finds to amount to only a mile or so during the passage from Ontario to the equator.

A chasing meteor captured by the earth's attraction and turned into a satellite would revolve in a nearly plane orbit about the earth's center. The trace of such a plane on the spheroidal earth would pass through points whose astronomical latitudes would differ from their geocentric latitudes determined by the trace of the plane on the celestial sphere. Computation of Chant's great circle points, starting from the geocentric positions of Pense and the Ontario Station, and reducing back from geocentric to astronomical latitudes, gave the writer such small differences that they could be ignored.

But a satellite-meteor starting from latitude 50° or 43° and traversing a nearly circular orbit toward the equator would find rising before it the equatorial bulge of the spheroidal earth, and above this an atmosphere in which it would continually become more deeply entangled. The difference from Pense to the equator, for a circular orbit would amount to about 7 mi. So that the escape of such a satellite would be generally impossible for this reason alone, unless the height at 50° were more than 26 mi. Even a definitely elliptic velocity would not suffice, below a limit which it is not easy to compute.

The attraction of the equatorial bulge would produce a small southerly drift.

Ignoring the spheroidal form, the projection on the earth's surface of the path of a satellite moving from higher to lower latitudes cannot be a great circle. Suppose one going from the Ontario Station southeastward to the equator in 15 min. Imagine a point in the satellite's orbital plane, exactly over a certain point on the equator when the satellite is over the Ontario Station. But when the satellite arrives 15 min. later at this orbital point it is then above quite a different point of the equator, 520 mi. to westward of the original equatorial point. In fact, the trace of such a satellite on the spherical or spheroidal earth must be a curve concave westward and with a point of inflection on the equator.

Imagine satellite-meteors passing through the zeniths of Pense and the Ontario Station on their way to the equator. Their true trace then cuts Chant's great circle at these two points, lies to NE of it between them, and to SW of it the rest of the way. Again imagine them passing through the zenith of the Ontario Station and between the *Bellusia* and the *Newlands*. Their true path would lie to NE of Pickering's great circle all the way, but backward from the Ontario Station it would lie to SW. In other words, such meteors could pass through the zeniths of Pense, the Ontario Station, and Watchung, as observed, on the proper side of the Bermudas and of each ship clear past the equator to the *Newlands*.

A tangent to the true path at the Ontario Station would lie between the Chant and Pickering great circles, and prolonged as a great circle to the equator it would intersect the equator between them, probably