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A  
LETTER  
TO  
THE RIGHT HONOURABLE  
LORD VISCOUNT MELVILLE,  
ON THE SUBJECT OF  
HIS LORDSHIP'S LETTER  
TO  
THE RIGHT HON. SPENCER PERCEVAL,  
RESPECTING  
A NAVAL ARSENAL  
AT  
NORTHFLEET.

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BY THE RIGHT HON. GEORGE ROSE.

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A LETTER, &c.

MY LORD,  
IN making this address to your Lordship, I have not the remotest intention of entering into a controversy with you in consequence of your letter to Mr. Perceval; to which I should feel myself very unequal in every respect, even if the ground of the difference of opinion between us on the subject was much wider than it is. In truth that difference is more in degree than in substance, for if a new Naval Arsenal must be provided to the eastward, I am persuaded a better situation than Northfleet cannot be found; from its easy access to the Nore, and being free from the difficulties of the upper part of the river.

Some explanation is, however, necessary for my presuming to address you on a matter out of the line of my general pursuits in public business, especially

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upon one on which you have had opportunities that could not escape you in official situations, of informing yourself to the best advantage: and I cannot hope to be excused for doing so on a better ground than by stating, that after last Christmas Mr. Perceval sent to me in the country an abstract of the 15th Report of the Commissioners for Naval Revision, made for the purpose of drawing his attention to the several points in it, which were conceived to be the most important for his consideration. Unwilling to withhold the paper from others infinitely more likely to give useful advice upon it than myself, I sent it back by the return of the post, and in a few days afterwards communicated to him the following observations. Having then recently considered most attentively the extent to which our expenditure had grown, I will fairly own, I made them under the influence of a firm persuasion of the absolute necessity of reducing that in every practicable way not inconsistent with our safety: and I think it desirable to give these suggestions in the state they were offered at the time, to avoid as carefully as I can even the appearance of going out of my way to differ with your Lordship.

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Cuffnells, January 6th 1810.

If it could be satisfactorily proved, that there is an indispensable necessity, or even a pressing urgency, for the Naval Arsenal at Northfleet to the extent proposed, the amount of the expence likely to attend it should not, I think, prevent the adoption of the measure; because unquestionably the maintenance of our naval superiority must be paramount to all other considerations whatever. But on the other hand it may safely be asserted, that there has been no period in our history when there existed stronger reasons for carefully avoiding every charge not essentially necessary for the safety of the country.

It is therefore incumbent on those who are most immediately intrusted with the public purse, to examine with the most diligent attention any plan that may be proposed, which is likely to occasion a considerable expenditure; and it can convey no reflection on the distinguished Nobleman at the head of the Commission for Naval Revision, than whom I know not a man more eminent for skill in naval matters, or more to be respected for unbiassed integrity and unremitting zeal in the public service, or on the other commissioners, to

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suppose it possible in this instance, that they may not have been aware of the infinite importance of such an examination. Under a strong impression of the great utility of the measure, they have very naturally brought forward every consideration likely to influence the minds of others.

What the cost of the whole of the works proposed at Northfleet would be, is, I think, not stated in the abridged account extracted from the report; but the expectation held out by the commissioners cannot have been much less than 6,000,000l., as they say that the expence of the measure will be compensated by the savings in the first fifteen years, amounting to 5,900,000l.; and considering how infinitely the real charge exceeds the estimate in all cases of this sort, it is not likely that the whole work, with the extensive fortifications necessary for its defence, in a situation more exposed than Chatham, would be completed for a sum lower than 10,000,000l.; for whatever difference of opinion has prevailed about fortifications, there never was one expressed by any authority against effectual protection for our great Naval Arsenals. The sum  
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above-mentioned will therefore not be thought an extravagant conjecture; for which taxes must be found for nearly 600,000l. a-year.

The advantages that would attend the introduction of the use of mechanical powers to perform work in our dock yards, now done by the hands of men, are unquestionable; and it has long been a matter of surprize to me that it has not been much earlier considered, how far that was practicable in the present yards; as we have seen mechanical engines, especially those worked by steam, applied for the abridgment of labour in almost every private establishment of magnitude in the kingdom, by the use of which the articles manufactured have not only been furnished at a much less expence, but have been improved in quality. The convenience and oeconomy of railways, for carts, &c. to move in, is equally evident.

I am ready to make an admission also to the projectors of the plan (without knowing the fact), that great advantage would be derived from building all the large ships of war, and making the whole of the cordage, and perhaps the anchors, in His Majesty's  
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jefty's yards; but I am inclined to think it would by no means be advisable to introduce manufactures of canvas there, about which I shall say more before I finish this paper.

That the attainment of the objects on which there is no difference of opinion, could be infinitely better provided for in a new Naval Arsenal of sufficient extent than in the present yards, not only on account of the additional space that would be acquired, but by making all the arrangements of the buildings most advantageous for the application of machinery, it would be absurd to deny; but the point for attentive consideration is, whether the superior benefits that would be derived from the new Arsenal are sufficient to justify the unavoidable expence that would be incurred.

Other circumstances are, however, stated by the commissioners to induce the adoption of the plan.

The want of sufficient depth of water at the present dock-yards; an inconvenience stated to be rapidly increasing.

— improper situations in which they are placed.

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— insufficiency of them to maintain the navy on its present extended scale.

— want of space for ships in ordinary.

— decline of the dock-yards; the means of naval superiority being thus lessened.

— necessity for our building ships with their lower deck-ports close to the water, while the enemy builds his high out of the water.

— distance at which the ships are from the yards, which affords opportunities for embezzlement; expence of craft, &c. &c. &c.

In such a case as the present I should justly incur the imputation of great presumption if I were to do more than recommend that opinions offered by men of the highest professional character, should be considered before a measure which must be attended with a most enormous expence is adopted.—I repeat that it is perfectly natural they should propose such a measure, impressed as they are with its importance. The point I wish to press for attention is, whether material parts of it cannot be obtained in the present yards at a limited expence, though not to so great advantage as in a new Naval Arsenal; and whether the urgency is quite as great

for that proposed as the zeal of the commissioners for the improvement of the navy has induced them to represent.

With respect to laying cordage by machinery, an highly useful work, and I believe the most important of those proposed to be done by steam, both as to economy and the improvement of the article; I have a perfect conviction, formed on no light ground, that sufficient room may be found for it in the present yards; and in many of them it seems probable machinery might be erected for all the other purposes suggested except the manufacture of canvas.

The forming railways to a considerable extent cannot be difficult, though not to so much advantage as if the buildings, &c. had been constructed with a view to them.

The inconvenience, stated by the Commissioners to be rapidly increasing, of an insufficiency of the depth of water in our dock yards is a most serious evil. It is I believe not felt at Plymouth, where ships of any draft of water can enter the harbour and be docked; and equal convenience has been afforded

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by modern improvements, as far as respects the docks at Portsmouth; at the latter it is not the depth of water in the docks, or in the harbour, that is complained of, but the bar near the spit at the entrance of the harbour:—an inconvenience, I admit, nearly as great as shallow water in the docks or harbour would be, unless it can be removed; the practicability of which has probably not escaped attention; otherwise it certainly ought to be considered.—At Sheerness no ship larger than one of 64 guns can be docked, but at Chatham first rates may be taken in. The objections to the yards at Woolwich and Deptford arise principally from the want of water in one or two of the reaches above Gravesend, Erith in particular\*. And here may arise two questions for consideration, 1st. Whether the shoal in Erith Reach can be re-

\* As high as Long Reach, vessels of any draft of water may be navigated with perfect safety; but ships of great draft are lightened there, and wait for spring tides before they go higher up. The large Indiamen draw 23 or 24 feet, within a few inches of a seventy-four gun ship. The depth of water in the stream of the Thames continues nearly the same, (though the shores are covered with mud) by the exertions of the Trinity House, who take up above 300,000 tons of gravel yearly from the bed of the river, but the collection of mud there is about equal to that: in particular spots, however, I believe the depth has been somewhat improved.

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moved, and at what expence; and, 2dly. If that should be found impracticable or too expensive, what the charge would be of making a cut from Purfleet to Blackwall, sufficiently deep for ships of the largest draft of water to pass through. The latter question is the more important, as it is of great consequence to the trade of the capital, as well as to the naval yards in the river; such a cut has been in contemplation, and if it could be undertaken, it is probable the expence either of that, or of deepening Erith Reach, might be defrayed by a charge on the trade of the port, which would be compensated by the saving arising from avoiding delays, frequently very expensive and inconvenient: in either of which cases the yards of Woolwich and Deptford might perhaps be enlarged and rendered more useful.

The consideration next in importance to the obtaining deeper water at the entrance of Portsmouth Harbour and in Erith Reach, is the capacity of the present Yards for the building and equipment of ships for the navy; having already referred to the practicability of erecting machinery in them. In this part of the subject it is proper to take notice of the

the observations of the Commissioners, where they speak of "the decline of the dock yards;" "the means of naval superiority being lessened;" "the want of deep water at the present yards; compelling us to build ships with their lower deck ports close to the water, while the enemies build theirs high out of the water;" and of "the insufficiency of the dock yards to maintain the navy on its present extended scale."

On reading what the Commissioners say on these points, without the remotest intention, I am persuaded, of exaggeration; but insensibly carried away by their zeal for improvements, a person quite new to the subject would be disposed to think that no endeavours had been used for making improvements in our Naval Arsenals, to keep pace with the increase of our navy: whereas at Portsmouth alone, 23 acres have been added since the end of the seven years' war in 1763; that yard now containing 100 acres; in the new part of which are slips for building three ships of the largest size, and two for small ships. In Sheerness yard some additions have been lately made, the extent of which I do not know; nor am I apprized of what improve-

improvements have been lately made at Chatham, but those at Plymouth have been very complete. With the certain knowledge, however, of the very extensive improvements at Portsmouth, of some at Sheerness, and observing no neglect at Woolwich and Deptford, I am not aware of what the Commissioners allude to, when they speak of the decline of the dock yards, and the means of our naval superiority being lessened; especially as the additional convenience at Portsmouth, provided within the last 40 years, is not confined to building ships. The great basin there has been deepened and enlarged; the middle dock, south dock, and south east dock, in the great basin, made new; the four jetties have been enlarged; the north basin deepened and enlarged; the channel leading to the basin formed into a dock for frigates, and the entrance formed into a lock for receiving a ship occasionally. When it is considered likewise, that within the same period, the coppering our men of war has come into general use, which prolongs the time very considerably during which they can continue afloat without being docked, the provision made for docking them should be reckoned as two or three fold.

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Difficult as I find it to understand the allusion of the Commissioners to *the decline of our dock yards*, I am much more perplexed to discover the foundation for their observation, that we are compelled to build ships with their lower-deck ports close to the water, while the enemies build theirs high out of the water. On professional points I should not presume to enter on any reasoning with men of such distinguished eminence as the naval officers in this commission; but I may venture to refer to facts.

Of first-rates I have not the means of making a comparison between the French and ours; I believe indeed we have not now a French ship of this class in commission; but the Spaniards have long been supposed to build as fine ships of war as the French; with those the comparison stands thus; a Spanish and an English ship of the same class, are lying along-side each other at Spithead at this time:

		Height of midship ports out of the water.	
		Feet. Inches.	
British.	Caledonia - 120 Guns	5	6
Spanish.	San Joseph - 114 Guns	5	6

Of third-rates we can make the comparison between the English and French.

British



		Height above the midship port.	
		Feet.	Inches.
British.	Milford	74	4
	Revenge	—	3
	Ajax	—	11
	Majestic	—	10
French.	Tigre *	74	3 1/2
	Impetueux	—	10
	Implacable	—	8 1/2
	Donegal	—	4

The draft of water of the foreign men of war is in a small degree greater than in the British; but it is clear that *that* is not necessary to the ships having their lower ports high out of the water from the above instances.

It is next fit to consider whether such a difference as does exist between the draft of water in British and foreign ships renders a new dock-yard necessary.

		Load Draft of Water.	
		Feet.	Inches.
British.	Caledonia	120	6
	Milford	74	6
	Revenge	74	6
	Ajax	74	3
	Majestic	74	9
Foreign.	San Joseph	114	1
	Tigre *	74	4
	Impetueux	74	0
	Implacable	74	0
	Donegal	74	4

\* This French ship, drawing the most water of any in the same class, appears to carry her lower-deck ports nearer to the water than the others.

Having

Having before established the fact, that a greater draft is not necessary to a ship carrying her guns high out of the water, it is from the last mentioned statement certain that the greatest difference in the draft of water is in a first rate 13 inches, and not more in most of the third-rates; in some cases in the latter no difference can be insisted on.

I am next led to advert to provision being made for laying up ships in ordinary in time of peace; of which I admit the necessity; but a question upon this naturally arises, Whether in consequence thereof the incurring the heavy expence of making wet docks or basins of sufficient capacity for the purpose, is unavoidable? Or whether space may not be found in the vicinity of the present dock yards? In considering which, when it is admitted that a basin is much more convenient than a river for laying up ships, as the expence of moorings and boats are thereby saved, and the ships are in a state of quietness, it must at the same time be recollected, that the danger from accidental fire, or the destruction by an incendiary, or from a bombardment, is much greater in the former than in the latter situation. I have understood that in the Medway, at least double

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the number of ships may be moored than ever were laid up there, as there is sufficient depth of water for them between Gillingham and Standgate Creek; and in the latter I was informed, when last there, moorings might be laid down for eight or ten, as the Lazarette on shore is now in use. In the Southampton river, emptying itself into the sea within the Isle of Wight, and consequently smooth water, there is a space above Calshot Castle of nine miles, in a great part of which, moorings might be laid down for large ships. In the Hamble river, emptying itself into the Southampton river, there is a space of four miles between Bursledon (where 74 gun ships are built,) and the mouth of it, equally convenient for ships of a smaller size; and in the Beaulieu river, close to the Southampton water, there is a considerable space between Buckler's Hard (where also 74 gun ships are built) and the mouth of the river. Of additional accommodation in the neighbourhood of Plymouth I cannot speak confidently, but I have been assured that it may be obtained in different branches of the Tamar.

Without deciding upon the comparative advantages and risks between ships being laid up in basins, and their lying at moorings in safe harbours, and

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and still rivers, it may be observed, that the latter practice has prevailed from the earliest period of our naval history, and we have not heard of mischiefs resulting from it.

The argument used by the Commissioners, of our present ports being on a lee-shore, as applying to Portsmouth and Plymouth, can have reference only to the Arsenals being on the most inconvenient sides of the harbours, because the opposite shores of the Channel belong to the enemy; which circumstance may make it a little more inconvenient for ships to get out of the harbours, but can occasion no material delay; and however prevalent the wind from the westward is, I believe it does not often happen that a ship could go down the Channel from a French, when she could not do so from an English port on the opposite coast; but if I am mistaken about that, it would not affect the present question for the reason above-mentioned. Applying the objection to a lee-shore, to the extent of preferring one side of the river Thames to the other on that ground, seems to be pressing it very far; but this is not worth entering upon.

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The observations on the inconvenience and loss arising from the ships necessarily lying at a distance from the dock yards, to take in their stores, which affords opportunities for embezzlement, must apply principally to Deptford and Woolwich. At all the other yards the ships lie within a trifling distance from the jetties and wharfs\*; and even at those in the river I apprehend all the small stores of the Boatswain, Gunner and Carpenter, such I mean as are capable of being plundered, might be put on board from the yards without bringing the ship down one inch in the water; and the delay of delivering the remainder in Long Reach, cannot be considerable, unless in very bad weather, as the Hoy which carries them will always get down in one tide. The expence of employing craft on such service, stated by the Commissioners, appears to be too trifling to deserve attention.

The situation of the yards of Portsmouth and Plymouth, it is conceived, are as good as can be

\* At Portsmouth the shoal water at the entrance of the harbour does not prevent the large ships from taking in their heavy stores close to the yards; although their guns may not be taken in till they get to Spithead.

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found for channel or foreign service, except Falmouth; where at some time it may be desirable to provide convenience for making that harbour a rendezvous for line-of-battle ships, which, I believe, might be done at a very moderate expence. To this place, however, I am aware objections have been made; applying to the narrowness of the road for mooring ships of the line in safety; to their getting out with the wind from south-east to south; and to the danger from the Manacle rocks, which lie about seven or eight miles from the harbour's mouth. To all which I have in my possession answers which appear to me to be perfectly satisfactory; and I have likewise a list of 656 ships and vessels in His Majesty's service, of which 69 were of the line and 83 frigates, that arrived at, and sailed from Falmouth, from 1805 to 1808, without an accident having happened to any one of them. In the latter part of Mr. Pitt's administration, enquiries were made by skilful men as to the use that might be made of this port; and the result established the certainty that it might be rendered highly advantageous to the naval service of the country.

Chatham and Sheerness are well situated for the North Sea, as to equipment; in the former of

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which large ships may be built and receive thorough repairs; and those in the river are used for building large ships, and giving thorough repairs to frigates. If the arsenal at Northfleet should be erected, I apprehend its principal use (exclusive of containing the ships in ordinary,) must be to supply the defects of the eastern yards; it cannot answer for docking and fitting ships for the westward, on account of the length of time usually occupied in ships going from the Nore to Spithead or Plymouth, for which different winds are necessary\*.

When the Commissioners say that a ship may make that passage with any wind, they must mean,

\* It is not improbable that a ship might go from Plymouth to the West Indies, while one was getting from Gravesend to Plymouth; the supposition is not extravagant in the case of a large man of war: the advantage of the western ports for docking, small repairs and fitting, for all services except the North Seas, is therefore incontrovertible. A fleet sailed from Portsmouth for foreign service, the same day that Colonel Crawford sailed with the force under his command to South America, from Falmouth; and accounts were received from him to the southward of the Line, on the same day that the Portsmouth Squadron sailed from Plymouth; which port only they could reach, while the other crossed the Line, and a ship came from there to this country. This will appear the less surprizing, if the prevalence of westerly winds in the Channel is considered.

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I suppose, as far as the Downes, and that only in moderate and settled weather, (not much to be relied on in the winter season,) owing to the intricacy of the navigation: from the Downes they cannot go down the Channel with a westerly wind.

I come next to some positions of the Commissioners, on which I am under a considerable disadvantage, as the ground on which they rest is not stated in the Abstract.

1. That ships will be fitted in the new yard in half the time, and at half the expence now incurred.

2. The mode of returning the stores would enable them to be used again; which at present is seldom the case.

On these two points it would be unfit to make any comment, till the reasons in support of them shall be seen in the Report: I will only say in the mean time, that I should think it difficult for much greater expedition to be used, than I have been an eye-witness of at Portsmouth.

3. Officers would be sooner set free when ships are paid off.—A ship being unrigged in a basin, might

be stripped in a few days less, and the stores returned sooner than in a harbour; but at Portsmouth there is a basin which would contain as many ships as are likely to be paid off at once.

Thus far for the advantages expected to be derived to the navy from the new Naval Arsenal. The saving to be effected by it is estimated at 5,900,000l. in the first 15 years, and an equal sum in every 15 years afterwards; to arise from—

Building ships in the King's yards, instead of by contracts with private builders,	}	2,580,000
By making cordage and canvas		3,320,000
		<u>5,900,000</u>

The particulars in support of this estimate are probably detailed in the Report; I will, therefore, suppose the amount accurately stated in the paper sent to me. But in that case it would not be in my mind, as at present advised, an inducement to adopt the proposed measure; because I believe if workmen could be found, there is sufficient accommodation in the King's yards for building the requisite number of ships.

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The Commissioners say that the number of ships of the line and of 50 guns, including those built in the King's yards, Merchants' yards, and taken from the enemy in the 18 years previous to this Report, which were sufficient to carry our navy to its then flourishing state, amounted to 106; and as we have 20 slips in the present dock-yards for ships of the line, the whole number necessary might be built in those, allowing each to be more than three years in hand, which must be admitted to be a reasonable time for seasoning. If there are not already sufficient slips in the King's yards for frigates, I suppose more may be provided. How far it would be practicable to get a sufficient strength of artificers for carrying on the whole of the new work, and for the repairs of the navy; or if that could be accomplished, how far it would be prudent to engage so much larger a number than could be employed in peace, I will not take upon me to say. I remember when the *Pegasus* was taken by Lord St. Vincent in 1781, it was reported that she was built in 70 days. That was perhaps not true; nor, if true, is it meant to suggest that it would be expedient to attempt to follow such an example; as I have always understood that one certain advantage

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tage of building in the King's yards, is, that from the length of time the ships are usually on the stocks, the timber is well seasoned, in consequence of which they continue longer serviceable than those built more quickly in merchants' yards.

The saving on Cordage might be made in the present yards, nearly, if not quite, to the whole extent, as in the new Arsenal; if I am right in supposing that machinery for that article might be erected in these.

To the expediency of introducing a manufactory for Canvas in a Naval Arsenal, already alluded to generally, there seems to be serious objections; and the saving (if any) may be at least as well effected by the public establishing one or more\*, under superintendants of its own, in the most convenient situations that can be found. The introduction into yards of great numbers of men, women and children, who must be employed in such a manufac-

\* Such manufactures might afford excellent employment in the naval schools, which I have long felt anxious for the establishment of.

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tory, would alone be a great evil; and to prevent mischief therefrom, much of the time of the superior officers would be taken up, interfering with their more important avocations of building, repairing, &c.

These are the reflections which have occurred to me since I read the paper sent to me; till I read that, I never heard the measure spoken of, except loosely, as one to which it might be expedient at some time or other to resort; no other reason occurred to me, therefore, against it, except its enormous expence. In such a case, the arguments in support of an opinion, formed to a certain extent, without a due examination, should be scrutinized with at least the same severity as those stated in support of one, conceived by the party proposing it to be of great utility, without having duly reflected on all the difficulties attendant on its adoption. Many of mine may be found to be erroneous or irrelevant. I feel my inferiority of judgment on the subject to that of the framers of the Report very strongly, and most unaffectedly: more especially, as it is said to be supported by the authority of several gentlemen of

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the very highest respectability, (two of whom I have the good fortune to know personally) but who may perhaps have had in view only the best possible arrangements for a Naval Arsenal, without weighing concomitant circumstances \*. With the sense of their superiority strongly impressed on my mind, I still feel that some facts which I have stated deserve consideration; because I am confident that steam-engines may be applied in the present yards with great advantage to many purposes, such as the making cordage, to the sawing of timber, rolling and forging copper and iron, working the cranes, and perhaps for other uses. The spaces which they would occupy, would certainly, in most cases, be much less than is now taken up by the mode in which the different articles are manufactured. Under which conviction, if that shall be admitted to be correct by competent judges, I am quite sure the measure in contemplation should not be proposed to Parliament, till a careful survey of each yard, as it now stands, shall be taken, in order to ascertain what improvements can be made in them respectively; on which surveys, well digested designs may be prepared for

\* Mr. Rennie, Mr. Huddart, Mr. Mylne and Mr. Jeffop.

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the future probable increase of the improvements; so that as the present buildings shall decay, or may be gradually taken down, new may be erected in such situations as, in the end, to render the whole complete.

The expence of such surveys would be inconsiderable, and one year only would be lost. If the result should be a complete adoption of the Northfleet plan, the person proposing it would go to Parliament with a much better sanction than the recommendation of the Commissioners for Naval Revision, highly respectable as their authority is. The throwing down great and extensive buildings in two dock-yards, as proposed, which have been erected at an immense expence, and setting up others on a new spot of ground, even if the charge to be incurred should be only one half of what has been stated, would surely require much deliberation, if the resources of the country were as abundant as they ever were. Of these I do not mean to speak with despondency; with proper management I am persuaded they will carry us through all our difficulties, whatever their duration may be.

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I have not entered on the question alluded to by the Commissioners, respecting the comparative economy between task-work and day-pay, because, as far as the former can be adopted, it may be as easily done in the old yards as in a new one.

The only other point touched upon in the abstract, and that but slightly, relates to Milford Haven; but as the building ships there is suggested, I cannot resist recommending that some enquiry may be made before any establishment is fixed for that purpose; the convenience of such a one can hardly arise from an abundance of timber in the neighbourhood; as I remember to have heard, that by far the greater part used for the construction of the Milford of 74 guns built there, was supplied from the forest of Dean; which would otherwise have been carried to His Majesty's yard at Plymouth. As a port for ships of war to resort to, except a few on the Irish station, I suppose it has seldom been used, except by ships putting in accidentally.

I well remember the late Mr. Greville labouring incessantly during twelve years to obtain a naval establishment

there; but he failed in that, though he succeeded in two other schemes for the benefit of the port; in one of the cases, at a great and useless expence to the public. A strong solicitation was urged even to make it a tobacco port, notwithstanding its extreme inconvenience in point of situation for importing and exporting, and that there is but little home-trade near it.

If these very superficial remarks, hastily made, shall contribute in any degree towards inducing you to consider the whole subject attentively, and to avail yourself, without delay, of the best advice you can obtain as to the practicability of improvements in the present yards, and the extent to which these can be carried, I shall think my time has not been ill employed.

THESE were the observations made to Mr. Percival at the instant of my reading the paper sent to me by him; and acknowledging as I do, that there is much force in your Lordship's statements, and in the arguments in support of them, I am  
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compelled to say that if I had been so fortunate as to have had the benefit of those, when writing to the first lord of the treasury, I should still have endeavoured to press on his mind the expediency of having the fullest possible information respecting the improvements which may be made in the present yards, before any thing should be done at Northfleet \* ; because without that a proper judgment cannot be formed of the extent to which the new work, if decided on, should be carried; and an useless expence might otherwise be incurred by its being begun on a larger scale than might ultimately be deemed necessary ;— for such an enquiry, men more competent than those mentioned by your Lordship cannot be found in this country, nor I believe in the world † . It is true that these gentlemen, or some of them, have already examined the dock-yards, but not for the purpose to which I endeavoured to direct Mr. Perceval's attention. The immediate object, I think, should be to have correct surveys made of each

\* Even for the works necessary for a dock-yard, as suggested in p. 47, in your Lordship's letter.

† See p. 26, of this tract.

yard

yard as it now is, that it may be ascertained what steam-engines can be erected, and other improvements made for the works to which they are suited in the dock-yards; and that they may be arranged in such a manner, as to admit of their benefits being extended, as the further increase of the yards may require.

With the aid of such surveys, well digested designs for the future enlargement of the Arsenals may be prepared, with a view to their gradual improvement, so that as the present buildings decay, new ones may be erected in such situations as in the end may render the whole complete; from the want of which, I am afraid some of the buildings lately erected in the dock-yards, have not been placed to the best advantage.

It was an alarm at the expence of the undertaking, that led me to step out of my line, to submit advice to Mr. Perceval. Concurring with your Lordship, as I do entirely, “ that the country can never be served by a government of untrouled departments,” I thought it important that he should satisfy himself of the necessity of an immense expence being incurred, before he should

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give his sanction to it; for which I was the more anxious, under a conviction, not shaken I must confess by any thing in your Lordship's letter, that the savings to meet the charge, or in diminution of it, will be extremely inconsiderable. The estimate, as already noticed, is nearly 6,000,000l.; nothing is included in that for defence; and notwithstanding your Lordship's remarks on the triteness of the observation respecting the actual expence generally exceeding the estimate, and your reference to the works lately executed by private companies in the river, I am persuaded the arsenal would not be finished for any thing like that sum; and that I was guilty of no exaggeration, when I suggested to Mr. Perceval the probability of an expenditure of 10,000,000l., including the extensive fortifications that would be requisite for its defence; without taking any thing into the calculation for the troops to be employed in them.

If I am right in supposing that all the machinery necessary for the several purposes wanted, may be erected in the present yards, and that there are slips sufficient in them for building all the line-of-battle ships, the articles of saving will be reduced to the doubtful one of building frigates and smaller vessels;  
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the mooring chains, and the charge for the men in ordinary, whose wages would be saved by the ships being in a basin, instead of in a river or harbour. Some misconception must have prevailed, I think, about the plunder of stores; no new protection against which at the great ports of out-fit has been thought of. In the instances your Lordship mentions of eight months' sea stores having been consumed before the ships left the Nore, the gross corruption of the officers must have been notorious, and it must be hoped was most severely punished, as a warning to deter such manifest delinquency in others.\*

On estimating the saving arising from a great number of ships of the line being laid up in a basin,

\* This fact surely deserves a most minute investigation, to have it ascertained whether the stores alluded to were actually plundered, or were articles that had been worked up for the ship's use; this is the more important, as the charge refers to more than one case. Mr. Colquhoun, whose authority is quoted, states the plunder of stores in the yards at Portsmouth, Plymouth, and Chatham at 700,000l. a year; and as he supposes the value of those in the former to be greater in amount than the other two, his estimate of the plunder at Portsmouth alone must be nearly 400,000l. annually, where now, at least, there is as much vigilance as in any merchant's warehouse! And in the Thames, he mentions some river-pirates weighing a ship's anchor off Rotherhithe, in the night, with which they actually rowed away in the presence of the captain; telling him what they had done, and wishing him a good morning!

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some allowance should be made for the charge to be incurred for keeping it in repair. Other considerations, indeed, of a much higher nature, should also not escape attention; to which I have slightly alluded in my paper to Mr. Perceval, namely, the danger of fire from accident, or from an incendiary; nor should we exclude from our mind attempts that may be made by an enterprising enemy, induced thereto by the hope of destroying a large part of our navy at once; as he will now be able, unfortunately, to collect an immense force opposite to the mouth of the Thames, and within 24 or 30 hours sail from it, with one wind.

Having stated as concisely as I could my reasons for thinking that an enormous expence should not be incurred, for a new naval arsenal to the extent proposed, I am ready to admit, that the means of offensive operations France has acquired, by the energy with which it has established an immense arsenal at Antwerp, and by the acquisition of all the ports of Holland, we may probably be compelled to keep a much larger number of line-of-battle ships constantly to the eastward, than have hitherto been found necessary; in which case the  
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present Eastern Docks may not be found adequate for repairing and refitting the fleets to be employed in those seas, with a sufficient degree of expedition, so as effectually to supply the deficiency of the yards at Chatham and Sheerness for that service. But I still feel confident, that, before the larger, or the narrower scale is finally decided on, an accurate survey of the present yards should be made and, that detailed plans for their improvement should be given\*.

When your Lordship observes, “ that some  
“ enlargements have been made to the yards  
“ within the space of time I am speaking of  
“ (that is from the reign of Henry VIII. to the  
“ present year), and that some few docks and slips  
“ have been added, and some storehouses built,  
“ but that the additions have by no means kept  
“ pace with the augmentations of our navy,” you  
hardly do justice to those who have presided in our

\* I am aware of the opinion of the Commissioners for Naval Revision, quoted in p. 28. of the Letter, and of the reference to the Reports of Messrs. Jeffop and others, in p. 29. but it is the report of such civil engineers, and detailed plans from actual surveys, that I wish the Minister to be in possession of, after the attention of those gentlemen shall have been called to the precise point in view.

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naval departments for nearly three centuries. Anderfon, in his History of Commerce, fays: "How much these dock-yards, storehoufes, &c. (in Kent) have been increafed and improved fince Camden's time, and even fince the firft edition of Bifhop Gibfon's Additions in 1692, would require a volume fully to defcribe: and there are enlargements, as well as very ufeful and beautiful improvements, constantly making to thofe places, and alfo to the two famous ports of Portfmouth and Plymouth."—Your Lordfhip indeed ftates, that the latter was formed in the reign of King William; and I have already obferved that, fince the end of the feven years' war, the yard at the former has been enlarged more than one-third; and additions made in it of feveral docks, bafins, and very extenfive storehoufes, with other very confiderable improvements. With the modern additions and improvements in fome of the other yards I am not fo well acquainted, but I believe they have been extenfive. If meafures have not been taken for deepening the water at the bar near the spit, at the entrance of the harbour at Portfmouth, and for increafing the back-water to prevent the future increafe of the bar, no more time I think fhould be loft in attempting works

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works of fuch infinite importance; unlefs they have been deemed impracticable by competent judges.

The ufe of Northfleet, as a port of out-fit, would be confined to the equipment of the fhips employed to the eaftward; for thofe on channel and foreign fervice it could not be rendered ferviceable, on account of its diftance, and the prevalence of the wind in the fouth-weft quarter during two thirds of the year: fhips would get from the Nore (as I obferved to Mr. Perceval) to the Downs with almoft any wind in moderate weather\*; but there they would be likely to be detained frequently for many weeks, in an extremely bad anchorage, with the wind at fouth-weft or fouth-fouth-weft; during which time there might be a preffing urgency for employing them. In the early part of the year the wind prevails from the eaftward, which would, on the other hand, prevent the fhips of the western and foreign fquadrons, from getting to the river to be fitted.

Not being able to form a conjecture about the nature of the plan for making the propofed arfenal by fubfcription under private management, I can

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\* See p. 20, 21. of this Tract.

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offer no opinion respecting it; such a one, however, as holds out the prospect of the advantages of avoiding the necessity of advancing the capital and the risk of bad workmanship, ensuring at the same time the speedy completion of it, should not be rejected on account of the novelty, or even the improbability of its succeeding, without full deliberation.

I have thus, in the midst of very pressing engagements in public business, ran very hastily over the several points in your Lordship's letter, in the hope only of contributing towards satisfying the public of the propriety of further enquiry, before we embark in an immense expence; submitting to the judgment of others, with great deference, the considerations which have occurred to me, as to the expediency, or rather the necessity, for the extended work, so earnestly recommended by your Lordship.

I have the honour to be, my Lord,

Your most obedient, and

very humble servant,

GEORGE ROSE.

March 19th,  
1810.