



from the sun and towards us, more and more of the sunlit hemisphere is turning away, so it reaches a "half-moon" phase and then a crescent.

Unlike the moon, however, as it becomes a crescent it comes closer to earth, and thus appears bigger in the sky. This makes it brighter, even though we cannot see as much of the illuminated part as before. The brightest time of all comes when it is a crescent similar to that of the moon five days after it is new. It will be that way on May 18.

One reason that Venus is so bright is that it is constantly covered with clouds, which reflect from their tops about 50% of the sunlight falling on them. In contrast, the moon, of which we can see the true surface, reflects only about 7%. Because of this constant layer of clouds, we cannot tell by observation what the surface of Venus looks like. It has not been possible to tell exactly how long the day of Venus is—that is, how long it takes to turn on its axis. That it is about 30 of our days seems the most reasonable estimate at present.

Since it has clouds, Venus obviously has an atmosphere and studies made with the spectroscope, attached to large

telescopes, have given us some notion of its constitution. It contains no appreciable oxygen, or water vapor, but a great deal of carbon dioxide can be detected above the clouds. Since this gas is heavier than our air, where it is present in about three parts in 10,000, it is probably even denser on Venus below the clouds, so that life such as ours would probably be suffocated there. Thus, science fiction writers to the contrary notwithstanding, it seems very unlikely that there is any life on Venus.

Time Table for April

April EST	
1	5:25 a. m. Moon in last quarter
	6:00 a. m. Neptune nearest, distance 2,721,000,000 miles
4	1:00 a. m. Moon farthest, 251,800 miles
9	8:16 a. m. New moon
13	3:09 a. m. Moon passes Venus
14	11:00 p. m. Venus farthest east of sun
16	2:42 p. m. Moon in first quarter
17	8:40 p. m. Moon passes Saturn
18	4:50 a. m. Moon passes Mars
19	8:00 p. m. Moon nearest, 228,000 miles
23	8:28 a. m. Full moon (a very slight partial eclipse of the moon will be visible at this time from the extreme western and northwestern parts of North America and much of the Pacific Ocean, Asia and Australia).
27	12:57 p. m. Moon passes Jupiter
30	11:48 p. m. Moon in last quarter

Subtract one hour for CST, two hours for MST, and three for PST.

Science News Letter, March 27, 1948

MEDICINE

Surgery Aids Mentally Ill

➤ A NEW brain operation which has restored 20 out of 24 helplessly sick mental patients to health was announced at a meeting at the New York Academy of Medicine.

The operation consists in cutting away certain areas of the frontal lobes of the brain. It is done for patients who are hopelessly depressed and show symptoms such as anxiety, obsessions, compulsions, and marked emotional tension.

A team of 100 psychiatrists, surgeons, psychologists and other medical scien-

tists worked to develop the new operation. They are associated with Columbia University College of Physicians and Surgeons in New York, the New Jersey State Hospital at Greystone Park, and the New Jersey State Department of Institutions and Agencies at Trenton. Because they feel that the results were due to their work as a team, they refuse to reveal any of their names.

Of the 24 patients operated on, 11 have left the hospital and are back at home and 10 are back at work.

Science News Letter, March 27, 1948



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