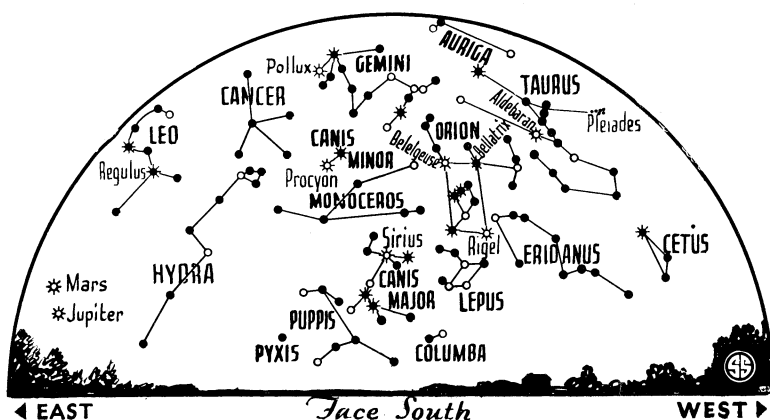


\* \* ° • SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS



Face South  
MARS AND JUPITER  
The more distant body is the brighter.

of Canis Major, brightest of all the stars in the sky. Passing toward the west you come next to Rigel in Orion. Above and farther west is Aldebaran in the bull, Taurus, conspicuous for its ruddy color. Now go upward until almost directly overhead you see Capella marking the group of Auriga, the charioteer. Looking downward to the southeast you next reach Pollux, the brighter of the twins, Gemini. Below it you see the lesser dog star, Procyon, in Canis Minor and thus complete the hexagon. The one in the middle of this ring of stars is Betelgeuse, the upper of the first magnitude stars in Orion. Between it and Rigel is a row of three stars that forms the warrior's belt. Near Betelgeuse is another bright star, though not quite of the first magnitude, namely, Bellatrix, which is also in Orion. Still an eighth first magnitude star is to be seen, however. This is Regulus in Leo, almost directly east. Regulus marks the end of the handle of the sickle, a group almost as familiar as the great dipper.

#### Meteors Did Not Shower

This is the part of the sky that was anxiously watched by astronomers a few months ago when it was hoped that a brilliant shower of meteors would emerge from it. The sickle curves upward from Regulus and the center of the blade is the radiant, the point from which the so-called Leonid meteors seem to emerge. On the night of November 15, 1932, when this constellation did not rise until about midnight, a few meteors, or shooting stars, were seen to radiate from it. Nothing like the famous showers of the past

when the whole sky was covered with these flashing lines of light, hundreds at a time, was seen.

Possibly November, 1933, may bring such a shower, and again it may not, for meteors are notoriously uncertain bodies. A few can be seen during February radiating chiefly from the constellation of Auriga, which is marked by the star Capella. The greatest display occurs about February 10, but this is a far less conspicuous shower than the Leonids, or the Perseids, which appear in August. And with the moon full the same night the meteor shower is expected to be at a maximum, few of the shooting stars should be visible.

*Science News Letter, February 4, 1933*

METEOROLOGY-RADIO

## Thunderstorms Located By Radio and Oscillograph

THE POSITIONS of all the large thunderstorms which occur over Europe and the North Atlantic can now be determined by radio apparatus in the British Isles, independently of weather reports. This was announced by R. A. Watson Watt, superintendent of the Radio Research Station of the British Department of Scientific and Industrial Research.

Atmospherics produced by the thunderstorms are so exactly analyzed by cathode ray oscillographs that with two radio stations working in cooperation it is possible to calculate trigonometrically the positions of the storms to within

BOTANY

## Plants More Active Than Corals in Making Islands

THE "little coral workers" celebrated in the old-time moralistic nursery verses have been getting more credit than they deserve as builders of islands. So it would appear, at least, from data offered by Dr. Marshall A. Howe, assistant director of the New York Botanical Garden.

Plants, not coral animals, do the lion's share of the work in building up so-called coral islands and atolls, Dr. Howe indicated. He cited one detailed study made on a South Sea island, where two kinds of lime-secreting seaweed occupied first and second places, respectively, as limestone builders, with third place going to a group of one-celled animals known as the foraminifera, and the corals coming in fourth. He backed this up with similar observation elsewhere, including a semi-enforced study of the richness of lime-secreting bottom vegetation made by himself once when becalmed for two days out of sight of land, in a small boat on the Bahama Banks.

Dr. Howe did not deny the claims of the coral animals to a considerable part in reef and island formation. But in the formation of many, if not most, of the so-called coral reefs or islands, lime-secreting plants—the algae—have contributed more than have the corals.

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about a hundred miles. The two stations used are the Radio Research Station, near London, and the Leuchars Aerodrome station, in Fifeshire, Scotland. These stations are about four hundred miles apart, and they enable thunderstorms to be located within a radius of 3,000 miles. Sometimes hundreds of storms are detected within a minute.

Mr. Watson Watt stated that this system has so far been used by Britain alone of the European countries, but that the American Navy is experimenting with it.

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