great danger of falling. He was then in Yorkſhire, and was ſent for by expreſs, and arrived with the utmoſt diſpatch : “ I think (ſays Mr Holmes, the au­thor of his life) it was on a Saturday morning, when the apprehenſion of the bridge was ſo general that few would paſs over or under it. He applied himſelf im­mediately to examine it, and to found about the ſterlings as minutely as he could ; and the committee being call­ed together, adopted his advice, which was to repurchaſe the ſtones that had been taken ſrom the middle pier, then lying in Moorfields, and to throw them into the river to guard the ſterlings.” Nothing ſhows the apprehenſions concerning the falling oſ the bridge more than the alacrity with which this advice was purſued ; the ſtones were repurchaſed that day, horſes, carts, and barges, were got ready, and they began the work on Sunday morning. Thus Mr Smeaton, in all human probability, ſaved London-bridge from falling, and ſecured it till more effectual methods could be taken.

The vaſt variety of mills which Mr Smeaton conſtructed, so greatly to the ſatisfaction and advantage of the owners, will ſhow the great uſe which he made of his experiments in 1752 and 1753; for he never truſted to theory in any caſe where he could have an oppor­tunity to inveſtigate it by experiment. He built a ſteam engine at Auſthorpe, and made experiments thereon, purpoſely to aſcertain the power of Newco­men's ſteam engine, which he improved and brought to a far greater degree of perfection, both in its conſtruc­tion and powers, than it was before.

Mr Smeaton during many years of his life was a frequent attendant on parliament, his opinion being con­tinually called for ; and here his ſtrength of judgment and perſpicuity of expreſſion had its full diſplay : it was his conſtant cuſtom, when applied to, to plan or ſupport any meaſure, to make himſelf fully acquainted with it, to ſee its merits before he would engage in it : by this caution, added to the clearneſs of his deſcrip­tion and the integrity of his heart, he ſeldom failed to obtain for the bill which he ſupported an act of parlia­ment. No one was heard with more attention, nor had any one ever more confidence placed in his teſtimony. In the courts of law he had ſeveral compliments paid him from the bench by Lord Mansfield and others, for the new light which he threw on difficult ſubjects.

About the year 1785 Mr Smeaton’s health began to decline; and he then took the resolution to endeavour to avoid all the buſineſs he could, ſo that he might have leiſure to publiſh an account of his inventions and works, which was certainly the firſt wiſh of his heart ; for he has often been heard to ſay, that “ he thought he could not render ſo much ſervice to his country as by doing that.” He got only his account of the Eddyſtone lighthouſe completed, and ſome preparations to his intended Treatiſe on Mills ; for he could not reſiſt the solicitations of his friends in various works: and Mr Aubert, whom he greatly loved and reſpected, be­ing choſen chairman of Ramſgate harbour, prevailed upon him to accept the place of engineer to that har­bour; and to their joint efforts the public is chiefly in­debted for the improvements that have been made there within theſe few years, which fully appears in a report that Mr Smeaton gave in to the board of truſtees in 1791, which they immediately publiſhed.

Mr Smeaton being at Auſthorpe, walking in his

garden on the 16th of September 1792, was ſtruck with the palſy, and died the 28th of October. “ In his illneſs (ſays Mr Holmes) I had ſeveral letters from him, ſigned with his name, but written and ſigned by ano­ther’s pen ; the diction of them showed the ſtrength of his mind had not left him. In one written the 26th of September, after minutely deſcribing his health and feelings, he ſays, ‘ in consequence of the foregoing, I conclude myſelf nine-tenths dead ; and the greateſt fa­vour the Almighty can do me (as I think), will be to complete the other part ; but as it is likely to be a ling­ering illness, it is only in His power to ſay when that is likely to happen.”

Mr Smeaton had a warmth of expreſſion that might appear to thoſe who did not know him well to border on harſhneſs ; but thoſe more intimately acquainted with him, knew it aroſe from the intenſe application of his mind, which was always in the purſuit of truth, or engaged in inveſtigating difficult ſubjects. He would ſometimes break out haſtily, when any thing was ſaid that did not tally with his ideas ; and he would not give up any thing he argued for, till his mind was con­vinced by sound reaſoning.

In all the social duties of life he was exemplary ; he was a moſt affectionate huſband, a good father, a warm, zealous, and ſincere friend, always ready to aſſiſt thoſe he reſpected, and often before it was pointed out to him in what way he could ſerve them. He was a lover and encourager of merit wherever he found it ; and many men are in a great meaſure indebted to his aſ­ſiſtance and advice for their preſent ſituation. As a companion, he was always entertaining and inſtructive; and none could ſpend any time in his company without improvement.

SMELL, odour, with regard to the organ, is an impreſſion made on the noſe by little particles conti­nually exhaling from odorous bodies : With regard to the object, it is the figure and diſpoſition of odorous ef­fluvia, which, sticking on the organ, excite the ſenſe of smelling : And with regard to the soul; it is the per­ception of the impreſſion of the object on the organ, or the affection in the foul reſulting therefrom. See Anatomy, n⁰ 140 ; and Metaphysics.

SMELLING, the act whereby we perceive smells, or whereby we become ſensible of odorous bodies, by means of certain effluvia thereof ; which, ſtriking on the olfactory organ, briſkly enough to have their impulſe propagated to the brain, excite a ſenſation in the soul. The principal organs of ſmelling are the noſtrils and the olfactory nerves ; the minute ramifications of which latter are diſtributed throughout the whole con­cave oſ the former. For their deſcriptions, ſee Anato­my.

Smelling is performed by drawing into the noſtrils the odorous effluvia floating in the air in inspiration, which strike with ſuch force against the fibrillæ of the olfactory nerves, which the figure of the noſe, and the ſituation of the little bones, render oppoſite thereto, as to ſhake them, and give them a vibratory motion ; which action, being communicated hence to the com­mon ſensory, occaſions an idea of a ſweet, or fetid, or four, or an aromatic, or a putrefied object, &c. The matter in animals, vegetables, foſſils, &c. which chiefly affects the ſenſe of ſmelling, Boerhaave obſerves, is that ſubtile ſubſtance, inherent in their oily parts,