

**Abernethy** bridge over the Ufk, consisting of fifteen arches; and being a great thoroughfare from the west part of Wales to Bath, Bristol, Gloucester, and other places, is well furnished with accommodations for travellers. It is surrounded with a wall, and had once a castle. It is governed by a bailiff, a recorder, and twenty-seven burgesses; has two markets, one on Wednesdays, and the other on Fridays; and carries on a considerable trade in flannels, which are brought hither for sale from the other parts of the county. Its fairs are on May 14, for lean horned cattle and sheep; on the first Tuesday after Trinity-Sunday, for linen and woollen cloth; and on the 25<sup>th</sup> of September, for flannels, hogs, and horses. It is 142 miles distant from London. W. Long. 2. 45. Lat. 51. 50.

**ABERNETHY** (John), an eminent dissenting minister, was the son of Mr John Abernethy a dissenting minister in Colrairie, and was born on the 19<sup>th</sup> 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 twenty years. About the time of the Bangorian controversy (for which, see **HOADLY**), 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 sixtieth 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 two 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 Andrews. 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  $\gamma$  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 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 inventor \*.

**ABERYSTWITH**, a market-town of Cardiganshire, in Wales, seated on the Ridal, near its confluence with the Iſtwith, where it falls into the sea. It was formerly a walled town; and fortified with a castle, which is now in ruins; and the town itself is gone to decay, for there is scarce a hundred houses remaining. However, it is governed by a mayor and recorder; and sends one member to parliament. It is noted for its fishing trade, and has a good market on Mondays for corn and wool. 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 Ignicold, 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.

**Aberration**  
||  
**Abettor.**

\* Vide  
Phil. Transf.  
nº 406.

\* See Optics,  
nº 19—22.