

## ENCKE'S COMET RETURNS TO NEIGHBORHOOD OF EARTH

Encke's comet, the most frequent of such visitors in the solar family, has just been sighted at the Yerkes Observatory, according to telegraphic information received at Harvard and distributed to astronomers in American and abroad. This is the forty-second return of the comet since it was first discovered in 1786.

Encke's comet is remarkable for its short period of revolution around the sun - about three and a third years - and especially for the peculiar variations in that period. No other comet returns at such short intervals to the vicinity of the sun, though many of them make closer approaches. At its greatest distance Encke's comet is four hundred million miles from the sun, nearly out to the orbit of Jupiter. At perihelion, when nearest the sun, it is within the orbit of Mercury, about thirty million miles from the sun's surface.

Though discovered and lost two or three times in the eighteenth century, it was not until about one hundred years ago that Encke's mathematical studies connected the various discoveries and revealed the nature of the orbit and period. The investigations by Encke and later astronomers showed that, after making allowance for the perturbing effects of nearby planets, the period of revolution is continuously decreasing by approximately two and a half hours each revolution. Russian astronomers in particular have paid close attention to this unprecedented behavior.

The only satisfactory explanation is that the comet is hindered by obstructing matter as it moves through space. The resisting medium acts in a somewhat paradoxical manner. The comet tends to fall toward the sun when its motion is hindered, taking up a new position where the natural speed is greater. The obstruction, therefore, makes the comet go more rapidly and shortens its period of revolution. Whether this resisting medium is of the nature of a swarm of meteors, or is material more uniformly distributed throughout space, astronomers cannot tell. Other comets, however, have not suffered such pronounced changes of period, suggesting that the disturbing factor is not widespread throughout the solar system.

Encke's comet is not likely to be a conspicuous object on this visit, for it is one of the smaller bodies of its kind. It very frequently misses discovery upon its return to the neighborhood of the earth and the sun. At its present approach, when it was photographed by Professor Van Biesbroeck with the Yerkes reflector, it was of the sixteenth magnitude, therefore visible only with the greatest telescopes. It was then about five degrees southwest of the Pleiades.

Its motion will be followed in order to throw more light on the change in its period and on the unexplained resisting medium in the solar system.

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British farmers are having to fight a new weed, that belongs to the mustard family, but smells like garlic.

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A Division of Fur Resources has been created in the Bureau of Biological Survey.

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