



PHASES OF ECLIPSE

The interesting part of the total eclipse of the moon on the evening of August 25 is shown in this diagram, prepared by the astronomical staff of the Franklin Institute, Philadelphia. The large shaded circle is the dark core, or "umbra," of the earth's shadow; the small circles represent, at the times indicated the moon, which is moving from right to left, that is, west to east. North is at the top, and the times are all E. W T.

and leaving the umbra—clear proof, if it is needed, that we live on a sphere.

The other feature on the month's bill, the meteor shower, is perhaps somewhat less spectacular than the eclipse, but will still be of considerable interest. We always see more of these meteors, often called "shooting stars," after midnight than before. Then we are on the forward side of the earth, and meet them head-on. They are tiny bits of cosmic dust, that are burned in a flash of light by friction with our atmosphere.

On an ordinary night, in an hour, you should see one or two, but late on the night of August 11, you should see that many a minute. That is because we then pass through one of several swarms—the debris of comets of past ages. Actually they come in parallel paths, but perspective makes them converge in the distance,

like the tracks of a railroad. This is toward the constellation of Perseus, hence they seem to radiate from that part of the sky. Of course, a bright moon will cause so much glare that many of the fainter meteors are not visible. This year the moon is new on the 11th (as it must be at the time of a solar eclipse), so it will not offer any competition with the Perseid shower.

Celestial Time Table for August

Saturday, Aug. 1, 12:00 p.m., Venus passes Jupiter. Monday, Aug. 3, 7:04 p.m., moon in last quarter. Thursday, Aug. 6, 4:49 a.m., moon passes Saturn. Friday, Aug. 7, 9:00 a.m., moon farthest, distance 251,900 miles. Sunday, Aug. 9, 1:11 a.m., moon passes Jupiter; 5:16 p.m., moon passes Venus. Tuesday, Aug. 11, 10:28 p.m., new moon; partial eclipse of sun. Wednesday, Aug. 12, early a.m., Perseid meteors. Wednesday, Aug. 25-6, 11:01 p.m. to 12:35 a.m.,

quarter. Sunday, Aug. 23, 5:00 a.m., moon nearest; distance 226,700 miles. Tuesday-Wednesday, Aug 25-6, 11:01 p.m. to 12:35 a.m., total eclipse of moon. Tuesday, Aug. 25, 11:46 p.m., full moon. Eastern War Time throughout.

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MEDICINE

Bacteriophage Conquering Dysentery in Alexandria

BACTERIOPHAGE, the germ-eater, is conquering bacillary dysentery in Alexandria, Egypt, Dr. Arthur Compton, director and pathologist-in-chief of the Laboratory Service, Alexandria Municipality, reports (*British Medical Journal*).

In Alexandria, he reports, patients with bacillary dysentery died at the rate of 25 out of every 100 in 1928. Since 1938 only about 5 out of every 100 patients with this disease have died. In Cairo and the rest of Egypt the situation has not been so favorable. Case mortality rates for Cairo have varied between a maximum of over 60% in 1928 to a minimum of 25% in 1938.

The difference, in Dr. Compton's opinion, is due to bacteriophage, which physicians of Alexandria now give regularly to patients showing the first signs of dysentery. Since 1930, moreover, the Municipal Public Service in Alexandria has "budgeted annually for commercial bacteriophages for the specific treatment of bacillary dysentery and like conditions in the municipal hospitals and children's clinics.

"Thus the phage therapy (treatment) has been employed in Alexandria on an important scale for at least 12 years," Dr. Compton reports. "In Cairo, phage has not been used to any appreciable extent until recent years and the rest of Egypt may be considered as practically not having known phage therapy at all."

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