

Report of Admiral D. D. Porter.

WASHINGTON, D. C., Nov. 6, 1874.

Sir: In conformity with the regulations and special instructions, I submit herewith my report in regard to naval matters.

The most interesting event to our Navy during the past year was the assembling of the several squadrons in the West Indies, where fleet evolutions were conducted under the command of Rear-Admiral Case.

Perhaps nothing could have occurred more instructive to the officers and men, or better calculated to improve the discipline and efficiency of the service; and if this assembling of vessels could take place oftener, it would be greatly to the advantage of the Navy.

On such occasions a spirit of emulation is awakened among the crews of the different ships, and strangers who witnessed the late evolutions were much impressed with the rapid manner in which raw crews were disciplined and manoeuvred both on shore and afloat.

This may in a great measure be ascribed to the system taught at the Naval Academy, which, if it does not produce practical seamen with the facility of the old method, certainly gives an education that will in the long run make better officers.

I took great pains to keep fully informed of everything that related to the West India fleet, and while well impressed with its personnel, I regret to say that the fleet showed itself very unsuitable for war purposes, either to contend against the improved class of vessels now being constructed by all foreign powers, or to cut up an enemy's commerce.

In the first place, nearly all our ships were of wood, unprovided with improved ordnance, and only one or two having a speed of ten knots. Now, even the heaviest war vessels built in Europe far surpass this speed when fitted for sea.

I need scarcely say that officers of the Navy, who expect to take part in any conflict that may arise between our country and a foreign power, look with anxiety for an improvement in our ships, more particularly since the West India drill made it apparent to the youngest of them that our combined force of vessels was incapable of a successful encounter with a fleet one fourth as large built on modern principles.

Indeed, one such ship as the British iron clad *Invincible* ought to go through a fleet like ours and put the vessels *hors de combat* in a short time, for she could either run them down or destroy them at long range with her heavy rifled guns.

We have no ordnance that would make any impression on such a ship at a distance of over six hundred yards, and no vessels of equal speed in our Navy would be placed under her fire by a prudent commander.

I state facts that are known not only to our own, but to foreign officers who are visiting among us, and who in the performance of their duties transmit such information to their governments. I do not, therefore, consider that I am betraying our weakness, which is already too well known to every nation but ourselves.

Our people are under the impression that we have formidable ships and are incurring large expenditures to maintain a Navy, while in fact we have none of the former, and our expenditures are small when compared with those of other nations who have less extensive coasts and fewer interests at stake, for we are the second commercial country in the world with principles to defend and rights to maintain which are

certainly of more importance than a few millions of dollars.

The disbursement of money for building and equipping vessels of war, instead of being a tax on the people, is really an encouragement to the working classes, enabling them to live while contributing by their skilled labour towards the defence of their country.

When Captain Ericsson built the first monitor for the days of wooden and semi-armored fighting ships were numbered; the great three deckers of Europe were laid up in ordinary, and if foreign nations have since that time constructed wooden war-vessels, they have been fast cruisers, mounting heavy rifled guns, to police the seas and cut up commerce.

After the battle between the *Monitor* and the *Merrimac* it was evident to experienced naval officers that the monitor system would supersede all others then existing, and foreign nations as well as ourselves went to work to improve upon Ericsson's ideas. The result has been that European nations have built up large ironclad navies, but we have done nothing of importance since the close of our civil war.

When that struggle terminated we had a respectable force of monitors, some of them capable of contending with any vessels afloat, and for a short time we were really in a condition to defend our coasts against a foreign foe. We had also a system of ordnance superior to any other then existing.

These vessels, however, built in a hurry, of timber not thoroughly seasoned, have become unseaworthy, and their guns, though still formidable at close quarters, cannot compete with the heavy rifled ordnance now used abroad.

I many therefore say that our Navy, as compared with others, is like a foot soldier armed with a pistol encountering a mounted man clad in armor and carrying a breech loading rifle. It would be easy to imagine how little chance the man on foot would have should a conflict occur.

Yet the day will come when the men who must lead the Navy into battle will find themselves placed in a position that will require all their professional resources, for they will not be provided with proper means to meet the iron clad ships of other powers.

We have now but six monitors fit for service out of the forty eight which appear on the Navy Register; twenty were long ago condemned as unfit for service.

The available monitors formed part of our West India fleet which lately assembled; but they would have been of little use in a fleet fight on account of their want of speed.

Their turrets and hulls cannot resist the heavy rifled projectiles now in use, and they cannot raise their turrets from their seats in a sea way, for the water would rush in and deluge their holds.

These monitors were built during the late war for a specific purpose, which they amply fulfilled, viz. to operate in smooth water against fortifications and for the defence of harbors. For such service they proved themselves admirably adapted, and their turrets and hulls, well marked with heavy shot, which did no harm showed them practically invulnerable at that time. Possessing the heaviest ordnance then known, they were a match for any single ships afloat; but since they were built 10 or 11 inch plates have been easily perforated by the 11 inch rifle.

The Whitworth muzzle loading 9 inch gun, with a charge of fifty pounds of pow-

der, has fired a shell weighing upwards of 400 pounds through a shield composed of three 5 inch plates of iron, interlaminated with two 5 inch layers of iron concrete, the whole forming a mass of 25 inches thickness, while the 14 inch iron plate has been bored through and through by the 12 inch Krupp gun, with a steel shell, at a distance of 1,080 yards.

Either of the above mentioned guns could perforate the turrets of any of our monitors, while the vessels from which they were fired could remain at a distance where our smooth bore guns could do them no harm.

If such guns could so easily demolish the turret of our monitors, what chance would the latter have against a ship like the *Inflexible*, now building in England?

She is of 11,000 tons of displacement, 8,000 indicated horse power, is to be driven at a speed of fourteen knots by twin screws, and it is understood she is to mount four 81 ton guns, throwing a shot of 1,600 pounds weight.

It is very evident that such a ship, with her 24 inch plates of iron, would receive no damage from one of our monitors, except at very close quarters, a contingency which, with her speed, the *Inflexible* could always avoid.

I mention this vessel as she is of the latest type, with all the most recent improvements; but to my certain knowledge there are upwards of one hundred other iron clad superior to anything we now possess in speed, guns, and armor.

I draw this comparison to show how illy adapted our monitors are to act in concert with a fleet against any vessels carrying heavy rifled ordnance.

When it was proposed to repair the monitors, I examined them to ascertain if they would bear additional iron on their hulls and turrets, with the following result:

Four inches of additional plating around the turrets of the *Passaic* class would weigh 51 tons, and cost about \$22,000, and would bring the vessel down in the water about 4 inches, making the turret 15 inches thick. Eight inches around the turret would weigh about 210,000 pounds, cost about \$14,000, and bring the vessel down 8 inches, making 19 inches of plating.

The plating on the hull of the monitor of which the armor is 6 feet (*Passaic* class) weighs, for a course of 6 feet deep, and 6 inches plating all around the hull, 360 tons (of 2,000 pounds), which would bring the vessel down about 24 inches more in the water, making, with turrets and side armor, 28 inches. This would bring the monitors' decks pretty close to the water, and render it impossible to send them outside a harbor.

But even this weight could not be placed on the monitors; they were not originally built to bear it. Their hulls are too light, and they could illy carry any extra weight beyond what they have at present, except, perhaps, on their turrets.

To increase the thickness of the turrets it is necessary to put on laminated plates, for we have no machinery in this country capable of rolling heavier than 5 or 6 inch plates, and they would not stand 12 inch rifled shot.

Thus you will see that the monitors, with their present batteries, speed, and armour, are in no respect a match for the new style of iron clads with their powerful rifled guns; and it was apparent to myself and to every officer of the West India fleet who have studied the subject that the monitors would have been of little avail if brought in col-