the supporters of the doctrine, though they must be far more complex than the hydrostatical law by which a hollow sphere floats.

Newton's opinion was hardly more satisfactory; he[5] explained evaporation by the repulsive power of heat; the parts of vapors, according to him, being small, are easily affected by this force, and thus become lighter than the atmosphere.

Muschenbroek still adhered to the theory of globules, as the explanation of evaporation; but he was manifestly discontented with it; and reasonably apprehended that the pressure of the air would destroy the frail texture of these bubbles. He called to his aid a rotation of the globules (which Descartes also had assumed); and, not satisfied with this, threw himself on electrical action as a reserve. Electricity, indeed, was now in favor, as hydrostatics had been before; and was naturally called in, in all cases of difficulty. Desaguliers, also, uses this agent to account for the ascent of vapor, introducing it into a kind of sexual system of clouds; according to him, the male fire (heat) does a part, and the female fire (electricity) performs the rest. These are speculations of small merit and no value.

In the mean time, Chemistry made great progress in the estimation of philosophers, and had its turn in the explanation of the important facts of evaporation. Bouillet, who, in 1742, placed the particles of water in the interstices of those of air, may be considered as approaching to the chemical theory. In 1743, the Academy of Sciences of Bourdeaux proposed the ascent of vapors as the subject of a prize; which was adjudged in a manner very impartial as to the choice of a theory; for it was divided between Kratzenstein, who advocated the bubbles, (the coat of which he determined to be 1-50,000th of an inch thick,) and Hamberger, who maintained the truth to be the adhesion of particles of water to those of air and fire. The latter doctrine had become much more distinct in the author's mind when seven years afterwards (1750) he published his *Elementa Physices*. He then gave the explanation of evaporation in a phrase which has since been adopted,—the *solution of water in air*; which he conceived to be of the same kind as other chemical solutions.

This theory of solution was further advocated and developed by Le Roi;[6] and in his hands assumed a form which has been extensively adopted up to our times, and has, in many instances, tinged the language commonly used. He conceived that air, like other solvents,

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[5] *Opticks*, Qu. 31.

[6] *Ac. R. Sc.* Paris, 1750.