the expiration of this time, the effective ſignal for this movement is made by the commander in chief, and muſt be inſtantly repeated by the commanders of diviſions, and then the movement muſt be made by each ship, ac­cording to the sailing and fighting inſtructions. This muſt be done with the utmoſt attention and preciſion, bccauſe it produces a prodigious change in the relative poſition of the ſhips ; and even although the good ſenſe of the commander in chief will ſelect ſuch movements for accomplishing his purpoſe as produce the ſmalleſt alterations, and the leaſt, riſk oſ ſeparation or running foul of each other ; it is ſtill extremely difficult to avoid theſe misfortunes. To prevent this as much as poſ­ſible, each ſhip which has executed the movement, or which has come on a courſe thwarting that of the fleet, intimates this by a ſignal properly adapted, often add­ing the ſignal of the tack on which it is now standing, and even its particular ſignal of recognizance. This is particularly incumbent on the flag ſhips and the leading ſhips of each diviſion.

After a reaſonable interval, the commander in chief will make proper ſignals for bringing the fleet to a knowledge of their reunion in this new poſition.

This muſt ſerve for a general account of the circumstances which muſt be attended to in framing a code of ſignals. The arbitrary characters in which the lan­guage is written muſt be left to the ſagacity of the gentlemen of the profeſſion. It muſt be obſerved, that the ſtratagems of war make ſecrecy very neceſſary. It may be of immenſe hazard if the enemy ſhould understand our ſignals. In time of battle it might frequent­ly fruſtrate our attempts to deſtroy them, and at all times would enable them to eſcape, or to throw us into disorder. Every commander of a ſquadron, therefore, iſſues private ſignals, ſuited to his particular destina­tion ; and therefore it is neceſſary that our code of ſig­nals be ſuſceptible of endleſs variations. This is ex­ceedingly eaſy without any increaſe of their number. The commander needs only intimate that ſuch and such a ſignal is ſo and ſo changed in its meaning du­ring his command.

We cannot leave this article without returning to an obſervation which we made almoſt in the beginning, viz. that the ſyſtem of ſignals, or, to speak more pro­perly, the manner of framing this ſyſtem, has received much improvement from the gentlemen of the French navy, and particularly from the moſt ingenious thought of M. de la Bourdonnais, of making the ſignals the immediate expreſſions of *numbers* only, which numbers may be afterwards tiled to indicate any order whatever. We ſhall preſent our readers with a ſcheme or two of the manner in which this may be done for all ſignals, both day, night, and fog. This alone may be considered as a ſyſtem of ſignals, and is equally applicable to every kind of information at a diſtance. Without de­tracting in the ſmalleſt degree ſrom the praiſe due to M. de la Bourdonnais, we muſt obſerve, that this prin­ciple oſ *notation* is of much older date. Biſhop Wil­kins, in his Secret and Swift Meſſenger, expreſsly re­commends it, and gives ſpecimens of the manner of ex­ecution ; ſo does Dr Hooke in ſome of his propoſals to the Royal Society. Gaſpar Schottus alſo mentions it in his *Technica Curiosa ;* and Kircher, among others of his Curious Projects.

M. de la Bourdonnais’s method is as follows :

He chooſes pendants for his effective ſignals, becauſe they are the moſt eaſily displayed in the proper order. Several pendants, making part of one ſignal, may be hoiſted by one hallyard, being ſtopped on it at the di­ſtance of four or six feet from each other. If it be found proper to throw out another ſignal at the ſame time and place, they are ſeparated by a red pendant without a point. His colours are choſen with judge­ment, being very diſtinctly recogniſed, and not liable to be confounded with the addreſſing ſignals appro­priated to the different ſhips of the fleet. They are,

For N⁰ I. Red. For N⁰ 6. Red, with blue tail.

2. White. 7. White, with blue tail.

3 Blue. 8. White, with red tail.

4. Yellow. 9. Blue, with yellow tail.

5. Red, with 0. Yellow, with blue tail.

white tail.

Three ſets oſ ſuch pendants will expreſs every num­ber under a thouſand, by hoiſting one above the other, and reckoning the uppermoſt hundreds, the next below it tens, and the loweſt units. Thus the number 643 will be expreſſed by a pendant red with blue tail, a yellow pendant below it, and a blue one below the laſt.

This method has great advantages. The ſignals may be hoiſted in any place where beſt ſeen, and therefore the ſignification is not affected by the derangement of the flag ſhip’s mails and rigging. And by appropri­ating the ſmaller numbers to the battle ſignals, they are more ſimple, requiring fewer pendants.

As this nrethod requires a particular ſet of colours, it has its inconveniences. An admiral is often obliged to ſhift his flag, even in time of action. He cannot eaſily take the colours along with him. It is therefore better to make uſe of ſuch colours as every private ſhip, is provided with. One ſet of 11 will do, with the ad­dition of three, at moſt oſ four pendants, of ſingular make, to mark 100, 200, 300, 400. Two of theſe flags, one above the other, will expreſs any number un­der 100, by uſing the 11th as a ſubſtitute for any flag that ſhould be repeated. Thus the 11th flag, along with the flag for eight or for six, will expreſs the num­ber 88 or 66, &c. Thus we are able to expreſs every number below 500, and this is iuſſicient for a very large code of ſignals.

And in order to diminiſh as much as poſſible the number of theſe compound ſignals, it will be proper that a number of ſingle flag ſignals be preſerved, and even varied by circumstances of poſition, for orders which are of very frequent occurrence, and which can hardly occur in ſituations where any obſtructions are occasioned by loss of maſts, &c. And farther, to avoid all chance of miſtake, a particular ſignal can be added, intimating that the ſignals now exhibited are numerary ſignals ; or, which is ſtill better, all ſignals may be conſidered as numerary ſignals; and thoſe which we have juſt now called si*ngle flag signals* may be ſet down oppoſite to, or as expreſſing, the largeſt numbers of the code.

This method requires the ſignal of advertiſement, the annulling ſignal, the ſignal of addreſs to the parti­cular ſhip or diviſion, the ſignal of acknowledgment, the ſignal of indiſtinctneſs, of diſtreſs, of danger, and