

ASTRONOMY

Winter Constellations

Jupiter, high in the south, is brightest object in the sky except the moon. It appears in the constellation, Gemini, the twins, from which we get the expression, "By Jiminy."

By JAMES STOKLEY

► WITH THE coming of February, the winter evening skies shine in their full glory, made additionally brilliant in February with the presence of the bright planet Jupiter.

It is the brightest celestial object, except the moon, that is visible these evenings. Its position, high in the south, is shown on the accompanying maps, which depict the skies as they appear about 10:00 p.m., your own kind of standard time, at the first of February, an hour earlier in the middle, and two hours earlier at the end.

In the same part of the sky are shown the constellations that are characteristic of winter. Just below Jupiter, for example, are the two dogs. Procyon is the bright star in Canis Minor, the smaller dog, and below it is Canis Major, the larger dog, with Sirius, the dog-star.

Jupiter in Gemini

Jupiter itself is in Gemini, the twins, in which Pollux is the brightest star. To the northwest of this group is seen Auriga, the charioteer, with Capella, another star of the first magnitude.

Orion, one of the most familiar of all star groups, is seen above and to the right of Canis Major. It contains two first-magnitude stars: Betelgeuse and Rigel.

Between them are the three stars in a row that mark the belt of this legendary warrior. Still higher and farther right is Taurus, the bull, in which the brilliant ruddy star Aldebaran marks the eye.

Low in the west, in the constellation of Pisces, the fishes, is the planet Mars, which is still fading from its great brilliance of last summer. And in the east the star Regulus can be seen in the figure of Leo, the lion.

Saturn and Venus

Two more planets come up later in the night. Around 2:00 a.m., at the beginning of February, Saturn rises in Libra, the scales, and shines like a bright star.

It is followed a couple of hours later by Venus, in Sagittarius, the archer, blazing with such brilliance that there is no doubt of its identity. Indeed, it can be followed into the dawn, long after other planets and stars have disappeared.

Many common words and phrases come from sources that are generally forgotten, and some of these sources may be found in the skies.

People who use the mild expletive, "By Jiminy," probably rarely think that this has anything to do with the stars. But actually "Jiminy" is a slightly altered version of Gemini, the constellation of the twins, in which Jupiter now shines so brilliantly.

The names of these twins are Castor and Pollux. Castor is above and a little fainter. The twins were famous heroes in Roman mythology, and great temples were dedicated to their worship.

According to Homer, they were the sons of Leda and Tyndareus, who was king of Lacedaemon. Another legend says that Zeus himself was their father. Their sister was the beautiful Helen, over whom the Trojan War was fought.

Since Poseidon had given them power over wind and waves, they were particularly worshipped by the sailors. They were also favorite gods of the Roman soldiers, who thought they led them into battle.

When a soldier wanted to swear a particularly solemn oath, he would say, "by Gemini." This has survived to the present in our "by Jiminy."

"Arctic" Means Bear

Then there is the word "arctic," which comes from the Greek word for bear, a rather puzzling connection, for even though there are polar bears in the arctic regions, it is not likely that the Greeks knew about them.

However, the bear to which this refers is the constellation of the larger bear — Ursa Major, seen these evenings in the northeastern sky.

As this group swings around the north pole of the skies, at which the pole star,

Polaris, stands, it is sometimes high, sometimes low; in the northeast, as now, or in the northwest, but always in the north. Consequently, the arctic regions are those toward the larger bear.

Still another word for north has the same origin. Look on the face of a dollar bill to the left of the portrait of George Washington. Directly under the words "One Dollar" is a blue circle, around which is inscribed: "Thesaur. Amer. Septent. Sigil." This is the abbreviation of Latin words meaning "Seal of the Treasury of North America," that is, of the U.S. Treasury.

Dipper Stars

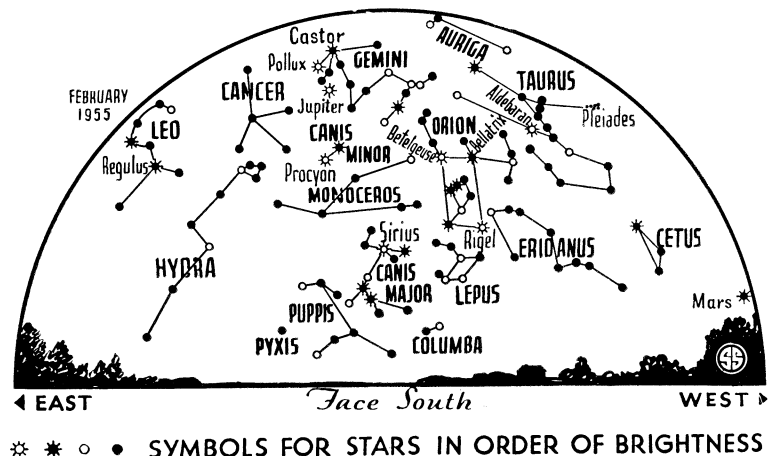
In the first syllable of the third word (Septent.) we recognize the Latin for the number seven. This refers to the seven stars that make up the Great Dipper, the most familiar part of the great bear. These were called, in Latin, "septentriones," so the Romans used "septentrio" to mean the northern regions.

But even though this figure has survived for so many centuries it will not do so forever. Although we sometimes call the stars fixed, to distinguish them from the planets that move about the sky, the stars also are in motion.

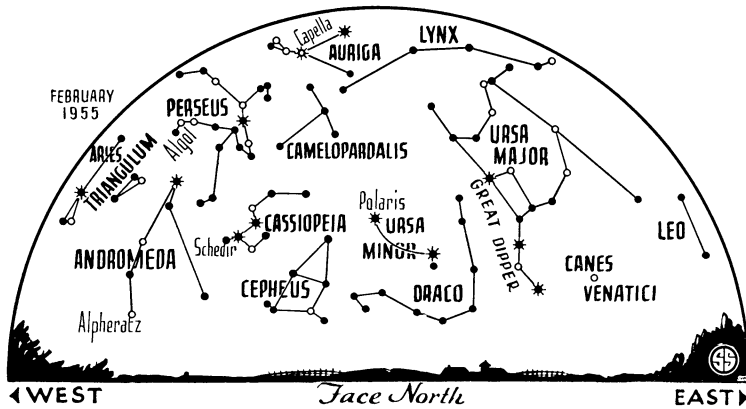
Most of them are so far away, however, that not for many centuries or even millennia will their motions become evident.

Two of the stars in the dipper, those at each end, are moving in one direction while the other five are going in another direction. It happens that they are now passing in such a way as to produce the figure we know.

Fifty thousand years ago the dipper had quite a different appearance, for the handle was nearly straight. Fifty thousand years in the future the handle will be much more kinked than now, and the bowl will be so twisted that it will not look like a dipper at all!



◄ EAST Face South WEST ►
* • ◦ • SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS



Celestial Time Table for February

Feb.	EST
2	2:00 p.m. Moon nearest; distance 229,100 miles.
5	1:54 a.m. Moon passes Jupiter.
6	8:43 p.m. Full moon.
12	2:00 p.m. Mercury between earth and sun.
14	8:58 a.m. Moon passes Saturn.

2:40 p.m.	Moon in last quarter.
7:00 p.m.	Moon farthest; distance 251,200 miles.
18	3:58 p.m. Moon passes Venus.
22	10:54 a.m. New moon.
26	2:51 p.m. Moon passes Mars.

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

Science News Letter, January 22, 1955

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GEOGRAPHY

Fabled Timbuktu Is Small, Squalid City

➤ IF YOU think of far-off Timbuktu as the ultimate in mystery and romance, you will be disappointed.

Timbuktu is not a picturesque seaport, nor an island, nor a country. It is, instead, a squalid little city of 6,000 persons located deep in the heart of French West Africa on the banks of the Niger River.

Dr. Benjamin Thomas, a geographer at the University of California at Los Angeles, has just returned from a visit to that fabled city of song and story.

Once, says Dr. Thomas, Timbuktu was called the "port of the Sudan in the Sahara" and a rich city of commerce which traded in salt, gold and slaves.

Today it has been by-passed by newer land routes, air transportation and easier access to the sea. "Timbuktu" is rightly used as a synonym of remoteness and isolation, the geographer adds, but not to denote romance or adventure.

ANTHROPOLOGY

Mexican Indian Whistle Is a Language of Love

➤ WHEN A Kickapoo Indian youth living in Coahuila, Mexico, whistles at his girl friend, it is not an ordinary "wolf call."

The Kickapoo whistle is a regular part of courtship and conveys a definite message based on the pitch, accent and cadence of the Kickapoo language, Drs. Robert E. Ritzenthaler and Frederick A. Peterson of the Milwaukee Public Museum report in *American Anthropologist* (Dec.).

The young Kickapoo who wants to see his girl friend in the evening builds a campfire at one of several popular rendezvous spots near the village. He then cups his hands and blows into the cavity between the knuckles of the thumbs. The tone of the whistle is controlled by opening and closing the fingers of the left hand.

The girl friend recognizes his whistle just as she would be able to recognize his voice calling her. She steps out of her house and whistles a reply.

The whistled conversation may go something like this:

- "Come on."
- "Wait a minute."
- "No."
- "I'm coming."

At times just one couple will rendezvous, the scientists explain. But at other times a party of a dozen or more will get together at the same fire to talk, court, sing Mexican songs and, if liquor is available, drink. Sometimes, a little brother will tease by hanging around the fire until he has learned the whistling system of his older brother. The courting couple must be careful what they whistle to each other, because others in the village can "listen in."

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