RALEIGH REGISTER,

AND

North-Carolina State Gazette.

Ours are the plans of fair delightful peace,
Unwarp'd by party rage, to live like Brothers.

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FROM THE PUBLIC ADVERTISER.

Of the comparative powers and expence of ships of war, gun-boats and fortifications.

THE natural defence by men is common to all nations; but artificial defence as an auxiliary to human strength, must be adapted to the local condition and circumstances of a country. What may be suitable to one country, or in one state of circumstances, may not be so in another.

The U. States have a long line of coast of more than two thousand miles, every part of which requires defence, because every part is approachable by water.

The right principle for the U. S. to go upon as a water defence for the coast, is that of combining the greatest practical power with the least possible bulk, that the whole quantity of power may be better distributed through the several parts of such an extensive coast.

The power of a ship of war is altogether in the number and size of the guns she carries, for the ship, of itself has no power. Ships cannot struggle with each other like animals; and besides this, as half her guns are on one side the ship and half on the other, and as she can use only the guns on one side at a time, her real power is only equal to half her number of guns. A 74 can use only 37 guns. She must tack about to bring the other half into action and while she is doing this, she is defenceless and exposed.

As this is the case, with ships of war, a question naturally arises therefrom, which is, whether 74 guns, or any other number, cannot be more effectually employed, and that with much less expense, than by putting them all into one ship of such enormous bulk that it cannot approach a shore either to defend it or attack it; and though the ship can change its place, the whole number of guns can only be in one place at a time, and only half that number can be used at a time.

This is a true statement of the case between ships of war and gun-boats for the defence of a coast and of towns situated near a coast. But the case often is, that men are led away by the GREATNESS of an idea and not by the justness of it. This is always the case with those who are advocates for navies and large ships.

A gun-boat carrying as heavy metal as a ship of 100 guns can carry, is a *one gun ship of the line*; and seventy-four of them, which would cost much less than a 74 gun ship, would cost, would be able to blow a 74 gun ship out of the water. They have, in the use of their guns, double the power of the ship, that is, they have the use of their whole number of 74 to 37.

Having thus stated the general outlines of the subject, I come to particulars.

That I might have correct data to go upon with respect to the expence of ships and gun-boats, I wrote to the head of one of the departments at Washington for information on that subject

The following is the answer I received.

"Calculating the cost of a 74 or 100 gun ship, from the *actual* cost of the ship United States of 44 guns, built at Philadelphia, between the years 1795 & 1798, which amounted to 300,000 dollars, it may be presumed that a 74 gun ship would cost 500,000 dollars, and a 100 gun ship 700,000 dollars.

"Gun-boats calculated merely for the defence of harbors and rivers, will, on an average, cost about 4000 dollars each, when fit to receive the crew and provisions."

On the data here given, I proceed to state comparative calculations respecting ships and gun-boats.

The ship U. States cost 300,000 dollars. Gun-boats cost 4000 dollars each, consequently the 300,000 dollars expended on the ship for the purpose of getting the use of 44 guns, and those not heavy metal, would have built *seventy-five* gun-boats, each carrying a cannon of the same weight as that of the ship of an hundred guns can carry. The difference therefore is, that the gun-boats give the use of 31 guns heavy metal, more than can be obtained by the ship, and the expences in both cases equal.

A 74 gun ship costs 500,000 dollars. This same money will build a hundred and twenty-five gun-boats. The gain by gun-boats is the use of 51 guns more than can be gained by expending the money on a ship of 74 guns.

The cost of an 100 gun ship is 700,000 dollars. This money will build 175 gun-boats. The gain, by the boats, therefore, is the use of 75 guns more than by the ship.

Though I had a general impression, ever since I had knowledge of gun-boats, that any given sum of money would go much farther in building gun-boats than in building ships of war, and that gun-boats were preferable to ships for home defence, I did not suppose the difference was so great as the calculations above given prove them to be, for it is almost double in favor of gun-boats. It is as 175 to 100. The cause of this difference is easily explained.

The fact is, that all that part of expence in building a ship from the deck upwards, including masts, rigging and sails is saved by building gun-boats which are moved by oars or a light sail occasionally.

The difference also in point of repairs between ships and gun boats, is not only great, but greater in proportion than their first cost. The repairs of ships of war is annually from 1-14th to 1 10 h of their first cost. The annual expence of the repairs of a ship that costs 300,000 dollars will be above 21,000 dollars; the greatest part of this expence is in her sails and rigging, which gun-boats are free from.

The difference also in point of duration is great. Gun-boats, when not in use, can be put under shelter and preserved from the weather, but ships cannot; or the boats can be sunk in the water or the mud. This is the way the nuts of cider mills for grinding apples are preserved. Were they to be exposed to the dry and hot air after coming wet from the mill, they would crack and split and be good for nothing. But timber under water will continue sound several hundred years, provided there be no worms.

Another advantage in favor of gun-boats is the expedition with which a great number may be built at once.

An hundred may be built as soon as one if there are hands enough to set about them separately. They do not require the preparations for building them that ships require, nor deep water to launch them in. They can be built on the shores of shallow waters; or they might be framed in the woods or forests, and the parts brought separately down and put together on the shore. But ships take up a long time building. The ship United States took up two whole years, '96 and '97, and parts of the years '95 and '98, and all this for the purpose of getting the use of 44 guns, and those not heavy metal. This foolish affair was not in the days of the present administration.

Ships and gun-boats are for different services. Ships are for distant expeditions; gun-boats for home defence. The one for the ocean, the other for the shore.

Gun boats being moved by oars, cannot be deprived of motion by calms, for the calmer the weather the better for the boat. But a hostile ship becalmed in any of our waters, can be taken by gun-boats moved by oars, let the rate of the ship be what it may. A 100 gun man of war becalmed is like a giant in a dead palsey. Every little fellow can kick him.

The U. States ought to have 500 gun-boats stationed in different parts of the coast, each carrying a 32 or 36 pounder. Hostile ships would not then venture to lie within our waters, were it only for the certainty of being sometimes becalmed. They would then become prizes, and the insulting bullies on the ocean, become prisoners on our waters.

Having thus stated the comparative powers and expence of ships of war and gun-boats, I come to speak of fortifications.

Fortification may be comprehended under two general heads.

1st, Fortified towns; that is, towns enclosed within a fortified polygon, of which there are many on the continent of Europe, but not any in England.

2dly, Simple forts and batteries—These are not formed on the regular principles of fortification, that is, they are not formed for the purpose of standing a siege as a fortified polygon is. They are for the purpose of obstructing or annoying the progress of an enemy by land or water.

Batteries are formidable in defending narrow passes by land; such as the passage of a river or a road cut through a rough and craggy mountain that cannot be passed any where else. But they are not formidable in defending water passes, because a ship with a brisk wind tide and running at the rate of twelve miles an hour, will be out of the reach of the fire of the battery in fifteen or twenty minutes, and being a swift moving object all the time, it would be a mere chance that any one shot struck her.

When the object of a ship is that of passing a battery for the purpose of attaining or attacking some other object, it is not customary with the ship to fire at the battery lest it should disturb her course. Three or four men are kept on deck to attend the helm, and the rest having nothing to do, go below. Duckworth, in passing the Dardandles up to Constantinople did not fire at the batteries.

Fortifications give, in general a delusive idea of protection. All our principal losses in the revolutionary war, were occasioned by trusting to fortifications. Fort Washington, with a garrison of 1500 men, was taken in less than four hours, and the men prisoners of war. The same fate had befallen Fort Lee on the opposite shore, if Gen. Greene had not moved hastily off and gained Hackinsack bridge, Gen. Lincoln fortified Charleston, S. C. and himself and his army were made prisoners of war. Gen. Washington began fortifying New-York in '76, Gen. Howe passed up the East River, landed his army at Frog's Point about 20 miles above the city, and marched down upon it, and had not Gen. Washington stole silently and suddenly off on the north river side of York Island, himself and his army had also been prisoners. Trust not to fortifications otherwise than as batteries that can be abandoned at discretion.

The case however, is, that batteries as a water defence against the passage of ships, cannot do much. Were any given number of guns to be put in a battery for that purpose, and an equal number of the same weight of metal put in gun-boats for the same purpose, those in the boats would be more effectual than those in the battery. The reason of this is obvious. A battery is stationary. Its power is limited to about two miles, and there its power ceases.—But every gun-boat moved by oars is a moveable fortification that can follow up its fire and change its place & its position as circumstances may require. And besides this, *gun boats in calms are the sovereigns of ships.*

As this matter interests the public, and most probably will come before Congress at its next meeting, if the printers in any of the states, after publishing it in their newspapers, have a mind to publish it in a pamphlet form, together with my former piece on gun-boats, they have my consent freely. I take neither copyright nor profit for any thing I have published.

COMMON SENSE.

For the Raleigh Register.

July 10th, 1807.

Madam,

In obedience to the promise which I made to you, and the consequent obligation which it agreeably laid me under. I now seat myself to drop you a few lines; which, if they will have no other merit, will have that at least of being the offspring of esteem and friendship.

We are both arrived at that period of life, when it is necessary for us to sketch out to ourselves some plan by which we can secure the more solid enjoyments of pleasure for our maturing minds; whose greedy appetites begin now to long after more serious joys, more permanent happiness, than the whims, play-things and follies of childhood.

It is more than I can pretend to, even to guess at all those things and circumstances, and the arrangement of them, which are, in their nature and operation, calculated to promote our much desired reality of satisfaction, throughout our lives.

This is an endearing object of pursuit, to which few, if any, sublunary beings can have entire access: But my little experience and observation in the world, permits me to imagine some things, which I humbly suppose will go considerable lengths in the promotion of that great end, for which we have an uniform desire.

Among the many essentials. I am constrained to think it not the least important of our considerations, at this period of our existence, to secure the intercourse and society of a few well chosen friends; the number of whom (some writer, I forget who, has said) "perhaps ought to be reduced to one." But I feel disposed to be more liberal with the feelings of our friendship, and to discourage, at least in myself, what I take to be an unnecessary and cowardly caution; and think, that the number of friends may be increased under the prudent guidance of care and circumspection.

"Our joys when extended, are apt to increase,
"And grief when divided, is hushed into peace."

And I have the presumption to believe, that friendship between the sexes, if properly conducted, is often or generally more profitable than friendship between persons of the same sex.

My reason for the belief is this—That, if what has been long observed, be true (and I chearfully join in the belief of it, notwithstanding it has been translated from the pages of a nation branded with levity by Saxonic rancour) that attention to females is an evident mark of civilization; and if our country justly boasts of its progressive improvements in that noble principle, which is nursed by the arts and sciences; then we cannot indulge a remaining doubt, but that a sufficient deference will be paid to the female character, in this rising country, to afford them all the necessary influence over our expressions and conduct, which are brightened by the precious gem of female modesty. This corrects the asperities, & wipes off those obscene words and thoughts which too frequently sully the conversations of men.—Whilst that superior attention which is paid to the cultivation and improvement of male minds, together with the circumstances and concerns to which their sphere of action compels them more strictly to attend, renders them more instructing and more capable of making solid observations upon the serious concerns of our lives. That liveliness of imagination which is an agreeable characteristic of the female mind, connected with lessons which are the offspring of masculine experience and observation, generally shape our words and actions more like what they ought to be. I have frequently thought, that if I were metamorphosed into a female, I should generally make choice of the company and conversation of men of enlightened understandings, and refined honor; rather than be a disciple of the tea-table or quilting-frame schools.

Notwithstanding the joys and agreeable sensations which I generally feel in the company of ladies, whose liveliness of disposition, sweetens the fleeting hours beyond description; yet (pardon me when I say it) women have it but seldom in their power, for want of a more strict attention to their education, to wear that simplicity of manners and correctness of thoughts which is sometimes the boast of our sex.

Since I have had the vanity, independently to think and feel for myself, I have fervently wished that a much greater attention might be paid to the cultivation and improvement of the female mind, and that a greater proportion of the growing wealth of this country might be appropriated that way. For it is from females that children receive their first impressions, which I think are generally the most lasting; and if these should be vulgar or improper, they will generally tinge the manners, the thoughts, words, and actions through life; and can scarcely ever be entirely erased by all the care and pains which can be taken in advanced years. Besides, I think it cannot be doubted, that we should receive the finest touch in the fine arts, of oratory, poetry, &c. by frequent collision with the minds of enlightened females, who warm, enliven and animate every thing they touch, from a disposition or quality which they seem exclusively to possess.

With every sincere wish for your welfare and particularly for your contentment of mind,

I am your friend,
A. JACOB,—*10th Year.*

To Miss P. A.