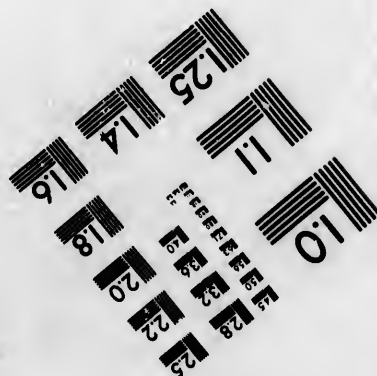
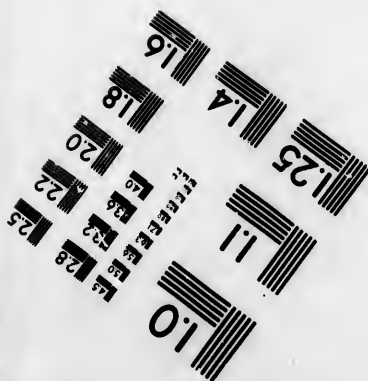
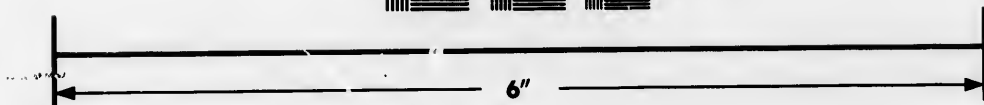
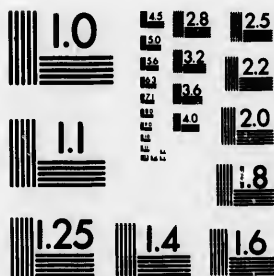


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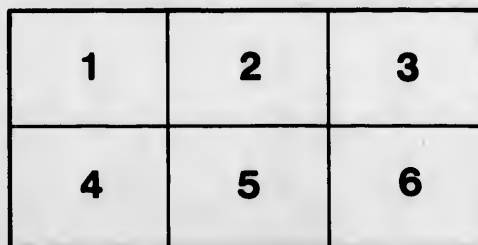
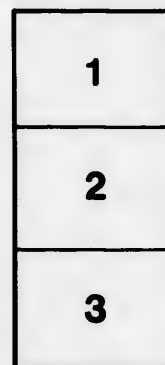
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N

*Admiral Stanley*  
*from the Author*  
REMARKS

ON

THE CONDUCT

OF THE

NAVAL ADMINISTRATION

OF

GREAT BRITAIN

SINCE 1815.

BY A FLAG OFFICER.

---

WITH A PREFACE

BY

REAR-ADMIRAL BOWLES.

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FAS EST ET AB HOSTE DOCERI.

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THIRD EDITION.

LONDON:

JAMES RIDGWAY, PICCADILLY.

1847.

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## PREFACE TO THE THIRD EDITION.

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SINCE the publication of a small pamphlet last year, the chief object of which was to vindicate Sir R. Peel's Naval Administration, and to prove that the exertions made during that period, both for the improvement of our great maritime arsenals, and the increase of our Navy, deserved the gratitude of the country, many of my friends have pressed me to undertake some more extended and popular observations on this subject, in the hope of dispelling the erroneous impressions which prevail on many important points, and directing public attention to those great questions which are at present almost entirely lost sight of, amidst the petty political and personal attacks with which our newspapers daily teem. I at first declined a task which I foresaw might, if fully and conscientiously executed, involve me in disputes and controversy; but on further consideration, I could scarcely feel justified in refusing to lend my assistance (such as it may be), where the object to be attained is so vitally important, and I was encouraged by the recollection of the success which attended a similar effort made by me on a former occasion, when having, in a pamphlet (to which I did not then affix my name), endeavoured to draw the attention of the public



towards many points in the conduct of our Naval Administration, which at that time (1830) appeared to me dangerous and objectionable, I had afterwards the secret satisfaction of observing that almost all my suggestions were gradually adopted; and I have thought that I should be enabled to place my subsequent observations in a clearer point of view, if I republish, on the present occasion, the Remarks to which I have alluded, and thus enable my readers to divide into two distinct periods, the measures pursued by our Naval Administration from the Peace of 1815 to 1830, and from thence to the present time. They will observe that, during the former period, my suggestions were chiefly directed to the following points.

The inferiority of our Naval Architecture *generally*, and more particularly the disparity of our frigates and smaller vessels, when compared with those of other nations.

Our neglect of artillery practice, and disregard of the recommendations of various officers (but more especially Sir Howard Douglas), on this subject.

The necessity for assembling an annual squadron for exercise and instruction.

Our backwardness with respect to the commencement of a Steam Navy.

The unnecessary haste with which our newly commissioned ships were hurried off to foreign stations, in an imperfect state of discipline and equipment, overloaded with stores and provisions, and too little

prepared for any sudden emergency ; and I recommended a more careful and detailed inspection immediately previous to their sailing, which would guard against this evil.

I suggested some improvements in our code of Naval discipline (which were very soon afterwards introduced), and I took a short review of the Naval preparations and improved systems of foreign Powers as contrasted with our own. If those who may honour these pages with a perusal will turn, in the first instance, to those Remarks, they will then be enabled to accompany me more readily in the historical glance which I now propose to take over subsequent events.

A new Administration came into power in 1830. Sir J. Graham was appointed First Lord of the Admiralty, having Sir T. Hardy, as Senior Naval Lord, under him ; and a series of measures were soon afterwards undertaken for remedying many of the evils, of which they were fully aware.

The construction of small frigates and ten-gun brigs was entirely stopped. The School for Naval Artillery was established at Portsmouth, on board the *Excellent*, on the exact plan proposed and sketched by Sir Howard Douglas. A squadron of exercise was fitted out, and towards the latter end of 1831 we commenced that progress of improvement in our Naval architecture, which bids fair to place us as far in advance as we formerly were in arrear of our maritime rivals.

I would by no means assert that our new ships are perfect, or that farther modifications of their shape may not correct some defects complained of; yet when I observe their great superiority in almost every important quality, the ease with which they carry their heavy armament, their stability, fast sailing, roominess, and stowage, I am much inclined to suspect that the future alterations will be few and trifling; and I am more strongly led to this opinion by observing how closely they are copied by all later competitors, and that no one ventures to reject the great advantage of their bold increase of breadth.

The result of the change of system which has taken place since 1830, may be thus recapitulated. We have entirely abandoned the construction (and I hope the repair) of all those classes of ships which, from their great inferiority in size and force to those of other maritime nations, were no longer calculated to maintain our Naval superiority. Our new ships of the line, of all classes, are such fast sailers, that decisive actions will be brought on with much more facility than formerly, when the slowness of a great proportion of our fleet (and of the three deckers more especially), so frequently perplexed and retarded our manœuvres; our large frigates are most powerful and effective ships, and only require to be increased in number without delay, while our corvettes of twenty-eight guns (carrying, as all the new ones will do, two long guns on the upper deck, to enable them to reach steamers) will be equal to anything

of their class belonging to other nations, and will, I hope, supersede those infinite varieties with which our Navy has hitherto abounded, and which have, from their diversity of equipment, formed a source of perpetual expense and perplexity in our dock-yards, as well as a constant obstacle to that uniform system which we have been endeavouring to establish since 1832, with respect to the masts, yards, &c. throughout the service.

With respect to our smaller vessels, it has now become so obvious that almost all the duties required from them during former wars must in future devolve on steamers, that it would, in my opinion, be an unjustifiable expense to keep up so large an establishment as heretofore. The protection of our coasts and coasting trade will be confided entirely to steamers, and on all foreign stations they will also, in all probability, gradually supersede small sailing vessels. Our best policy will, therefore, be to avoid increasing the number of sloops and small brigs beyond the actual wants of the service during peace, and to confine our new constructions to brigs of the largest class, the only ones now equal to those of other nations. Our future Navy would then consist of one class of three deckers, one (or at most two classes) of two-deckers; one of large frigates; one of twenty-eight gun corvettes; and one of eighteen gun brigs.

We have still so much to learn with respect to steam vessels, that I will not venture to offer any decided opinion upon the classes and dimensions to

which it may be advisable to restrict ourselves in future, but the enormous cost of the *Terrible*, and others of that description, leads me to think that equal advantages may be obtained at a much smaller expense; because it is obvious, that in the present state of maritime warfare, steam vessels will be auxiliaries rather than principals in Naval engagements, and that arming them with any large number of broadside guns, will only tempt them to expose their most vulnerable points to the enemy's fire. I am therefore inclined to think that the largest class should not exceed 1600 tons; while our great endeavour should be, to obtain the most buoyant form with the lightest draught of water, and that the bows and sterns are so shaped as to ensure the greatest amount of head and stern fire. And as soon as experience has determined the simplest, lightest, and most enduring engine, producing in vessels of the same form and construction the greatest velocity, it should be very generally introduced, taking all possible care that each part is identical, and applicable to every vessel of the class to which it belongs.

I doubt the advantage of continuing the construction of ninety-gun ships on two decks. They are in all respects nearly as expensive as three deckers, and their superiority in sailing is not (as was expected) so great as to counterbalance the loss of a whole battery. The *Rodney* (the first of this class built by Sir R. Seppings) sails indifferently; the

Queen has, during the trials of the last two years, been generally equal, if not superior, to the Albion ; and if the sailing of our first-rates can (as I see no reason to doubt), be relied on to this extent, their superiority in action is very decisive.

Our frigates of thirty-six guns, built at a period when we could not screw up our courage to construct larger ones, are so inferior to those of all other nations, that I recommend their entire discontinuance. We cannot reasonably suppose they will beat French or Americans of nearly double their force, and yet they will be expected to try. Fortunately we have very few of them, and I hope we shall build no more ; but a very considerable increase in the number of our large frigates is so indispensable, that I trust no time will be lost in supplying our deficiency in this respect. It appears scarcely credible that between 1830 and 1841 only one ship of this class (the Vernon) was built ; and although two have since been launched, and several others are in progress, it should be remembered that the French Navy is still very superior to our own in this description of vessel, so important at the commencement of hostilities. In determining on the model to be preferred in our future constructions, I trust we shall proceed with more caution, patience, and seamanlike discretion than has hitherto characterized our proceedings on similar occasions. A new experimental ship should never be sent to a foreign station until she has been

subjected to a careful and prolonged trial at home. Some alterations of stowage, the position of the masts, and various other points which I need not enumerate, will always be found necessary before the ship is brought to her best sailing and working trim ; and it is one of the great advantages of our present system, that our new ships can be carefully tried in the squadron of exercise, sent into port for any alterations which may be considered advisable, and no longer hurried off to distant stations in almost total ignorance of their good qualities or defects. We are now endeavouring to place our Navy on the highest possible footing, both in point of force and efficiency ; but immense sums of money will be wasted, and our object, after all, only imperfectly attained, if we neglect those precautions which common sense and prudence so obviously dictate.

In my opinion, our new ships, after being fully tried and reported on, should be carefully laid up, and our halfworn ones (of which we have but too many) brought forward for service during peace. Our whole Navy will soon be *half worn* if we continue our present system, under which a very large additional expense is incurred by perpetually repairing our decaying ships at home, while we are wearing out our new ones abroad.

It is not sufficiently considered how rapidly old ships deteriorate by remaining in ordinary under these circumstances ; whereas, if they were kept on

service as long as they will last without a repair beyond their value, and on their return from abroad immediately taken into dock and refitted, a very great saving would be effected, not only by checking incipient defects and decay, but by preserving great quantities of stores and fittings of all descriptions, which, when the ship is laid up, become lost to the service. I doubt extremely, whether we do not lose much more than we gain by our excessive haste to pay off ships which have been perhaps three or four years abroad, but are still in good condition, and only require a slight repair; and whether, under improved management, they might not be refitted and sent to sea again in less time, and in a state of order and efficiency far exceeding that of our newly-commissioned ships, many of which are two and three months fitting out, and are consequently more expensive. If this plan were adopted, we should no longer see fine and well-disciplined ships' companies disbanded and dispersed, after a period of service barely sufficient to complete their training and organization; and although many changes of officers and men would necessarily take place, the discipline and arrangements of the ship would never be entirely broken up—a large proportion of the crews would either remain or return—the total destruction of everything which cost so much time, labour and money, to establish and perfect, would be almost entirely avoided—the trim and proper stowage of the ship would be known and preserved, and the principal defects of the hull being pointed out to



the officers of the yard, much unnecessary expense in examination would be saved.

It should be an invariable rule to order ships returning from foreign stations to the ports where they were last repaired, and where alone their weak points can be accurately known. A very heavy outlay is often incurred in the repair of ships, by an unnecessarily minute and rigid examination, which would have been prevented by a previous knowledge of the nature and extent of the last repair, the quality of the timber used, &c.; and I will here remark, that considering the very large expenses annually incurred in building, repairing, and altering ships, a most careful revision of the practice now pursued in our dockyards is urgently required, not only for the purpose of introducing a system of better-considered economy, but also greater regularity and uniformity throughout those establishments, and preventing, as far as may be possible, the many conflicting and contradictory orders by which so much confusion is created, time lost, and expense incurred.

The revision I recommend ought not to be delayed, but I do not hesitate to assert that efficiency and subordination will never be thoroughly established in our Naval arsenals until all politics and electioneering are completely banished from them, by placing all those employed within their walls under the same incapacities as the Revenue departments, and thus breaking up the partiality, favour, and jobbing, which now so notoriously prevail.

The success of our School for Naval Artillery has been in the highest degree satisfactory, and has led to the instruction of the whole corps of Royal Marines in artillery practice, on similar principles. If this system is fully carried out, and improved to the extent of which it is capable, by providing practising ground for all the divisions, our Marines, when embarked, will be found thoroughly acquainted with the use of the great guns, and most useful auxiliaries to the officers and men sent from the Excellent to our newly commissioned ships.

Political events, and the necessity, real or imaginary, for keeping a large force in the Mediterranean (the "Capua" of the British Navy during peace,) have, during this second period,\* too often prevented the assembling for exercise a sufficient number of ships to instruct our younger officers in the evolutions and manœuvres of a fleet.

We appear to have been equally unaware of the vital importance of this latter object, and of the extreme danger to which we exposed ourselves, by leaving our coast and arsenals wholly unprotected, while every disposable ship was beyond the Straits of Gibraltar; and it is impossible to insist too strongly, or too earnestly, on the deep responsibility which any Government will incur, if the system lately established is departed from, and our Home Squadron—our only reserve force—broken up, and dispersed on foreign service.

It was to our state of perfect preparation last

\* Between 1832 and 1844.

year, that we owe the peaceful termination of our differences with the United States ; and although I am no alarmist, and very sincerely deprecate any hostile feeling towards France, I ought not to conceal the important fact, that the Government of that country is preparing with all possible rapidity, and regardless of expense, for great Naval operations ; that all their establishments and arrangements (more especially those which relate to steam vessels) are on the largest and most formidable scale ; and no reasonable doubt can be entertained that all these preparations are well calculated to realize the aspirations and hopes of a strong party, who look eagerly forward to a favourable opportunity for avenging past defeats by some sudden and disgraceful blow, while this country, weakened by domestic discord, and perplexed by political feuds, appears too much inclined to postpone or neglect all those measures of precaution which the change of circumstances so imperiously demands. It seems but too probable that this session of Parliament, like the last, will be suffered to pass over without maturing even those preliminary arrangements, which are indispensable for enabling the Government to call out the Militia on any sudden emergency, while that more perfect and general organization of our maritime population, by which alone an enterprising enemy can be deterred from insulting our coasts, appears to be altogether lost sight of. It is in the earnest hope of awakening my countrymen to the consideration of

these important facts, while we have still time to adopt the necessary measures for guarding against national danger and disgrace, that I reluctantly obtrude myself on their attention. It is our duty to our allies, to Europe, and, indeed, to the whole civilized world, that our defensive precautions should be at least as complete as those of the Continental Powers, and that the general peace should not be endangered by any supineness or want of foresight on our part, which may invite or encourage attack.

It will be, perhaps, convenient to recapitulate in conclusion, the points to which I am most anxious to draw the attention of my readers and the Executive Government.

The first is the necessity of having always at home, or within reach, in a state of perfect preparation, a squadron of reserve and exercise of at least its present strength.

That our arrangements for raising men rapidly on any emergency should be matured and complete : at present they are sadly primitive and imperfect. Whenever seamen are wanted in larger numbers than usual we merely open some public-houses as rendezvous, and send a few officers of inferior rank to the out-ports on this temporary service. In 1845 six months had elapsed before six ships of the line were (some of them but indifferently) manned.

It is, nevertheless, obvious that on any sudden alarm, or probability of war, our first preparations,

and the equipment of our first squadrons must depend entirely on the rapidity with which volunteers are collected by officers accustomed to this peculiar service, and who may be depended on, not only for energy and exertion, but also for such a careful selection of healthy and able-bodied men as would prevent the delay and disappointment so often experienced on similar occasions, but which might be attended with such serious consequences on an emergency of this nature. It is equally certain that officers hastily selected, and hurried off to parts of the country of which they have no knowledge, and where they are themselves unknown, must inevitably act under very great disadvantages ; and my recommendation, therefore, is that a permanent Recruiting Staff should be formed, which, dividing the United Kingdom into districts, and having head-quarters at all the great mercantile ports, may be constantly entering and forwarding seamen of the best classes in such numbers as the service may require during peace, but whose still more important duty would be to ascertain and report the probable number of men they could raise whenever circumstances occurred demanding extraordinary exertions.

I imagine that the whole kingdom might very conveniently be divided into eight or ten districts having their respective head-quarters in London, Liverpool, Bristol, Newcastle, Yarmouth, Leith, Glasgow, Cork, and Belfast ; and I should propose placing them in communication with the Inspecting

Commanders of the Coast Guard, from whom they ought to receive much important assistance and information, and whose more exact and minute local knowledge would be found extremely valuable in perfecting an arrangement of this description, as well as a great saving of expense ; for this is a service they can very easily perform without any risk of their attention being withdrawn from their own more special duties. I should recommend that the officers employed on this service be most carefully selected. They should be either Captains or Commanders, and as far as can be ascertained of kind and conciliatory tempers and manners ; because I feel confident that if they conduct themselves with propriety and discretion in the execution of this duty, and shew themselves on all occasions the friends and advisers of the seamen in their districts, they will soon acquire much influence and popularity amongst them, and be thus enabled to perform the duty entrusted to them with more usefulness and effect.

Nothing formerly checked and discouraged the entry of seamen so much as the manner of their conveyance from place to place in small miserable vessels without decent accommodation, or even shelter from weather. This has been since in a great degree remedied, but it still requires the careful attention of the Admiralty.

Having thus stated the principal features of the plan, I am desirous of seeing carried into execution,

as well as my arguments in favour of it, I will only add that I contemplate no expense whatever beyond such a remuneration to the officers employed as might be considered advisable, and which at most could not amount to more than the difference between their half and full pay.

It has been suggested that the establishment of Sailors' Homes on the model of that now existing in London might be useful at the ports where ships are usually paid off; but although I believe no advantage would be derived from such a measure, as regards the mere boarding or lodging of seamen, who in general on being discharged very soon proceed to London, yet there is one part of Captain Elliot's system, which might be very usefully put into operation at Portsmouth, Devonport, Chatham, &c., namely, affording all possible assistance to seamen in the care and remittance of their money,\* and by this means protecting them from plunder and loss, and I would therefore propose that an officer be stationed at each of those ports for this purpose, who might be considered by seamen as their friend and adviser on these occasions, as well as when they were in want of employment, and who would thus be able to impress on their minds a confidence in that Government by whom he

\* I am perfectly aware that men are asked at the pay-table, whether they wish to remit any part of their pay to their friends, but this is done at a moment of hurry and excitement, and does not fully meet my views.

was employed for their advantage and protection, and also be enabled by his constant communications with them to retain in the service large numbers of those men, whose training and discipline render them doubly valuable, but who, under our present system are too often entirely lost to the Navy.

I further recommend that all trials of experimental ships should be more carefully and patiently conducted, and full opportunity given for every alteration necessary to ascertain their qualities, before they are finally reported upon by the officer commanding the squadron of exercise, under whose eye all these trials should be carried on.

To these suggestions I will only again add my recommendation for the adoption of an improved system of inspection of all ships ordered on foreign service immediately previous to their sailing, and that the inspecting officer be specially directed to report whether the decks are clear and unincumbered, the ship in all respects prepared for action or bad weather, and the officers and men in possession of their proper accommodation; and I insist strongly on these points, because I know that none of them are sufficiently attended to, and that many of our ships (especially the smaller ones) often sail so overcrowded and encumbered with supernumeraries, stores, and provisions, that they are not only dangerously deep, but also very soon become sickly, while a great loss is frequently incurred by damage



to those perishable articles unavoidably placed in situations exposed to wet and other injury.

I had at first contemplated the omission of the introductory prefaces to the first and second editions, but having been strongly advised by a friend, in whose judgment I place great confidence, to republish my Pamphlet exactly as it originally stood, I have made no alteration whatever. I will conclude by repeating, in the words which I then used, (and which are so much more applicable now) my earnest hope that by exciting the public attention to the errors and omissions which I have endeavoured to point out, I may in some small degree contribute towards averting the dangers to which I confess I cannot look forward without apprehension, and that now, as well as at that time, the warning voice of an officer devotedly attached to his country's service, may not be raised in vain.

## INTRODUCTION

### TO THE FIRST EDITION.

THE following pages constituted the principal employment of the Author during the last year of a long life passed in the almost constant service of his country, down to the period from which he commences his Remarks ; and they are submitted to the Public as nearly as possible in the shape in which they were found at his decease, except that he had arranged, in the form of notes, such copious extracts from the letters of his correspondents both abroad and in England, for the purpose of corroborating his own statements, that it was found impossible to insert them without incurring a greater expense in the publication than had been originally contemplated. Many extracts from modern French works on naval subjects\* have been omitted for the same reason.

The Editor is not aware that any reason exists for suppressing the name of the Author ; but as a draught of the title-page as it now stands was found with the manuscript, his family thought that they should best conform to what appeared to have been his intention, by making no alteration.

\* Dupin, Tupinier, Annales Maritimes, &c. &c.

## P R E F A C E

TO THE SECOND EDITION.

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A Second Edition of these Remarks having been already called for, the Editor embraces this opportunity of expressing his gratification at this proof of the favourable reception they have experienced, as well as at the numerous testimonies of approbation which have come to his knowledge. He has been most happy to find, that the deference and partiality with which he has always been accustomed to receive the opinions of their lamented Author, have not misled him on the present occasion, and that the unanimous voice of his profession has been in accordance with those feelings which induced him to lay this work before the Public.

The tone and temper in which some inquiries after the name of the Author have been made, tend more fully to convince the Editor of the propriety of his original determination to suppress it. The question at issue is a public, and most important one, and it shall not be lost sight of in a personal controversy, which, however

skilfully it might be conducted, cannot affect the accuracy of the facts stated in the "Remarks."

To these no answer has as yet been attempted, and the Editor has therefore only thought it necessary, in reply to a letter which appeared in the Times, and some subsequent remarks in the Portsmouth Telegraph, to insert, at page 51, a short paragraph explanatory of the Author's views on the subject of inspections of newly commissioned ships, previous to their leaving England for foreign service, and to which the present practice of merely mustering the crews bears no sort of analogy.

Of those who are for keeping everything as it is, and who, from indolence or prejudice, oppose all changes, the Editor begs leave to ask how they will be able to justify their conduct, when a few such paragraphs as the following shall have appeared in the newspapers?

*"New York, 183 --- .*

"We are happy to announce to our readers the gratifying intelligence of another naval triumph. The United States frigate, St. Lawrence, of forty-four guns, Captain ———, has arrived this morning with her prize the British frigate Mercury, of forty-six guns, Captain ———, which she captured off Cape Finisterre, on the ———, after a severe engagement, in which the Mercury lost about one hundred and fifty men killed and wounded, and was completely dismasted, but the St. Lawrence has only eight men killed and twenty wounded, and

has not suffered very materially in her masts or riggings.

“The British officers complain heavily of their Admiralty, by whom they were refused a few days time to exercise and discipline a raw ship’s company, composed of newly impressed men. They were told they might do this at sea, and the captain was threatened to be superseded if he made any further difficulty. They sailed in bad weather, and met the *St. Lawrence* the second day afterwards.”

“*Portsmouth, June 183—*

“We regret to state that accounts have been received of the capture of His Majesty’s ship *Tyne*, of twenty-eight guns, by the United States corvette *Concord*, of twenty-two. The official letters have not yet arrived; but it appears that the *Tyne* was to leeward, and at first chased the *Concord*, which ship, on making out the *Tyne*’s force, allowed her to approach within reach of her long twenty-four-pounders, and then keeping, by superiority of sailing, a sufficient distance on her weather beam, completely dismantled her, taking care not to close until the *Tyne* became entirely unmanageable. We hear the *Tyne*’s loss is dreadful: almost all the officers, and above half the ship’s company, being killed or wounded before the colours were struck.

“We deeply regret to inform our readers, that

accounts have also been received of the capture of His Majesty brig Curlew, of ten guns. She was taken after a severe action by a schooner privateer carrying six carronades, and one long eighteen-pounder, and one hundred and twenty men."

THE EDITOR.

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*August 2d, 1830.*

The foregoing pages were on the point of being forwarded to the printer, when I received this this morning the last U. S. Journal, containing the reply of Sir R. Seppings, to that part of the "Remarks" which comments on the construction of His Majesty's ships of war ; and, pressed as I am for time, I cannot but offer a few observations in answer to his letter.

In the preceding part of this Preface I have already said every thing which appears to be necessary on the personal part of the question. Sir R. Seppings must be fully aware, that in this free country, the public measures of public men form a legitimate subject of public discussion ; and while that discussion is conducted with temper and courtesy, it is not usual to manifest any feelings of personal umbrage or hostility.

My knowledge of the Author of the "Remarks" enables me to inform Sir R. Seppings, with equal truth and sincerity, that he was one of those most

especially intended to be assured, both in page 30, and several subsequent passages, that full justice was rendered to his ability, zeal, and exertions ; and as his name only occurs once in the whole pamphlet incidentally, as the constructor of the *Pylades*, I hardly see why he attributes so exclusively to himself the responsibility which it may be supposed attaches equally to his colleagues in office.

With respect to his observations, which I will take in the order they occur, I remark, first, that a reference to the pamphlet will shew that the author did not profess to have any accurate knowledge of the particulars of the first experiment, and consequently passes over the subject in a very few words ; but as Sir R. Seppings alludes only to the *final* cruise, I may perhaps venture to ask, if he will tell us the result of the *preceding* ones, and whether the *Pylades* was not at first “ deficient in many important points, and requiring great alterations before she could be brought to an equality with others of a similar class :” and I may also inquire what character the *Pylades* has maintained on the Cork station, where she has been frequently tried by Sir C. Paget against the same *Orestes*, as well as several other corvettes ?

Sir R. Seppings so completely confirms the statement in the “ Remarks,” with respect to the limitations prescribed to the constructors, (Captains Hayes, Symonds, &c.) that the only point in dispute appears to be, whether these limitations were those

which ought to have been imposed. Sir R. Seppings must be fully aware that many able naval architects consider the present system of tonnage measurement totally false and erroneous; and he also probably knows that in the case in question, while by this rule the Columbine was called a sloop of four hundred and ninety-two tons, the Satellite appeared to be four hundred and fifty-five only; yet the Columbine's light displacement (or weight of the shell when launched) was only two hundred and fifty-seven tons, while that of the Satellite was two hundred and ninety-two.

	Feet.	Inches.	
The Satellite was	112	3	long
and	30	6	broad.
The Columbine only	105	6	long
but	32	2	broad.

And it was the difference of breadth which gave the fallacious result as to tonnage. Why should not Captain Symonds have been allowed to build his ship as long as the Satellite, and as broad as he thought necessary? But this he could not do under the prescribed limitations.

I perfectly agree with Sir R. Seppings in thinking that the advantage of increased breadth may be lost by mal-construction.

In the character given of the Tyne by Sir R. Grant, after an experience of three years, it appears that "she steers easy, wears and stays well, rides well at her anchors, stands very well under her



sails, and is an excellent sea-boat ;” but the trifling qualities of sailing and stowage appear to be omitted, and were probably considered of little consequence, as she was built for “*general purposes.*”

Will Sir R. Seppings try her against the Nimrod, a ship of precisely the same class, but without her weight aloft ?

Sir R. Seppings complains, in conclusion, of a want of fairness and candour on the part of the Author, in not noticing the excellent sailing qualities of the Acorn and Satellite. I have looked through the correspondence on this point ; and the result convinces me that the Acorn and Satellite, although subsequently (as stated in page 48) very considerably improved, did not at first shew any superiority, but the contrary.—If this statement is incorrect, it may be easily disproved by the official reports.

# REMARKS,

ETC.

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DURING the time I have been employed in arranging the following remarks on the conduct of our naval administration since the peace of 1815, it has often occurred to me to consider whether the subject is in itself of sufficient importance, and the errors which I intend to point out of sufficient magnitude, to justify an individual situated as I am, without command or responsibility, in arraigning his superiors at the bar of public opinion, and charging them with serious mistakes in the performance of their official duties.

I have very frequently and seriously asked myself these questions; and the only reply which has suggested itself is, that, in the first place, no one will, I think, deny the undoubted importance of the question to be discussed; and secondly, as far as regards myself individually, I can most conscientiously disclaim every motive which in any way partakes of personal or political feeling. My advanced age entirely precludes my looking forward to further service in any capacity. I am not soured by disappointments; for my services, such as they are, have

been rewarded to the full extent of my wishes or expectations. I have no resentments to gratify, and I can therefore truly declare that I am induced to enter on the present discussion solely and entirely from a deep sense of its paramount importance to my country ; and that I should infinitely have preferred silent approbation, had it been possible, to the invidious task which I am reluctantly undertaking.

Let me, however, before I commence my observations, assure my readers, and especially those to whom I may appear to impute blame, that I write these pages under a full conviction of the difficulty of directing so great a department as that over which they preside, in such a manner as to secure universal satisfaction ; and although I should wish to see some important alterations, yet I am perfectly aware that, at no former period of peace, was the British navy in many points in so satisfactory a state, or in better preparation for any sudden emergency. I render therefore full justice to those by whose zeal and exertions this result has been obtained ! and if, in the course of these remarks, I am thought to censure too severely those to whom much national gratitude is due, I trust they will attribute any involuntary warmth of expression to the natural anxiety and earnestness of an old officer, who fears that we are too pertinaciously adhering to antiquated systems, and not sufficiently attentive to the changes which are operating around us.

I write with all the advantages which my having been an eye-witness of former errors and mismanagements can confer. I remember the commencement of the two last wars in 1778 and 1793, and the circumstances which I shall presently state will, I think, convince my readers that, at both the above-named periods, many opportunities of achieving brilliant successes were lost, and incalculable injury inflicted by our enemies on our commercial marine, in consequence of the vicious system which at that time prevailed to the greatest extent (and is even now far from being totally eradicated), of adhering to old models and old classes in the construction of our ships of war, instead of carefully observing the improvements introducing around us, and more especially amongst our most formidable rivals. A few instances will suffice:—After the peace of 1763, when the combined fleets of France and Spain had been almost totally destroyed by a series of reverses unparalleled in naval history, and terminating with the surrender of an entire fleet at the Havannah,\* these two powers were of course obliged, during the fifteen years which ensued, to create an entirely new navy ; and within the same period ours was also nearly rebuilt, but on such different principles, that when war again broke out in 1778, we very soon found ourselves completely overmatched, not only in the numbers, but in the description of ships with which they opposed us.

\* Taken, nine ships of the line ; sunk, three ; building, two.

We had gone steadily on pursuing our old plans, building and repairing small ships of the line, sixty-fours and fifties, while almost all their new two-deckers were at least seventy-fours, with a very formidable sprinkling of heavy eighty-fours in their line, carrying twenty-four-pounders on the main deck, and of course very decidedly superior to ours. When Count D'Estaing appeared on the coast of America, in 1778, with twelve sail of the line, he had two eighty-four gun ships, six seventy-fours, three sixty-fours, and one fifty-four; while Lord Howe's fleet of thirteen consisted of one seventy-four, seven sixty-fours, and five fifties; numerically, indeed, superior, but so much the reverse in point of actual force, that that brave officer did not venture to engage them until he could find an opportunity of bringing his fire-ships in aid of his attack. And a most convincing proof of our inferiority was afforded a few days afterwards, when the fleets having been separated and dispersed by a gale of wind, two of our fifty-gun ships fell in with two of the French eighty-fours, very much disabled; and although both engagements appear to have lasted several hours, and to have commenced under circumstances the most favourable to the English, they were in each case finally obliged to retreat on the appearance of fresh ships coming to the assistance of their antagonist. A third action, fought at the same time between the *Isis* of fifty and *Le César* of seventy-four, was equally indecisive. How different

would have been the result if our ships had been seventy-fours or eighty-gun ships! and what a change in the aspect of the first naval campaign would the capture or destruction of three of D'Estaing's squadron (one of them his own flagship) have produced!

The history of that war will furnish abundant instances of similar and most mortifying failures, all, or almost all, attributable to the unwise and impolitic conduct of our naval administration during the preceding peace, and to the inferior description of ships which we had persisted in building. But I will not fatigue my readers by multiplying examples unnecessarily.

I think this dearly-bought experience was not entirely lost upon us, and that after the peace of 1783 we did begin seriously to augment the number of our larger ships, and to a certain degree discontinue building those of inferior classes, (sixty-fours and fifties); but I was very much struck by one remarkable instance of obstinate adherence to our old system on the part of the Navy Board. The *Foudroyant*, of eighty guns, had been taken from the French in 1758, and was universally considered, during the whole of the American war, the finest two-decker in the British service; but no persuasion could induce the surveyors of the navy to imitate so desirable a ship; and it was not until 1793, *thirty-five years* after she had been in our possession, that the first eighty-gun ship

on two decks was launched from a British dock-yard.

It was, however, more especially with respect to our frigates, that the old system still prevailed in its full and fatal force. Notwithstanding the well-known improvement of the French navy in this particular, I do not think that at the commencement of the war in 1793, we had a dozen frigates in our whole navy carrying eighteen-pounders on the main-deck ; and it was not until several very unsatisfactory actions\* had been fought by our small thirty-two-gun ships, that we began to replace them by others of a superior description. In the meantime, however, and during the first two years of that war, our commerce suffered terribly from the French cruising squadrons of heavy frigates, while we had no ships of equal force to oppose to them ; until at an enormous expense, and by employing all our merchant building-yards, and every species of inferior timber (fir particularly) we had created almost a new navy (as far as frigates were concerned) to supply our previous deficiency in this respect.

Trusting, therefore, that these facts, which clearly prove that in the first years of the two last wars we lost, from the want of due previous preparation in this important particular, all those advantages which brilliant successes at the commencement of

\* See those of the *Thames*, *Iris*, *Venus*, *Boston*, &c., in 1793 and 1794.

hostilities inevitably bring with them, would not be quite disregarded by the present generation ; it will be readily believed that at the conclusion of the late eventful war I was an anxious as well as an attentive observer of the measures to which our naval administration would resort for the purpose of effectually meeting the new circumstances which had arisen. The war with the United States had but too clearly developed the system of naval policy on which our new rival for maritime superiority was successfully acting. Their three principal classes of ships, although nominally of the same force as our own, were really nearly one-third superior in size, calibre of guns, and number of men ; and various unsuccessful actions had but too clearly proved that neither professional skill, nor the most brilliant personal courage and exertions could compensate for this great disproportion of force.

I had therefore felt perfectly confident that, when we began to turn our thoughts seriously towards rebuilding our navy, a measure which at the termination of the war had become one of inevitable necessity,—the greater part of our ships, and especially the smaller classes, being in a very decaying state,—the considerations to which I have referred would have their due weight ; and that in determining the dimensions and force of our new ships, we should, instead of adhering servilely to old models and classes, be very careful to build such only as might be fully capable of opposing



at least an equal force to that which we were to encounter: and this was the more necessary, because it very soon became universally known that the success of the American navy had produced a deep impression throughout Europe, and that France especially, as well as several minor maritime powers, were following the example of that system which had been attended with such beneficial results.

I saw with much pleasure that, with respect to our ships of the line, we were very judiciously abandoning our old-fashioned and heavy-sailing second-rates, and determining to build in future no three-deckers smaller than the *Caledonia*; and that our new two-deckers were to be powerful eighty-four-gun ships, carrying twenty-four-pounders on the main deck, and therefore, in my opinion, not materially inferior even to the Americans. But here, alas! my satisfaction ended; and what was my disappointment when I saw between forty and fifty new frigates laid down in our different dock-yards, all except eight built on old French models, carrying eighteen-pounders only on the main deck; all in short of the force of the unfortunate *Java* and *Guerriere*, possessing all the defects of these ships, their want of room and stowage,\* and that we were consequently replacing our frigates on the same footing of comparative inferiority, which I had

\* These frigates can only stow (*under hatches*) three months' provisions, and two and a half months' water.

hoped it would have been our first study to avoid ! I should have thought that instead of incurring such an immense expense\* in building frigates of an inferior description, it would have been better economy and wiser policy to have contented ourselves with a smaller number, but of a superior class, following rather the model of the Pomone and the twenty-four pound frigates built after that beautiful ship, one of which, the Endymion,† proved in her action with the President, the largest of the American frigates, that those of this class are very little, if at all, inferior to any single-decked ship.

It will hardly, therefore, appear credible that while we have been building at such an expense so large a number of small frigates, we have not since the peace laid down a single one on the model of the Pomone or Endymion ; a class which excel the former as much in good qualities of sailing and stowage, as in the more important point of superior force.

I regret to say that my animadversions do not end here.

When it was seen, towards the conclusion of the

\* Probably nearly two millions, taking the old calculation of £1000. per gun.

† The President was captured by a squadron, but engaged by the Endymion only. The loss in killed and wounded stood thus :—

	k.	w.	Total.
President	35	70	105
Endymion	11	14	25

war, that the Americans were constructing a class of corvettes intended (as they unfortunately too soon proved themselves) to be decidedly superior to our eighteen-gun brigs, which until that time were undoubtedly the finest and fastest vessels of their class, it was naturally to be expected that, when we came to rebuilding our smaller descriptions of ships, our attention would have been peculiarly turned towards a larger and more powerful ship-corvette, carrying twenty-two or twenty-four heavy guns, calculated to supersede the old-fashioned ship-sloops of former times, which from their overweight aloft, and want of stability and stowage, had become totally unfit for modern naval warfare. Here, alas ! I was again entirely disappointed. The subject does not appear to have excited any attention until about 1820, when fourteen of the old class of twenty-eight gun frigates, which had been from their bad qualities totally exploded during the last war, were ordered to be built ; and about the same time we commenced a series of expensive (and as it always has appeared to me most unprofitable) experiments on our eighteen-gun brigs, against which we had conceived an unreasonable prejudice, because they could not beat the American corvettes, in every way so much their superiors.

There can be no doubt that vessels of this peculiar description are less calculated than others for regular engagements ; because, having only two masts, if one is disabled, they become comparatively

helpless; but this disadvantage is counterbalanced by their remarkable handiness, good sailing, and stability, in which latter qualities they equalled most of our best frigates; and my naval readers will not have forgotten the brilliant actions fought by the Pelican, Sylph, and Kangaroo, (as well as many others which I do not now recollect,) during the late war.

Instead, however, of availing ourselves of the good qualities of these brigs in our draughts for a new and improved class of larger corvettes, the extraordinary idea occurred to us of converting these very identical brigs into ships, and that, by the addition of a mizen-mast, we should at once secure the desired superiority. Surely professional experience can scarcely be necessary to convince my readers of the absurdity of such an expectation. I need only say that vessels of this description are built on the nicest mathematical calculations, and that any alteration by which these are even slightly deranged, must produce an injurious effect. It will therefore not surprise any one to learn that our brigs thus converted into ships lost all their good qualities; and although a heavy expense was incurred in placing, replacing, and again shifting and altering the height and position of their masts, they still continue very inferior to their former selves.

I am aware that some official reports on the good qualities of these *ci-devant* brigs, may be produced

against me ; but I will only just venture to ask, whether, as the alteration in question was very generally known to be a favourite hobby at the Admiralty, it is not just possible that a commander looking forward to promotion, might not like to hazard a very decidedly adverse opinion on a supposed improvement of his superiors ? Let me also inquire whether the *Trinculo*, the only brig which was allowed to join the experimental squadron under Sir T. Hardy, did not, in spite of defective copper, spars, and rigging, give very satisfactory testimony of what might have been expected from her, if she had been fairly and properly prepared for the trial ?—and did not the *Alert*, on the contrary, newly fitted out and coppered, and with every advantage given her, sail worse than any other ship in the squadron ? Would it not have been fair in this case, if truth was the object, either to have tried the *Trinculo* against the *Alert*, or having proved that the latter as a ship did not answer, to have restored her original equipment, and then ascertained, with the same squadron, whether the brig or the projector was in fault ?

I confess I felt much mortified when I heard these particulars ; because it was impossible not to feel that an important experiment had been unfairly conducted, and the most obvious test apparently evaded.

With respect to the ten-gun brigs, of which we appear to be so fond, and on which, during the

last ten years, such large sums must have been laid out, I can only say that in my judgment they are entirely unfit for every purpose of war, as they sail indifferently, and are in point of force inferior to most privateers. I would therefore almost pledge my existence, not one of them is seen on the sea in six months after the commencement of hostilities. How those who have lavished the public money on this most useless class of vessel, will then be able to justify themselves, I do not presume to conjecture.

I see, by referring to the list of the navy, that we have now above forty of these brigs afloat or building, all except one or two laid down since the peace, besides twenty-eight more employed as packets; for which service experience has now fully proved them to be less calculated, and from their construction more unsafe, than any other description of vessel which could possibly have been selected.

This subject naturally leads me to mention some partial experiments ordered in the course of the years 1826 and 1827. The first was on a very small scale, and the ships tried were only three eighteen-gun-ship corvettes, built by Captain Hayes, R. N., Professor Inman of the R. N. College, and the Surveyors of the Navy. From all the accounts I could collect, the trials were made at an unfavourable period of the year, and in a hasty and imperfect manner; the officer command-

ing the squadron was changed once, if not oftener, before any final report was made : and no known, good sailing ship was ever in company with them. As far as I could learn, however, the *Champion* and *Orestes* were both superior ships to Sir R. Seppings's *Pylades*, and possessed many good qualities of stability and stowage, which the latter wanted ; and I hear that they have since maintained their good character in these respects, especially the *Orestes*.

This experiment led to another on a more extended scale. Captain Hayes was ordered to build a twenty-eight-gun ship, and a corvette of eighteen guns. Captain Symonds (an officer who in the construction of small vessels had shewn a remarkable talent for naval architecture) was to build a corvette of eighteen guns ; Professor Inman, a twenty-eight-gun frigate ; and the Navy Board were to produce a new twenty-eight-gun frigate, and two eighteen-gun-ship corvettes.

Having taken a very great interest in this second experiment, and being on intimate terms with many officers in the little squadron, I solicited from them all the information on this subject with which they could supply me, and kept up a constant correspondence with them during the course of these experiments. It was, however, impossible not to regret deeply that so large an expense should have been incurred in trying experiments on the qualities of so useless and objectionable a class of frigates

as these old-fashioned twenty-eight-gun ships, which have been long since abandoned in all other navies, from a perfect conviction that it is impossible to give stability and swiftness to a vessel which is expected to carry the upper works of a frigate on the fine and delicate bottom of a corvette. The French have, for this reason, entirely given up what they call "*corvette aux gaillards*," finding that their "*accastillage*" (high bulwarks) made them always sail and carry sail badly; and as it was very generally known at the time these trial-ships were first ordered to be built, that both the French and Americans were constructing a large and powerful class of corvettes, carrying heavy long guns, twenty-four and eighteen pounders, as well as thirty-two pound carronades. I was in great hopes that we should have followed their example without loss of time, instead of wasting our money in experiments on ships, which modern improvements have now rendered antiquated and obsolete.

The first great mistake committed, appeared to me to be in limiting the constructors unnecessarily as to the dimensions, and more especially as to the breadth of their ships, by insisting that they were not to exceed a certain prescribed tonnage. Now it should have been well known at the Admiralty that tonnage, as taken by the old rule of admeasurement, neither expresses accurately either the displacement or capacity of a ship; and although I perfectly agree with them in thinking that the con-



structors should have been obliged to build their ships nearly of the same size, yet my opinion was, that the great object being to obtain as perfect a specimen of each class as possible, the restriction should have been on the length only, and that they should on this occasion have had a *carte blanche* as to their model in all other respects ; and this was the more necessary in the present case, because the besetting sin of our naval constructor having been hitherto an invincible unwillingness to give sufficient breadth, and the consequence a failure in point of stability in most of our ships, it became of more importance to prevent the Surveyors of the Navy, by insisting on a restriction of this nature, from bringing down all the other ships to the level of their own.

What was the result ? Captain Hayes, contrary to his own judgment, but not choosing to sacrifice length, built both his ships considerably narrower than he otherwise would have done : and the consequence was, they failed in stability.

Professor Inman, fully aware of the advantage of breadth, gave up a part of the usual length of ships of that class to obtain it. Captain Symonds followed his example, and, as might and ought to have been foreseen, both the Sapphire and Colombine, although possessing many excellent qualities, and very superior to most ships of their respective classes, were still much inferior to what might have been expected, if their ingenious constructors had

been left to the uncontrolled exercise of their own judgment.

It was also much to be regretted that advantage was not taken of this opportunity to ascertain more satisfactorily than we had hitherto done, the comparative qualities of some new classes of ships lately introduced into our navy, and with which our officers in general were but little acquainted. After the unfortunate issue of the first actions with the large American frigates, the *Leander* and *Newcastle* were hastily built on a draught supposed to be similar to that of the *United States*, *Constitution*, and *President*; but as they were at sea only during the last half-year of the war, and chiefly together, there were not, I believe, many opportunities of determining whether they fully realised the expectations of their constructors.

In the only actual trial they had, off Porto Praya, the *Constitution* out-sailed them and escaped; so that it was evident we had still something to learn with respect to these ships; and at the conclusion of the war such experiments should have been tried as to place this question on some certain footing.

With our usual heedlessness, however, this whole subject was dismissed from our minds the moment peace was concluded. The *Leander* and *Newcastle* were forthwith fitted out as flag-ships for foreign stations, with the usual incumbrances of poops, &c.; so that any further experiments on

their sailing became out of the question, and they were in this way entirely worn out and taken to pieces, after only six months trial in actual service.

The same extraordinary system has been continued with respect to eight new ships of the same class, built since 1816. Three of these have been employed on foreign stations in the same way ; but no attempt has yet been made to satisfy ourselves by actual and careful experiment (conducted under the eye of the Admiralty or Navy Boards) whether these ships are or are not to be depended upon for the same good qualities which were so remarkable in those of which they are intended to be exact imitations.\*

Now this important question might and ought to have been thoroughly investigated in 1827. Nothing would have been more easy than to have fitted out one of these first-class frigates, another of the second, (the *Endymion* for instance,) and one of our new eighteen-pounder ships ; and while the other experiments were going forward with respect to the twenty-eights and corvettes, we might have ascertained, beyond the possibility of doubt, the comparative sailing, stability, and capacity of these important classes of ships. I had almost omitted to mention another point to which our attention should also have been directed at that time :—the *Barham* (the first of a large number of seventy-four-

\* The *Java* has returned from India with a very indifferent character.

gun ships which have been since cut down and converted into frigates) was nearly ready for sea, when Sir T. Hardy hoisted his flag and took the command of the experimental squadron. It was surely of very great consequence that the qualities of this new class of ship should be carefully ascertained before we proceeded further on a very expensive and serious operation ; and a most excellent opportunity of doing so at that time presented itself. But no, the Barham too was to be fitted for a flag-ship, and sent off immediately to the West Indies, where I cannot believe many satisfactory opportunities will occur of fully ascertaining her good or bad qualities, as the weather is generally fine and settled in that country, and the squadron chiefly composed of small and inferior vessels, whose bad sailing, when tried with the Barham, will rather tend to mislead the commander-in-chief, than enable him to form a correct judgment of her real qualities.

Every body who reads these pages will, I am sure, agree with me, that such an experimental squadron as the one I have suggested must have been attended with the best consequences, and that it would have had a strong tendency to check a practice, which has always too much prevailed in all our naval administrations, of building or altering large numbers of ships on some particular plan, without sufficient previous trial and consideration. What, however, was the result of that which actually took

place? In the first trials, the ships built by Professor Inman, Captains Hayes and Symonds, although, for the reasons I have already stated, far inferior to what they might have been, were superior to those built by the Surveyors of the Navy; one of the latter, the Tyne of twenty-eight guns, was actually sent back to Portsmouth as totally unfit to compete with the remainder; and although, after various expensive alterations, they were all considerably improved, especially the two corvettes, (which I understand were pretty close imitations of the Champion and Orestes, and very unlike the Pylades,) yet it was quite clear that our official naval architecture ought no longer to be implicitly relied on, and that a system must be radically wrong under which the best ships which could be built were found on trial deficient in many important points, and requiring great alterations before they could be brought at all to an equality with others of a similar class; and I am sure the whole profession concurred heartily with the gallant and experienced officer who was entrusted with the command of the experimental squadron, (and than whom a better choice could not have been made,) in recommending that a further trial should be made on a larger and more extended scale; and that Captains Hayes and Symonds, and Professor Inman, should be each employed to build a frigate of the largest dimensions, to be finished with as little delay as possible, and fairly tried against the most approved ships of

the same class. I understand His Royal Highness the Lord High Admiral fully approved of this suggestion, and gave immediate orders accordingly; but as I have not since been able to discover that any such ships are in progress, I fear that official influence or jealousy have been sufficiently powerful to extinguish all hope of further improvement at present.

From this important subject I pass to the measures which have been adopted to preserve the discipline, efficiency, and activity of our ships in commission, and to counteract the inevitable effects of a long and profound peace on all warlike establishments. Between 1784 and 1793, we had three considerable naval armaments, and there was consequently but little time for either officers or men to forget what they had previously learned; but I remember that it was during this period the constant practice to assemble our guard-ships at Spithead as early in the spring as possible, and to exercise them during the summer months in those various evolutions which would naturally suggest themselves to the mind of an experienced officer. Has this good old system been followed up? I fear the reply will be, that during the last fourteen years (with one solitary exception in 1818) no squadron has ever assembled for exercise; that Spithead and Plymouth Sound are generally to be seen without even senior officers' ships to enforce regularity, as well as to stimulate by good example

to activity and emulation ; and that our ships of war, when fitted out for foreign service, proceed to their respective stations without any previous inspection or review, and almost always singly, encumbered with passengers,\* and overloaded with provisions and stores, resembling too often a merchant-ship with a full cargo making all haste to its port of discharge, rather than a British man-of-war in perfect trim and equipment, and carefully preserving, during peace, that complete state of order and preparation which can alone secure superiority in war. It is quite unnecessary for me to enlarge on the ill effects which this deviation from our former system must necessarily produce. An entire new set of officers are gradually replacing those whose long experience in war might perhaps have rendered further instruction less necessary ; and if the rising generation are educated in a system of negligence and inactivity, what will be the result at the commencement of a new war, when our utmost exertions will be required to secure our superiority over rivals who have certainly lost no opportunity of improving and perfecting their naval establishments, and whose minds are fully alive to the errors to which they attribute their former reverses ?

A regiment, when ordered on foreign service, is always reviewed previous to embarkation, and its

\* The *Champion*, of eighteen guns, sailed not long since for the coast of Africa with fifty supernumeraries, for whom there was no room below, stowed on the main deck *under canvass*.

state of discipline and appearance confidentially reported on. Such a practice introduced into the navy would have the best effects, both by encouraging emulation and exertion, and preventing that fatal system of hurrying ships to sea in an imperfect state of equipment; and nothing could be more easy and simple than the detail of such an arrangement. A newly commissioned ship, after being reported ready for sea, might be allowed any reasonable time to prepare for being reviewed, and the captain should have full liberty during this interval to get under weigh, and exercise in any manner he thought proper. The commander-in-chief should then, after mustering the crew, and fully inspecting all the interior arrangements, see the men exercised at their guns; and the ship being got under sail, should be put through all the various evolutions which it is of most consequence to perform steadily and correctly in the presence of an enemy. If this regulation were rigidly adhered to at Portsmouth and Plymouth, no ship could in future proceed on foreign service materially deficient in discipline or preparation, and the thoughtless and injurious system of encumbering and overloading them in the manner I have described must be at least considerably checked, if not altogether put a stop to.

Another most important point to which too little attention has been paid since the peace of 1815, is our artillery practice. There can be no doubt that



our reverses during the American war are to be attributed, not only to the great superiority of the ships we engaged, but to the imperfect manner in which our officers and men had been trained to the use of their guns. It will, perhaps, hardly be credited hereafter, that there was at that time no regular system of exercise established by authority in the British Navy, but that each ship had its own particular plan and method, varying of course according to the experience and degree of information possessed by the captain, as well as to the degree of importance which he attached to the subject. I need not detail the fatal negligence which too often prevailed, and which became only known in its full extent by its unfortunate results. At the conclusion of the peace, however, the officers of the navy were unanimous and urgent for the immediate adoption of a better system, and various suggestions were offered to the Admiralty as to the best method of proceeding. Assuming, as appeared most probable, that our ships would be almost entirely in port, some recommended an exercising ground at each naval arsenal, in which the crews of the guard-ships, &c., might be regularly trained: others preferred a ship fitted for this purpose; but all concurred in the necessity of establishing some uniform practice. In 1817 Sir H. Douglas, an officer who combines an hereditary interest in the welfare of that service which owes so much to his father, with all that science and

experience in war can afford, laid before the Board of Admiralty a most valuable work, containing a series of suggestions on this subject, which, if they had been properly attended to and acted upon, must have placed our system of artillery exercise on a very different footing from that on which it at present stands. It does not, however, appear that between 1817, when he first offered his manuscript work to the Board of Admiralty, and 1819, when he requested their permission to publish it, any attention was paid to the valuable suggestions with which it abounds, beyond issuing by authority a sort of uniform manual exercise for the great guns; and until 1827, when His Royal Highness the Duke of Clarence became Lord High Admiral of England, I was not able to observe that any effectual steps were taken to introduce or enforce such a regular system of artillery practice, especially amongst our ships on the home stations, as might enable us to keep pace with the improvements rapidly introducing amongst our maritime rivals.

During His Royal Highness's administration, much was undoubtedly accomplished by his own frequent personal inspections of the ships in commission, and the attention he paid to every thing which respected their artillery; but he was unfortunately too short a time in office to establish any material or permanent improvements in this part of our system; and I cannot therefore do better than give my readers in this place, and as nearly as pos-

sible in Sir H. Douglas's own words, a sketch of the plan which he, twelve years ago, suggested to the Admiralty—which at the moment appears to have been received with entire approbation—but which since that time has not (as far as I can learn) been thought worthy of further consideration.

“ When the navies of Europe, opposed to us in the late war, had been swept from the face of the ocean by the gallant achievements of the British marine, a period of triumphant, undisputed dominion ensued, during which our seamen were not in general sufficiently practised in the exercise of those weapons by which that dominion had been gained ; but, in the pride and ease of conquest, were suffered, in many instances, to lose much of that proficiency in warlike practice which had been acquired in a long series of arduous service. No one seemed to doubt that the decided superiority which we had displayed in every action with a marine generally esteemed expert in gunnery, was owing to a degree of permanent perfection in our own system, which, animated by the well-known gallantry of our officers and seamen, would always insure us victory over the vessels of any other state, even in conflicts with superior force. Relying with too great confidence on this persuasion, we were led to despise expected foes whom we only rated on a level with those we had uniformly beaten ; and to engage rashly in very unequal contests with the ships of a power whose practice we have since found is not of

that character which should render us satisfied with the condition, or indifferent about the improvement of our own.

“Reviewing carefully our naval actions with European enemies during the whole of the last war, and comparing them with the battles which were fought in that which immediately preceded, there appears abundant proof that the natives of Europe had very much deteriorated in the practice of gunnery. In the war which terminated in 1783, the damage which our ships sustained, even in combats with nearly equal force, was in general much greater than in the actions of the late French war. It appears, indeed, that even in the later periods of Napoleon’s reign, when he had certainly effected considerable improvements in his marine, the state of practical gunnery was still so wretched, that we have seen ships, fully officered, superbly equipped, and strongly manned, playing batteries of twenty or thirty heavy guns against our vessels, crowded with men, without more effect than might easily have been produced by one or two well-directed pieces; and we have seen some cases in which heavy frigates have used powerful batteries against our vessels for a considerable time without producing any effect at all.

“The danger of resting satisfied with superiority over a system so wretched as this, has been made sufficiently evident. It consisted more in relative than in absolute excellence. We became too con-

fidient by being feebly opposed ; then slack in warlike exercise, by not being opposed at all ; and lastly, in many cases inexperienced for want even of drill practice ; and herein consisted the great disadvantage under which, without suspecting it, we entered, with too great confidence, on war with a marine much more expert than that of any of our European enemies. . . . .

“The *materiel* of our navy is in the finest possible condition. Our ships are greatly improved in every feature of strength and warlike quality. Our ordnance is the best in the world ; every species of store and equipment is perfect. We possess excellent seamen, trained by the operations of our commercial navy. Our officers, many of them educated at public expense, are good navigators, excellent astronomers, and are full of energy, activity, and courage : but these elements and qualities are not sufficient to constitute a good *ship of war*, unless the knowledge of warlike science and practice be added ; and that in a manner to become immediately operative at the commencement of a rupture. The practice of a long war, and the talents of many distinguished officers, had formed some expert crews of gunners : but these benefits were partial ; and we shall undoubtedly lose, in peace, all or much of that proficiency, unless we take special care ; and shall have again to struggle through years of difficulty, only to attain what we may not only secure from decay, but most certainly further

improve, and even render permanent. After many years of war had afforded us ample opportunities of practice, and yielded us many splendid victories, we were, in some instances, severely disappointed. Let us consider well what may be the case, when, after a long peace, we send out fresh commissioned ships, manned with untrained people, for immediate battle. How many gallant officers have gone forth, with splendid reputations and the sacred honour of the British flag, depending upon crews on whom no reliance could be placed, excepting for courage and self-devotion ! I humbly endeavour to provide a remedy for this ; and the reasons which I shall offer in support, will, at least, advocate the case of every man who has been, or who may be, exposed to such perils of character : and I take occasion to assure the officers of the navy who may peruse this work, that any remarks on public events which I may think it necessary to make in the course of my essay, are not quoted to criticise, but on the contrary, to justify, or account for operations which were always most gallantly undertaken, and which could not perhaps have been better executed, with the means and qualities they commanded.

“There cannot be any doubt of the vast advantages that would result from enlightening by theory, and training by practice, during peace, as large a proportion as we can of those who are to command and serve our naval ordnance in war. It is impossible indeed that we should be disappointed

in the conviction we feel, that splendid advantages would result from such a measure. With men imperfectly trained, no nicety of practice can be attempted or expected. Many improvements which would appear simple, and might be easily practised by well-formed artillerists, may be considered complicated and impracticable by people who may, perhaps, be quartered to their guns *for real action*, as one of their first artillery exercises. Thus I have often heard it enforced, that nothing that is not coarsely simple can be practised in Naval Gunnery, and that no innovations should be attempted ; and the difficulty which my father experienced, even from officers, in procuring the adoption of locks, and many other improvements which he made in naval ordnance, are proofs how far the want of some general cultivation of the science and art of gunnery are impediments to the introduction of improvements, which, instead of being resisted, would be eagerly received, were our people taught to estimate them. What would now be the condition of our admirable land-service artillery, were it not for the institution which cultivates theory, and the system which has perfected the practice ? It would have remained far behind in the progress to improvement ; and, instead of being the very best, might have been, perhaps, the worst artillery in Europe. Suppose that, at the commencement of war, instead of taking the field with a well-trained corps of artillery, we were merely to turn over

multitudes of able-bodied men to that duty, (as is the case in our naval artillery) and hurry them off for action, without more training than may be acquired in the short interval between enrolment and real service ; and, if after the interval of a long peace, under officers destitute of experience, unacquainted with science, and rusty in the practice of former wars.—To such a corps, much of that nicety of practice which is at present admirably and easily executed, would appear mere refinement, as impossible to be observed, as it is to introduce or hope for expert practice from our naval artillery, at the commencement of a war particularly.—Should the improvement of Naval Gunnery be less an object of national importance, than the instruction and training of our *land-service* artillery ?”

Sir Howard then proceeds to recommend the formation of Depots of Instruction for the purpose of instructing officers, master-gunners, gunners' mates, and their crews ; and truly observes, that no measure which provides merely for the drill of the men can effectually improve the service practice, for the mere dexterity of a few privates can do little unless directed by cultivated and well exercised intelligence on the part of the officers commanding, &c. He urges the strongest reasons for composing these depots exclusively of naval officers and seamen, and goes on to propose that in the formation of this new corps we should first “engage a certain number of seamen expressly



for the service of the gunner's crew for periods of five or seven years ; renewable at their expiration, attaching a small increase of pay to each consecutive re-engagement. The advantages held out to volunteers should be, that master-gunners, gunners' mates, and a certain number of seamen gunners, will eventually be incorporated ; and that regular advancement in that department will hereafter take place according to merit ; so that seamen gunners may, if they can read and write, consider themselves in the certain road to gain, according to their merit, situations of gunners' mates, and master-gunners of ships. Seamen gunners to receive 1*s.* 4*d.* per diem, and to share prize-money as gunners' mates do now, or with some other rank, superior to able seamen.

“ The practicability of forming such an institution resolves itself into this—whether, upon these advantages being made known, a sufficient number of volunteers can be procured to commence such an establishment. The experiment might be easily tried ; but the proposal should be accompanied with an explanation that the system provides, eventually, a term of relief, or residence on shore, for men so incorporated. If the experiment answer the confident and authorized expectation that may be entertained of its success, a selection of naval officers, the best practitioners of the late war, should be named, to conduct the Depots of Instruction ; and I have every reason

to believe that some very distinguished officers would come forward to commence such a system. In this way a number of trained men would always be retained in the service—successions of commanders, and many officers who cannot be employed afloat in a limited peace establishment, would, at the trifling expense of full pay, be improved in this important branch of their military duties ; master-gunners and gunners' mates would be trained ; and a permanent stock of seamen gunners brought up, to fill hereafter these important offices ; and should it be extended ultimately in the manner I propose, it would furnish besides a considerable number of very expert captains of guns.

“ When a sufficient number of men are procured to form one depot of instruction, a proportion of officers, properly proficient in a course of gunnery, and in a general system of exercise, should be appointed.

“ One captain, three or four lieutenants, and a certain number of midshipmen, master-gunners, and gunners' mates, should be nominated to a division ; and if the experiment succeed, other divisions of instruction should then be established at the principal arsenals, and the whole placed under the superintendence of a Rear-Admiral.

“ All seamen gunners should be made perfectly acquainted with the duties of every man, in the exercise of all natures of ordnance, with reduced

complements as well as with the full crew ; so as to be perfect masters of every fresh arrangement that may be required to replace casualties.

“ A level space proper for a good range should be fixed upon, and a sufficient number of guns and carronades mounted in batteries similar to ships’ sides, and consequently placed at various and corresponding heights above the horizontal plane.

“ Young officers, master-gunners of ships, and gunners’ mates training for these important situations, should be instructed in the following matters:—the names of the different parts of a gun and carriage:—the dispart in terms of lineal magnitude and in degrees, how taken ;—what constitutes point-blank, and what line-of-metal range :—windage, the errors and loss of force arising from it, showing also the importance of preserving shot from rust ;—the theory of the most material effects of different charges of powder, applied to practice with a single shot, also with plurality of balls, showing how these affect accuracy, penetration, and splinters. Gunners of ships should also be qualified to judge of the condition of gunpowder by inspection : to ascertain its quality by the ordinary tests and trials, as well as by actual proof ; and these, as I shall show hereafter, are very indispensable qualifications.

“ Master-gunners should also be instructed in the laboratory works required for the naval service—such as making rockets for signals ; filling

tubes, new priming them in particular; making and filling cartridges; precautions in airing and drying gunpowder; care and inspection of locks, choice of flints, correct mode of fixing them, &c. &c.

“ The officers, master-gunners, and those training for such situations, will then proceed to the practice of gunnery, together with the seamen gunners who may have been previously instructed in the exercise.

“ The practice should be taught, with every degree of precision, at the range on shore, in order to show the actual ranges of ordnance, when not affected by the motion of a ship, and thus discriminate between the errors of gunnery, and those which necessarily arise from the floating motions. Elementary instruction in practical gunnery cannot indeed be properly given *afloat*; it is absolutely essential that the principles of the practice be shown *on shore*.

“ Practice should first be taught with the different nature of naval ordnance, single shotted, at point-blank distances, with the service charge; then at line-of-metal ranges, and at some intermediate and greater distances, against large targets or screens, some the height of single, others of two-decked ships, and fitted with poles to represent, in height and position, the masts of an enemy. This, for reasons that will be given in Part IV. when we come to treat of the practice,

is very important. Practice should then be made at the same distances with *two* shot, to show the great uncertainty of this practice at long ranges ; and with reduced charges, to show the corresponding ravages that may be occasioned by splinters.

“ Practice should then be carried on, at every hundred yards from 100 to 1000, with all natures of guns and carronades in ordinary use, to show their comparative merits and powers, in regard to accuracy and other effects. Instruction should also be given in mortar practice ; and in shell practice from guns, with common shells and also with spherical case.

“ When expert in the school practice on shore, the gunners should practise afloat from a hulk kept for that purpose at each depot. They will thus learn the comparative uncertainty of naval fire ; and, consequently, be prepared to receive and observe this important maxim—that minute accuracy and intelligent quickness are more essential in Naval Gunnery than in the land service ; for although it may not be possible to attain equal precision, yet every approximation that can be made towards it by expertness or simple expedient will tend in some degree either to correct or reduce those errors which arise from the floating motions.

“ As soon as one set of seamen are returned complete in exercise and practice, they should be transferred to commissioned ships, and there drill the

seamen engaged in the ordinary way, according to the general system; so that in this respect they would be as well trained, at least, as by the contemplated plan; and all the permanent advantages of the proposed system would be so much gained.

“Fresh seamen should be engaged as gunners, and drawn in to the Depot of Instruction, in proportion as trained men are turned over to the guard-ships. These again should, by degrees, transfer to the cruisers a certain proportion of the trained gunners that will have been received from the depots; which however should, together with the guard-ships and home cruisers, always retain a sufficient number of trained men for new commissioned ships, in the event of sudden armament. In this manner vast facilities and advantages would be experienced in fitting ships, and in rendering them more immediately efficient. The plan now suggested would provide people not only qualified to assist in fitting the ship, but also to assist in working her; not only qualified to drill to gunnery the fresh hands—but to examine and arrange all the ordnance equipment—and very soon to make that ship, if properly commanded, a *good man of war*.

“In all departments of warlike organization depots are allowed to be the very hearts of the system, by which improvement is cultivated, circulated, and established. In all services this is

recognised and observed ; no body can be permanently good, no system uniform without them. It is to this general measure that the service efficiency of every branch of our army is mainly to be attributed. It is this which supports the uniform systematic excellence of the whole machine, however remote some of its parts may be. It is from a similar system, connected with the naval profession, that the marines are what they are ; and which has so much improved, perfected indeed, the Marine Artillery. If instead of applying it to naval artillery duties, a corps of naval gunners had been formed, composed of seamen and officered by a succession of naval officers, there can be no doubt that its proficiency would be equal to, and its utility, as Naval Artillery, infinitely greater than that of the *Marine* Artillery. Detachments of this corps were embarked on board the ships of the squadron that were sent out last summer on a cruise of exercise and practice ; and it is no uncommon thing for naval officers fitting out ships to apply for detachments of Marine Artillery to drill their seamen to the gun exercise. If such detachments had been or could be drawn from a permanent body composed of *seamen*-gunners trained by *naval* officers, instead of marines, can there be any comparison between the influence of the two systems on the practice of Naval Gunnery ? If the squadron in question had been to sail on real service instead of a peaceable cruise, which system would have



been most efficient? The Marine Artillery have their peculiar duties; but to extend them to any interference with naval *gunnery* would be most injurious. For the same reason that the Marines have their divisions, the Royal Artillery their schools of practice, and every regiment its depot, naval gunnery should have its permanent seat of instruction, and store of trained men. The advantages that would result from such an establishment are beyond calculation. These depots would become the resorts of zeal and talents—the nurseries of improvements; vast numbers of young naval officers of all ranks would resort thither at their own expense. Such is precisely the opportunity which the naval service wants in this branch of the profession. Improvement might then be cultivated without pursuing it through other departments, as at present;—naval officers would find a field open to them, which is now occupied by others. Courses of practical instruction might be given to any number of young officers who might choose to attend. Naval gunnery would become, as it most certainly should, an organized department of the naval service, under the direction and control of the naval administration; and I feel most enthusiastically certain, that this simple measure would lay the foundation of a system which would soon be cultivated to perfection, by the professional genius and zeal which it would call into action.

“As to the extent to which this plan may be



carried, present expense and future circumstances must be consulted ; but the system might be commenced without incurring charges of consideration sufficient to defeat this great national object.

“ The merits of this plan do not depend upon the limited extent to which we may be obliged to confine it, at present, on account of the difficulty of making financial provision for a more general operation. If it be plainly calculated to do some good, it should not be rejected because, for contingent reasons which attach not to its merits as a system, it cannot at present yield its full benefits. If it be capable of training people sufficient to furnish master-gunners, gunners' mates and captains of guns for half the number of guns (i. e. a fighting side) of ten sail of the line and thirty frigates, (about 1000 men,) it should not be abandoned because, on account of the expense, it cannot supply double the number. The adoption of a good sound system is the present consideration, not its immediate extension. If we found our measure upon a good professional principle, the super-structure may be raised gradually, in proportion as we may require it. The question for consideration is, whether the plan which is suggested does not provide a good professional system for instructing officers, midshipmen, master-gunners, and gunners' mates ; for training a proportion of seamen as captains of guns, as well as for drilling seamen engaged in the ordinary way : whether such a measure would not

eminently tend to encourage the professional cultivation of artillery knowledge, forming a good sound system, in which extension of benefit may be made to accompany extension of force. If it promise such advantages, it will be cheaply purchased by any expense that may attend it. Were it an experimental measure that could not be commenced, without first committing the country to vast preparatory expense, we might hesitate about making the trial; but the system may be instituted at a rate that would not amount to the expense of adding a 20-gun ship to our establishment.

"If, by way of commencement, *one* dépôt were formed, the following is an estimate of the expense.

	Average half pay per day	Average full pay per annum.	Diff. of ex- pense per an.
	s. d.	£.	£.
Captain	12 6	552	324
4 lieuts.	As the average full pay very nearly balances the half-pay of 6s. a-day, it is proposed to pay the lieutenants as 1st lieutenant of ships, viz. 11l. 10s. per mensem, on account of the expense of living on shore.		
	6s. each	138l.	114
30 midshipmen at 3l. 9s. per mensem . .			1345
Lodging 1 captain at 12s. per week . .			31
4 lieutenants at 10s. per week . .			104
150 1st gunners at 1s. 4d. per day			3650
150 2nd gunners at 1s. 2d. per day			3193

Brought forward	8761
Provisions for 300 gunners, rate not known	
Expense of hulk for reception of 1 lieutenant, 30 midshipmen, and 300 gunners	
Total, exclusive of the two last items	£8761

“As the Marine Artillery is established, some of their best non-commissioned officers should at first be attached to each Naval Depôt as drill-masters; but hereafter these situations should be held by some intelligent seamen-gunners, to be called *acting master-gunners*, to receive 4*l.* 12*s.* per mensem, (the pay of gunners to sloops,) and to be promoted, on proper occasions, to master-gunners of ships.”

If these arguments fail to convince my readers, none that I can offer will I am sure be more fortunate; I will therefore only add that up to the time I write (1829) I cannot discover that the slightest attention has been paid to Sir H. Douglas's recommendations by the Board to whom they were addressed; but in France, on the contrary, it appears that this work having been considered by the government as of great value, has been translated, and is now used as a class book at the schools for the instruction of naval gunners, established in some of the chief naval arsenals in that country agreeably to its suggestions.\*

\* See Preface to the second Edition, and remarks by the French translator and Editor.—Paris, 1826.

Having thus pointed out (more in sorrow than in anger) the principal defects which I have remarked in our naval administration for the last fifteen years, (the annual expense of our navy during this period being rarely under five millions,) let us turn our eyes towards those nations whom (without forgetting that there exist other considerable maritime powers) we have been usually accustomed to consider our most formidable rivals. To begin with France :—The termination of hostilities found that country in nearly the same state as ourselves with respect to the “*materiel*” of its marine, which, from the peculiar circumstances under which most of their ships had been constructed, was in 1818 rapidly falling into decay, when the government of that country, after the withdrawal of the allied armies, had first leisure to turn their thoughts to naval affairs. They appear to have very soon directed their attention towards the construction of a superior class of frigates in imitation of the Americans; and although their first experiments did not fully succeed, owing I apprehend to their falling into the too common error of putting more guns and weight of all kinds into them than they were calculated to carry, a very curious and important book published in 1822 by a French naval architect (Tupinier) is full of the most interesting details of their progress during this interval, and clearly develops the system on which their naval administration intended to proceed. Without en-

tering into technical and professional duties, which might fatigue my readers, I will shortly state the most important features of the new plan.

It is assumed that the application of steam to the purposes of maritime warfare will render it almost impossible for us in future to blockade the ports of France, or to insult its coast, as we have done during former wars. They argue therefore that France having now but few colonies, and their foreign trade with them being comparatively unimportant, it can no longer be an object to assemble large fleets for the protection of their coasts or commerce, and that their principle in a war with England should be rather one of universal annoyance and attack on our most vulnerable and distant foreign possessions. It is suggested therefore to turn their chief attention to the construction of very superior and powerful two-decked ships, carrying like the Americans from ninety to one hundred guns, possessing the best qualities of sailing and stowage, (six months' provisions and four months' water,) and calculated to accompany and strengthen the flying and predatory squadrons of frigates, (also of the largest dimensions,) with which it is proposed to assail and harass our colonies and commerce in every quarter of the globe.

That this system has been actually adopted by the French Government, and steadily acted on since 1822, is clearly proved by the speech of the Minister of Marine, M. Hyde de Neuville, in the

debate which took place in the Chamber of Deputies on the Navy estimates for 1829. It there appears that since 1822 the number of ships of the line had been diminished to fifty-two, but the frigates had increased to seventy-three, and that a very great proportion of the latter were of the largest classes, being either seventy-fours *razed*, and carrying thirty-two pounders, or ships equal in size to the Americans, and built on the same principle of decided superiority over those eighteen-pounder frigates, with which our naval arsenals unhappily abound.

I understand also that while we have for so long a period disregarded every thing like exercise or evolution amongst our ships in commission, the French Government has been in the constant habit of assembling their ships intended for foreign stations at Brest, previous to their departure; that they have then proceeded in company to some central point, such as the West Indies, Rio de Janeiro, &c. &c. before they finally separated for their several destinations; profiting of course by every opportunity which such a system affords of instructing their officers in naval evolutions, signals, artillery practice, and general discipline.

I will only ask which of the two naval administrations appears to be conducted on the best and wisest principles; whether it ought not to be apprehended that great supineness on one hand, and great attention on the other, may, before many

years are passed, very materially change the former scale of relative inferiority? and whether our brilliant successes in 1797, 1798, and 1805, when our own navy was in the highest state of discipline and preparation, and those of our opponents in the worst, can justify our neglecting in 1829, all the precautions which are more than ever necessary to secure our future superiority?

With respect to the American navy, the comparative size of their ships of the line, frigates, and corvettes, is now so universally known, that I shall content myself with two short extracts from a work just published by a very intelligent naval officer on this subject, (Travels in North America, by Captain Basil Hall, R. N.) in 1827, 1828.

“At the Navy-yard (at Gosport) there was a line-of-battle ship, the New York, (called a seventy-four,) of ninety guns, and the St. Lawrence, (called forty-four) of sixty guns: the frigate is round-sterned, and they are both built exclusively of live oak, in a compact and apparently skilful manner.

“It occurred to me, when looking at these large ships, that there was no good policy in building such an expensive class of vessels; for other nations would of course profit by past experience, and avoid unequal matches in future.

“‘That is very true,’ said an American naval officer, who was present when I made this observation, ‘but we calculate in this way: in the event of a war with you, or France, for instance, it may

happen that our enemy will have many times our number of ships such as these, but he will have a still greater proportion of smaller ships. If one of our frigates should chance to meet with one of yours of the same class, she must of course take her chance, and we trust she will play her part as becomes her; *but as the greater number of your ships are smaller ones of the old sort, the chances are more in favour of our meeting them, and if we do, the balance will tell on our side: thus in either way, we hope to preserve the advantage we have already gained.*”—Vol. iii. p. 83.

“In the course of the same morning, we visited the Delaware (called a seventy-four), lying fully equipped, and all ready for sea in Hampton Roads. Although not a very handsome ship, she is certainly a fine man of war, and apparently in good order. There were mounted, when I went on board, thirty-two long guns on the lower deck, forty-two pounders; on the main-deck thirty-two guns, thirty-two pounders; on the quarter-deck and fore-castle twenty-eight forty-two pound carronades, in all ninety-two guns; eight ports were left unoccupied on the upper deck, so that she may be said to be pierced for one hundred guns.

“The crew of the Delaware, as I understood from the officers, was seven hundred and seventy-seven, including one hundred marines; but eight hundred and fifty were mustered in all, the extra



number being, I believe, supernumeraries for other ships in the Mediterranean.

"I went over the decks, passed through the wings, store-rooms, and into all parts of the ship. Every thing was in good man-of-war-like order, clean and well-arranged, and really surprising, when it is considered that she had been little more than two months in commission."—Vol. iii. p. 88.

Let me now state shortly to my readers, what would too probably be the result, if unluckily a war should commence unexpectedly, and before we had sufficient previous warning to reinforce all our foreign stations with ships of proper descriptions.

Our present force, in which be it remembered nearly the whole of our best seamen are dispersed, consists chiefly of those objectionable classes I have already so severely censured, and being consequently, whenever they are found, notoriously inferior to the enemy's ships in that part of the world, will in all probability be sought and attacked with all the confidence naturally resulting from the consciousness of superiority ; and even if they escape capture, will be reduced to the humiliating necessity of a purely defensive system, until reinforcements arrive ; while our merchant-ships will fall an easy prey to privateers, &c. The twenty-eight-gun frigates and ten-gun brigs, must inevitably be overpowered by any vessel of war (nominally of their own class) to which they may be opposed, and

with which they cannot honourably decline an engagement; but what will be the feelings of the officers and men, whose blood and honour will have been thus wantonly sacrificed, and of their countrymen at large, when the light of truth breaks in upon the nation? when it is seen that enormous sums have been lavished on injudicious and inadequate preparations, and that after seventy millions expended in putting our navy into what was considered a perfect state of equipment, we have to throw aside the greatest part of our smaller ships, and again recommence operations;—will not the burst of public indignation be loud and tremendous, and will it be admitted as a sufficient vindication to allege that, in many particulars, the British Navy was far more inferior at the commencement of former hostilities?

Lord North, I recollect, after the appearance of the combined fleet in the Channel in 1779, boldly asserted the impossibility of our hoping single-handed to outnumber the joint forces of France and Spain; but I do not think that in these days a minister will be found daring enough to hold similar language, and I conjure those on whom the fearful responsibility will rest, to beware in time, and not to suffer either an undue adherence to ancient systems, or that repugnance to wholesome changes and improvements, which, alas! is one of the strongest proofs of the imperfection of human nature; more especially as we advance in rank and

age, to indispose them towards those measures, which the general spirit of the times renders so indispensably necessary.

If I am asked what practical suggestions I have to offer, and by what means I would propose to remedy the defects I complain of, without incurring an expense which the national finances cannot at this moment conveniently bear, I reply that I can only recommend our discontinuing, without loss of time, all further expenditure on any of those classes of ships which I consider so useless and objectionable; to suspend in a great degree the construction of ships of the line, (except perhaps one of the new class now in progress of ninety-guns on two decks, for the purpose of ascertaining their qualities by actual experiment before any larger number are laid down,) and to turn our thoughts chiefly towards those to which I have principally alluded in the course of these observations. I should recommend our satisfying ourselves, by full and careful trial, whether the first and second classes of frigates, such as the *Barham* and *Southampton*, are in all respects equal to the expectations entertained of them, especially whether the *razéed* seventy-fours answer so well as to justify the expense incurred in altering them. From these experiments certain rules may be laid down for their stowage, trim, armament, &c. &c. and prevent that general uncertainty on these points, which must inevitably prevail, if they were hastily fitted out by officers

unacquainted with their peculiarities, who could only try experiments which might or might not succeed, and would in the latter case occasion much disappointment and delay.

These experiments would necessarily lead to much of that increased exercise and experience afloat, which I so strongly recommend. It is only by seeing ships of different classes together, in all the various circumstances of wind and sea, that any correct opinion of their real qualities can be formed; and many of our younger officers must necessarily be completely uninformed in these particulars. I should therefore try together one or more of our first-rates, new eighty-gun ships, *razéed* seventy-fours, twenty-four and eighteen-pounder frigates; and as we have unfortunately a considerable number of almost new twenty-eight-gun ships, which in their present state are only calculated to disappoint and disgrace us, I should see whether, by converting them into corvettes, their sailing qualities might not be considerably improved, and they would at all events be reduced to their real denomination in point of force. A larger class of corvette, with sufficient breadth to carry heavy long guns, is however so indispensably necessary, that I should not rest until I had succeeded to my full satisfaction in this particular. Here, such officers as Captains Hayes and Symonds, who are experienced seamen as well as excellent naval architects, would afford the greatest assistance; and I have

no doubt that the second, if not the first attempt, would produce a most desirable vessel of this class.

The Americans say that their corvettes, armed with long twenty-four pounders for chace-guns, will be able to beat off our eighteen-pounder frigates ; and certainly if their superiority in sailing is equal to their extraordinary weight of metal such an event is by no means impossible.

The French, I hear, are building some of nearly equal force : and shall we, while these improved and superior vessels are rising up on all sides around us, obstinately persist in our old system, until defeat and shame too late convince us of our error ?

I further recommend entirely discontinuing our ten-gun brigs, considering them most inefficient vessels of war, and the expense they occasion a most complete waste of the public money. A certain number of the eighteen-gun brigs, on the contrary, *as brigs*, would, I have no doubt, always be found very useful as small cruisers when judiciously employed, and kept chiefly on those stations (the West Indies, for instance, and the Mediterranean) where enemies vessels of their own class are principally to be found. To employ them indiscriminately in all parts of the world, or to keep them on the coast of North America, or in the Bay of Biscay during winter, could prove only that total want of consideration as well as professional knowledge,

which is most discreditable in the conduct of naval affairs.

Having thus satisfied myself that all our most important classes of ships were both fully equal in point of force to those which they would be expected to encounter, and also that they possess the indispensable qualities of fast sailing, stability, and stowage, I should then carefully avoid all unnecessary expenditure on those countless varieties with which our dock-yards abound, and adhere steadily to those only with which I had full reason to be satisfied.

Our ships of the line might be confined to two or at most three classes, namely, first rates, like the *Caledonia*,\* of one-hundred-and-twenty guns—second rates, of ninety on two decks—third rates, of eighty-four guns; and our smaller seventy-fours being so very inferior in all respects to the two-decked ships of other nations, it may be advisable gradually to discontinue them, converting some

\* I regret to hear that this beautiful ship is undergoing not only a complete repair, but a complete alteration at Plymouth; and that great fears are entertained of her former good qualities being totally changed by this injudicious attempt at improvement. An extraordinary experiment has also been lately tried on the *Royal George*, of one-hundred-and-twenty guns, lately launched at Chatham; she has been *doubled with three-inch fir plank to increase her breadth*; forgetting apparently that, as fir does not last more than three or four years, her doubling will soon begin to rot, and if (as in all probability will be the case) the oak is infected, we shall have a new first-rate to take to pieces within five years after her launching.

into frigates, if the result of the proposed experiments fully justify such an expense, and others into troop ships, for which service they would be admirably calculated. I should think two classes of frigates amply sufficient, and the large corvettes I have proposed would replace with great advantage our innumerable pigmy squadrons of twenty-eights, ten-gun brigs, cutters, and so forth ; because it must be recollected that the invention of steam will entirely change the whole system of maritime warfare on coasts, narrow seas, and rivers, and that instead of the swarms of small vessels with which we were formerly accustomed to protect our convoys in the British Channel, North Sea, &c., we must now rely almost entirely on armed steam-boats for the effectual performance of this service. It is therefore inexcusable to incur heavy expenses in the construction of vessels, which, after the first six months of war, will become totally useless ; and it is for this reason that long heavy guns in all, even our smallest classes of ships, become of such urgent necessity.

I observe that in the French navy estimates for 1829, the minister of marine demands an extra sum of 7,000,000 francs for the express purpose of the construction of steam-vessels ; but I have not yet been able to learn that our attention has been turned as seriously as the importance of the subject requires, towards any preparations for this new species of maritime warfare. Here I am afraid our

old habits and prejudices again oppose the progress of improvement, and that while we look back with deep regret on those golden days when an order in council directed that no two-decked ship should in future be built larger than the *Repulse*, and no frigate than the *Euryalus*,\* we cannot yet screw up our courage to try experiments with armed steam-vessels, trusting, I suppose, that sailing will last our time; but that in the event of any extraordinary emergency requiring it, we may be able to purchase a sufficient number of the Leith and Dublin traders to answer our purpose. It is very true this may be possible to a certain extent; but as it is the bounden duty of those entrusted with the conduct of public affairs to prepare against evident dangers, and not to lavish the public resources in guarding against those which no longer exist, why, may I ask, do we not reflect that we are misapplying the funds granted for naval purposes when we employ them in the construction of vessels which are no longer required? and that half the sum expended since 1815 in twenty-eight-gun ships and ten-gun brigs, would have created a respectable flotilla of steam-vessels, and enabled us to try in time all those experiments with this new species of force,

\* A small seventy-four and frigate, long considered at the Navy Board the most perfect ships of their respective classes. Forty seventy-fours were ordered to be built at one time on the model of the *Repulse*. They cost about three millions and a half sterling, and were all bad ships.



which appear now to be delayed until the emergency for its employment actually arrives? We have still everything to learn with respect to their equipment for war ; and how many invaluable days and weeks will be lost, while (with all the mistakes and miscarriages inseparable from the want of full information and experience) we are hastily arming and fitting out a number of vessels constructed for other service, and but imperfectly adapted to the purposes of war.

I strongly recommend, therefore, that now, while we have still time and opportunity, such experiments may be entered upon on a small scale, and merely in the first instance with one or two vessels built by the best practical engineers, fully informed of the service for which they are intended, and the weight they are expected to carry, as may establish with sufficient precision the principal points which are of the greatest importance for our future guidance in this respect.

I am fully aware of the almost daily improvements in this wonderful discovery, and am therefore very far from proposing any indiscreet or expensive measures, which still newer discoveries might probably in a short time induce us to repent. All I ask is, that we should not persist in constructing those classes of vessels which we already see can never with any chance of success be opposed to steam-boats ; and that with respect to the latter, we may only fully keep pace with the progress of

discovery, instead of being dragged reluctantly forward in the wake of our more enterprising and vigilant rivals.

I shall close these observations with two more recommendations. Having already stated at some length the principal features of Sir H. Douglas's plan, I need only now urge its speedy adoption under such regulations and arrangements as would naturally suggest themselves to the experienced officers under whose guidance it would of course be placed ; that the valuable time we have already lost may plead loudly against any further delay, and that it may be recollected the sacrifice of one twenty-gun-ship annually will enable us to defray the whole expense.

I had earnestly hoped, in common with many of my brother officers, that advantage would have been taken of this long period of profound peace, to digest and introduce some material improvements into our general system of naval discipline ; and that while our civil and military codes have been gradually and almost imperceptibly assuming a milder spirit, and becoming more in unison with the altered temper of the age, and with the general disposition which prevails amongst enlightened men, to govern, as far as may be possible, by reason rather than force—I had hoped, I say, that this important subject would not have escaped the attention of our naval administration.

I am fully aware of the difficulty and delicacy of the task, and that any undue relaxation of the reins

of discipline might be to the full as dangerous and pernicious as the opposite extreme; but I cannot believe that in this, as well as in all other human affairs, there is not a happy medium by no means impossible of attainment; and remembering, as I too well do, all the occurrences which led to the fearful explosion in 1797, I feel doubly anxious that our system of discipline afloat should be so regulated and mitigated as to prevent, as far as possible, those sad instances of individual harshness and severity, which I would gladly expunge from my memory, but which I have no doubt contributed very materially towards the subsequent discontents.

The present seems to me a most favourable opportunity for correcting our deficiency in this important particular. It is very remarkable, that while the act of Parliament by which our naval discipline is regulated, has, I believe, received no material alteration since its first enactment in the reign of George II., our successive codes of naval instruction have been almost entirely silent on this point, although often tediously minute on so many minor regulations. The effect of this omission has naturally been to leave too much to the discretion and temper of commanders; and fully disposed as I am to render ample justice to the humanity, kindness and almost parental care with which a very large majority of our naval officers are accustomed to treat those under their orders, yet it cannot be denied that there must, amongst so large a number, be others who, from mistaken zeal, want

of consideration, early bad example, or ungovernable tempers, may fall into the same errors which, within my own memory, extended so widely.

This can only be properly guarded against by regulations issuing from authority, and laying down, as far as may be possible, some uniform system with respect to offences and punishments, fixing the greatest number of lashes permitted to be inflicted without the sentence of a court-martial, suggesting minor punishments, such as solitary confinement, &c. &c., where they can be substituted, directing full inquiry and deliberation before corporal punishment is inflicted, and, in short, inculcating the same rational and conciliatory spirit in the discipline of our fleet, which has, I understand, produced so gratifying an effect since it has been generally introduced into the army.

Justice towards both our officers and men, demands some such measure as that which I now recommend; and that while our civil and military laws are undergoing revision, and gradually adapting themselves to the more humane spirit of the times, our naval code should not be left the sole remaining monument of a less civilized period.

If the regulations I propose were embodied in the instructions, and couched in the discreet and temperate language which has characterised orders of a similar tendency issuing from the Horse-Guards, their good effects would be soon generally

diffused through the navy, and an improved and more uniform system established in our fleet, before any sudden emergency obliges us to resort again to impressment, and to assemble hastily large bodies of seamen serving (at first at least) compulsorily and reluctantly, and whom it should be our first object to attach and conciliate. All who best know them will agree with me in asserting, that no class of men is so capable of strong gratitude and devoted attachment as our maritime population ; and those who, like me, have remarked with heartfelt pleasure the ample return they have received for a steady system of kindness and consideration, will I am sure agree with me in deprecating all unnecessary harshness and severity towards them.

It may perhaps appear to savour of personal or professional vanity, if I presume to attribute the remarkable perseverance in old systems, and the strong distaste towards modern improvements in naval affairs, on which I have so much animadverted, to the determined and apparently systematic exclusion of naval officers from those departments where it would naturally be supposed that professional experience and information must be indispensably necessary.

I am far from wishing to draw *invidious* comparisons, or to repine at the superior advantages enjoyed by our sister profession, which leads *to*, instead of excluding *from*, the highest honours of the

state ; yet I cannot but see that our naval departments are degenerating into political engines, and the smallest possible number of professional men permitted to take part in their deliberations.

Let me only contrast this system with that pursued in our military offices. At the Horse Guards the commander-in-chief is a general officer : all his staff, adjutant and quarter-master-general, and their deputies, military secretary, &c. are exclusively military. The secretary-at-war is a colonel in the army ; the whole of the Board of Ordnance, master-general, lieutenant-general, surveyor-general, &c. &c. are all military men ; not a single naval officer is admitted, although all the alterations and experiments on *naval ordnance* are tried at Woolwich, and (as I have heard) very great unnecessary expense often incurred from the want of that information which professional experience can alone afford ; all the minor branches, comptrollers of army accounts, &c. are equally filled by valuable officers, whose previous habits peculiarly qualify them for the duties of their station ; but when we turn our eyes towards our naval departments, what an extraordinary contrast do they present ? Our first Lord of the Admiralty, two out of the four junior lords, and the two secretaries, can lay claim to no professional knowledge or experience whatever—thus forming a majority of five to two in the great council, where all naval affairs are decided. If we turn to the navy-office, a

similar disproportion will be found. A distinguished officer is, it is true, comptroller of the navy ; but the deputy-comptroller, the joint surveyors, and the accountant-general, are all unprofessional ; and it is only at the bottom of the list, that we find two captains in the navy employed as store-keeper and superintendent of transports ; although it is here that every thing which relates to building, repairing, modelling, and in short the whole detail of the *materiel* of our navy is supposed to be considered and arranged.\* I am quite aware that our surveyors of the navy are the naval architects of the department, and, as far as practice in our dock-yards extends, are always expected to be regularly educated ; but I must be allowed to doubt (and I think some facts which I have stated, will induce my readers to join me in entertaining those doubts) whether an education in which experience and observation at sea is considered unnecessary, can possibly produce a complete and thoroughly accomplished naval architect ; and I cannot but attribute a great proportion of the mistakes on which I have animadverted to this glaring defect in our system—a defect which Mr. Yorke, when First Lord of the Admiralty, most wisely endeavoured to amend by the establishment of a school for naval architecture in the dock-yard at Portsmouth, where

\* The chairman of the victualling-board, which superintends not only that department but the medical staff of the navy, is a major-general !



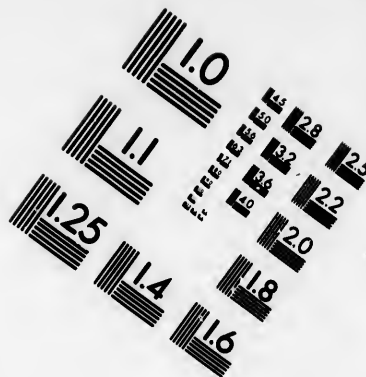
all young men looking forward to the higher employments in the naval yards were to be regularly educated ; and, after being thoroughly grounded in the mathematical and mechanical parts of the subject, to serve for a certain time afloat on board some of his Majesty's ships of different classes, and thus learn by actual experience the application of those principles in which they had been previously instructed.

How, during the existence of the school, this latter condition was constantly evaded, and by what influence the whole establishment was gradually undermined, and has now fallen entirely to the ground, it is not in my power to explain. Perhaps my readers may think that this circumstance accounts for much of the affection for old routine which they must have already remarked. It is evidently impossible to expect that one officer at the Navy Board, and two at the Admiralty, however laborious and distinguished for zeal and exertion, can superintend and direct, not only all that daily current business of their departments which requires a professional opinion, but the various alterations and improvements which equally call for attention. Under these circumstances too much is inevitably left to inferiors, who pursue the beaten track in which they have been brought up, and too much is postponed until a more convenient season, which, alas ! never arrives.

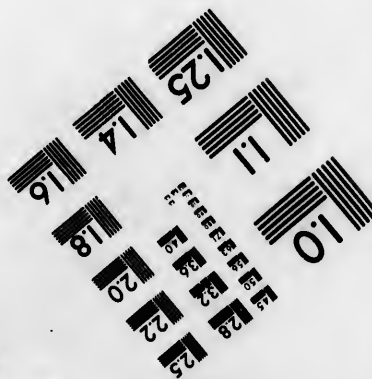
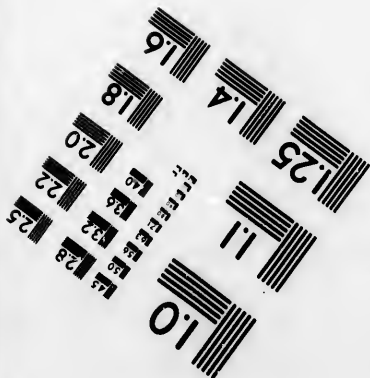
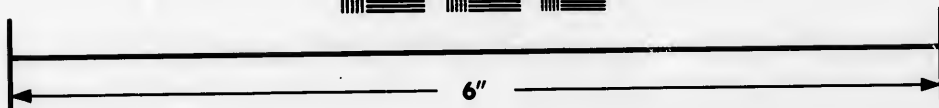
The Comptroller of the Navy, and the two junior







Resolution test chart showing patterns of vertical and horizontal lines with numerical values ranging from 1.0 to 4.0. The chart includes a central column of small patterns labeled 1.5, 2.0, 2.5, 3.0, 3.6, and 4.0, and larger patterns labeled 1.0, 1.1, 1.25, 1.4, 1.6, 1.8, 2.2, and 2.5. The patterns consist of groups of three vertical lines and groups of three horizontal lines, with the numerical value indicating the resolution in line pairs per millimeter.



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Lords of the Admiralty, are also generally in Parliament, and consequently obliged to attend the House of Commons regularly during the session. It is therefore obviously impracticable for them to exercise that personal superintendence over various branches of their departments without which the public service nevertheless cannot be satisfactorily carried on. If they had sufficient leisure, or the assistance of efficient and competent colleagues, I have no doubt that many of the experiments and improvements which I have suggested would have been already tried. It is to our system therefore, and not to individuals, that I impute blame; and until that system is changed or modified, and a few votes in Parliament considered of less value than the well-being of the British Navy, I confess I shall see but little hope of permanent improvement; being unable to understand on what other principle naval officers are excluded from naval employments, as, whatever prejudices may formerly have existed against them, they are now (if my own in their favour do not entirely mislead me) fully on a par with their equals in society in information and science; and on many remarkable occasions have shown themselves perfectly competent to the conduct of the most important affairs.

If any of those members of the House of Commons who watch vigilantly over the public expenditure, do me the honour to read these pages, let me advise them to scrutinise our navy estimates

more rigidly than they have hitherto been accustomed to do ; to call for more detailed accounts, and to ascertain satisfactorily in what manner the sums voted have been actually expended ; whether in the repair or construction of those classes of ships which I have recommended, or in improvident and injudicious expenses on those of inferior and objectionable descriptions. Above all, let me advise them not to be silenced or mystified by any official replies which they do not perfectly understand, and to be assured that there is nothing mysterious or unintelligible in naval affairs, where a disposition exists to explain them openly and candidly.

The French minister of marine gives in a full return of the whole navy, specifying the state and condition of each ship, and the measures proposed to be taken with those requiring repair.

If a similar plan had been adopted here in 1815, and some little pains taken by independent members of the House of Commons to acquire correct information, I am sure many hundred thousand pounds might have been saved during the last fifteen years. It has often vexed me to see such warm and eager debates on the most insignificant items of the estimates, when I well knew that every ten-gun brig voted was ten thousand pounds thrown away, and so on in proportion with respect to the twenty-eights, &c. ; but "the whale went after the tub," and these, which were the really injudicious expenses, passed without comment or observation.

I shall here conclude my Remarks in the earnest and fervent hope that they may, by exciting the public attention to the errors and omissions which I have endeavoured to point out, contribute, in some small degree, to avert the dangers to which I confess I cannot look forward without apprehension.

I am old enough to remember that, only fifteen years after almost as successful a war as that which we saw so gloriously terminated in 1815, Plymouth was blockaded by a superior fleet, and our ships of war at Spithead obliged to take refuge in Portsmouth harbour. This great national disgrace was entirely attributable to the impolitic and inconsiderate manner in which our naval administration had been conducted; and although I am far from intending to draw an invidious comparison, yet I cannot avoid recalling to my recollection both this fatal period and the commencement of the war of 1793; and fears will then arise in my mind, that even all this dearly bought experience has not produced the desired effect.

These considerations have induced me, however reluctantly, to undertake this painful task: I hope I may have performed it with a due regard for the feelings of those whose public measures I cannot entirely approve, but to whose zeal and integrity in their official capacity I render the fullest justice. If in the course of these observations I have misstated or mistaken facts bearing materially on my argument, I can only assure my readers that I have

spared no pains to obtain the best and most accurate information, and from 1816 down to the present time I have been in such constant correspondence on this subject with my brother officers, both at home and abroad, and have so carefully rejected every circumstance of doubtful authenticity, that I do not think any of my important assertions can ever be seriously controverted.

If I can succeed in my object, my declining years will not have been unprofitably employed ; and I sometimes fondly hope that an old officer, who has witnessed the reverses as well as the successes of the service to which he is still devotedly attached, may not raise his warning voice in vain.

THE END.

