

The brilliant stars Sirius, Betelgeuse, Rigel and Aldebaran are approaching the horizon behind which they will disappear until next winter.

always seen close to the sun. Sometimes it is west of the sun and appears in the eastern sky just at daybreak. At other times, as now, it is at the position called "greatest eastern elongation," and remains in the western sky a short time after the sun has set. On the sixth, Mercury will be of the minus two magnitude or as bright as Jupiter. But since it can be seen only in the twilight, it will not be nearly so easy to find.

On this date, or a day or two before or after, scrutinize the western horizon as soon as possible after the sun has descended below it. Then, perhaps you will be rewarded by seeing in the gathering dusk this planet which even the great Copernicus is said never to have viewed.

The other planet of the month is to be seen in the morning sky. Saturn rises between four and five a. m., and can be seen before sunrise, low in the southeast. Venus is not visible at all this month, because of its proximity to the sun. During the late spring and summer it will reappear as a conspicuous object in the western evening sky.

## Planets in Leo

The stars of the evening sky are now assuming a vernal aspect. Orion with its two brilliant stars, Betelgeuse and Rigel, Taurus, the bull, with Aldebaran, and Sirius in Canis Major, the great dog, are in the southwest, approaching the horizon behind which they will soon vanish until next winter. Procyon, the lesser dog star, in Canis Minor, shines higher in the southwest above Sirius. Still higher and more directly west is Pollux, the more brilliant of the twins, Gemini. A little lower and more to the north is Capella, the first magnitude star in Auriga, the charioteer. In

the eastern sky, Leo, the lion, has risen high. Its position with Regulus and the sickle was referred to previously.

Mars and Jupiter are in this constellation shining brighter than any of the nearby stars. Below them is Virgo, the

virgin, with Spica as its most brilliant star. The brightness of Spica is somewhat diminished, however, by reason of its low altitude in the evening sky at present. A tenth first magnitude star is visible to the northeast. It is Arcturus in Bootes, the herdsman.

During March, the moon passes through its phases as follows: On the fourth it is at first quarter, on the 11th full, on the 18th at last quarter, and new on the 25th. Thus the evenings from the beginning of the month to about the 15th will be moonlit.

On the 20th the sun performs a welcome phenomenon, though at the time nothing is visible to indicate the occurrence. On that date, at 8:43 p. m. eastern standard time, the sun crosses the equator as it moves northwards in the sky. This is called the vernal equinox, as the length of night and day is then the same. Spring begins at that moment.

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CHEMISTRY

## Depression Flower Gardens Are Not New Inventions

THE DEPRESSION flower gardens, that grow from chemicals and not from seeds, are not new inventions. An engineer, Tenney L. Davis, writing in Massachusetts Institute of Technology's *Technology Review*, has traced their history back to 1705 when the French chemist, Nicholas Lemery, told the French Academy how to make "vegetations" by the spontaneous evaporation of salt solutions.

Lemery used salts of iron and wrongly concluded from his experiments that iron is therefore necessary for the growth of plants. Since ammonia is used in making the 1933 model of depression garden, Tenney L. Davis remarks that it might lead to the wrong inference of a correct judgment that ammonia is essential to the growth of nearly every kind of vegetable organism.

The formula for a successful chemical flower garden is: six tablespoonfuls of salt, six tablespoonfuls of bluing, six tablespoonfuls of water and one tablespoonful of ammonia water. Mix thoroughly and pour over a clinker placed in a suitable dish. A piece of

coke, common brick or a mass of coal ashes can be used instead of a clinker. Not all the salt will be dissolved but pour it out with the rest. Then drop on the clinker a few drops of mercurochrome solution, red or green ink, or other colored liquid that may be handy. But do not use iodine because it will react with the ammonia to form nitrogen iodide, which is a black powder that when dry becomes a dangerous explosive detonated by a slight shock. In a quarter of an hour the coral-like growth begins.

Another type of chemical garden is made by dropping the readily soluble salt crystals of certain metals into a jar of sodium silicate solution or "water glass." By osmosis, growths resembling marine plants spring up from the crystals and climb rapidly upward through the liquid. For brown, use ferric chloride; for grass green, nickel nitrate; for emerald green, cupric chloride; for yellow, uranium nitrate; for dark blue, cobaltous chloride or nitrate; for white, manganous nitrate or zinc sulphate.

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