

ANOTHER ANNIVERSARY THIS MONTH

This month marks the sixtieth anniversary of the great meteor procession of February 9, 1913, an event unique among recorded meteoric phenomena – with which our Department is closely linked.

On that evening shortly after 9 o'clock E.S.T. hundreds of people in Ontario, Saskatchewan, New York State and on ships at sea as far south as Bermuda witnessed the passage of a slow "majestic procession" of 20 to 30 groups of extremely bright fireballs passing from north-west to south-east over a period of three minutes or more. C. A. Chant, though not having seen the phenomenon himself, began to collect written and verbal accounts from eye-witnesses, and in the course of a few months produced a lengthy and careful analysis of the phenomenon which was published in the *J.R.A.S.C.* (vol. 7, pp. 145–201, 1913) and which has successfully stood the test of re-examination over the years. It was probably the first astronomical research paper of any account coming from this University. In the glass case in our library the original reports (nearly a hundred of them) are preserved in bound form, and in the Secretary's Office there is a framed painting of the phenomenon by witness Gustave Hahn, a well-known Toronto artist, on whose careful observations and depiction Chant placed particular reliance.

Chant concluded that the meteoroids followed a path from at least Moose Jaw to a point some 150 miles east of Bermuda (2500 miles) and nearly parallel to the earth's surface, at a speed less than twice the speed of a satellite in vacuum at the earth's surface.

Subsequently W. F. Denning of Bristol uncovered additional observations extending the path another 3300 miles to a point below the equator off the coast of Brazil, and other observations were found by W. H. Pickering, A. D. Mebane and John O'Keefe. None of these substantially changed Chant's interpretation, but a vigorous attack on that interpretation was made by C. C. Wylie of Iowa who (particularly in a letter in *Science*, 118, 726, 1953) sought to interpret the many observations as isolated manifestations of a more-or-less ordinary meteor shower. The only time I ever saw Dr. Chant angry was while he was reading Wylie's letter, particularly where the letter said that "a meteor man would have interviewed a few observers – and determined a radiant –". "Meteor man!" snorted Chant, "Why am I less a 'meteor man' than he?" However, La Paz and O'Keefe seem successfully to have disposed of Wylie's attempted put-down.

John O'Keefe of NASA, firmly committed to Chant's satellitic explanation of the procession, attempted (in *Science*, 133, 562, 1961) to connect the observations with his views on the origin of tektites, particularly to show that a fall of tektites which fails to cover a whole circuit of the earth is not at variance with the idea of an atmospheric disruption of a single body on an elliptical orbit coming in fairly low at perigee – as Barnes, Urey and Kopal had contended. O'Keefe spent a few days here studying the reports collected by Dr. Chant, and he also carefully searched the newspapers from a band 22 degrees west of the Chant trace which would have been associated with a subsequent orbit 90 minutes later. He found not a single such observation; thus he concluded that the meteoroids had dropped to earth in