

Brilliant Display of Winter Stars Now Visible

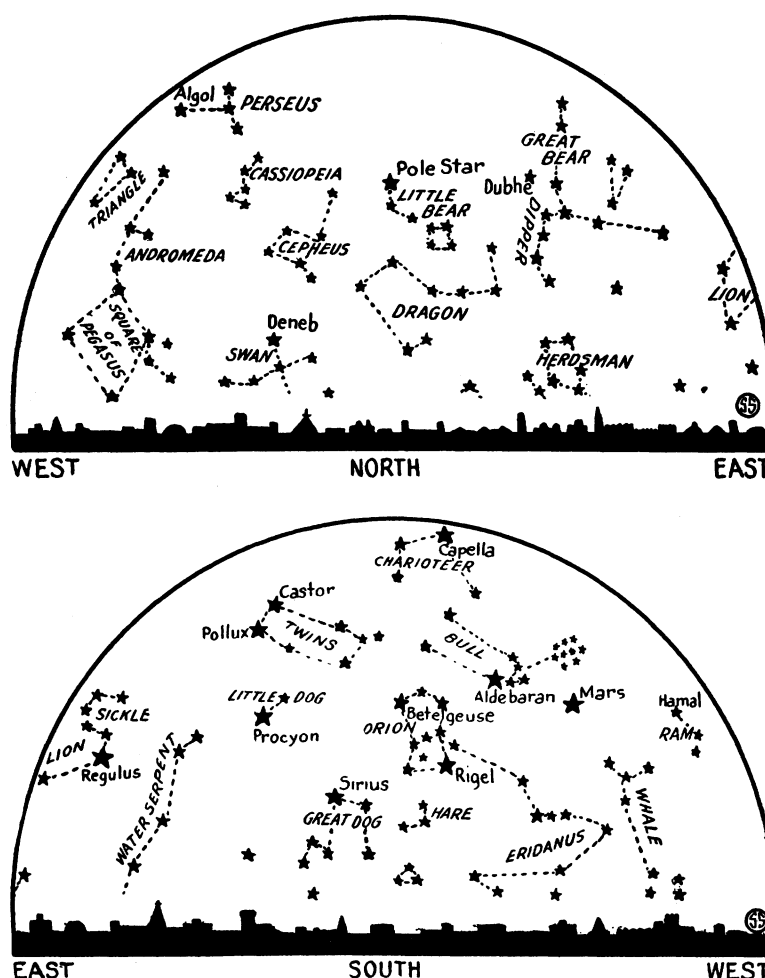
By JAMES STOKLEY

This month sees an end of the evening display of one of the planets of the autumn and early winter sky, for Jupiter has passed close to the sun. On the first of March it will be in opposition, which means that Jupiter and the sun will be in the same straight line from the earth. But Mars is still with us, shining with its ruddy glow in the southwest, just to the south of the Pleiades, the famous loose cluster of stars in Taurus, the Bull.

On February 25, Mercury, a planet which few people have ever seen, will be in a position where it will be visible low in the western sky at dusk, ready to be picked up by a keen eye. As it revolves around the sun in a year of 88 days, it is sometimes seen to the west of the sun, and sometimes to the east, when it is said to be in either western or eastern elongation. On the 25th, it will be in eastern elongation, which means that the sun sets a little while before Mercury. It is only a third as far away from the sun as the earth, so that it is never seen more than 28 degrees from our orb of day—a distance about the same as that between Betelgeuse and Sirius, two of the bright stars now in the southern sky. Its orbit is not circular, but elliptical, and as a result it seldom reaches the maximum elongation, on the average getting only about 23 degrees away from the sun. Twilight lasts until the sun is about 18 degrees below the horizon, so Mercury can never be seen for very long after complete darkness has arrived. This month the opposition is not as great as the average, being only 18 degrees, so that it can be seen at best only as a bright star in the evening twilight.

But the February evening sky makes up in stellar attractions for what it lacks in the planets. The winter sky is now in all its glory, for at no other time of the year can as many first magnitude stars be seen at once. In the whole sky there are twenty stars brighter than one and a half in the astronomical scale of magnitudes. Five of these are in the southern hemisphere and are never visible above our horizon. This leaves fifteen which we can see, and of these, eight are now in the sky at once, six of them forming a hexagon with another at the center.

Almost directly overhead is the



THESE MAPS SHOW the evening skies in February. Face north or south and the top or bottom one will show the stars as they appear to you in the sky.

yellowish-white Capella, astronomically alpha Aurigae, as it is the brightest star in the constellation of Auriga, the Charioteer. This is so bright that it is very easy to identify, for only Sirius, of the stars we can now see, exceeds it in brilliance. To the southwest of Capella is the orange-red star, Aldebaran, or alpha Tauri, the brightest star in the constellation of Taurus, the bull, and which was represented on the ancient star maps as the bull's eye, glaring at the nearby warrior, Orion. South, and a little east of Aldebaran, is a representative of Orion itself, in the form of Rigel, or beta Orionis, for it is the second brightest star in Orion. Rigel has the distinction of being one of the most brilliant of known stars, referring to its intrinsic brightness. In general the brightest stars are very close, but Rigel is at the respectable distance of 540 light years, one light year being the distance that a beam of light will travel in twelve months, going at

the rate of 186,000 miles a second, or about 6,000,000,000,000 miles.

Compared to Rigel, Sirius, to the southeast of it, and the next star in the hexagon, is next door to us, for we see it tonight by light that left it in 1918, instead of in 1387, which was the year that the light reaching us from Rigel left on its long journey. Sirius is the brightest of all the stars we see in the sky, partly, of course, because it is so close. Alpha centauri, the nearest known star, is at a little less than half the distance of Sirius, but it is one of the southern stars not visible from northern latitudes. Sirius, however, appears brighter than alpha centauri. It is also known as the "dog star," as it is in the constellation Canis Major, the great dog.

The great dog is one of the two that accompanied the mighty hunter Orion, the other one being represented by the next star in the hexagon, yellowish-white Procyon, north-

(Just turn the Page)

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A camel is a less intelligent steed than a horse.

The Indians obtained blue and green paints from copper ore.

Cows' milk was thought to be unhealthy for babies in England in the seventeenth century.

Horned cattle take up 10 per cent. more space in a cattle car than animals without horns.

The death penalty was used against thieves long before it was applied against killers, says a criminologist.

Male mosquitoes have such weak mouths that they are unable to prey on man, as the bloodthirsty females do.

Simplified and standardized spelling of African dialects is being attempted to promote education in that country.

Airplane service across the Andes in Peru is expected to cut the trip down from the usual three weeks journey to only two days.

Hardening of the arteries was widespread among the Egyptians, even though their diet and daily life were not of a sort likely to lead to this disease.

Winter Stars

(Continued from Page 86)

east of Sirius. This is in the constellation Canis Minor, the lesser dog, and is also very close, for it is only 10 light years distant. They look close together in the sky, and in fact they are but a relatively short distance apart—about four and a third light years, closer to each other than either of them are to the earth.

Completing our hexagon, we come to the orange colored Pollux, northwest of Procyon and southeast of Capella. Pollux is one of the two stars that form the twins, Gemini, the other member of the pair being the fainter Castor, just above Pollux. The ancients considered the Twins propitious to navigators, and the Romans swore by them, as they were two of their most popular gods. The remains of the temples to Castor and Pollux at Rome, and at Girgenti, are among the most famous of the Roman ruins. The Roman oath by them must have been very popular, for it has survived to the present day, in the slightly modified "by jiminy."

Finally, in the center of the hexagon is the famous Betelgeuse, or alpha Orions, the brightest star in Orion. This star is in the warrior's right shoulder, according to the old star maps, and in his upraised right hand he holds the club with which he is about to smite the giant bull Taurus.

The constellation Leo, the lion, now rising in the eastern evening sky, contains the eighth first magnitude star now visible. This is Regulus, or alpha Leonis, at the end of the handle of the "sickle," probably the most famous group of stars next to the Dipper and Orion. The blade of the sickle forms the lion's head.

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Some clouds are 10 miles thick.

Codfish like to eat clams, shells and all.

In Siam, shipworms are planted and after three months are dug up and eaten.

The Greeks and Trojans practised chemical warfare, as is shown by mention of Greek fire and sulphur and charcoal fumes.

A smoke pump, which sucks smoke from a burning hose like a vacuum pump, is expected to prove useful in fire fighting.

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