from northwest to southeast was seen successively in Saskatchewan, in Ontario, over the North Atlantic, in Bermuda, and finally by a ship in mid-Atlantic south of the Equator (*2, 4, 5*). These successive appearances defined a trajectory (roughly a great circle) 5200 miles long. "A very few fireballs or shooting stars observed in other places" does not seem to be an adequate summary of this situation. If it is to be argued that these successive appearances of a unique phenomenon were due to mere coincidence, strong evidence will have to be adduced.

A fully satisfactory explanation of this spectacular occurrence of 1913 has never been achieved. Wylie's proposal to explain it as simply an ordinary event which was misinterpreted is, at least, a fresh approach. However, it should be recognized that the recorded evidence is difficult, if not impossible, to reconcile with Professor Wylie's description.

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Received August 8, 1953.

UNDER date of April 29, 1953, I wrote the editor of *Sky and Telescope,* Harvard College Observatory, suggesting that in view of the sensational features appearing in popular magazines on the meteors of February 9, 1913, it might be well to publish another article giving a more factual account of the occurrence. The editor replied that since he had published in March, 1952, an article by Professor Pruett, of Oregon, in which it was shown that the popular version was impossible, he thought another article at this time was not necessary; but he added, "Perhaps in a couple more years it would be interesting to remind people of the situation once again."

Professor Chant, of the University of Toronto, published some 140 reports by observers of these meteors (*1*), but not being a meteor man he accepted the popular version although he had difficulty fitting the observations to the supposed path. A meteor man would have interviewed a few observers of the display within twenty-four hours of the occurrence, and determined the radiant from a plot of the reported paths.

Calculations made from the data published by Chant were made and published later (*2, 3*), however, and show the following.

1) A fireball as bright as the brightest reported by Chant, and traveling at the height and speed of the popular version, would survive only a few miles, instead of the supposed 5000 miles, against the resistance of the air.

2) None of the more than one hundred reports mention seeing a fireball either rise from, or drop behind, objects on the horizon. As this has been reported regularly for fireballs with path lengths of say 100 miles, none of the 1913 meteors can have had a path length greatly in excess of 100 miles.

3) The popular version assumes a path passing close to the cities of Regina, Winnipeg, Duluth, Toronto, Buffalo, Rochester, and New York. At Toronto, Professor Chant was called by telephone immediately after the display, and scores of letters were received from Toronto and the adjacent territory. No reports were received from any of the other cities.

To show what might be expected, a single moderately bright fireball falling at 6:30 P.M. on September 28, 1953, was reported by newspapers in Philadelphia, Harrisburg, Baltimore, Scranton, Binghamton, and elsewhere. It is inconceivable that the "procession" of the popular version would have passed unnoticed all of the cities excepting Toronto.

4) The information published by Chant is quite sufficient for a determination of the radiant, or the direction from which the meteors came. The meteors in the Toronto area were falling downward at an angle of about 20°, and traveling roughly in the direction of Washington, D. C., instead of horizontally and toward New York City as the popular version requires.

5) The reports published by Professor Chant show, for the supposed path over North America, only one object bright enough to be called a fireball. This moderately bright object disappeared at a height of about 25 miles near Hamilton, Ontario. The other meteors were definitely in the class of ordinary shooting stars.

To summarize, the meteors of February 9, 1913, were a shower of shooting stars, plus a bright fireball in the Toronto area. Compared with other fireballs and meteor showers, they attracted relatively little attention outside of the Toronto area. The study of Chant's fundamental data was accepted at once as conclusive, in both Europe and America, and since its publication astronomers have not included the popular version in either textbooks or popular articles.

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Received October 9, 1953.

Erratum. In the article "Newer Synthetic Structures of Interest as Tuberculostatic Drugs," SCIENCE **118**, 497 (1953), an error appeared in the data in Table 1, p. 501. Under the heading "Approx. dose, mg/kg," in column 1, the figure should be 50 in every case instead of 125. These data were culled from the publication by Grunberg and Leiwant (*21*) and the error in translation can be ascribed to sheer inadvertency.

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