PHILOSOPHICAL TRANSACTIONS.

June, 19. 1671.

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A Curious Relation, taken out the third Venetian Journal de Letterati, *of* March 15. 1671; *Of a Substance found in great quantities in some Mines of* Italy; *out of which is made a kind of incombustible both Skin, Paper, and Candle-week, together with the Experiments made therewith.*

SIgnor *Marco Antonio Castagna*, Superintendent of some Mines in *Italy*, hath lighted in one of them upon a great quantity of that Lanuginous Stone, called *Amianthus*, which he knows so to prepare, as to render

it ſo tractable and ſoft, that it reſembleth well enough a very fine Lambs-skin dreſſed white. He thickens and thins it, to what degree he pleaſeth, and thereby maketh it like either to a very white Skin, or to a very white Paper; both which reſiſts the moſt violent fire, as hath been experimented ſeveral times. Firſt, The Skin was cover'd with kindled coals, whence it took flame, but being taken out after it had been left there a while, the fiery colour preſently diſappear'd, and it became cold and white again as before; the fire, it ſeems, paſſing only thorough, without waſting or altering any thing of it; whereas ſome of the hardeſt and ſolideſt Mettals, as Iron and Copper, reduced to very thin plates, and kept as long in the fire as this ſubſtance was, would caſt Scales. Again, This Skin being made as thin as Paper, doth not only yeild that ancient and ſo much admired *Amianthus*, but is alſo perfecter than that which comes from *Cyprus*, and not inferiour to that, which ſometimes, though but ſeldom, comes out of *China*. This Paper was alſo tryed in the fire, and there it remained likewiſe without any viſible detriment, or without the leaſt change of its firſt whiteneſs, fineneſs, or ſoftneſs. Of the ſame matter this Artiſt hath wrought a *Week*, never to be conſumed as long as 'tis fed, nor altering its quality after the aliment is waſted away. And if that famous and incombuſtible Oyl were found out again, we read of, this matter would yeild the Week for that everlaſting Light, ſo much celebrated by the Antients.

The Inventor promiſeth to make further Experiments with this ſubſtance, for other diſcoveries. At the preſent he is reſolved to prepare of it ſuch a quantity of Paper, as may make a Book, and to cover it with the Skin made of the ſame, and to ſow it together with thread made of the ſame, and to write in it Letters of Gold; ſo that ſuch a Book, being made in all the parts of it incombuſtible, and everlaſting againſt the power and injuries of all the Elements, as being proof againſt the

ſtrongeſt

ſtrongeſt, and not being ſubject to Corruption from the other, as Water or Air, may deſerve *(he ſaith)* the name of the Book of Eternity.

Some Experiments of Signor Carolo Rinaldini, *Philoſopher and Mathematician in the Univerſity of* Padoua; *ſhewing the difference of* Ice *made* without *Air*, *from that which is produced* with *Air*: *In the ſame* Venetian Journal.

THere was taken a Glaſs-cane, about $1\frac{1}{5}$ of a Florentin *braccia* or Ell, open at one end, of which above one Ell and a quarter was fill'd with Quick-ſilver, the reſt with common water. This open end was ſhut with a finger, and inverted into a veſſel with ſtagnant Mercury; then removing the finger, the Mercury began to fall out, ſo that the aggregat of the Quick-ſilver and water falling, the water remain'd in the upper-part of the inverted cane, now free from Air. This being done, the Cane was thus expoſed to the open Air in the Month of *January*, in froſty weather, and in one night the water in it was congealed into Ice of a very good conſiſtence. Afterwards Signor *Rinaldini*, having compared this Ice with that which was produced in the open Air, found, that the Ice in the Cane was in ſubſtance altogether like that of Hail, that is, an opaque and whitiſh Body; whereas that, which was made in the Air, was tranſparent like Chryſtal. Beſides, he obſerved, that the Ice made in the Cane was heavier *in ſpecie* than that in the ambient Air: which he diſcover'd by putting it into a fluid, which was in *ſpecie* lighter than water, but heavier than Ice made in the open Air; whereby he found, that, whereas the Ice made in the Cane ſunk, that in the Air floated therein.

Which Experiment ſeems not to favour thoſe (ſaith the Author) who eſteem, that Ice, made in the common Air, is produced by the extruſion of Air latitant in the water, and by the reſolution of the more ſubtile parts, receiving in their ſtead the mixture of terreſtrial exha-