

★ \* ○ ● SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

where it will be possible to observe it. This is an annular eclipse, one in which the distance of the moon is such that even though it passes in front of the sun, it appears smaller than that body, and does not completely cover it. Around the dark disk of the moon, even where the eclipse is seen best, there remains a ring, or annulus, of the solar disk.

## **Annular Eclipse of Sun**

Ordinarily, at such an annular eclipse, there is a path on the earth along which the moon can be seen exactly in line with the center of the sun, but this month that part of the path is off the earth entirely. However, calculations show that over a small area of the South Atlantic Ocean, between South Africa and Antarctica, a somewhat off-center annular eclipse will appear, if anyone is there to see it. A partial eclipse, with the moon only partly covering the sun, will be observable over a greater area, though this, too, is mostly over the South Atlantic, between South Africa and South America. A small partial eclipse will be visible from the southern tip of South America and from South Africa, where it will occur as the sun is setting.

## Time Table For March

	Time i	able for March
Marc	h EST	
2	8:14 p. m.	Algol (variabe star in the constellation of Perseus) at minimum
4	5:34 a. m.	Full moon
	10:41 a. m.	Moon passes Saturn
5	5:03 p. m.	Algol at minimum
6	12:36 a. m.	Moon passes Mars
	8:00 a. m.	Moon nearest, distance 225,-400 miles
	3:00 p. m.	Venus at greatest brilliance
	12:00 p. m.	Saturn nearest, distance 778,-500,000 miles
10	9:38 p. m.	Moon in last quarter
14	12:57 p. m.	Moon passes Venus
15	3:05 p. m.	Moon passes Jupiter
18	10:20 a. m.	New moon: annular eclipse of sun, visible in South At- lantic Ocean

20	11:36 p. m.	Sun crosses equator, vernal equinox, beginning of spring in northern hemisphere and of autumn in southern hem- isphere
22	6:00 a. m.	Moon farthest, distance 252,-
	9:59 p. m.	Algol at minimum
25	6:48 p. m.	
26		
20		Moon in first quarter
27	1:00 a. m.	Mars nearest, distance 60,-
		360,000 miles
31		Moon passes Saturn
Su	btract one h	our for CST, two hours for

MST, and three for PST.

Science News Letter, February 25, 1950

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ENGINEERING

## Safe Cable for Outdoor Neon Signs Now Available

SAFE high-voltage cable for outdoor neon signs, recently developed with insulation made of polyethylene and chlorine compounds, was recommended to the American Institute of Electrical Engineers by L. F. Roehmann and E. W. Greenfield of the Anaconda Wire and Cable Company, Hastings-on-the-Hudson, N. Y. Decreased maintenance is an important result.

The new cable is safe in operation, is unaffected by moisture, contamination and salt deposits at the ends, requires no special knowledge or skill to handle, and will meet specifications relative to flame-resistance, they said.

The development of this cable will mean a great saving in maintenance cost of neon light signs. Some 10,000,000 feet of various types of cable were required last year in the United States for luminous signs. And despite the fact that cable used for neon signs is high-voltage, installation techniques usually follow accepted practice of low-voltage wiring, they declared.

Conclusions of tests reported by these engineers were: rubber-and-friction tape splices are not permissible in exposed sign cables; because sign cable runs are short, only continuous lengths should be used; and all-plastic insulated cables are adequate even under severe operating conditions provided the ends are properly protected.

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ENGINEERING

## Cold Weather Starting Easier with New Heater

➤ EASY cold-weather starting of internal combustion engines, of the types used in automobiles, airplanes and particularly diesels, is promised by an Italian inventor who received an American patent for a device that utilizes an electric heater to raise to a high temperature the air employed in combustion.

The inventor is Gianni Lancia, Turin, Italy. Patent 2,485,750 was awarded to him by the U. S. Patent Office. His heating device is attachable to any make of engine of the internal combustion type.

Within his attachable unit is a block of refractory material with passages through which wire of high electric resistance is placed. When connected to an electric supply source, high heat results. After the heating unit is raised to a high temperature, the engine crankshaft is rotated by self-starter or otherwise and hot air is drawn through the heater into the engine to mix with the fuel to give a mixture that is easily ignited.

Science News Letter, February 25, 1950



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