimum.
	12:24 p. m.	Full moon.
	9:07 p. m.	Moon passes Saturn.
12	early a. m.	Meteors of Geminid shower.
13	11:10 p. m.	Algol at minimum.
15	8:00 p. m.	Saturn nearest, distance 748,-000,000 miles.
16	7:59 p. m.	Algol at minimum.
17	2:44 a. m.	Moon passes Jupiter.
	3:00 a. m.	Moon farthest, distance 251,-600 miles.
19	4:03 p. m.	Moon at last quarter.
	4:48 p. m.	Algol at minimum.
22	1:30 p. m.	Winter solstice, winter commences.
	10:00 p. m.	Mercury farthest east of sun.
23	2:46 p. m.	Moon passes Venus.
26	11:50 p. m.	New moon.
28	10:00 p. m.	Moon nearest, distance 225,-100 miles.
31	4:05 a. m.	Algol at minimum.

Subtract one hour for CWT, two hours for MWT, and three for PWT.

Science News Letter, November 27, 1943

#### MEDICINE

### Safer Gold Salts Found For Treating Arthritis

➤ DISCOVERIES that may lead to greater safety in the use of gold salts for treating arthritis and some other diseases are announced by Dr. A. K. Anderson and Dr. Charles W. Denko of Pennsylvania State College.

New, non-poisonous gold compounds, called auroxanthates, have been developed by these scientists. The auroxanthates when injected into rats build up the resistance of the animals to later injections of the toxic gold compounds. Whether the auroxanthates themselves have curative properties has not yet been determined.

The second discovery is that before the rats die from the effects of the toxic compounds, their blood gives a danger

warning by an increase in non-protein nitrogen content even when no visible damage to the kidneys can be detected.

Science News Letter, November 27, 1943

#### MEDICINE

### Scientists Asked Who Should Get Mayer Award

➤ SCIENTISTS are being asked to recommend persons who may be eligible for the 1943 Charles L. Mayer award of \$2,000.

The award is offered for the most outstanding contribution made during 1943 to present-day knowledge of factors affecting the growth of animal cells, with particular reference to human cancer. The National Science Fund of the National Academy of Sciences administers the award.

Manuscripts and articles published during 1943 may be submitted to the committee any time before the middle of January, 1944.

Last year's award, the first to be given, was made to Dr. Charles Huggins of the University of Chicago for his work on endocrine control of prostatic cancer.

Science News Letter, November 27, 1943

### SCIENCE SUBJECTS Gain NEW Interest



When  
Illustrated with



2" x 2"  
COLOR SLIDES

To help students grasp more quickly the principles of Biology, Botany, Chemistry, Physics, Geology, and other science subjects, visualize lessons with brilliant 2" x 2" full color slides from the SVE Library of Kodachromes. Write now for the 26-page free catalog listing science subjects.

**Society for Visual Education, Inc.**

Dept. 115NL, 100 E. Ohio St., Chicago 11, Ill.