

Abernethy, county. It is 142 miles distant from London. W. Long. 2. 45. Lat. 51. 50. Abergavenny appears to have been the *Gibbanium* of Antoninus, and the town of Ulk his *Burrium*.

ABERNETHY (John), an eminent dissenting minister, was the son of Mr John Abernethy a dissenting minister in Colrairie, and was born on the 19th of October 1680. When about nine years of age, he was separated from his parents, his father being obliged to attend some public affairs in London; and his mother, to shelter herself from the mad fury of the Irish rebels, retiring to Derry, a relation who had him under his care, having no opportunity of conveying him to her, took him with him to Scotland; by which means he escaped the hardships he must have suffered at the siege of Derry, where Mrs Abernethy lost all her other children. He afterwards studied at the university of Glasgow, till he took the degree of master of arts; and, in 1708, he was chosen minister of a dissenting congregation at Antrim, where he continued above 20 years. About the time of the Bangorian controversy (for which see **Hoadley**), a dissension arose among his brethren in the ministry at Belfast, on the subject of subscription to the Westminster confession; in which he became a leader on the negative side, and incurred the censure of a general synod. Being in consequence deserted by the greatest part of his congregation, he accepted an invitation to settle in Dublin, where his preaching was much admired. He was distinguished by his candid, free, and generous sentiments; and died of the gout in Dec. 1740, in the 60th year of his age. He published a volume of sermons on the Divine Attributes; after his death a second volume was published by his friends; and these were succeeded by four other volumes on different subjects: all of which have been greatly admired.

ABERNETHY, a town in Strathern, a district of Perthshire in Scotland. It is seated on the river Tay, a little above the mouth of the Erne. It is said to have been the seat of the Pictish kings; and was afterwards the see of an archbishop, since transferred to St Andrew's. It is now greatly decayed.

ABERRATION, in astronomy, a small apparent motion of the fixed stars discovered by the late Dr Bradley. The discovery was made by accident in the year 1725, when Mr Molyneux and Dr Bradley began to observe the bright star in the head of *Draco*, marked γ by Bayer, as it passed near the zenith, with an instrument made by Mr Graham, in order to discover the parallax of the earth's annual orbit; and, after repeated observations, they found this star, about the beginning of March 1726, to be 20" more southerly than at the time of the first observation. It now indeed seemed to have arrived at its utmost limit southward; because, in several trials made about this time, no sensible difference was observed in its situation. By the middle of April, it appeared to be returning back again toward the north; and, about the beginning of June, it passed at the same distance from the zenith as it had done in December, when it was first observed: in September following, it appeared 39" more northerly than it was in March, just the contrary way to what it ought to appear by the annual parallax of the stars. This unexpected phenomenon perplexed the observers very much; and Mr Molyneux died before the true cause of it was

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discovered. After this, Dr Bradley, with another instrument more exact and accurately adapted to this purpose, observed the same appearances not only in that but many other stars: and, by the great regularity that appeared in a series of observations made in all parts of the year, the Doctor was fully satisfied with regard to the general laws of the phenomena; and therefore endeavoured to find out the cause of them. He was already convinced, that the apparent motion of the stars was not owing to a nutation of the earth's axis. The next thing that offered itself, was an alteration in the direction of the plumb line, with which the instrument was constantly rectified; but this, upon trial, proved insufficient. Then he had recourse to what refraction might do; but here also nothing satisfactory occurred. At last this acute astronomer found, that the phenomena in question proceeded from the progressive motion of light, and the earth's annual motion in its orbit: for he perceived, that if light was propagated in time, the apparent place of a fixed object would not be the same when the eye is at rest, as when it is moving in any other direction, than that of the line passing through the eye and object; and that, when the eye is moving in different directions, the apparent place of the object would be different.

ABERRATION, in optics, is used to denote that error or deviation of the rays of light, when inflected by a lens or speculum, whereby they are hindered from meeting or uniting in the same point. There are two species of the aberrations of rays, distinguished by their different causes; one arising from the figure of the glass or speculum, the other from the unequal refrangibility of the rays of light. This last species is sometimes called the Newtonian, from the name of its discoverer. See **OPTICS**, n^o 17. 136. 173.

ABERYSWITH, a market-town of Cardiganshire, in Wales, seated on the Ridal, near its confluence with the Iltwith, where it falls into the sea. It is a populous, rich town, and has a great trade in lead, and a considerable fishery of whiting, cod, and herrings. It was formerly surrounded with walls, and fortified with a castle; but both are now in ruins. Its distance from London is 199 miles west south-west. W. Long. 4. 15. Lat. 52. 30.

ABESTA, the name of one of the sacred books of the Persian magi, which they ascribe to their great founder Zoroaster. The abesta is a commentary on two others of their religious books called *Zend* and *Pazend*; the three together including the whole system of the Ignicoid or worshippers of fire.

ABETTOR, a law-term, implying one who encourages another to the performance of some criminal action, or who is art and part in the performance itself. Treason is the only crime in which abettors are excluded by law, every individual concerned being considered as a principal. It is the same with *Art-and-part* in the Scots law.

ABEX, a country in High Ethiopia, in Africa, bordering on the Red Sea, by which it is bounded on the east. It has Nubia or Sennar on the North; Sennar and Abyssinia on the west; and Abyssinia on the south. Its principal towns are Suaquem and Arkeko. It is subject to the Turks, and has the name of the Beglerbeg of Habeleth. It is about five hundred miles in length and one hundred in breadth, and is a wretched

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