thin leaves, between the fiſſures of ſtones, in Norway and Germany. In a capillary form, in the places al­ready mentioned, including the cobweb ſilver of the Spaniards already mentioned. *6.* Cryſtallized. 7. Su­perficial. Mr Daubenton enumerates eight varieties of native white silver, of different forms, moſt of which have been already enumerated. The materials in which this metal is moſt commonly found in its native ſtate are, bàro-selenite, limeſtone, ſelenite, quartz, chert, flint, ſerpentine, gneiſs, agate, mica, calcareous ſpar, pyrites, schiſtus, clay, &c. Sometimes it is met with in large maſſes, of the weight of 60 pounds or more, in or near the veins of moſt metallic ores, particularly in Peru and in various parts of Europe, of a white, brown, or yel­lowiſh colour. In Norway and at Alſace it is found in the form of ſolitary cubes and octahedral lumps, of 50 and 60 pounds weight.

2. *Native ſilver alloyed with other metals.* I. With gold, as in Norway, where it contains ſo much as to appear of a yellow colour. 2. With copper. 3. With gold and copper. 4. Amalgamated with mercury, as in the mines of Salberg. M. Rome de Liſle men­tions a native amalgam of silver and mercury found at Muschel Landſberg in the duchy of Deux Ponts, in a ferruginous matrix, mixed with cinnabar, and cryſtalli­zed in a hexagonal form, and of a large fize. It was before the French revolution preſerved in the king’s ca­binet at Paris. 5. With iron. According to Bergman, this ore contains two per cent. of iron; but Mongez in­forms us, that it often does not exceed one per cent. 6. With lead. “ Silver (ſays Mr Magellan) is always contained in lead, though the quantity is generally inſufficient to defray the expence of ſeparating it. In the reign of Edward I. of England, however, near 1600 pounds weight of ſilver were obtained, in the courſe of three years, from a lead mine in Devonſhire, which had been diſcovered about the year 900. The lead mines in Cardiganſhire have at different periods afforded great quantities of silver ; ſo that Sir Hugh Middleton is ſaid to have cleared from them L. 2000 in a month. The ſame mines in the year 1745 yielded 80 ounces of filver out of every ton of lead. The lead in only one of the ſmelting houſes at Holywell in Flintſhire produced no leſs than 37521 ounces, or 31263/4 pounds of silver from the year 1754 to 1 756, and from 1774 to 1776. There are ſome lead ores in England, which, though very poor in that metal, contain between 300 and 400 ounces of silver in a ton of lead ; and it is commonly obſerved, that the pooreſt lead ores are the richeſt in silver ; so that a large quantity of silver is probably thrown away in England by not having the pooreſt sort of

lead ores properly eſſayed.” 7; Mr Monnet found sil­ver united with arſenic among the ores which came from Guadanal canal in Spain, and an ore of the ſame kind is furniſhed by the Samſon mine near Andreaberg in the Hartz : but Mr Mongez very properly remarks, that theſe ores must be diſtinguiſhed from ſuch as have the arſenic in the form of an acid ; for in this case they are properly mineralized by it, whilſt there can only be a mixture of native silver, or ſome of its calces with ar­ſenic in its reguline form. 8. Bergman mentions silver in a ſtate of union with antimony. The ore yields ſome ſmoke when roaſted, but has not the garlic ſmell obſervable in the arſenical ores. 9. The white silver ore, found in the mines near Freyberg, has the metal united

to the regulus of arſenic and iron, the three metallic in­gredients being nearly in equal proportions. All the extraneous matters with which the silver is united are ſometimes in exceedingly ſmall proportion, but not to be neglected where they exceed the hundredth part of the whole maſs. 10. A particular kind of ſtony silver ores is mentioned by Wallerius under the title of *lapis deœ,* and which contain the following varieties, viz. the calcareous silver ore at Annaberg in Auſtria, when the metal is mixed with an alkaline limeſtone ; the ſpathoſe ore, either white, variegated, or yellowiſh, found at Schemnitz in Hungary ; the quartzoſe white ore in a powdery form, mixed with ferruginous ſcoria, found at Potosi in America ; the dark and variegated quartzoſe ſilver ores, with many other ſubdiviſions diſtinguiſh­ed from one another by little elſe than their colour.

Silver is found mineralized by various ſubſtances; as, I. With ſulphur in the glaſſy or vitreous silver ore ; though this name ſeems rather to belong to the minera argenti cornea or horn silver ore, to be afterwards taken notice of more particularly. It is ductile, and of thc ſame colour with lead, but quickly becomes very black by expoſure to the air ; though ſometimes it is grey or black even when firſt broken. It is found either in large lumps, or inhering in quartz, gypſum, gneiſs, py­rites, &c. Its ſpecific gravity, according to Kirwan, is 7,200. An hundred parts of it contain from 72 to 77 of silver, and it is rarely contaminated with any other metal.

Profeſſor Brunnich ſays that it contains 180 merks of silver in the hundred weight. The medium between the glaſs ore and the red gilder ore is called *roſch-gewaechs* in Hungary, and *brittle glaſs ore* in Saxony. It is black, and affords a powder of the ſame colour when pounded. In the mines of Himmelfurſt near Freyberg, it is ſaid to have held 140 merks, but theſe pieces are very ſcarce at preſent ; and indeed the Hungarian glaſs ores in ge­neral are now very ſcarce, as Profeſſor Brunnich informs us, though they are now and then found in the wind- ſhafts, which are frequently covered with a thin mem­brane or rather cruſt, of the colour of pyrites. Mr Ma­gellan ſays that this ore is nothing elſe but native silver penetrated by ſulphur ; for, on being expoſed to a flow heat, the latter flies off, and the silver ſhoots into fila­ments. There are nine varieties of it. 1. Like *black lead.* or plumbago, the most common kind of any. 2.Bruckman mentions a kind *brown* on the outside and greeniſh within. 3. *The yellow ore* has its colour from ſome ar­ſenic contained in it, which forms an orpiment with the ſulphur. 4. It is alſo found of a *greeniſh,* and 5. *bluiſh* co­lour ; the latter is friable, like the ſcoria of metals, and is called at Freyberg *Schlarekenerz,* or the ore of ſcoria.

6. It is found alſo in the a*rborescent. q.Lamellated. 8.Crystallized* into octaedral or hexaedral priſms, and into ten pyramids with ten sides. 9. Laſtly, it is found su*perficial,*or covering the ſtones or maſſes of other ores.

2.@@ The pyrites argenteus of Henckel contains ſilver and iron mineralized with arſenic. There are three va­rieties of it. 1. Hard, white, and shining ore, of a compact, lamellar, or fibrous texture. The brighteſt kind has leaſt silver, only giving 6 or 8 ounces per quin­tal, and the richeſt about ten per cent. It is found in Germany and Spain. It contains no ſulphur. 2. Of a yellowiſh white colour, and ſtriated texture reſembling biſmuth, but much harder. It is found in Spain, and yields about 60 per cent. of silver. 3. In another kind

@@@[mu] Cronstedt, p. 550.