ON COMETS.

tember, had become unmistakable, and continued to increase in amount as the latter extended in apparent dimension, till it assumed at length that superb aigrettelike form, like a tall plume wafted by the breeze, which has never probably formed so conspicuous a feature in any previous comet. To a certain extent, it is a common enough feature in the tails of comets, and is usually regarded as conveying the idea of their moving in a resisting medium ;---in a space, that is to say, not quite empty, as smoke is left behind a moving torch. But this is a very gross and inadequate conception of the peculiarity in question. The resistance of the "ether," such as the phænomena of Encke's comet already noticed, may be supposed to indicate, is far too infinitesmally small to be competent to produce any perceptible deviation from straightness. Nor is it at all necessary to resort to any such explanation of the fact. Such an appearance would naturally arise from a combination of the motion the matter of the tail had (in participation with that of the nucleus) with the impulse given it by the sun-each particle of it describing, from the moment of quitting the head, an orbit quite different from that of the latter; being necessarily, under the influence of the repulsive force directed from the sun, a curve of the form called by geometers an hyperbola, nearly approaching to a straight line, and having its convexity turned towards the sun: the visible form of the tail (be it observed) being, not the perspective view of such an orbit, but that of the portion of space containing, for the time being, all those particles, each describ-

128