passes through the most solid and thickest vessels; which could not be the case if the air it contained were in a state of full elasticity. The air contained therefore in water, is not simply mixed therewith, but is united in a state where its spring is not sensibly exercised; yet the spring is not entirely destroyed, for if we expose water to congelation, the air issues from its internal part, and unites on its surface in elastic bubbles. This alone suffices to prove, that air is not contained in water under its common form, since being specifically 850 times lighter, it would be forced to issue out by the sole necessity of the preponderance of water; neither under an affixed form, but only in a medium state, from whence it can easily retake its spring, and separate more easily than from every other matter.

It may, with some justice, be objected that cold and heat never operate in the same mode, and that if one of these causes gives to air its elasticity, the other must destroy it, and I own that in general it is so, but in this particular they produce the same effect. It is well known that water, frozen or boiled, reabsorbs the air it had lost as soon as it is liquefied or cooled. The degree of affinity of air with water, depends, therefore, in a great measure, on its temperature, which in its li-

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