

Transpiration of this Tree, as of all other (*Trees*) wherein the same thing is to be found, as I have had the Honour to prove, in speaking of the Sycamore the last year.

I have desired that they would let me have some of the first Fruits of this Tree, in order to be entirely convinced that its Nature is altogether that of the Walnut-tree.

I shall endeavour, one day, to publish a System for explaining these Slashes, as well as those of all other Plants in general.

V. *An Abstract of a Letter, wrote some time since, by Signior John Ciampini of Rome, to Father Bernard Joseph a Jesu Maria, &c. concerning the Asbestos, and manner of spinning and making an incombustible Cloath thereof.*

After some account of the Name of the *Asbestos* Stone, he mentions four sorts, of which he has Specimens in his *Museum*. The first sent him from *Corfica* or *Corfu*, long, of a woody form, of half a palm length and more, of a whitish colour, something inclining to a reddish. The second of a Silverish Lead colour, softer and shorter, about three inches, this was from *Sestri di Ponente* in *Liguria*. The third (which is the worst of all) is like Scales or *Lamina* one upon another (as he represents it like an Onion) of a blackish earth colour, with some white, black and dark red veins interspersed, scarce two parts of an inch *Roman* long, therefore fitter for making of Paper, than spinning or weaving. The fourth sort, given him by Signior *Boccone*, found in the *Pyrenæans*, some whereof were a *Roman* Palm long; its filaments, the
long

longer, were yet thicker and rougher; he says also, that he heard of another sort in *Volateranis Montibus*.

Then quoting some passages out of *Pliny Dioscorides*, and other Authors that have mentioned this Stone, and the Cloath made of it, he touches upon the supposed use thereof for the wickes of Sepulchral Lamps, and from some experiments concludes it unfit for that purpose, he always finding the wickes made of it to go out, and not attract or continue up the oyl for the flame.

Next he tells us, he kept it for 3 weeks in a Glass-house fire, but found it unaltered; but it would not preserve a stick wrapt in it from the fire; whence he concludes the *Amiantus* loses nothing in the fire, because it does not burn nor flame; but in the handling it wastes, tho' not much, as he found by an exact ballance.

Lastly, he proceeds to shew the manner of spinning it, which he tryed thus; first he laid the Stone in Water (if warm the better) for some time to soak, then it is opened and divided with the hands, that the Earthy parts may fall out of it, which are whitish like Chalk, and hold the thready parts together; this makes the water thick and milky; this is repeated six or seven times with fresh water, where it is again opened and squeezed, till all the heterogeneous parts are washed out, and then the Flax-like parts are collected, and laid in a Sieve to dry.

Of his four sorts of *Amiantus*, he found that from *Corsica* best, being long and soft; and the *Cyprian* worst; where by the way he doubts whether his was of the best sort, since the *Cyprian* was commended by *Pancirollus* and others which he quotes. But to come more close to the way of spinning it, he first shews a method discovered to him, which was thus. Lay the *Amiantus*, cleansed as before, between two Cards, such as they card Wool with, Fig. 4. & 5. where let it be gently carded, and then clapt up in between the Cards, so that some of it may hang out at the sides, then lay the Cards fast upon a Table or Bench,

fig.

fig. 6. Take a small Reelee, fig. 7 made with a little hook at the end, fig. 8. and a part to turn it by, fig. 9. so that it may easily be turned round, this Reelee is to be wound over with fine Thread, then having a small vessel of Oyl ready, fig. 10. with which the Fore-finger and Thumb are constantly to be kept wet, both to preserve the Skin from the corrosive quality of the Stone, and render the filaments thereof more soft and plyant: thus by twisting the Thread upon the Reelee about, with the *Asbestos* hanging out of the Cards, some of it will be worked up together with it; by little and little, this Thread may with care be wovea into a course sort of Cloath, and by putting it into the Fire, the Thread and Oyl will be burnt away, and the incombustible Cloath remain. But finding this way of uniting the Stone with the Thread very tedious, instead of the Thread he put some Flax upon a Distaff; and by taking 3 or 4 filaments of the *Asbestos*, and mixing them with the Flax, he found they might easily be twisted together, and the Thread thus made much more durable and strong: So that there is no need of carding, which rather breaks the filaments than does any good; open only and separate the filaments after washing upon a Table, and take them up with the Flax, which is sufficient. As to the making of Paper, he says in the washing the Stone, there will remain several short pieces in the bottom of the Water, and of these after the common method Paper may be made.

He concludes with the best way of preserving the Cloath, or any other thing made of the Stone, when made, for by reason of its exceeding dryness it is very apt to break and waste; this is by keeping it always well oyled, which is the only preservative for it; and when the Cloath is put in the Fire the Oyl burns off, and the Cloath comes out white and purified.

Philos. Transact. N^o. 273.

fig: 2:

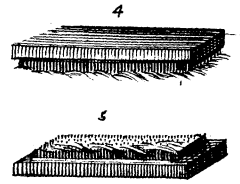


fig: 1:



fig: 3:

