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Concerning the Quick-filver Mines in Friuli; communicated by Dr. Edward Brown; confirming as well the Accompt formerly given of that subject, in Numb, 2. of these Transactious, as enlarging the same with some Additions.

The Town of Idria, in the County of Goritia and Province of Friuli, is feated low, and encompals'd with Hills on all fides. A River of the fame name runs by it, which although Leandro terms it fuperbisfims finme d'Idria, yet I found finall and fhallow at the time when I was there; though upon plentiful Raine it proves fufficient to convey down the Firr-Trees and other Wood required in the building of the Mines, and alfo for Fuel required in the fervice of them: And to this end there is an handfome work of Piles made floaping athwart the River (after the fame manner as I obferv'd in New[ol in upper Humgary crofs the River Gran;) to ftop the Trees, which are cut down, and caft into the River above this place.

What is chiefly confiderable in this Town, are the Quickfilver-Mines, very well known to the Neighbouring parts, and exceeding ufeful to many at greater diftance.

The entrance into these Mines is not high, or upon an Hill, as in many other Mines; but in the Town it felf, whereby they are fomewhat the more troubled with Water, against which they are provided with many excellent Engins and Devices, as at other deep Mines. The deepest part of the Mine from the entrance, is between 120 and 130 fathoms.

Of the Quick-filver of this Mine they make two forts : The one they call Inngfraw, that is, Virgin-Quickfilver; the other, plain Quickfilver, Virgin-Mercury they call that, which difcovers it felf without the help of Fire; and is either plainly to be feen in the Ore, or falls down in little drops in the Mine, and fometimes fireams out in good quantity; as about feven years agoe it ran out of the Earth at first in a fireame as finall as a thred, and afterwards as big as a pack-thred, but ceas'd in three or four dayes.

That also is accounted Virgin-Quick filver, which, having no need

(1801)

aced to pais the fire, is feparated by water first in a Sive, and af terwards in a long trough, having very small holes at one end. So that there are in a manner two forts of *Virgin*-Mercury; the one, running out and discovering itself without labour; the other, requiring fome way of Extraction and separation, though not fo high an one, as by Fire.

Plaine Quickfilver they name that, which is not at first perceived by the Eye, or falls from the Ore, but is forc'd out by Fire. And this they obtaine out of the Ore, or out of the Cinnaber of Mercury, which they digg out of this Mine. The Ore of this Mine is of a dark colour, mix'd with red. But the best is an hard stone; which they commit not prefently to the operation of the Fire, but powder it großsly, and work it by the Sive; that fo, if any *Virgin*-quickfilver be tound in it, it may be steparated in this manuer, and what doth not pass the Sive, may be feparated by Fire in Iron-furnaces; Fifty of them in a Fire.

The Quickfilver ore of this Mine is the richeft of all Ores, I have yet feen; for ordinarily it contains in it balfe Quickfilver, and in two parts of Ore one part of Quickfilver, and fometimes. in 3. parts of Ore, two parts of Quickfilver.

I went into the Mine by the Pitt of St. Agatha, and came up again by that of St Barbara, defcending and afcending by Ladders. I afcended at one of 639 staves or 89 fathoms. Andreas Siferus, in Kircher's Mund. Subterraneus, makes such a dreadful description of this Mine, that it might discourage any from attempting the descent; which makes me doubt, Whether he had been in any other Mine, especially where the descent is made by Ladders.

This Mine, I was inform'd, hath been wrought 200. years, about the fame space of time with Nemfol-Mine, but coms much short in time of the Silver mine at Schemnitz; and much shorter yet of the notable Lead-mines in upper Carinthia Some hundreds of men are employed about this Mine of Idria; of which the chief Officers are the Prefect, the Controller, and the Judge.

I heard no complaint of the Damps of this Mine, as I have heard of divers others; Yet the work men are fufficiently michiewid without them: for, though they be not fuddenly fuffocated, yet: yet the Mercury getting into their Bodies, they are languishing^t ly deftroyed by it. Much lefs could I hear any news of eith e noxious or innocent Apparitions, Virunculi &c. fuch as some write, and many talk of in other Mines.

In a Laboratory, where the Quickfilver is feparated by Fire, I faw an heap of 16000. Retorts of Iron; every one of which cofts a Crown at the best hand from the Iron-furnaces in Carinthia. There are 800. Retorts and as many Recipients employ'd together, in drawing over the Quickfilver in 16. Furnaces; 50 in each Furnace, 25. of a fide, 12. above, and 13. below of each fide.

Fune 12, when I was there, they carried out 40. Saumes of Quickfilver into forrain parts, each Saume containing 315, pound weight, to the value of 400 ducats of Gold. Though the conveyance be not eafy, yet fome is fent as farr as Cremnitz in Hungary, for the use of the Gold-mines; and very much carried away South ard. For, though the River by the Town be but fmall, yet they are not very farr from the Sontius or Lyfonzo, a confiderable River, which runs into the Gulf of Triefte in the Adriatick Sea.

In the Caftle I faw 3000 Saumes of Quickfilver together, in barrels, the Quickfilver being first made up in double leather: And in another house as much tich Ore, as can be diftill'd in 2. years, except they have great plenty of rain to bring down the wood; but, the Hills being high about them, it fnows at the tops of them oftner than it rains.

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The Countrys, through which I pafs'd, are fingularly well wooded, and well ftor'd with fair Trees, wherein, befide fuch as grow with us in England, are ftately Firrs, Larches, Fines, Pinafters, Picea's, and that nobly crifped and well grain'd kind of Acer, whereof Viols and Violins are made: Whereof there is also plenty in the Country of Salizburg and Carinthia.

Travelling sometimes in the night, we had continually about us a great number of large Glow-worms, which put into papers gave a dimm light like Candles in Lanthorns; and the Aire alto full of flaming Flyes, affording some delight to us.

The way unto this place I found difficult; for, travelling from places on the borders of *Croatia* by *Lovitch*, I was faine to pais over

(1083)

over great mountains, and coming from it, I pafs'd over Swartzenberg of the Black mountain, from whence I defcended ro. miles in a rocky Country, and farr more ftony than the Grau or Campus lapido(mo in Provence, and fo to Aidofchini and Goritia, and leaving the Sclavonian behind, entred into the Lingua Fallana, and fo on to this Noble and incomparably fortified City; where being yet uncertain, whether I flould go to Venice, I would not omit to prefent you this accompt, which I befeech you to accept from Gree

Palma nova in Friuli June 15. 1669. 1117 3

An Accompt frow the same Dr. Brown Concerning an Wn-common Lake, called the Zirchnitzer-See, in Carniola.

Having crofs'd the River Dravus, and pafs'd Mount Luibel in the Carnick Alpes, by that noble paffage, cut through the Rooks, and vaulted like that of Paufilype near Naples, I had a defire to take a view of the Lake of Zirchnitz, fo much spoken of, and written on by so few; and therefore I went unto Crainburg upon the River Savus, and so to Labach, the chief City of Carniola; from whence I continued my Journey in Carniola betwixt the Hills and a great Marsh, till I came to Brounizza, two leagues from whence and beyond the Hills is seated the faid Lake, receiving that name from Zirchnitz, a town of about 300, house.

This Lake is near two German Miles long, and one broad. On the South-fide thereof lyes a great Forreft, wherein are many Deer, and wild Boares, Wolves and Bears. On the North fide the Country is flat; but the whole Valley is encompaffed with Hills, at fome diffance from it.

This Lake is well fill'd with Water for the greatest part of the Year; but in the Month of *June* it finketh under ground, not only by percolation or falling through the pores of the Earth, but retireth under ground, through many great holes at the bottom of it: And in the Month of *September* it returns by the same, and fo in a very short time fills up the Valley again.

As the time of the waters Descent is short, especially when L 1111 the