

ASTRONOMY

Comet and Super-Nova Make January a Notable Month

Amateur and Professional Share Discovery Honors; Both Have Scored in Previous Astronomical Finds

THE YEAR'S first comet has been discovered low in the northwest sky by Leslie C. Peltier, noted amateur astronomer of Delphos, Ohio. Mr. Peltier, designer of children's toys by day and student of the stars by night, reported the discovery to Harvard Observatory, which bulletined it in code to all observatories.

In an exclusive interview with Science Service the 39-year-old amateur stargazer explained that the new comet is the seventh he has discovered in 23 years of comet hunting. When found, the new stellar object was of the eighth magnitude of brightness, just too faint to be seen with the naked eye. It is easily visible through the six-inch refracting telescope of Princeton University which Mr. Peltier has been using, on loan, for the past 15 years.

Near the constellation of Pegasus, the new comet's location was right ascension 21 hours and 20 minutes and its declination 28 degrees north. Whether the comet has a tail or is in rapid motion is yet undetermined, for unfavorable observing conditions permitted Mr. Peltier to see it for only ten minutes at about 8 p. m. on Jan. 19.

Russian Shares Honors

Confirmation of the discovery was supplied by Lick Observatory at Mt. Hamilton, Calif., and Yerkes Observatory at Green Bay, Wis. Calculations of the orbit at Harvard College Observatory indicate that the comet will not become visible to the unaided eye.

The comet, found Jan. 19 in America, will become known as the Cosik-Peltier comet for, it is now disclosed, it was reported by a Russian amateur, Cosik, just a few hours before Peltier found it. Astronomer Beljowski, director of the Poulkova Observatory, had an accurate determination of position and motion of the new comet before Peltier discovered it, states Harvard Observatory.

A tremendous stellar explosion — a super-nova star which probably has a brightness hundreds of millions of times that of the sun—was reported by Prof.

Fritz Zwicky at Mt. Palomar Observatory of the California Institute of Technology.

Eighteenth in History

The super-nova is only the eighteenth reported in astronomical history. It was first discovered by Prof. Zwicky in the eastern sky with his small but powerful Schmidt type telescope-camera. On Jan. 17 its magnitude was approximately 14. Three days later, on Jan. 20, the brightness had increased to magnitude 12.

The super-nova is so distant that it cannot be seen with the unaided eye despite its brilliance. Its general location is almost directly east. It rises above the horizon about midnight and reaches the meridian position at 5 a.m.

As the super-nova comes into view it is near the constellation of Leo and approximately on a line between the beta star of this constellation and the bright star Spica in the constellation of Virgo.

The position of the super-nova, as

given in a telegram from Harvard Observatory, distributing center for astronomical news, was right ascension 12 hours 40 minutes and declination north 3 degrees, 1 minute.

The super-nova star is located near the nucleus of the nebula known as NGC 4636, listed in the nebula catalogue of Sir John Herschel, famed 19th century British astronomer, as being a bright, large and irregularly shaped nebula. The nebula is resolvable into individual stars. It is one of these stars which apparently has flared up into super-brilliance.

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PALAEONTOLOGY

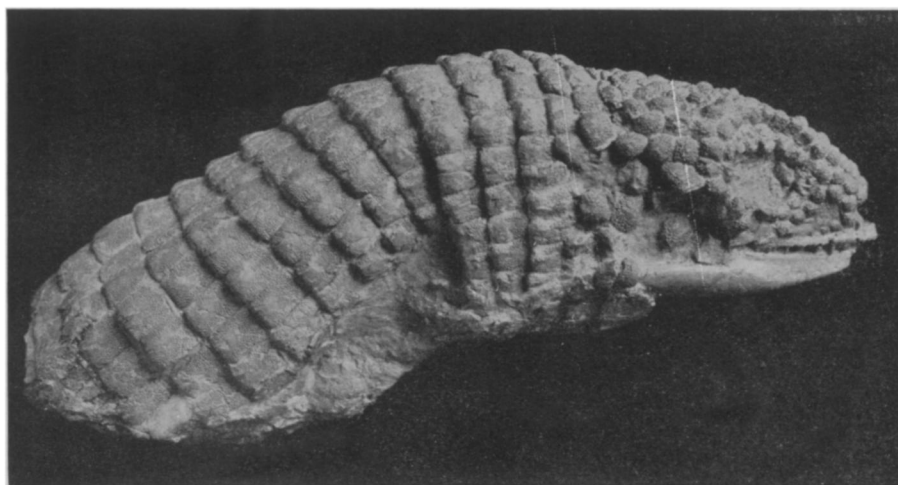
Many Bones Found in Russian Asphalt Pit

BONES in an asphalt pit, like the famous Rancho la Brea deposits in Los Angeles, U. S. A., have been found near Baku on the Caspian Sea, in the great oil region of the southern U. S. S. R., reports Tass. The fossils occur in an ancient lake of asphalt about 300 square yards in extent and two yards deep.

Along with bones of cave lion, bear, hyena and other extinct animals are found also the remains of existing species. For ages the slowly oozing asphalt has been a trap for birds and mammals.

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Farm population in the United States is about the same as in 1910; the number of people in towns has increased.



ANCIENT ARMORED LIZARD

Well protected with rings of thick-scaled armor was this reptile of Oligocene time, 40 or 50 million years ago. It has been named *Glyptosaurus giganteus* by Charles W. Gilmore of the U. S. National Museum. Actual length of the specimen pictured here is about 14 inches: the whole animal must have really merited the specific name which Mr. Gilmore has bestowed upon it.