ASTRONOMY

Find New Sky Object

A minor planet or asteroid, which comes closer to the sun than any previously discovered, has been spotted at the new observatory at Mount Palomar.

➤ THE first great sky discovery made by the new observatory on Mount Palomar may help astronomers unravel the mystery of the origin of the solar system.

Baade's object, a minor planet, or asteroid, discovered late last month by Dr. Walter Baade with the 48-inch Schmidt telescope at Palomar, may continue to be observed as it follows its unique path around the sun, latest computations indicate.

The new asteroid comes closer to the sun than any previously discovered, approaching within 22,000,000 miles. Thus, its elongated, football-shaped orbit, or path, takes it within the orbit of the planet Mercury at its nearest approach to the sun, and out beyond the orbit of Mars at its greatest distance, 156,000,000 miles from the sun.

Believed to be only about nine-tenths of a mile in diameter, the new baby planet is now estimated to take only 343 days to complete one journey around the sun.

Drs. Robert S. Richardson and Seth B. Nicholson of the Palomar and Mount Wilson Observatories base their figures on five observations which have been made since Dr. Baade first found the new asteroid on photographic plates made June 26.

If astronomers can continue to keep track of it, the new discovery may give important data for studies of the solar system. Because of its path, it is expected to help astronomers determine the mass of the planet Mercury, which is still relatively uncertain.

The wide-eyed, 48-inch Schmidt telescope with which the new minor planet was discovered is the largest of its kind, though smaller than the more famous 200-inch 'scope on Palomar Mountain.

Too faint to be seen by the naked eye, the new asteroid is near the bright star, Antares.

At its closest approach to the sun, the new find is estimated to have a temperature as high as 1,000 degrees Fahrenheit, although the surface temperature is probably lower. But at its greatest distance from the sun, six months later, its surface is well below the freezing point of water.

It comes even closer to the earth than it does to the sun, 4,000,000 miles at its nearest approach. But this is much farther from the earth than an asteroid called Hermes, which once came within 485,000 miles of the earth.

Hermes disappeared, however, and was not observed again, so the new minor planet may be the closest one to us which astronomers can keep track of in its flight.

If it is, Dr. Baade will get credit for discovery of both the closest and most distant asteroids to the earth which scientists have been able to compute orbits for. The Palomar astronomer, just 25 years ago in 1924, also discovered the minor planet, Hidalgo, most distant asteroid on record, which gets out to 900,000,000 miles from the sun.

Science News Letter, July 30, 1949

GENERAL SCIENCE

UNESCO Meeting Studies Work of Science Clubs

➤ CREATING and encouraging interest in science through club work was discussed at an international meeting of science club leaders held in Paris by the United Nations Educational, Scientific and Cultural Organization.

Watson Davis, director of Science Service, Washington, D. C., attended the meeting at which the work of Science Clubs of America, administered by Science Service, was studied.

Mr. Davis told the club leaders that Science Clubs of America now has 15,000 affiliated clubs in the United States and other countries, with a third of a million boys and girls participating in the program. In addition to the year-round club activity, Science Clubs of America also conducts the annual Science Talent Search for the Westinghouse Science Scholarships.

Dr. Pierre Auger, director of the department of natural sciences of UNESCO, was chairman of the international meeting.

Science News Letter, July 30, 1949

PLANT PHYSIOLOGY

Micrograft Method Saves Weak Hybrid Plants

➤ MICROGRAFTING, an exceedingly delicate technique in plant surgery, is being used by Dr. A. F. Blakeslee of Smith College, Northampton, Mass., to save weak but valuable hybrid plants, useful in the broad program of research into the cause of cancer.

The tiny plants, so weak that they are not even able to break through the seed-coat and sprout in the normal manner, are carefully removed from the seeds and nourished for a time in test-tubes on special food mixtures. When they are about an eighth of an inch long they are grafted into the stems of vigorous plants related to them.

Each graft is covered with a "micro-greenhouse" consisting of a gelatine capsule, which has been coated with nail polish to keep it from softening when wet. This protects the seedling against drying until the graft "takes."

Science News Letter, July 30, 1949

SAVING WEAK PLANTS—Hybrid plants too weak to survive under their own power are grafted into the stems of related vigorous plants. Micrografting, as this delicate plant surgery is called, is the work of Dr. A. F. Blakeslee of Smith College, shown here.