its centre 15 inches under water, moving three French feet per second, sustained a pressure of 14,54 French pounds, or 15,63 English. This reduced in the proportion of 3^2 to $2,56^2$ gives 11,43 pounds, considerably exceeding the 8,24.

Bouguer, in his *Manœuvre des Vaisseaux*, says, that he found the resistance of sea-water to a velocity of one foot to be 23 ounces *poids des Marc*.

Borda found the resistance of sea-water to the face of a cubic foot, moving against the water one foot per second, to be 21 ounces nearly. But this experiment is complicated: the wave was not deducted; and it was not a plane, but a cube.

D'Ulloa found the impulse of a stream of sea-water, running two feet per second on a foot square, to be 15¼ pounds English measure. This greatly exceeds all the values given by others.

From these experiments we learn, in the first place, that the direct resistance to a motion of a plane surface through water, is very nearly equal to the weight of a column of water having that surface for its base, and for its height the fall producing the velocity of the motion. This is but one half of the resistance determined by the preceding theory. It agrees, however, very well with the best experiments made by other philosophers on bodies totally immersed or surrounded by the fluid; and sufficiently shews, that there must be some fallacy in the principles or reasoning by which this result of the theory is supposed to be deduced. We shall have occasion to return to this again.

But we see that the effects of the obliquity of incidence deviate enormously from the theory, and that this deviation increases rapidly as the acuteness of the prow increases. In the prow of 60° the deviation is nearly equal to the whole resistance pointed out by the theory, and in the prow of