wheels and pinions should be made to fit, and be so placed as to work properly into one another. To carry on this il­lustration, it may be said, that whilst the mainspring of na­val discipline is a sense of duty, even this strong motive would not be enough to produce the desired results, with­out the intermediate agency of an organised system of dis­cipline, the object of which is, to assign to each person on board a specific set of duties, all which shall contribute to the main purpose ; and, thus, as far as may be possible, to arrange and condense the energies of the whole into one course of uniform action, subject to the will of a supreme di­recting authority, who is responsible to the country at large.

in strictness, this well defined system of discipline be­longs only to the naval department of seamanship, but in a great measure it also applies, by transmission, to the mer­chant service, where it works by the joint agency of cus­tom, example, and the several interests of the parties con­cerned. So large a mass of the seamen of the country are employed in the navy, and so many naval officers are employed in the merchant service in peace ; and as seamen, by the very nature of their lives, are perpetual­ly changing from one service to another, a kind of amal­gamation insensibly takes place, and thus the discipline esta­blished on board our ships of war, under the sanction of of­ficial authority and long established usage, pervades, more or less, the whole profession of the sea. In this view of the matter, the improved discipline of the navy has an import­ant bearing on the well-being of the country, in all those relations connected with our insular situation ; just as it might, by no strained analogy, be said, that the education, discipline, and fixed doctrines of the Established Church, have a salutary influence on the religious interests of the country, into whatever number of sects the population may

be nominally divided.

The details of this branch of our subject might, we think, easily be made very interesting, but neither our space, nor the purpose of this Appendix, will admit of its being done here. We must content ourselves then, with saying that of late years great pains have been taken to raise the moral character of seamen by education, and by teaching them the advantages of sober and orderly habits, to beget a feeling of self-respect, which is at the root of all good discipline. Reli­gious instruction, gently applied, and without any of that high- pressure cant, of which the sailor, of all mortals, has most abhorrence, has been most beneficially introduced. Light general reading has become general afloat, as well as ele­mentary instruction ; and there cannot be a doubt that the seamen are in consequence more correct in their moral conduct. The whole system of punishments, too, has been much modified ; for in place of the lash which, at one time, regulated everything, a desire to prevent crime, and to lead the sailors to act from principle, have been substituted with great effect. In fact, when such a spirit as we have just al­luded to, however engendered, pervades the captain, offi­cers, and petty officers, the sailors, forming the mass of the crew, readily fall into the same current of duty, and all goes on cheerfully. The power of using corporal punish­ment exists still, and that it ever must exist in the navy, is the opinion of every person well-informed on the subject, and who knows the character of seamen and the duties which are required of them on board a man-of-war. There are no persons more fully convinced of this necessity than the sailors themselves, or who are more sensible that, under the wise and benevolent modifications now officially established in the navy, it is by far the most effective, and at the same time the most gentle, method of preserving order amongst those refractory subjects who unfortunately are to be found in every ship. Without the power of occasional corporal punishment, we conscientiously believe, it would be quite impossible to restrain such persons within any bounds of decency, or to prevent them from becoming a curse to

those about them, whilst their lawless habits would unsettle the arrangements of the best regulated ship in the fleet, and, in the end, render her, instead of a bulwark to defend the country, a source of national weakness and dishonour.

Since the peace of 1815, all the maritime nations of the world have been gradually increasing the size of their ships of war, and adding to their weight of metal. Recently, too, the use of shells has been introduced afloat ; a measure of questionable policy on the part of that nation which com­menced it, but which we, and others, are of course obliged to adopt. The shells are not, as heretofore, fired from mortars only, but are thrown from the long guns used in ordinary warfare in projecting solid shot. How far this new weapon may modify the seamanship of naval engage­ments we are not prepared to say. In the mean time, great pains have been taken to train a large body of seamen gun­ners, including of course a proportion of highly-educated officers of all ranks; whilst guns of the most approved calibre for shell practice, have been placed on board every ship in the navy. The establishment of this new system of exer­cise, through the agency of an express gunnery department of instruction, and the manner in which it has been enforced in all our ships, have produced a marked effect on the habits and character of the seamen throughout the fleet.

Before closing it may be expected that we should say some­thing of the probable influence of steam navigation on naval warfare ; and we do not shrink from committing ourselves by an opinion on this point, though it be one much disputed amongst professional men. Our notion is, that the introduction of steam will make no difference whatever in the result of any contest in which we shall be engaged, however the means may be modified thereby. The battle must still be fought, as it al­ways has been, and ever must be fought, by large bodies of disciplined men, properly led, and properly armed ; and the victory, as formerly, will be decidcd in favour of those who have the best national spirit to urge them on, or who, being equal in this respect, bring the greatest number into the field. Line-of-battle ships, in this view of the subject, are merely convenient vehicles in which warriors are brought, hand to hand, to settle their differences by hard fighting. Steam will enable them either to come together more quick­ly, or to avoid coming together at all, as the case may be ; but neither steam, nor any other mechanical agency, will ever dispense with the moral agency of trained men, by whose conduct and courage alone the issue of all wars must be de­termined. We have heard it suggested, and we think with not less probability than ingenuity, that steamers in war will take the same place in fleets that cavalry have long done in armies. It is a very important place, no doubt, but it is not one which decides the eventual fate of the war ; *Chat* is always the work of the infantry. The cavalry pro­tect the flunks, and otherwise help the infantry to get into action with that of the enemy opposed to them, and when these are broken, they cut in upon them and do much exe­cution. In like manner, armed steamers will guard the edges of fleets, tow three-deckers into action, and, when the enemy is discomfitted, will come in with desperate effect to reap the iron harvest. Still we contend, that the great battle which decides the fate of empires, must ever be fought by men, that is, by numerous bodies of disciplined men acting together, duly led, and fighting under the in­fluence of national sentiment. It is impossible to impart this sentiment to machinery; and though we do not deny that, occasionally, a steamer, armed with guns of enormous calibre, may grievously annoy a line-of-battle ship in a calm, or under some other untoward circumstances, we are fully sa­tisfied that by proper arrangements, every sailing ship may be so armed and worked, that the moral and physical agents on board of her will prove an overmatch for that power which relies, for its superiority, on its mechanical machinery alone. We have no doubt, too, that ere long steam engines will