



Mercury and Venus both revolve around the sun, rather than the earth, but they, too, show the same change in phase. Early this year, when Venus first began to appear in the evening sky, it was far beyond the sun. Its illuminated hemisphere was almost completely turned toward us and it appeared, through a telescope, as the moon does when nearly full. But now Venus is swinging around toward the earth's direction from the sun. By May 1 a considerable portion of the dark hemisphere of Venus is turned earthwards. Its telescopic appearance is then like the moon in a gibbous phase a few days after the first quarter.

Half-Moon Phase

On June 25, when the planet is farthest east of the sun in the sky, it will have a half-moon phase, like the moon at first quarter. After that Venus will move between earth and sun. It will have the appearance of a crescent gradually becoming more and more narrow. By the end of August the crescent will be narrowest and Venus will be so nearly in line with the sun that it will set very soon after sunset.

Sept. 3 is the date of "inferior conjunction," with Venus practically between earth and sun and hence invisible. But a few weeks later it will have traveled far enough to the west of the sun to appear in the eastern sky before sunrise. Again most of the sunlit hemisphere will be turned away from us and, telescopically, it will appear as a crescent. This will get wider and next year Venus will again be "full," ready to start the cycle over again.

There is one great difference between the changing phases of the moon and those of Venus. The former remains at approximately the same distance, about 240,000 miles, regardless of phase. When Venus is full it is on the far side of the sun, about 160,000,000 miles away. At the quarter phase its distance is the same as the sun—93,000,000 miles—but when it comes closest and the crescent is narrowest, it is less than 30,000,000 miles from the earth. Then its apparent size is about six times as great as when it is farthest. Of course, even when closest, at what is called "inferior conjunction" with the sun, a telescope is needed to show it as other than a point of light.

Celestial Time Table for May

May	EST	
2	1:03 p. m.	Moon passes Jupiter
5	8:35 p. m.	New moon
9	12:00 noon	Moon farthest, distance 252,200 miles
	12:08 p. m.	Moon passes Venus
14	12:32 a. m.	Moon in first quarter
16	4:58 p. m.	Moon passes Saturn
21	12:45 a. m.	Full moon
	11:00 p. m.	Moon nearest, distance 222,700 miles
22	12:00 noon	Mercury farthest west of sun
27	3:17 p. m.	Moon in last quarter
30	5:22 a. m.	Moon passes Jupiter

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

Science News Letter, April 28, 1951

PHYSIOLOGY

New Clothing Protects At Low Temperature

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