WATTS, Isaac, D. D., a learned ano eminent dissenting minister, was born at Southampton in 1674, of parents emi­nent for piety, and considerable sufferers for conscience-sake. In 1690 he was sent up to London for academical education under the tuition of the Rev. Thomas Rowe ; and in 1696 was himself engaged as tutor to the son of Sir John Hartopp, Bart, at Stoke Newington. He began to preach in 1698, and met with general acceptance ; and af­ter officiating as an assistant to the Rev. Dr Isaac Chauncy, he succeeded in his pastoral charge in 1702, and continued to preside over that church as long as he lived. Though his whole income did not amount to a hundred a year, he allotted one third of it to the poor. He died in 1748. His numerous works have rendered his name famous among people of every denomination, both in this and other coun­tries, and have been translated into a variety of languages. His Lyric Poems, his Psalms and Hymns, and his Divine Songs for Children, have had an amazing number of edi­tions. His logic and philosophy have been much admired. He also wrote works upon a variety of other subjects, and printed several volumes of his sermons. He was admired for the mildness and benevolence of his disposition. After his death, his Works were collected, and published in six volumes quarto.

WAUFGORN, a town of Hindustan, province of Au­rungabad, twenty-four miles north from Poonah, whence ori­ginated the Holcar family.

WAUGUR, an extensive district of Hindustan, province of Gujerat, tributary to the Guicowar. It is intersected by the river Mahy.

WAUJPORE, a town of Hindustan, province of Guje­rat, forty-five miles from Surat. Long. 73. 47. E. Lat. 21.24. N.

WAUSSIM, a town of Hindustan, province of Berar, situated on a small stream which falls into the Wurdah. Long. 77. 28. E. Lat. 20. 10. N.

WAVE, in *Philosophy,* water, or any other fluid, raised above the general level of the surface.

The waves of the sea are of two kinds, natural and acci­dental. The natural waves are those which are exactly proportioned in size to the strength of the wind, whose blowing gives origin to them. The accidental waves are those occasioned by the wind’s re-acting upon itself by re­percussion from hills and mountains, or high shores, and by the washing of the waves themselves, otherwise of the na­tural kind, against rocks and shoals : all these causes give the waves an elevation which they can never have in their natural state.

WAWUL, a village of Hindustan, province of Guje­rat, situated on the Sereswati, a few miles to the south-east of Rahdunpoor. It contains about 300 houses.

WAX, or *Bees’ Wax,* in *Natural History,* a firm and solid substance, moderately heavy, and of a fine yellow colour, formed by the bees from the pollen of flowers.

The best sort is that of a lively yellow colour, and an agreeable smell, somewhat like that of honey. When new, it is toughish, yet easy to break ; but by age it becomes harder and more brittle, loses its fine colour, and in a great measure its smell.

It appears that wax and the pollen have for their basis a fat oil, which passes to the state of resin by its combination with oxygen. If the nitric or muriatic acid be digested upon fixed oil for several months, it passes to a state re­sembling wax. Wax, by repeated distillations, affords an oil which possesses all the properties of volatile oils. It is reduced into water and carbonic acid by combustion. The colouring matter of wax is insoluble in water and in alcohol.

Fixed alkalies dissolve wax, and render it soluble in water. It is this saponaceous solution which forms the punic wax. It may be used as the basis of several colours,

and may be made into an excellent paste for washing the hands. Ammoniac likewise dissolves it ; and as this sol­vent is evaporable, it ought to be preferred when it is pro­posed to use the wax as a varnish.

From the common yellow wax, by bleaching, is formed white wax, sometimes called, very improperly, *virgin-wax.* The greater the surface is in proportion to the quantity, the sooner and more perfectly this operation is performed. The usual way is to melt the wax in hot water. When melted, they press it through a strainer of tolerably fine linen, and pour it into round and very shallow moulds. When hardened by cooling, it is taken out and exposed to the sun and air, sprinkling it now and then with water, and often turning it : by this means it soon becomes white. The best sort is of a clear and almost transparent whiteness, dry, hard, brittle, and of an agreeable smell, like that of the yellow wax, but much weaker.

The common yellow wax is of very great use both in medicine and in many of the arts and manufactures. It has sometimes been given internally in dysenteries and erosions of the intestines ; but its great use is in the making of oint­ments and plasters, and the greater part of those of the shops owe their consistence to it. The white wax is also an ingredient in some of the cerates and ointments of the shops ; and it is used in making candles, and in many of the nicer arts and manufactures where wax is required.

*Sealing- Wax,* or *Spanish Wax,* is a composition of gum-lac, melted and prepared with resins, and coloured with some suitable pigment. There are two kinds of seal­ing-wax in use ; the one hard, intended for sealing letters, and other such purposes ; the other soft, designed for re­ceiving the impressions of seals of office to charters, pa­tents, and such written instruments. The best hard red sealing-wax is made by mixing two parts of shell-lac, well powdered, and resin and vermilion, powdered, of each one part, and melting this combined powder over a gentle fire ; and when the ingredients seem thoroughly incorporated, working the wax into sticks. Seed-lac may be substituted for the shell-lac ; and instead of resin, boiled Venice tur­pentine may be used. A coarser hard red sealing-wax may be made by mixing two parts of resin and of shell-lac, or vermilion and red lead, mixed in the proportion of one part of the vermilion to two of the red lead, of each one part, and proceeding as in the former preparation. For a cheaper kind, the vermilion may be omitted, and the shell- lac also for very coarse uses. Wax of other colours is made by substituting other colouring matters for vermi­lion, as verditer for blue, ivory black for black wax. For uncoloured soft sealing-wax, take of bees’ wax one pound, of turpentine three ounces, and of olive oil one ounce ; place them in a proper vessel over the fire, and let them boil for some time ; and the wax will then be fit to be formed into rolls or cakes for use. For red, black, green, blue, yellow, and purple soft sealing-wax, add to the pre­ceding composition an ounce or more of any ingredients directed above for colouring the hard sealing-wax, and stir the mass till the colouring ingredients be incorporated with the wax.

WAY, a passage or road. The Roman ways were di­vided into consular, prætorian, military, and public ; and of these we have four remarkable ones in England. The first is *Watling Street* or *Watheling Street,* leading from Dover to London, Dunstable, Towcester, Atherston, and the Se­vern, extending as far as Anglesea in Wales. The second, called *Hihenild* or *Ihenild Street,* stretches from Southamp­ton over the river Isis at Newbridge ; thence by Camden and Litchfield ; then passes the Derwent near Derby, and ends at Tynemouth. The third, called *Fοsse-wαy,* because in some places it was never perfected, but lies as a large ditch, leads from Cornwall through Devonshire, by Teth- bury, near Stow in the Wold, and beside Coventry, to