tion in the north, because it is close to the north celestial pole, the point around which the heavens seem to turn daily.

Directly above Polaris can now be seen Cepheus, representing an ancient king of Ethiopia, while his royal spouse is to the right. She is Cassiopeia, and the stars form a letter W on one side. Next to her, and above Auriga, is Perseus, another familiar character in mythology.

First Find

In addition to the three planets mentioned above, a fourth is also in the evening sky at present, but probably few people will notice it because it is just barely bright enough to be seen on a dark night, away from the city's glare, by a person possessed of rather keen eyesight. This is Uranus, the first planet that astronomical science was able to discover. All those known previously had been so conspicuous that the first man who looked at the night time sky could hardly have failed to see them.

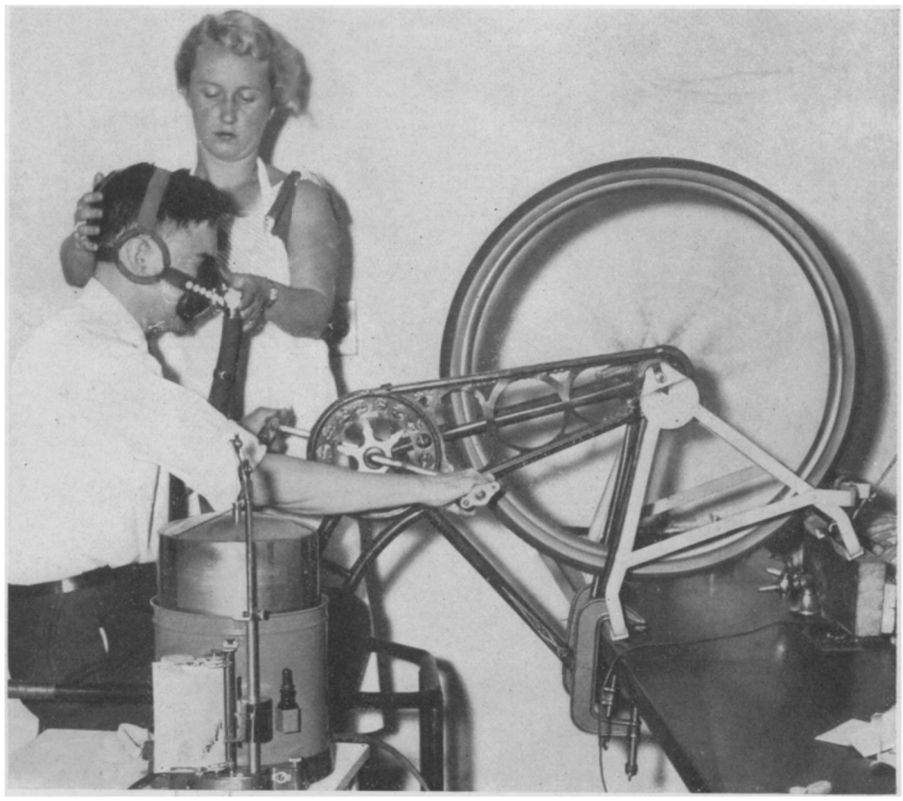
About the time that the American colonies were gaining independence, William Herschel, a German-born musician, was living in Bath, England. He had become interested in astronomy but, as good telescopes were expensive, he could not afford to purchase one. He did what many amateurs today are doing, he proceeded to build his own.

By 1781 he had made one, a seven-inch diameter reflector, in which a concave mirror takes the place of a lens in focussing the light rays. Through this he began a systematic sweeping of the heavens, to see what interesting objects he might find. On March 13 he noticed a greenish object in the constellation of Gemini, the twins, that was obviously not a star, because it had a noticeable disk. The stars, even when seen with high-powered telescopes, appear as mere points of light.

Thought a Comet

At first he thought it was some peculiar kind of a comet, and as such it was first announced. But after its motion had been charted for almost a year, Lexell, another astronomer, calculated its path and showed that it was a planet, with an orbit far beyond that of Saturn. Knowing its course, it was possible to tell what parts of the sky it had occupied even before its discovery. Then it was found to have been observed many times before 1781, though not one of the earlier observers had recognized that it was different from a star.

The discovery brought great honors to Herschel, including a knighthood from King George III, and a pension which enabled him to devote his entire time to astronomy. He moved to a house in Slough, not far from Windsor Castle, where his family still resides, among many of his relics, including parts of the greater telescopes that he built later, and with which he made many other important discoveries.



TESTING HIS TENDENCY TO COLDS

New colds susceptibility test has been devised at the West Penn Hospital, Pittsburgh, Pa. When the subject works the bicycle, scientists determine his oxygen consumption, and this is correlated with colds resistance. Dr. Arthur Locke of the hospital is seen operating the device and Miss Rhoda J. Bragdon is adjusting the oxygen mask. (See SNL, Sept. 19.)

On the average, Uranus is a little more than 19 times as far from the sun as the earth, at a distance of 1,782,300,000 miles. Because it is so far out, it moves around the sun very slowly, requiring 84 years to make a complete circuit. The earth's distance from the sun is 92,900,000 miles, so that when we are in the same direction as Uranus it is accordingly closer. Then, as viewed from the earth, the sun and Uranus are in opposite directions. For this reason, the planet is said to be in opposition. This occurs on the evening of Friday, October 30, and at that time Uranus will be only 1,745,030,000 miles away, the closest of the year.

It is now in the constellation of Aries, the ram, high in the eastern sky, as represented on the map. If you have a good pair of binoculars, and you look carefully at this part of the sky with them, you should be able to pick it up, and then, if conditions are good, you may be able to detect it with the unaided eye.

The moon, also, is closer this month than at any other time this year. As it moves around the earth in an elliptical orbit, there is one point each month when it is closest, called "perigee" and another when it is farthest, called "apogee." But because of gravitational pull of many other bodies in the solar system, the exact shape of the ellipse in which it moves varies during the year, and at certain times is stretched out more than at others, and that is true this month. Apogee occurs on October 16, and then it will be 252,650 miles from us, the maximum of 1936. But on the 29th, when at perigee, it will be at the minimum of 221,600 miles.

Phases of the Moon:

		E.S.T.
Last Quarter	Oct. 7	7:28 AM
New	Oct. 15	5:20 AM
First Quarter	Oct. 23	7:54 AM
Full	Oct. 30	12:58 AM

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