

but the height at the beginning was 250 miles, at the end 85 and the velocity was 28 miles per second. Mr. Davidson shows that the larger the body the less may be the height, though for the largest body the height could not be much below 34 miles. I believe the bodies generally were more than 100 feet in diameter.

It occurred to me when considering Mr. Denning's paper that perhaps one reason why the bodies were so generally observed in Ontario was that they were nearest the earth then. Assuming, then, that the bodies moved in a conic section and that the perihelion was above the point where the trace cut the 80th meridian I proposed to determine the height the bodies would have when off Bermuda, 17° along in their path, taking different velocities at perihelion. This was done at my request by Mr. I. R. Pounder, B.A., of the University of Toronto. Assuming the distance from the earth's surface at perihelion to be 26 miles, the perihelion velocity for a body moving in a parabola to be 6.94 miles per second, and neglecting atmospheric resistance, the results came out as follows:—

Peri. Vel. in miles per. sec.	<i>a</i> miles	<i>e</i>	Ht. at Bermuda in miles
8.25	4792	1.8318	142
8	6020	1.6621	138
6.94		1	115
6	7842	0.4917	84
5.8	6567	0.3030	76

Dr. R. K. Young, of Ottawa, using slightly different constants, obtained heights at Bermuda, in the first four cases, 146, 142, 118, 87 miles respectively. If we take the perihelion height as 34 miles, the heights at Bermuda would be increased about 8 miles.

From Colonel Winter's latest estimates of altitude the height at Bermuda is 81 miles, to produce which, on the above hypothesis a velocity of about 5.92 miles per second would be required. With a perihelion height of 34 miles the velocity

would be slightly under 5.8 miles per second. However, taking into account the atmospheric resistance the perihelion velocity must be somewhat greater, probably between 6 and 6.5 miles per second.

Acting on Colonel Winter's suggestion I have communicated with the company operating the S. S. *Arcadian*, and hope to hear from the captain in due time. Reports from steamships beyond the Bermudas at the time would be even more interesting.