

URANUS: A DISTANT PLANET

THE DISCOVERY OF A NEW PLANET

(1) Long before the telescope was invented it was known that there were six planets in the solar system. In the 18th century a famous German astronomer made a rather startling discovery about the solar system. William Herschel, who worked for the English government, took it upon himself to survey all the stars that were 10 times fainter than the stars that could be seen with the naked eye. On March 13, 1781 while Herschel looked to the heavens, he saw what at first appeared to be a comet. The object in the sky did not have a tail, which led Herschel to believe he was observing something other than a comet. For more than a year Herschel and other astronomers studied the movement of the heavenly body that Herschel had discovered. They were able to show that the circular orbit of the object was like that of other planets. They realized that the new planet was twice as far from the sun as Saturn, which was farther from the sun than any other known planet. This discovery meant that the solar system was twice as large as 18th century scientists had previously believed it to be.

(2) Because Herschel was working for the English government at the time he made his discovery, the planet was first called "George's Star" after the king of England. Neither the French nor the American governments wanted the newly discovered planet named after an English king because neither country had a very good relationship with England.

(3) Scientists had looked to mythology to find suitable names for the other planets. They found a name for the new planet in Roman mythology. According to Roman legends, Uranus was the father of Saturn, and Saturn was the father of Jupiter. In that the fifth planet from the sun was named Jupiter, and the sixth planet from the sun was named Saturn, why not name the seventh planet from the sun Uranus? Within a very short time the whole world referred to the newly discovered planet as Uranus.

(4) The discovery of Uranus eventually led to the discovery of two more planets. As astronomers continued to study the orbit, or path, that Uranus followed around the sun, it became clear that there was something different about the movement of Uranus when its movement was compared with the movement of other planets. Some scientists thought the strange movement might be caused by