with ſculpture, painting, or gilding ; ſuch are thoſe in the palaces of Italy, and in the apartments of Luxem­bourg at Paris.

Soffita, or *Soffit,* is alſo uſed for the, underſide or face of an architrave ; and more particularly for that of the corona or larmier, which the ancients called *lacunar,* the French *plafond,* and we uſually the *drip.* It is en­riched with compartments of roſes ; and in the Doric order has 18 drops, diſpoſed in three ranks, ſix in each, placed to the right of the guttae, at the bottom of the triglyphs.

SOFT, or Sophi. See SOPHI.

SOFTENING, in painting, the mixing and diluting of colours with the bruſh or pencil.

SOHO, the name of a ſet of works, or manufactory of a variety of hard-wares, belonging to Mr Boulton, ſi­tuated on the borders of Staffordſhire, within two miles of Birmingham now ſo juſtly celebrated as to deserve a ſhort historical detail.

About 30 years ago the premiſes conſiſted of a ſmall mill and a few obſcure dwellings. Mr Boulton, in con­junction with Mr Fothergill, then his partner, at an ex­pence of L. 9000, erected a handſome and extenſive edifice, with a view of manufacturing metallic toys. The firſt productions conſiſted of buttons, buckles, watch-chains, trinkets, and ſuch other articles as were peculiar to Birmingham. Novelty, taſte, and variety, were, however, always conſpicuous ; and plated wares, known by the name of Sheffield plate, compriſing a great variety oſ uſeful and ornamental articles, became another permanent ſubject of manufacture.

To open channels for the consumption of theſe com­modities, all the northern part of Europe was explored by the mercantile partner Mr Fothergill. A wide and extenſive correſpondence was thus eſtabliſhed, the un­dertaking became well known, and the manufacturer, by becoming his own merchant, eventually enjoyed a double profit.

Impelled by an ardent attachment to the arts, and by the patriotic ambition of forming his favourite Soho into a fruitful ſeminary of artiſts, the proprietor extend­ed his views ; and men of taſte and talents were now fought for, and liberally patroniſed. A ſucceſsful imi­tation of the French *or moulie* ornaments, consiſting of vaſes, tripods, candelabra, &c. &c. extended the cele­brity of the works. Services of plate and other works in ſilver, both maſſive and airy, were added, and an aſſay office was eſtabliſhed in Birmingham.

Mr Watt, the ingenious improver of the ſteam-engine, is now in partnerſhip with Mr Boulton ; and they carry on at Soho a manufactory of steam-engines, not leſs beneficial to the public than lucrative to themſelves. This valuable machine, the nature and excellences of which are deſcribed in another place (ſee *STEAM-Engine),* Mr Boulton propoſed to apply to the operation of coin­ing, and ſuitable apparatus was erected at a great ex­pence, in the hope of being employed by government to make a new copper-coinage for the kingdom. Ar­tiſts of merit were engaged, and ſpecimens of exquiſite delicacy were exhibited ; but as no national coinage has taken place, the works are employed upon high

finished medals and private coins. To enumerate all the productions of this manufactory would be tedious @@(a).

In a national view, Mr Boulton’s undertakings are highly valuable and important. By collecting around him artiſts of various deſcriptions, rival talents have been called forth, and by ſuccessive competition have been multiplied to an extent highly beneficial to the public. The manual arts partook of the benefit, and became proportionably improved.

A barren heath has been covered with plenty and population ; and Mr Boulton’s works, which in their infancy were little known and attended to now cover several acres, give employment to more than 600 per­ſons, and are ſaid to be the firſt of their kind in Europe.

SOIL, the mould covering the ſurface of the earth, in which vegetables grow. It ſerves as a ſupport for vegetables, and as a reſervoir for receiving and commu­nicating their nouriſhment.

Soils are commonly double or triple compounds of the ſeveral reputed primitive earths, except the barytic (ſee Earths). The magneſian likewiſe sparingly oc­curs. The more fertile soils afford alſo a ſmall pro­portion of coally ſubſtance ariſing from putrefaction, and ſome traces of marine acid and gypſum. The vul­gar diviſion into clay, chalk, sand, and gravel, is well underſtood. Loam denotes any soil moderately adhesive ; and, according to the ingredient that predomi­nates, it receives the epithets of clayey, chalky, ſandy, or gravelly. The intimate mixture of clay with the oxydes of iron is called *till,* and is of a hard conſiſtence and a dark reddiſh colour. Soils are found by analyſis to contain their earthy ingredients in very different pro­portions. According to M. Giobert, fertile mould in the vicinity of Turin, where the fall of rain amounts yearly to 40 inches, affords for each 100 parts, from 77 to 79 of ſilex, from 8 to 14 of argill, and from 5to 12 of calx ; beſides about one-half of carbonic mat­ter, and nearly an equal weight of gas, partly carbonic and partly hydrocarbonic. The ſame experimenter repreſents the compoſition of barren soils in ſimilar ſituations to be from 42 to 88 *per cent,* of ſilex, from 20 to 30 of argill, and from 4 to 20 of calx. The celebrated Bergman found rich soils in the valleys of Sweden, where the annual quantity of rain is 24 inches, to con­tain, for each 100 parts, 56 oſ siliceous sand, 14 of ar­gill, and 30 of calx. In the climate of Paris, where the average fall of rain is 20 inches, fertile mixtures, ac­cording to M. Tillet, vary from 46 to 52 *per cent.* of ſilex, and from 11 to 17 of argill, with 37 of calx. Hence it appears that in dry countries rich earths are of a cloſer texture, and contain more of the calcareous in­gredient, with leſs of the siliceous. Mr Arthur Young has diſcovered, that the value of fertile lands is nearly proportioned to the quantities of gas which equal weights of their soil afford by diſtillation. See Agri­culture, n⁰ 24. and 118.

SOISSONS, an ancient, large, and conſiderable city of France, in the department of Aiſne and late province of Soissonnois. It was the capital of a kingdom of the ſame name, under the firſt race of the French monarchs. It contains about 12,000 inhabitants, and is a biſhop’s

@@@(a) It was at this place, in the year 1772, that Mr Eginton invented his expeditious method of copying pictures in oil.