

minimum as determined by Mrs. Mayall. Although the mean light curve shows a maximum broader than minimum, the early type spectrum and small range of variation—only one magnitude—precludes listing the star as a long-period variable, but instead it should be classed as a Cepheid of long period, of which there are relatively few. The star, although it lies within the range of the RV Tauri class as regards length of period, has none of the characteristics of that group. There is no indication of a secondary minimum, nor is there any evidence of lack of regularity in shape of light curve between cycles, although there is a change in length of period.

Observations: Summary of observations as contributed during the month of December, 1943, by 37 observers, is given below.

Observer	No. Var.	No. Ests.	Observer	No. Var.	No. Ests.
Boone	7	7	McLain	10	18
Blunck	10	14	Meek	38	189
Bouton	44	62	Nadeau	93	100
Buckstaff	11	17	Oheim	7	12
Cousins	49	100	Oravec	5	14
Fernald	233	350	Parks	30	41
Ford	9	9	Peltier	168	235
Garneau	21	21	Robinson	34	68
Griswold	7	16	Rosebrugh	16	71
Halbach	20	24	Schoenke	28	39
Harris	47	47	Segers	14	27
Hartmann	129	136	Sill	93	93
Holt	96	117	Topham	45	45
Howarth	18	18	Vohman	21	24
Irland	15	15	Webb	6	6
Kearons	82	115	Weber	63	63
Kelly	13	15	Young	10	32
de Kock	71	266			
Koons	45	83	37	Totals	2560
Maupomé	51	51			

January 15, 1944.

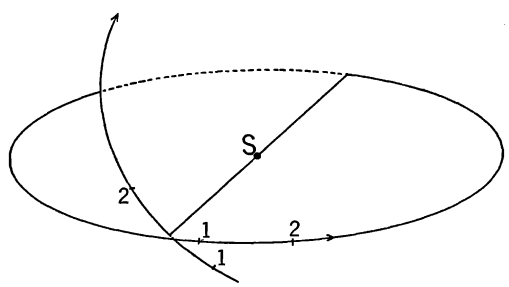
Comet Notes

By VAN BIESBROECK

COMET VAN GENT-PELTIER. This comet has gone through a short-lived period of brightness. We mentioned last month that this object, which in the beginning of December was located too far south for observers on this side of the equator, would probably soon become an evening object. It was, indeed, independently discovered by Leslie C. Peltier of Delphos (Ohio), who has already so many comet discoveries to his credit. He swept it up in his 6-inch telescope in the evening of December 18, and gave the rough position as 23^h 20^m, —16°, with the indication “moving slowly westward.” He called the brightness equivalent to a 7^m star. Not until the next night, when the motion proved to be in a northwest direction, did identity with van Gent’s comet become probable. It became a certitude when on December 22 the following elements, computed by Dr. J. Jackson of the Cape Observatory, were telegraphically transmitted:

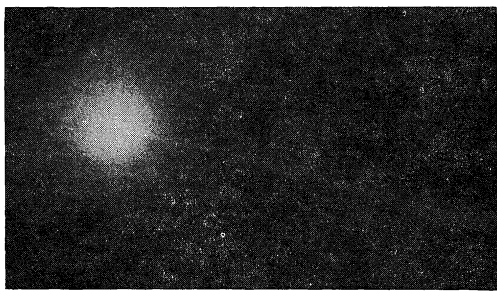
Perihelion Time	1944 January 12.283 U.T.	
Node to perihelion	33° 9'	} 1943.0
Node	57 50	
Inclination	36 11	
Perihelion distance	0.8738 A.U.	

This computation was evidently based on unpublished observations in the southern hemisphere. The diagram of the orbit shows the space relation of the comet and the earth. After the discovery the comet rapidly increased in bright-



Relative position of the earth (ellipse) and comet (open curve) at the time of discovery (1) and of perihelion (2). S represents the sun.

ness. On December 9 it came within less than a quarter of the sun's distance from the earth. It must have been near naked-eye visibility at that time since on December 18, when Peltier called the magnitude 7, it had already lost in brightness appreciably. The comet is now at perihelion but it is seen that it recedes rapidly from the earth while remaining for several months north of the ecliptic. The comet has apparently not shown any great activity physically. When first seen here on December 19 it showed a sharp nucleus centered in a spherical coma



COMET VAN GENT-PELTIER
(Drawing from a photograph taken December 24 with the 24-inch reflector of the Yerkes Observatory.

of about 5' in diameter which grew even to 6' on the following nights. A few days later, December 24, a longer exposure showed a slender tail reaching beyond the edge of the plate, one degree from the nucleus. Finding it difficult to reproduce photographically I made the drawing herewith showing the appearance of the comet with the tail pointing away from the direction of the sun. When last seen here, January 5, the comet had dropped in brightness to a magnitude