

V. *Part of a Letter from Mr Anthony van Leuwen-
hoek, F. R. S. giving his Observations on the late
Storm.*

Delft, Jan. 8. 1704. N. S.

I Affirmed in my Letter of the 3d of *November* last past, that Water may be so dash'd and beaten against the Banks and Dikes by a strong Wind, and divided into such small Particles, as to be carried far up into the Land.

Upon the 8th of *December*, 1703. N.S. We had a dreadful Storm from the South West, insomuch, that the Water mingled with small parts of Chalk and Stone, was so dash'd against the Glass windows, that many of them were darkned therewith, and the lower Windows of my House, which are made of very fine Glass, and always kept well scower'd, and were not open'd till 8 a Clock that Morning, notwithstanding that they look to the North East, and consequently stood from the Wind; and moreover, were guarded from the Rain by a kind of Shelf or Pent-house over them; were yet so cover'd with the Particles of the Water which the Whirl-wind cast against them, that in less than half an hour they were deprived of most of their transparency, and, forasmuch as these Particles of Water were not quite exhald, I concluded that it must be Sea water, which the said Storm had not only dash'd against our Windows, but spread also over the whole Country.

That I might be satisfied herein, I blow'd two small Glasses, such as I thought most proper to make my Observations with, concerning the Particles of Water that adhered to my Windows.

B b b b b b b b a

Pres

Pressing these Glassees gently against my Windows, that were covered with the suppos'd Particles of Sea water, my Glassees were tinged with a few of the said Particles.

These Glassees, with the Water I had thus collected on them, I placed at about half a Foot distance from the Candle, I view'd them by my Microscope, reck'ning, that by the warmth of the Candle and my Face together, the Particles of the said Water would be put into such a motion, that they would exhale for the most part, and the Salts that were in 'em would be expos'd naked to the sight, and so it happened; for in a little time a great many Salt Particles did, as it were, come out of the Water, having the Figure of our common Salt, but very small, because the Water was little, from whence those small Particles proceeded; and where the Water had lain very thin upon the Glass, there were indeed a great number of Salt Particles, but so exceeding fine, that they almost escap'd the Sight thro a very good Microscope.

From whence I concluded, that these Glass-windows could not be brought to their former lustre, but by washing them with a great deal of Water; for if the Air were very clear, and the Weather dry, the watry Particles would soon exhale, but the Salts would cleave fast to the Glass, which said Salts would be again dissolv'd in moist Weather, and sit like a Dew or Mist upon the Windows.

And accordingly my People found it when they came to wash the afore-mentioned lower Windows of my House; but as to the upper Windows where the Rain had beat against them, there was little or no Salt to be found sticking upon that Glass.

Now if we consider what a quantity of Sea water is spread all over the Country by such a terrible Storm, and consequently how greatly impregnated the Air is with the same; we ought not to wonder, that such a quantity of Water, being moved with so great a force, should do
so

(1537)

so much mischief to Chimneys, tops of Houses, &c. not to mention the damages at Sea.

During the said Storm, and about 8 a Clock in the Morning, I cast my Eye upon my Barometer, and observ'd, that I had never seen the Quick-silver so low; but half an hour after the Quick-silver began to rise, tho' the Storm was not at all abated, at least to any appearance; from whence I concluded, and said it to those that were about me, that the Storm would not last long; and so it happened.

There are some that affirm, that the scattering of this Salt water by the Storm will do a great deal of harm to the Fruits of the Earth; but for my part I am of a quite different opinion, for I believe that a little Salt spread over the surface of the Earth, especially where it is heavy Clay-ground, does render it exceeding Fruitful; and so it would be if the Sand out of the Sea were made use of to the same purpose.

VI. *Part of a Letter from Mr Anthony van Leuvenhoek, F. R. S. concerning the Figures of Sand.*

Delft, Dec. 4. 1703. N. S.

I Take the liberty again of sending you the following Observations.

I remember I have formerly affirmed of Sand, that you cannot find in any quantity whatsoever two Particles thereof, that are entirely like each other, and tho' perhaps in their first Configuration they might be alike, yet at present they are exceeding different; the Sand especially that we make use of is obnoxious to so great alterations, that it would be a wonder, if even in its smallest

Par-