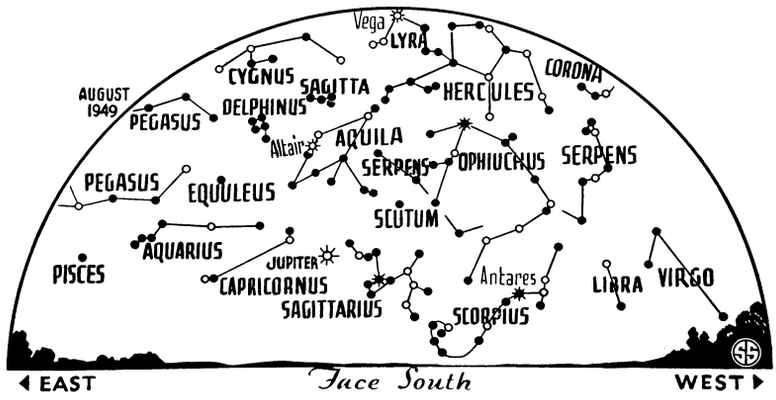

☼ ✱ ○ • SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

it has probably all been combined with hydrogen to form the ammonia. Any oxygen would have probably combined with the hydrogen to form water, which in turn has probably frozen and fallen far out of sight.

Thus, according to Wildt's hypothesis, the structure of Jupiter is as follows: At the center is a rocky-metallic core, with a radius of about 37,000 miles. Then comes a layer of ice, a frozen ocean 34,000 miles deep and then the outer layer of gases, some 16,000 miles deep, of frozen ammonia in an atmosphere of hydrogen and methane. Dr. F. L. Whipple, of Harvard, has suggested that there may be no sharp transition between these layers, but that the clouds gradually become thicker with depth, finally turning into a layer of ammonia slush which still farther down becomes solid. Surely not a very attractive home for any imaginary inhabitants!

Time Table for August

Aug.	EST	
1	7:57 a. m.	Moon in first quarter
6	9:48 p. m.	Moon passes Jupiter
8	2:33 p. m.	Full moon
12	early a. m.	Meteors of Perseid shower visible
13	3:00 p. m.	Moon farthest, distance 251,600 miles
16	5:59 p. m.	Moon in last quarter
23	10:59 p. m.	New moon
26	9:58 a. m.	Moon passes Venus
30	2:16 p. m.	Moon in first quarter

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

Science News Letter, July 23, 1949

ASTRONOMY

Survey Milky Way Stars

➤ BRIGHTEST stars of the Milky Way are being surveyed by wide-eyed Schmidt telescopes in the United States and Mexico, the American Astronomical Society was told in Ottawa, Canada.

A 48-inch Schmidt telescope on Palomar Mountain in California is to be used in photographing the sky for a new astronomical atlas (*See SNL,* June 25, p. 406), but the survey of the Milky Way's bright lights is already well along elsewhere, American and Mexican scientists reported.

Schmidt cameras at the Warner and Swasey Observatory of the Case Institute of Technology, East Cleveland, Ohio, and at the Tonanzintla Observatory in Mexico are being used to search for high luminosity stars of the Milky Way galaxy. Collaborating with Dr. J. J. Nassau, director of the Warner and Swasey Observatory, are Dr. W. W. Morgan, Yerkes Observatory of the University of Chicago, and Dr. Paul Annear of Baldwin-Wallace College. The Mexican research is directed by Dr. L. E. Erro.

Because the Mexican observatory is farther south, it can search areas of the sky invisible or too low for satisfactory observation from Cleveland. Photos made by both the observatories are expected to cover most of the Milky Way.

Results of the survey will give a fairly good picture of the intrinsically brightest stars up to distances of 32,000 light years from the earth. (A light year is the distance light, with a speed of 186,000 miles per second, travels in a year.)

The Schmidt telescopes in this survey photograph a field of stars through what is called an objective prism, a huge piece of optical glass whose two sides are inclined to each other a few degrees. The telescope photographs short rainbow-colored bands of starlight, known as star spectra. From these spectra, the brightest stars can be easily picked out from those of less luminosity.

The program at Case is carried out jointly with the Yerkes Observatory and is financially supported by the Office of Naval Research.

Science News Letter, July 23, 1949