

always broke under a less weight than those of the true, though the strength of the true sap is very trivial in comparison with that of formed wood.

We afterwards took several pieces of these two kinds of sap, and weighed them both in the air and water, by which we discovered that the specific weight of the natural sap was always greater than that of the false. We then made a like experiment with the wood of the centre of the same trees, to compare it with that of the cincture which is found between these two saps, and we discovered that the difference was nearly the same as is usual between the weight of the wood of the centre of all trees and that of the circumference; thus all that is become perfect wood in these defective trees is found nearly in the common order. But it is not the same with respect to the false sap, for, as these experiments prove, it is weaker, softer, and lighter than the true sap, although formed 20, nay 25 years before, which we discovered to be the fact, by counting the annual circles, as well of the sap as of the wood which covered it; and this observation, which we have repeated on a number of trees, incontestibly proves that these defects had been caused by the hard frost of 1709, notwithstanding