his calculations with the observed places of this comet
to collect observations of former comets, and endea-
vour to make out their paths, or, as we now express
it, to determine the elements of their orbits. With in-
credible labour he calculated the orbits of twenty-four
remarkable comets, and among them he found two
whose "elements" agreed in a remarkable manner with
those of his first comet—both great comets, viz., one
observed by Appian in 1531, and one by Kepler in
1607, and he noticed also this fact, this remarkable ap-
proximate coincidence—from 1531 to 1607 is 76 years,
and from 1607 to 1682 75 years. This led him to sus-
pect that all three were one and the same comet, return-
ing periodically ; and guided by this idea he was led to
examine the records of history for comets of earlier date.
Among them, three turned up—in the years 1305, 1380,
1456—and when all these years are arranged in a series,
you see that the intervals are alternately 75 and 76
years. This confirmed him in his impression of its peri-
odical return ; and emboldened him to predict its return
about the end of 1758 or beginning of 1759. You will
observe that he allowed *more* than an average length of
the period (77 years) for the fulfilment of his prediction.
He had a reason for this. He ascertained that in com-
ing back it would pass near the planet Jupiter, which is
a large and massive planet, and Newton's discoveries had
already taught him to contemplate the possibility of some
disturbance of its motion from the attraction of such a
body, and even enabled him to perceive that it would
act to *retard* the return or prolong the period. Such