ſouth-eaſt of Sebenico, and 102 north-weſt of Raguſa.

E. Long. 17. 31. N. Lat. 44. 4.

SPAN, a meaſure taken from the ſpace between the thumb and the tip of the little finger when both are ſtretched out. The ſpan is eſtimated at three hand’s breadths or nine inches.

SPANDRELL, the ſolid work on each haunch of an arch, to keep it from ſpreading.

SPANHEIM (Ezekiel), a learned writer in the 17th century, was born at Geneva in 1629; and in 1642 went to Leyden to ſtudy. Here he diſtin­guiſhed himſelf to great advantage ; and his reputation ſpreading, Charles Louis elector palatine ſent for him to be tutor to his only ſon. This taſk our author diſ­charged to the entire ſatisfaction of the elector ; by whom he was alſo employed in divers negotiations at foreign courts. He afterwards entered into the ſervice of the elector of Brandenburg, who in 1680 ſent him envoy-extraordinary to the court of France, and ſoon after made him a miniſter of ſtate. After the peace of Ryswic, he was again ſent on an embaſſy to France, where he continued from the year 1697 to 1702. The elector of Brandenburg having during that interval aſ­ſumed the title of *King of Pruſſia,* conferred on him the title and dignity of a baron. In 1702 he left France ; and went ambaſſador to England, where he had been ſeveral times. Here he died in 1710, aged 81 years. It is ſurpriſing, that in diſcharging the duties of a pub­lic miniſter with ſo much exactneſs, and amidſt ſo ma­ny different journeys, he could find time enough to write the ſeveral books publiſhed by him. It may be said of him, that he acquitted himſelf in his negotiations like a perſon who had nothing elſe in his thoughts ; and that he wrote like a man who had ſpent his whole time in his ſtudy. The principal of his works are,

I. *De praestantia et uſu numismatum anti quorum ;* the beſt edition of which is in two volumes folio. 2. Several letters or dissertations on ſcarce and curious medals. 3. A preface and notes to the edition of the emperor Ju­lian’s works, printed at Leipſic in 1696, folio.

SPANIEL, in zoology. See Canis.

SPAR, in mineralogy, a name given to thoſe earths which break eaſily into rhomboidal, cubical, or lamina­ted fragments with poliſhed ſurfaces. As the term *ſpar* is thus applied to ſtones or different kinds, without any regard to the ingredients of which they are com­poſed, ſome additional term muſt be uſed to expreſs the conſtituent parts as well as the figure ; for inſtance, cal­careous ſpar, gypſeous ſpar, &c. The ſpars found in Britain and Ireland are of four different ſpecies; opaque, refracting, diaphanous, and ſtalactitical. 1. The opaque ſpar is rhomboidal, hexangular, and triangular, of va­rious colours, and is found in mines in Wales, Derbyſhire, &c. and at Ovens near Cork. 2. The refracting ſpar is rhomboidal, ſhows objects ſeen through it double, and ſometimes 8, 12, or 16 images at once. It is frequent in the lead mines of Derbyſhire, Yorkſhire, &c. 3. Diaphanous ſpar is rhomboidal, triangular,

hexangular, pyramidal or columnar ; and is found in mines, quarries, and caverns, in many different places. 4. Stalactitical spar, icicle or drop-ſtone, is formed by the running or dropping of water, containing a large proportion of calcareous earth. It is opaque, generally laminated, but from accidental circumſtances aſſumes va­

rious forms. It occurs at Knareſhorough in Yorkſhire, and at Ovens near Cork.

A new ſpecies of ſpar has lately been found in the Eaſt Indies, which, from its extreme hardneſs, approach­ing to that of a diamond, is called *adamantine ſpar.* It was diſcovered by Dr Black of Edinburgh to be a diſtinct ſpecies. Happening one day to viſit a lapidary, it was ſhown to him among other ſpecimens as a ſtone that was uſed in the Eaſt Indies for poliſhing gems, and grinding other hard ſubſtances. Dr Black immediately ſingled out a ſpecimen which he ſent to Mr Greville, who requeſted M. Klaproth to analyze it.

There are two varieties of this ſpar ; one of them comes from China, and cryſtallizes in hexagonal priſins without pyramids, the length of the ſides varying from six to twelve lines ; their breadth being about nine, of a grey colour with different shades. Though the en­tire pieces are opaque, the thin laminæ are tranſparent, and when broken, its ſurface appears ſlightly ſtriated. Its cryſtals are covered with a very fine and ſtrongly adhering crust, compoſed of ſcales of ſilvery mica, mixed with particles of red feld-ſpar. Sometimes the ſurface has martial pyrites or yellow ſulphuret of iron adhering to it. Its hardneſs is ſo great, that it not only cuts glaſs as eaſily as the diamond, but even ſcratches rock- cryſtal and other very hard ſtones. Its ſpecific gravity is to that of water as 3710 to 1000. Sometimes it contains cryſtallized grains of magnetic oxyd of iron, which may be ſeparated from the ſtone when pulveri­zed by means of the loadſtone.

The other kind found in Hindoſtan is of a whiter co­lour, and of a more laminated texture than the formers the grains of iron contained in it are likewiſe of a ſmaller ſize than thoſe of the former ; they are not diffuſed through its ſubſtance, but only adhere to its ſurface.

This ſpar is exceedingly difficult to analyze. To do ſo, M, Klaproth was obliged to melt it no leſs than 12 times with 15 parts of ſoda or mineral alkali, in a ſilver crucible ; the heat being each time continued for five hours as ſtrong as the crucible could bear. After each fuſion the maſs was ſoftened by boiling diſtilled wa­ter, filtering and precipitating by acids the ſmall quan­tity of earth which the alkali had diſſolved ; and laſtly, that portion which had not been decomposed was digested at different times with concentrated and boiling acids. By this tedious proceſs he at length found, that the ſpar conſiſted of alumine and another kind of earth, in the proportion of 2 to 1, the nature of which is not underſtood. It is not ſiliceous earth, as it does not combine with fixed alkalis in a melting heat ; and for want of opportunities to make a sufficient number of experiments, our author was unable to determine whether it be a ſixth ſimple earth, or a compoſition of two or more earths which he was not able to ſeparate.

From a letter oſ M. Morveau to Mr Crell, it ap­pears that this ſtone is alſo found in France. A ſmall bit of this was tried by him in presence of Mr Wedge­wood, and he found that its ſpecific gravity was ſuperior to the ſpar of China, being no leſs than 4.1803, and the true adamantine ſpar of China gave 3.8222.

SPARGANIUM, bur-reed, in botany : A genus of plants belonging to the claſs of *monaecia,* and to the order of *triandria ;* and in the natural ſyſtem ranged under the 3d order, *Calamaria.* The amentum of the