

# Venus Shines in the Evening Sky

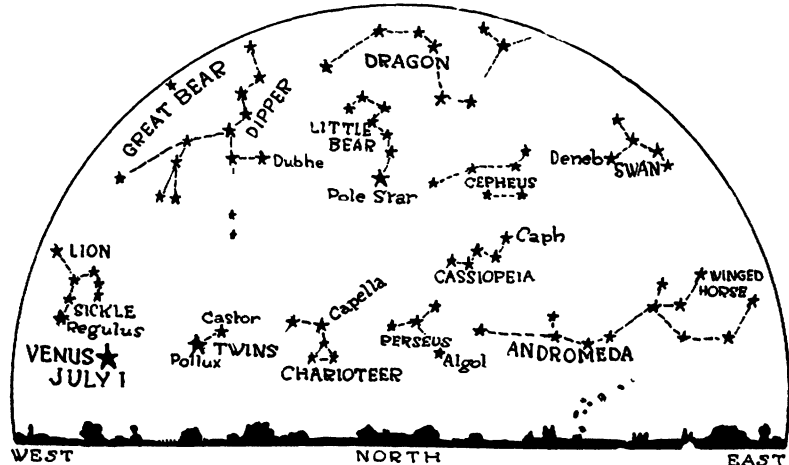
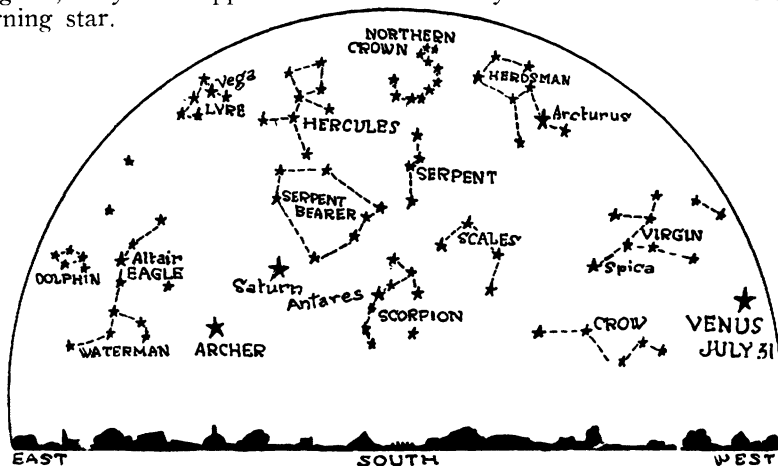
Astronomy

By James Stokley

**H**IGHER and higher in the western evening sky, night after night, constantly increasing in brightness, the planet Venus, next door neighbor of the earth, becomes more and more prominent during July. There is no mistaking it. Look to the west this evening, just after the sun has set. While the twilight is still bright enough to conceal all the other planets and stars, one brilliant point of light appears—Venus. Then, as darkness comes on, it continues to shine brighter than any star until it sets in the west, several hours after the sun.

Measured with the astronomers' scale of heavenly brightness, Venus is of the minus 3.5 magnitude on the fifteenth of July. The brightest star that we ever see is Sirius, the dog star, visible in the winter skies. Its magnitude is minus 1.6. The brightest star now visible in the evening is Vega, high overhead in the constellation of Lyra, the lyre, of the .14 magnitude. The smaller the magnitude number, the brighter is the object.

Viewed through a telescope of moderate magnifying power, Venus now appears in a gibbous phase, that is, like the moon half way between first quarter and full. From now on it will gradually narrow, until in September it will be like a half moon, semicircular in shape, then a gradually narrowing crescent. All this time it will continue to brighten, until in October it will be nearly a full magnitude brighter than it is now. Then it will diminish in brilliance, and approaching nearer and nearer to the sun, it will finally be lost again in the solar glare, only to reappear later as a morning star.



Though Venus is the brightest of the planets, on the fifteenth of this month it may be used as a guide to a planet that is invisible to the naked eye, and that is, except for Pluto, discovered this year by astronomers at the Lowell Observatory, the most distant of the members of our solar family. This is the planet Neptune. About the eighth magnitude, two magnitudes fainter than the dimmest stars visible to the naked eye, Neptune is, however, within reach of modest optical equipment. A good pair of binoculars will reveal it, if you know just where to point them.

On the evening of July 15, Venus and Neptune are in conjunction. This simply means the time at which the more rapidly moving Venus passes her more distant and sluggish brother.

Neptune will then be about 52 minutes, a little less than twice the diameter of the moon, to the south of Venus. So on the evening of the fifteenth take yourself to a place where you have an unobstructed view

Here are pictures of the early evening sky in July. Just hold the maps before you like a picture, and you will see the stars as they appear in the heavens when you face north or south.

of the western sky. When it is quite dark put your binoculars on some steady support, and focus them on Venus. Then, if you are fortunate, and the sky is clear enough, you may see a faint star a little to the south, which will be the planet Neptune, unknown until 1845. That was the year when the independent labors of two astronomers, in France and England, showed where it was by its pull on Uranus, next in the planetary system.

But Venus is not the only naked-eye planet in the July evening skies. Saturn, in some respects the most interesting member of the solar system, is again coming into view. During the evening it is visible in the southeastern sky, as shown on the map. Almost directly south is the constellation of the Scorpion, with the ruddy Antares as the brightest star. Farther to the east is the eagle, Aquila, with the brilliant white Altair. About half way between these stars, you will see Saturn. It is considerably brighter than either star, and shines with a steady, yellowish light, different from the scintillating brilliance of the stars. It is only exceeded in brightness among the stars and planets now visible by Venus, Vega, Capella, in Auriga, the charioteer, low in the north, and Arcturus in Bootes, the bear driver, high in the southwest.

Vega, high overhead, is the brightest of the stellar (Turn to page 10)

## July Stars—Continued

attractions visible these July evenings. Below it, to the northeast is Deneb, in Cygnus, the swan. Another name for this group is the northern cross, Deneb marking the top of the cross. In the northeast, about the same height, is Altair, in Aquila, the eagle, while over in the western sky is Arcturus, in Bootes, the bear driver. Antares, in Scorpio, is low in the south and, as already stated, can be distinguished by its red color. The last of the first magnitude stars to decorate this month's evening sky is seen in the southwest, Spica, in Virgo, the virgin.

During most of the first half of July, bright moonlight evenings will be the rule. The moon is in first quarter on the third, and is full on the tenth, when it rises in the east as the sun sets in the west. On the 18th comes last quarter, when it rises at midnight. New moon comes on the 25th. On the 28th, the moon and Venus are in conjunction. Then Venus will be about two and a half degrees, or about five lunar diameters, to the south.

*Science News-Letter, July 5, 1930*



## Calendar Watches

WHEN the 13 month year of 28 days each is adopted, you will be able to look at your watch and tell the day of the month and name of the day as well as the time of day.

Moses B. Cotsworth, originator of the 13 month year now being urged by a national committee in the United States, has just filed patent application for a modification of watches that will cause them to show automatically on their faces the date of the month and weekday name. At present the irregularities of the calendar, which would be remedied by the simplified calendar, prevent any such mechanical combination of timepiece and calendar.

Mr. Cotsworth in announcing his proposed patent explained that all makers of watches and clocks would be invited to add the calendar devices to their product without payment of royalty.

It is expected that definite progress toward adoption of the fixed simplified calendar will be made at a League of Nations conference next year.

*Chronology*  
*Science News-Letter, July 5, 1930*

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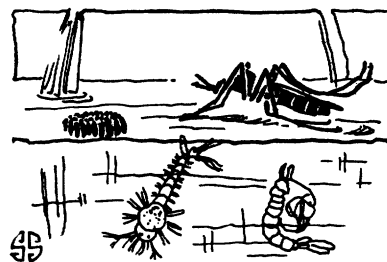
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## NATURE RAMBLINGS

By Frank Thone



*Mosquito*

EVEN the most romantic of early summer moonlight nights is apt to be rudely punctuated with self-inflicted slaps, followed by vehement general oburgations when the slapper misses his minute target and injures only himself. Most of us will agree with the despairing wag who inquired why in the name of wisdom Noah had to take two mosquitoes into the Ark.

Only that diluvian omnibus must have carried more than one pair of mosquitoes, for there are some hundreds of species of these little winged pests, some of them bearers of serious ills like yellow fever, malaria and dengue fever, others merely raisers of itching lumps on the human epidermis. Maybe they didn't go into the Ark at all: mosquitoes thrive on water, and cannot breed without it.

That gives the key to the basic combat scheme against mosquitoes. Drain ponds and puddles, empty out old barrels and tin cans, and poison with arsenic or oil the marshes that are too big to drain, and you are rid of most of your mosquitoes. For three of the mosquito's life stages—egg, larva or "wiggler" and pupa—are passed in the water, and only adulthood is a matter of the air.

But if you cannot control the breeding places completely, and so get all bitten up, you can get some relief from the itching by a sort of local chemical warfare. The general chemical reaction of a mosquito bite is acid; therefore alkaline treatment is called for. Dilute ammonia solution is perhaps the most effective "rub" for the bites. If this is not easily available, then common kitchen soap. This is better than the milder toilet soaps because it is more alkaline. The old-fashioned baking-soda paste is another good alkaline remedy.

*Science News-Letter, July 5, 1930*