

foretold its reappearance about the close of the year 1758; and so convinced was he of the truth of this prediction that he requested, since he could not live to witness its return, that when it was fulfilled people might remember it was an Englishman who had first traced the path and prophesied the return of a comet.

Long before the date assigned for the return of this comet, which began now to be known as Halley's, he himself had passed away. Astronomers were, however, on the watch, and some French astronomers, in particular, investigated most carefully and industriously the retarding effect which would be produced on the comet by the attraction of the planets, and as a result of their enquiries announced that it would be slightly delayed by the action of Saturn and Jupiter, so that its perihelion passage might be expected on the 13th of April, 1759. Just at the close of the previous year, a wanderer was detected by an amateur, and as it approached nearer, it proved to be the very one, whose return had been for so long a time foretold, and though its period of revolution was upwards of three quarters of a century, yet the observations and calculations were so accurate, that it actually passed the sun within less than three weeks of the predicted day. On the occasion of the next return of this comet, which took place in 1835, not only was the date, but the place of its appearance pointed out, and on a large telescope being turned to that spot, the comet was seen as a faint cloudy object. We see thus that Halley's comet was now to be reckoned as one of the members of our system, whose motions are fully understood. Its next return may be expected in the year 1912.

Bradley succeeded Halley as professor of astronomy at Greenwich. The great discovery which has rendered his name memorable, is that of the *aberration* of the fixed stars. The aberration of the stars is a small change of place in the heavens, which, in consequence of the earth's revolution in its orbit round the sun, they appear to describe in the course of a year, an ellipse or circle, the greatest diameter of which is about 40." These apparent changes of place, occasioned by the annual motion of the earth, are to a certain extent common to all the celestial orbs, and are only the more perceptible and striking in the case of the fixed stars. In consequence of this annual revolution of the earth round the sun, the stars appear, according as they are situated in the plane of the ecliptic or in its poles, or somewhere between them, in the first case, to deviate in a straight line to the right or left of their true place; in the second, to describe a circle or something nearly approaching to it around their true place; and in the third, an ellipse about that point which observation determines to be their real situation. The angle contained between the axis of the telescope and a line drawn to the true place of the star, which angle, in consequence of the earth's motion, must be continually changing, is what is called its angle of aberration. The aberration of the stars affords a sensible and direct proof of the motion of the earth in its