

ASTRONOMY

Jupiter Joins Saturn

Giant planet reappears in the constellation of Libra low in the southeast late on April evenings. Saturn is high in southwest and sets about midnight.

By JAMES STOKLEY

► **JOINING SATURN**, for several months the only planet visible in the evening sky, Jupiter now comes into view. It is in the constellation of Libra, the scales, whose position, low in the southeast, is shown on the accompanying maps. These diagrams depict the skies as they appear about 10:00 p. m. at the beginning of April and 9:00 p. m. around the 15th. These hours are in your own kind of standard time.

A few months ago Jupiter was a brilliant morning star, visible in the east just before sunrise, close to Venus. Because the appearance of the skies, in general, advances two hours each month, at 10:00 p. m. this month they look about the same as at midnight in March, 2:00 a. m. in February, 4:00 a. m. in January and 6:00 a. m. in December. In recent months Venus has been moving eastward through the skies, so it is still a morning star, but Jupiter moves much more slowly and now it is coming into evening view.

Saturn Is High

Our other planet, Saturn, is high in the southwest. Due south at sunset, it sets around midnight. By that time, Jupiter has climbed near the meridian. Saturn, of magnitude 0.4, is considerably fainter than the minus 2 of Jupiter. It is in Cancer, the crab, one of the least conspicuous of the constellations of the zodiac, path of the sun, moon and planets. Much more prominent are the next-door figures of Gemini, the twins, to the right, with brilliant Pollux; and Leo, the lion, to the left. In Leo is a smaller group known as the sickle, first magnitude Regulus marking the end of the handle.

Next to Leo, along the zodiac toward the east, is Virgo, the virgin, with another star of the first magnitude, Spica by name. Above Virgo, in the east, is Bootes, the bear-driver, in which Arcturus shines.

In April evening skies the glorious constellations of the winter are making their last bow in the west. Orion is

shown directly west, on the horizon, with Betelgeuse remaining visible. Nearby, farther south, is Sirius, the dog star, in Canis Major. To the right of Orion, shown in the map of the northern half of the sky, is Aldebaran, in Taurus, the bull. Though a star of the first magnitude, it is shown fainter on the map. It is so low that its light is dimmed. Above Taurus, in Auriga, the charioteer, is Capella. Shifting to the northeast, we can see Vega, in Lyra, the lyre, another brilliant star appearing fainter because it is so low. Vega, however, is now coming into view, and in the next few months it will be much more prominent, while Orion and his neighbors vanish completely for a while.

Venus Brightest

Of the other three naked eye planets, besides Jupiter and Saturn, only Venus is visible during the night. This, as mentioned above, is a morning star, in the constellation of Aquarius, which is low in the southeast at sunrise. Venus has a magnitude of minus 3.4, which makes it brighter than any other star or planet. Both Mercury and Mars are now too close to the sun to be seen.

Of the 12 constellations of the zodiac—Aries, the ram; Taurus, the bull; Gemini, the twins; Cancer, the crab; Leo, the lion; Virgo, the virgin; Libra, the scales; Scorpius, the scorpion; Sagittarius, the archer; Capricornus, the sea goat; Aquar-

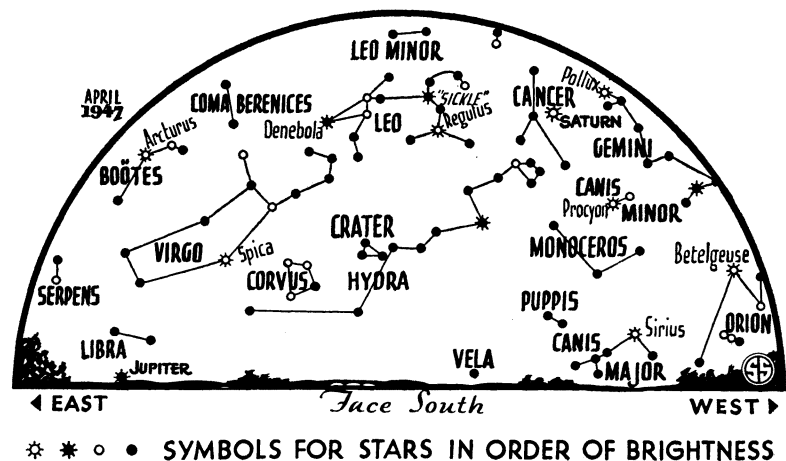
ius, the water-carrier and Pisces, the fishes—Leo is the most famous. This is the figure which we see at its best on April evenings. However, its importance seems to come from the fact that the sun stands in the direction of Leo during the summertime.

Skies Rotate

There is a slow movement of the skies, called the precession of the equinoxes, by which the constellations of the zodiac slip all the way around in about 26,000 years. At present the sun is in Leo during August and September. On Aug. 23, it passes Regulus. Thousands of years ago, when the constellations were established, it passed among these stars in June, when the sun was at its highest for the year. Thus there seemed to be a connection between this most ferocious of beasts and the ferocity of the hot sun at this time of year. The Greek poet Aratus wrote (in the second century B. C.):

"The Lion flames. There the sun's course runs hottest.
Empty of grain the arid fields appear
When first the Sun into the Lion enters."

To the Egyptians there was another connection between this group and the species Leo. It was during the latter part of July, as the sun went through this figure for them, that the Nile attained its highest level. This brought the lions from the desert to the Nile Valley, to escape the heat. Perhaps as a result the Egyptians made use of the head of a lion on the gates of the canals connected with the Nile for irrigation. This is be-



lieved to be the origin of the lion's head figure in more modern fountains, where a stream of water squirts from the animal's jaws.

Celestial Time Table for April

April.	EST	
5	6:00 a. m.	Mercury farthest west of sun (but not far enough to be easily visible)
	10:28 a. m.	Full moon
8	4:47 p. m.	Moon passes Jupiter
12	8:00 a. m.	Moon farthest, 251,200 miles
13	9:23 a. m.	Moon in last quarter
18	12:37 a. m.	Moon passes Venus
20	11:19 p. m.	New moon
21	early a. m.	Meteors of Lyrid shower visible
24	6:00 a. m.	Moon nearest, 227,800 miles
27	8:23 a. m.	Moon passes Saturn
	5:18 p. m.	Moon in first quarter

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

Science News Letter, March 29, 1947

ARCHAEOLOGY

4,000-Year Old Epic Poem Tells of "War of Nerves"

➤ A "NEW" EPIC poem, scratched in clay 4,000 years ago, is being translated by Dr. Samuel N. Kramer of the University of Pennsylvania Museum.

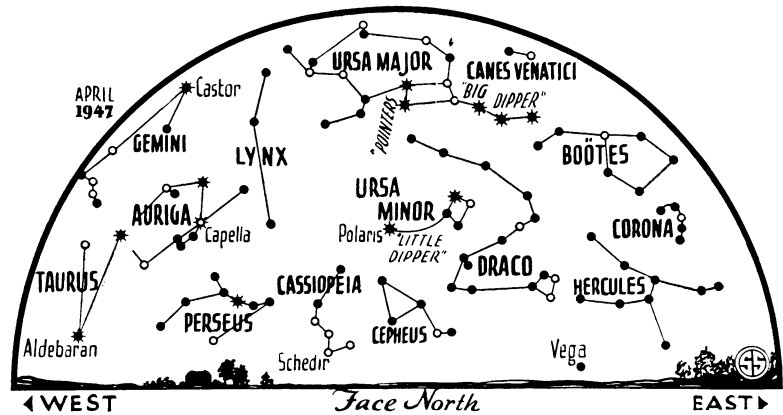
Unearthed half a century ago in the Near East, the poem is the oldest and longest Sumerian poem known. Sumer, where the ancient literature was written, was the southern division of ancient Babylonia.

The story told in the poem, which deals with events 1,000 years before the author wrote his epic, or 5,000 years ago, sounds like a modern tale. Dictators, psychological warfare and political intrigue are all important elements in "Enmerkar and the Lord of Aratta," the title Dr. Kramer has given the ancient work.

Smaller than an ordinary sheet of writing paper, the tablet on which Dr. Kramer found the poem was rediscovered by the archaeologist in the Museum of the Ancient Orient, Istanbul, Turkey. Dr. Kramer made his find during the past seven months while engaged in research in the Near East under the joint sponsorship of the University of Pennsylvania Museum and the American Schools of Oriental Research.

The small slab with the epic scratched on it is a 12-column tablet containing a record total of more than 600 lines of Sumerian poetry.

Enmerkar, hero of the poem, was a Sumerian hero who ruled the biblical Erech, a city-state in southern Mesopotamia. The epic tells how the ancient Sumerian used a "war of nerves"



to capture a wealthy city nearby without bloodshed.

Dr. Kramer has translated enough of the ancient story to define clearly the main characters and the plot, but a full translation and interpretation will require further work.

Science News Letter, March 29, 1947

PHYSICS

Static-Reducing Devices To Aid Commercial Pilots

➤ CLEARER RADIO communications in bad weather and greater air safety are promised by simple wartime devices now being made available to commercial flying.

The devices are static dischargers and suppressors for shielding planes from accumulating static which disrupts radio communications in a storm. During the war, the dischargers and suppressors were credited with aiding safety of military planes, but all production went to the military. Now the devices have been released from government restrictions and are available to commercial flying, the Air Materiel Command said.

Consisting of a series of antenna insulators, tension units and conducting cotton wicking, the anti-static equipment is designed to fight precipitation static, which interferes with radio communications.

Precipitation static is set up in aircraft radio equipment when the electricity accumulated by the plane in flight is greater than in the surrounding air. This situation comes during storms and bad weather when dust, sand, smoke, ice crystals, snow crystals or rain strike against the surface of the plane and generate static electricity.

By shielding the plane and carrying off the accumulating static, the dis-

chargers and suppressors reduce the interference with radio communications.

The Air Materiel Command laboratories at Wright Field developed the antenna insulation system during the war, while the wick dischargers were made in cooperation with the Naval Research Laboratories. The equipment has been manufactured by Dayton Aircraft Products, Inc., Dayton, Ohio, under government contract.

Science News Letter, March 29, 1947

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