

V. *A Letter from Mr. Triewald, Director of Mechanicks to the King of Sweden, and F. R. SS. of England and Sweden, to Sir Hans Sloane, Bart. Prof. R. S. relating to an extraordinary Instance of the almost instantaneous freezing of Water; and giving an Account of Tulips, and such bulbous Plants, flowering much sooner when their Bulbs are placed upon Bottles filled with Water, as in T A B. II. than when planted in the Ground.*

Most honoured S I R,

I H A V E at present to communicate to you a somewhat strange Accident, which produced as unexpected a Phænomenon. The 15th of *December* last coming into the Hall, where my *Apparatus* is placed, in the Palace of the Nobility at *Stockholm*, the Weather being very cold, I feared that the Glafs for shewing the Experiment with the *Cartesian Devils* (or those glafs Figures in Water, which by the Pressure of the Air on the Surface of the Water, are made to change their Places, and sink to the Bottom of the Glafs) would be in Danger, if the Water should freeze in the same. I took it down from the Shelf, and was well pleased to see the Water in a fluid State; but before I would empty the Glafs, as some Friends that were present had not seen that Experiment, I placed my Hand on the Bladder tied on the Top of this Cylindrical Glafs, which was of a pretty large Size, sixteen
L Inches

Inches high, and three Inches and a half Diameter, containing three glafs Figures : In that very Instant, and in the Space of a Second of Time, I found all the Water changed into Ice ; when in that Time two of the Figures had reached very near the Bottom, but the third, as well as they, fixed in the Middle of the Glafs, surrounded with Ice as transparent as the Water itself before it congealed. This is, in a few Words, the Matter of Fact ; but the Reason why the whole Body of Water, in such a short Space of Time, should turn into Ice, is, in my humble Opinion, not so easily to be accounted for ; and rather than offer any Solution of mine, shall leave the same to that ingenious Gentleman Dr. *Desaguliers*.

In *September* last I placed some Leeks of *Tulips*, and other Flowers, after such a manner in Water as the Figures in T A B. II. represent ; at which Time I put into each Glafs two Grains of *Saltpetre*. These Glasses I kept in my Study, sometimes on a Shelf, at other times before the Window. In a Fortnight's Time I begun to find that they struck new Roots ; the latter End of *November* they put forth Leaves, and in *January* they all flowered, as well as if they had been on a Garden-bed ; whereas in Gardens we seldom see, in this Country, *Tulips* before the latter End of *May*, and this Year scarce so soon, the Ground being yet covered with Abundance of Ice and Snow.

Though these Experiments seem to be calculated for nothing but Delight, yet I think they have furnished me with some Lights, as to the Rise of the Sap in Plants, which I will forbear mentioning till the

the next Winter gives me an Opportunity of reiterating those and some other Experiments.

I am, with the highest Esteem and Respect,

Most Honoured S I R,

*Stockholm, April
the 4th, 1730.*

*Your most Obedient and most
Humble Servant,*

FR. TRIEWALD.

VI. *An Account of some Experiments, relating to the Flowering of Tulips, Narcissus's, &c. in Winter, by placing their Bulbs upon Glasses of Water, made by Mons. Triewald, Director of Mechanicks at Stockholm, and F. R. SS. of England and Sweden, and read before the Royal Society May the 7th, 1730, as they were tried the next Season by Philip Miller, F. R. S. Gardiner to the worshipful Company of Apothecaries, at their Botanick Garden in Chelsea.*

THE Glasses marked Numb. 1, were Roots of a *Hyacinth*, commonly known by the Name of *Pulchra*. Numb. 2. were Roots of the common *Oriental blue Hyacinth*. The Flowers of these were

Tab. II.

