This method requires the signal of advertisement, the an­nulling signal, the signal of address to the particular ship or division, the signa) of acknowledgment, the signal of in­distinctness, of distress, of danger, and one or two more, which in every method must be employed.

Another method of expressing numbers with fewer co­lours is as follows : Let the flags be A, B, C, D, E, F, and arrange them as follows :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A  1 | B  2 | C  3 | D  4 | E  5 | F  6 |
| A | 7 | 8 | 9 | 10 | 11 | 12 |
| B | 13 | 14 | 15 | 16 | 17 | 18 |
| C | 19 | 20 | 21 | 22 | 23 | 24 |
| D | 25 | 26 | 27 | 28 | 29 | 30 |
| E | 31 | 32 | 33 | 34 | 35 | 36 |
| F | 37 | 38 | 39 | 40 | 41 | 42 |

The number expressed by any pair of flags is found in the intersection of the horizontal and perpendicular columns. Thus the flag D, hoisted along with and above the flag F, expresses the number 40, &c. In order to express a greater number, (but not exceeding 84), suppose 75, hoist the flag C

E, which expresses 33, or 75 wanting 42, and above them a flag or signal G, which alone expresses 42.

This method may be still farther improved by arranging the flags thus :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A  1 | B  2 | c  3 | D  4 | E  5 | F  6 |
| A | 7 | 8 | 9 | 10 | 11 | 12 |
| B | — | 13 | 14 | 15 | 16 | 17 |
| C | — | — | 18 | 19 | 20 | 21 |
| D |  | — | — | 22 | 23 | 24 |
| E |  |  |  |  | 25 | 26 |
| F |  |  |  |  |  | 27 |

In this last method the signification of the signal is to­tally independent of the position of the flags. In whatever parts of the ship the flags D and E are seen, they express the number 23. This would suit battle signals.

Another method still may be taken. Flags hoisted any­where on the foremast may be accounted units, those on the mainmast tens, and those on the mizenmast hundreds. Thus numeral signals may be made by a ship dismasted, or having only poles in their place. Many other ways may be con­trived for expressing numbers by colours, and there is great room for exercising the judgment of the contriver. For it must always be remembered, that these signals must be ac­companied with a signal by which it is addressed to some particular ship or division of the fleet, and it may be diffi­cult to connect the one with the other, which is perhaps shewn in another place, and along with other executive signals.

One great advantage of these numeral signals is, that they may be changed in their signification at pleasure. Thus, in the first method, it can be settled, that on Sun­days the colours A, B, C, D, &c., express the cyphers

1. 2, 3, 4, &c., but that on Mondays they express the cy­phers 0, 1,2, 3, &c., and on Tuesdays the cyphers 9, 0, 1,
2. &c., and so on through all the days of the week. This mean of secrecy is mentioned by Dr. Hooke for the coast and alarm signals, where, by the bye, he shews a method for conveying intelligence over land very similar to what is now practised by the French with their telegraph.

It is equally easy to express numbers by night signals. Thus M. de la Bourdonnais proposes that one discharge of a great gun shall express 7, and that 1, 2, 3, 4, 5. 6, shall be expressed by lights. Therefore to express 24, we must fire three guns, and shew three lights. This iβ the most perfect of all forms of night and fog signals. For both the manner of firing guns and of exhibiting lights may be va ried to a sufficient extent with very few guns or lights, and with great distinctness.

Thus, for guns. Let F mark the firing of a single gun at moderate intervals, and *ff* a double gun, that is, two dis­charged at the interval of a second. We may express num­bers thus :

1. F.
2. F, F.
3. F, F, F.
4. F, F, F, F.
5. F,*f,f.*
6. F, F, *ff.*
7. F,*ff,* F.
8. F,*ff,* FF.
9. F,*ff,* *F,ff.*

10 *ff.*

100, &c., *ff,ff,* or *fff.*

It might be done with fewer guns if the *ff* were admitted as the first firing. But it seems better to begin always with the single gun, and thus the double gun beginning a signal distinguishes the tens, &c.

In like manner, a small number of lights will admit of a great variety of very distinct positions, which may serve for all signals to ships not very remote from the commander-in- chief. For orders to be understood at a very great dis­tance, it will be proper to appropriate the numbers which are indicated by signals made with rockets. These can be varied in number and kind to a sufficient extent, so as to be very easily distinguished and understood. It is sufficient to have shewn how the whole, or nearly the whole notation of signals, may be limited to the expression of numbers.

We have taken little notice of the signals made by pri­vate ships to the commander-in-chief. This is a very easy business, because there is little risk of confounding them with other signals. Nor have we spoken of signals from the flag ships whose ultimate interpretation is number, as when ships are directed to change their course so many points. Those also are easily contrived in any of the methods al­ready described ; also when a private ship wishes to inform the commander-in-chief that soundings are found at so many fathoms. In like manner, by numbering the points of the compass, the admiral can direct to chace to any one of them, or may be informed of strange ships being seen in any quarter, and what is their number. (b. b. b.)

Of late years, that is, within this century, a great im­provement has taken place in the signal department of the Royal Navy. The following brief memorandum on the sub­ject will give as general an idea on the subject as could be given without the introduction of coloured plates, and more copious explanations than are consistent with the plan of this work.

There are three volumes of signals in use in the navy ; one is called “ General Signals,” the other “ Night and Fog Signals,” the other “Vocabulary Signals, for the use of her Majesty’s fleet.” The *General Signals* consist of a set of numerical references, from 1 to 999, and contain all the most general orders relating to action, sailing, manœuvring, and every other evolution in use, either at sea or at anchor. All these signals are made by means of a set of numeral flags, from 1 to 9, with the addition of zero ; a set of divisional flags, to distinguish the different parts of a fleet ; flags to affirm signals, to annul them, and to prepare measures; in­terrogative, answering, compass, geographical, and horary pendants. These, with the union jack, compose the flags in use when the general signal-book is employed. All these flags and pendants depend upon their form and colour for their distinction, and are hoisted at the most conspicuous places for being seen, but seldom more than three at a time. Besides these, distant signals are made with square and tri-