



of a star in the sky. The other component is called "radical velocity," and that measures the movement of a star toward or away from us. It happens that the radical velocities of all the dipper stars are not very different. They are all moving toward us, at speeds varying from 5.3 miles per second for Dubhe to 7.5 miles per second for Megrez.

However, their proper motions are quite different. Dubhe and Benetnasch, the stars at both ends of the grouping are moving westward, while the others are going eastward together. Thus it just happens that they are passing the other two at the present to give the dipper figure. Fifty thousand years from now, just as that many years ago, the group will look very different from its present appearance.

### Story of Mythology

The stars themselves also vary considerably. Alioth, the brightest, is nearly five times as brilliant as Megrez, the faintest.

The spectroscope, which analyzes a star's light, shows that Dubhe belongs to spectral class G, of which our sun is a member. These are stars of rather yellow color. Benetnasch is type B, like Spica, in Virgo, and the stars seen in the wintertime in the belt of Orion. These are blue stars, with large amounts of helium and hydrogen in their atmospheres.

The other five—which are moving along together—are all of type A, like Sirius. Hydrogen is prominent in their atmospheres, and they are blue in color.

Such is some of the scientific information which astronomers have learned about these stars, but mythology also has a story about them. Greek legend relates that the beautiful nymph Callisto, daughter of Lycaon, the king of Arcadia, made Juno jealous of her. Jupiter therefore turned Callisto into a bear, thinking that it would protect her from injury. But Juno found out what had been done and persuaded Diana, the famous huntress, to slay the bear.

Then Jupiter placed her in the sky, as the constellation of Ursa Major, where she has been safe ever since. Later, the legend

continues, Callisto's son, Arcas, was also placed in the sky, as the constellation of Ursa Minor. But even this did not satisfy Juno, so she induced Tehthys and Oceanus to prevent the bears from ever descending into the ocean, like the other stars.

Therefore they are among the circumpolar constellations, those that are so close to the north celestial pole, the center around which all the stars turn daily, that from these latitudes they never go below the horizon.

### Celestial Time Table for May

May EST	
9 12:00 mnt.	Moon nearest, distance 227,200 miles.
10 2:14 p.m.	Moon passes Venus.
13 12:06 a.m.	New moon.
14 6:13 a.m.	Moon passes Mars.
19 1:00 a.m.	Venus at greatest brilliancy.
20 1:20 p.m.	Moon in first quarter.
21 9:00 p.m.	Moon farthest, distance 251,200 miles.
24 11:00 p.m.	Jupiter beyond sun.
25 3:32 a.m.	Moon passes Saturn.
28 12:03 p.m.	Full moon.

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

Science News Letter, April 25, 1953

### MEDICINE

## Electricity on Chest Starts Hearts Beating

► HEARTS THAT stop can be made to beat again by an electric current across the chest.

Success with this electric stimulation method in one case, with the electric impulse acting as the sole "pacemaker" of the heart for five days when it resumed beating on its own, was reported at the meeting of the American Heart Association in Atlantic City, N. J.

Besides this life-saving role, the electric stimulation experiments are expected to give doctors new knowledge about disturbances in heart rhythm. The experiments were reported by Drs. Paul M. Zoll, Leona R. Norman and Arthur J. Linenthal of Boston.

Science News Letter, April 25, 1953

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