i898. .

OUR VINCIBLE NAVY.

Whilst the Czar of Russia has distinguished himself by the proposal of an unarmed peace, we find to-day first-class Powers increasing their army and navy, in which Russia is also a participator!

It is necessary for us during the growth of this millennium embryo to look to our ships, or, in other words, "to put our trust in Provi-

dence and to keep our powder dry."

In thus preparing for eventualities which must be provided against before the much-desired result of universal arbitration can be achieved, it is of the utmost importance that the greatest attention should be devoted to the expenditure of the many millions of pounds sterling voted by our Parliament annually for our army and navy, but more especially with regard to the last scheme Lord Charles Beresford has introduced for the enormous increase of our navy.

Considerable anxiety must be felt as to the great risks to which their costly ships of war are exposed from the ever-increasing and scientific modes of destruction without adequate provision for pro-

tecting and defending them against such attacks.

This alarm has been previously sounded in the pages of the Westminster Review on the all-important subject of torpedo attack and defence, and the warning utterances then pronounced in condemnation of the worthless defence afforded by the old and useless torpedo-nets was followed by these nets being discarded by the British Admiralty and other prominent Naval Powers. These torpedo-nets, which have hitherto been the only means of protecting our costly battleships from the terrible attacks of torpedoes, were in use up till the early part of this year. Then our Admiralty, realising the worthlessness of the old and long-patronised torpedo-nets as a means of defence, abolished them from the ships composing our Mediterranean squadron, but they made the great mistake of substituting in their place other equally worthless nets, having all the failings of their predecessors, with additional drawbacks to their practical efficiency.

Like the earlier torpedo-net failures, those last adopted will in a short space of time be seen on sale at marine-store dealers', at the price of old iron, in or near Portsmouth, or adorning the gardens of some suburban villa residences close to our public naval arsenals,

where the discarded torpedo-nets will doubtless be found in use to prevent marauding tabbies from interfering with the garden produce of the thrifty residents.

Many interested experts looked forward with great expectation to object lessons in torpedo warfare during the late war between Spain and America, but, happily for the safety of the ships engaged on each side, as they could only boast of the useless and condemned torpedo-nets as a defence, torpedo attack was not seriously resorted to.

The net substitutes before referred to now in use in the ships of the Mediterranean Squadron, whilst they do not in any way remove the danger to which our costly battleships are still exposed, multiply the failings of the older nets in the following conditions. weight is greater than the prohibitive heaviness of the older nets; the newer nets are composed of double the number of meshes contained in the abolished ones, and these new nets thus set up increased resistance or drag in the water, which would take away the small margin of speed credited to ships when at sea with the older nets extended around them. It is an incontrovertible fact that the latest torpedo-nets substituted for use in the Mediterranean Squadron are totally impracticable for use at sea, and are only of very doubtful use in harbour, thus being really nothing better than the same deceptive death trap and misleading fallacy as the older torpedo-net The question of loss of speed of ships in action with torpedo-nets spread and suspended in the water was of sufficient importance in the minds of our naval commanders to induce them to unanimously condemn these worthless vulnerable frauds for use at sea, so the only charitable supposition to be arrived at is to presume that the new nets are carried solely for use in harbour. where, unfortunately, the little scope for their utility is a very doubtful equivalent compared with their great cost, weight, and inefficiency.

It is a matter of serious importance that whilst the upper parts of our battleships are protected by thousands of tons of steel plating, costing millions of pounds sterling, the sham of attempting to protect the bottoms of these ships against the attacks of torpedoes by means of a flimsy fringe of netting is a suicidal course of neglect which calls for public condemnation. The writer of this article personally witnessed at Portsmouth, in the month of April of this year, the test evolutionary drill for establishing a record in favour of the latest type of torpedo-net since ordered for the Mediterranean Squadron. In his opinion, the new nets were more cumbersome, bulky, and difficult to handle, and equally as useless in their so-styled protective position as those previously used for so many years, and finally abolished for the same defects as were so markedly displayed by the newer failures. The fact is, the loud and universal condemnation of the old torpedo-nets made it imperative for our Admiralty to do something, however futile, to soothe the public mind on the all-important question of defence for our ships against torpedo attack, and the result of their efforts up to the present may be seen in the adoption of slightly altered nets to the old ones, which alteration is of such a trivial and unimportant character that, although for a time it may be used to hoodwink the dissatisfied naval officers and the interested public, it will, when actually put to practical test, fail as utterly to defend ships against the torpedo attacks as its predecessors.

Whilst our Admiralty authorities are vainly beating the bush in futile efforts to bolster up in some form or other the utterly worthless torpedo-nets, it is well known and singular to remark that this dangerous condition of things could be entirely and easily removed if proper attention could be brought to bear on the all-important question of torpedo defence apart from the nets. The question of a thorough system of defence against torpedo attack, if fairly and impartially considered, resolves itself into a very narrow issue, as will be seen when it is explained that only two known forms of such defence exist-one being the hitherto proved useless netting, and the other a steel plate torpedo defence invented by Dr. G. Horatio Although the only torpedo-net system has been Jones, F.R.S.L. condemned by all leading naval officers and by many naval constructors of the highest rank, the steel plate torpedo defence referred to has received their highest approval, and whilst the rotten state of Denmark has been uselessly bolstered up by the introduction of another still more useless torpedo-net, the inventor of the steel plate defence has been incessantly engaged in improving the great practical advantages of his already approved means of steel plate torpedo defence.

It is not the intention of the writer, or within the sphere of the pages of the Westminster Review, to discuss in detail the advantages of the steel plate invulnerable defence and the fatal defects of torpedo-netting, but the object of this article will be realised should it succeed in causing some public attention to be directed to the grave scandal of the present utterly defenceless state of our ships against attacks from torpedoes, and the neglect of responsible authorities to make use of the improved means at their disposal.

NAVAL ARCHITECT.