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great and general attractive force which keeps the planets in their orbits—and they have actually informed us of the *weight* of one of the planets which could not have been determined with any exactness if a comet had not on one occasion passed very near to it.

(3.) The ancients believed comets to be much of the same nature as meteors or shooting stars—either *in* the earth's atmosphere—not far above the clouds; or, at all events, much lower than the moon—or else as a species of vapours or exhalations raised up from the earth by the sun's heat, or by some other unknown cause; but they never for a moment dreamed of their forming part and parcel of that vast system of planetary bodies circulating about the sun, of which in fact they had hardly any distinct notions. In ancient history, however, several very remarkable comets stand recorded. One is mentioned by the Greek philosopher Aristotle in 371 B.C., with a tail extending over a third part of the sky. Many great comets are recorded at even more ancient dates in the Chinese annals: for that strange people kept an official record of all the remarkable stars, meteors, and other celestial appearances, for more than a thousand years before the Christian era, and what is stranger still, that record has been handed down to us and seems dependable. A great comet was seen close to the sun 62 years before Christ, during a total eclipse—and one which appeared in the year 43 B.C., soon after the murder of Julius Cæsar at Rome, was seen by all the assembled people in full daylight. Such a thing, though very uncommon, is by no means singular—it has hap-