

Venus, the only planet you'll have much chance of seeing in the evening sky until the end of August, is low in the west just after sunset. Although it's brighter than any other planet, or any star in the night sky, even it will be difficult to locate. That's because it sets within an hour of the sun, while the sky is still quite bright. However, if you look near the western horizon soon after sundown, and the sky is clear in that direction, you may be able to find it.

But by the end of August, late in the evening, Jupiter will appear in the east with more than a quarter the brilliance of Venus. At the beginning of August, Jupiter, in Taurus, rises about 1 a.m., but by the month's end it will appear above the eastern horizon about 11 p.m., local DST. Later in the night, as it climbs higher, it will be conspicuous in the southeastern sky, remaining visible until dawn.

The most prominent star is Vega, in Lyra, which is overhead in mid-evening. Arcturus, well below it in the west, is slightly brighter but dimmed because of its lower altitude.

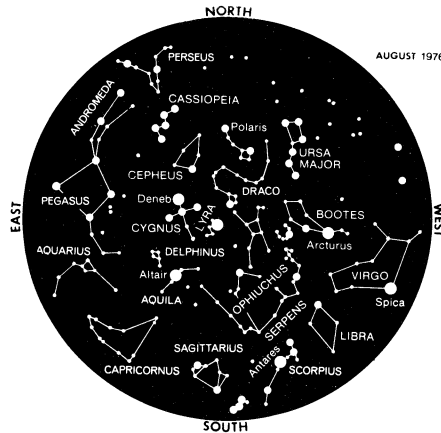
Directly east of Vega flies the swan, Cygnus. Deneb, the brightest star, is toward the north, at the top of the group of six stars that form the "Northern Cross." As a swan, Deneb marks the tail, the crosspiece, the wings and the lower part of the outstretched neck.

Another bird, an eagle, is south of Cygnus, represented by Aquila. Altair is the brightest star. Vega, Deneb and Altair form the summer triangle, so-called because it's prominent overhead at this time of year.

Low in the southwest you'll see the

# AUGUST STARS

BY JAMES STOKLEY



Aug. 2	6:07 pm EDT	Moon in first quarter
9	7:44 pm	Full Moon
11-12		Perseid meteors
16	2:00 am	Moon farthest, distance 251,300 miles
17	8:13 pm	Moon in last quarter
18	5:00 am	Moon passes south of Jupiter
25	7:01 am	New Moon
26	6:00 am	Mercury farthest east of sun
	8:00 pm	Moon passes south of Venus
27	11:00 am	Moon passes south of Mars
	10:00 pm	Moon nearest, distance 226,500 miles
31	11:35 pm	Moon in first quarter

familiar summertime figure of Scorpius with ruddy Antares. To its left is Sagittarius, supposedly representing an archer. However, it looks more like a little teapot, the spout toward the right and the handle to the left.

Even though it contains no first-magnitude star, Hercules is prominent west of Lyra. Just north of this group you'll see Draco, a long, snake-like constellation which winds toward the northern horizon around Ursa Minor (where Polaris, the polestar, is located) and ends near the Big Dipper, part of Ursa Major.

Low in the northeast is Cassiopeia, shaped like a W. Cephus is just above and close to Draco. Andromeda is to the right of Cassiopeia and Pegasus to the right of that.

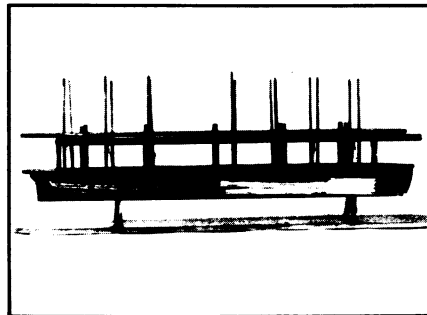
Frequently, around August 12, you can see a number of shooting stars or meteors, which seem to radiate from Perseus, in the northeast. Sometimes, especially in the early morning, you can see an average of one-per-minute. However, 1976 is unfavorable for this Perseid shower of meteors, since the moon is just past full. Its glare will drown out all but the brightest.

Extending overhead from horizon to horizon, the Milky Way is in a good position on evenings of late summer and early autumn. This is a vast swarm of faint stars, not visible separately with the naked eye. You'll hardly be able to see it in competition with bright city lights, but on a clear, moonless night it is conspicuous from a country location. It runs from Scorpius and Sagittarius, in the south, through Ophiuchus, Aquila, Cepheus and Cygnus to Cassiopeia and Perseus in the northeast. □

## ... Inventors

centers and Colton estimates that if one counts the tax return from inventions already marketed because of the program, the federal government has reaped a 10 to 1 return for its funds invested in the centers through NSF.

Of immediate concern to independent inventors nationwide are the services offered by the innovation center at the University of Oregon. Center director, Gerald G. Udell, described to *SCIENCE NEWS* the importance of their evaluation program as being able "to say 'no' with feedback." For a \$25 registration fee an inventor can send an idea to the center for evaluation and receive a detailed, computerized chart showing the strengths and weaknesses of his gadget. Evaluation points include checking on the invention's technical feasibility, potential profitability, further research needed, possible safety hazards, prospects for protection through patent, and probable environmental impact. If the idea passes with flying colors (so far only about two percent have done so), the center will help refer the inventor to someone who might help the commercialization process.



Lincoln's hand-carved patent model of a device to float riverboats off of shoals.

Evaluations at the Oregon center are carried out by faculty, students in the program and outside consultants. An important result of this experience has been new knowledge gleaned about the innovation process, including profiles of the steps required to bring an idea to market and when the breakeven point is likely to be reached. Udell estimates, for example, that from 100 initial ideas, 15 may survive technical screening, eight may seem commercially feasible, five might then be developed, but probably only one would survive testing and commercialization to

become a successful product. However, that one may pay for the whole effort.

The spirit of invention is one of the greatest American traditions. Though the basement tinkerer may have been a somewhat over-romanticized hero, the willingness of people from all walks of life to spend some time to put their insight to practical use is a venerable practice, and one worth perpetuating. A glance at the history of American patents produces an impressive, and somewhat surprising list of distinguished people who helped carry on the tradition: Ex-riverboatman Abraham Lincoln invented a device for buoying vessels over shoals; though writer Mark Twain lost considerable money investing in the inventions of others, his own three patents brought him considerable profit; magician Harry Houdini patented a safer diving suit; and Albert Einstein, once a patent-office clerk, received a patent of his own for inventing a better refrigerator.

To say that independent inventors must change with the times is probably more accurate than saying their time is past. What is needed is a new system of incentives, opportunities and guidance. □