

great distance, through the upper part of the atmosphere, where the resistance is least?

LIV. *Extract of a Letter from Professor Bose, of Wittemberg, to the Right Honourable George Earl of Macclesfield, Pr. R. S. with Observations thereupon, by Mr. Wm. Watson, F. R. S.*

Wittemberg, August 1, 1753.

Read Dec. 6, 1753. **I**N the beginning of August 1752, after great and continued rains, many of our rivers overflowed their banks, and covered the neighbouring grounds, more or less according to their level, to a considerable distance: and the quantity of water was so great, that in some places it was not discharged for more than a week. More particularly the river Unstrut in the territory of the landgrave of Thuringue required a very great time to empty itself, not only as that river runs over a large tract of country, but also as between Artern and great Jena, where this river joins the Sale, its bed in several places is very much confined.

When the inundation was abated, it was observed from the little city Laucha quite up above Artern, not only upon the fields and meadows, but also upon the bushes and trees, that there was a green and very tough viscous slime, which by the help of a stick could be drawn out to two or three ells in length. The subsequent heat of the sun dried this matter, and it appeared like wool upon the bushes; but the fields, when

when seen at a distance, seemed as though they were covered with sand. This matter had a smooth appearance outwards, but within was like a sheep's-skin. Downwards next the ground it had a sort of wool; and when the whole was washed with soap, it whitened, and appeared like a clean fleece of white wool. Of this substance the country-people soon made wicks for their lamps, as several lined their cloaths with it, as they would with furs.

It was further observed, that where this substance was mowed off from the meadows, the grass under it was quickly dried up; but, where it was not removed, the grass in the following December was as green and fresh as in the spring. — Thus far Mr. Bose.

Observations.

The vegetable substance, which, upon the specimen sent over by the professor to our truly Noble and Learned President, he has intitled “a sort, “perhaps, of *Alcyonium molle*,” is a species of that genus of plants, which the more modern botanists call *byssus*. And it is of that species, or a very slight variety therefrom, which is called, by the justly celebrated Dillenius *, in his *Historia Muscorum*, *Byssus tenerrima viridis velutum referens*. It is also mentioned and figured by Micheli † in his *Nova Plantarum Genera*, under the title of *Byssus terrestris viridis herbacea et mollissima, filamentis ramosis et non ramosis*. This genus of plants, in the order of nature, comes between the mosses and
fungi.

* *Histor. Muscor.* p. 7.

† *Michelii Nov. Plant. Genera*, p. 211. Tab. LXXXIX. Fig. 5.

fungi. The specimen now sent, being white on one side, arises from its either being washed or bleached by the sun; for when wet, according to Mr. Bose, it was green: and this colour is mentioned both by Dillenius and Micheli in their several denominations.

This vegetable is found in England, as well as in many parts of Europe, in moist meadows, covering the ground like a carpet, and sometimes to a great extent.

We must be careful, however, how we connect the substance in question, and others of the same genus with the βύσσος of the antient Greek writers, or the *byssus* of the Latin. What that substance was, has been matter of great controversy. Thus much is certain, that garments made of it were the apparel of the rich. And in the New Testament, St. Luke, in the parable of the rich man and Lazarus, says of the former, as a mark of his opulence, ἐνεδιδύσκειτο πορφυράν καὶ βύσσον; this is translated in our English version, “he was clothed in purple and fine linen”. It is more probable, that the *byssus* of the ancients was a very fine sort of cotton: but whoever has the curiosity of examining what has been said upon this subject, may consult Pliny * and Wormius †; but, above all, Bodæus à Stapel §, in his commentary upon Theophrastus; who has, upon this occasion, as well as upon a great variety of others, given us an ample testimony of his vast erudition.

* *Plinii* lib. xix. c. i.

† *Mus.* p. 139.

§ *Pag.* 425, et seq.