

Europe; our men have the best rifle, the lightest knapsack, and most comfortable uniform, but they are in numbers but a decimal of any of the Military Empires, and here lies our weakness for the improvements and advances made in the theory and practice of war, mechanical and strategical, have tended to decrease the effectiveness of small bodies of well equipped men, and to render the use of gigantic masses of inferiorly armed and often less courageous troops, the more prominent feature of modern operations. In fact war can be carried on now upon such a scale as to throw armies of less than a certain magnitude completely out of the field. To make matters, if anything, a little worse, the Colonies are all more or less self-supporting, troops in India being lost for home service of any sort, for a term of some twelve years; so that we can, by a glance at the Army List, tell to a man the exact number available for the protection of our shores against the "proud invader." But, as we before stated, the great power of our Navy warrants a belief that the "invader" would never be allowed to leave his own shores, which being the case, any further war must naturally resolve itself into the necessarily very limited operations of our fleets upon an enemy's coast; for, providing that enemy be not America, his commerce will require but little attention.

To illustrate fully our meaning, we will make use of the most popular or generally received and understood hypothesis—a war with Prussia. The strength of the North Germany Navy is as follows: Monitors, two; frigates (iron clad) four; corvettes, eight; despatch boats (side wheel), five; gunboats (first class, of three guns), seven; gunboats (of the second class, one gun) fourteen. The incapacity—we have almost said inability—of such a fleet to contend with our own is evident, though doubtless it could annoy us considerably by sudden raids upon that of our cruisers who ventured too near some point of concentration; the Dutch coast offers every facility for this species of "fight and fly," especially when perfect familiarity with all the shoals and banks has been acquired by long practice and careful personal study. With Heligoland for a coal station, a very strict blockade of the whole coast could of course be kept up—how strict the American war furnish plenty of illustrations—and Prussia must suffer *at first* from this cause considerably as her internal resources are as yet sparsely developed, and her manufactories and dock yards few and far between. Many coast towns, some of them important, would suffer from bombardment or requisition; among those on the North Sea we may name Emden, Cuxhaven, and Tonning, as open to these dangers, though Bremen and Hamburg are exempt from actual destruction so long as proper precautions are taken to obstruct their respective approaches. Wilhelmshaven we will not notice, as the works are in an unfinished state, and probably the fleet would confine themselves to the Baltic shore. Kiel, Oldenburg, Stralsund, Bergen, Rugon, Walde, Dantzig, and even Königsberg, may be mentioned as liable to the terrible ordeal of rifled shells, pitched into them from ships almost out of sight. That the 7-inch, 6½-ton R. M. L. gun can fling its shell, containing a bursting charge of 15 lbs. 4oz., a distance of nearly five miles, and that the 7-inch gun is one of the smallest in use on board our iron clads, proves the practicability of the above. But, let not the idea that burning a number of coast towns concludes a war, take possession of our reader's mind, but, the list of towns we have given with

the simple word "burnt," after them, would signify a loss of hundreds of Millions to Prussia, and ruin to thousands of private families and individuals, which would perhaps bring the enemy to terms. But, on the other hand, should Prussia determine to carry on the war indefinitely, we must cease to be actively aggressive after the first two years, while our blockaders would be subject to all the petty annoyance of batteries on the coast, fixed torpedoes and torpedo boats. Experience would gradually teach us how to avoid or obviate all these dangers, but the war itself would become of far less importance or interest than was felt in the operations of the Federal squadrons off the coast of South Carolina between '63 and '65. The long dreary crawling about for a year or more with the bare chance of picking up a prize, and still less probable contingency of being smashed by a rebel ram, would be exciting work as compared with the blockade of a comparatively small coast line by a larger fleet, and with no chance of an action.

If Russia chose to be firm about Khiva, and expressed her intention of doing whatsoever she pleases wherever she likes, our predicament would be exactly what we have above sketched. The railways and improved organization of Russia's Army, combined with the crippled state of France, preclude—think God!—all thoughts of another Crimea. So that, as in the previous hypothesis, the war would be wholly and solely a naval one so far as we were concerned. Torpedoes and fortifications might render it difficult to destroy over a certain amount of property and stores, and even supposing we could spread death and petroleum along the entire Black Sea Coast, it would in no way prevent Russia ringing loose around Baku, as often for as long, and with as many men as she pleases. A glance at the map will show how impossible any Anglo-Indian demonstration against her would be, not only on account of the distance, but owing to the little idiosyncrasies of the numerous Khans and Kings who flourish between Turkistan and Cabool.

What is true of Russia and Prussia is true of every European country to a greater or less extent. England, a nation without any army, cannot make war on a power that counts its troops by hundreds of thousands. Statesmen do here and there recognize this fact, and at the end of some lengthy speech or pamphlet there comes, like the hollow ramblings of a far distant storm, a crisp, short sentence grimly foreshadowing that inevitable remedy for all our woes *Compulsory Service!* Nothing can be, we are aware, more distasteful to the "free born Briton" than this, and far be it from us to advance this theory upon the same basis as it is practised upon the continent. What we have in our mind's eye is a system which has been found to work in our largest and most loyal colony, Canada. We have it on the authority of distinguished officers serving in that country at the time of the first and most formidable Fenian Raid, that over two hundred thousand Canadian Militia turned out, fully equipped and ready to march in *twenty-four hours*. The advantages of such an organization can be readily seen: the whole standing Army of 100,000 men would be available for foreign service while the Militia guarded our shores, not nearly so much time would be required to be given up by individuals, as the Volunteer service requires, and is freely received by thousands who would cry out aloud for fire and revolution if obliged to serve for two weeks in

the year. We fully appreciate the value of the Volunteer Forces. The patriotic spirit which animated the early promoters of the movement, and which now is the bond which keeps them together, is something to be proud of indeed, but such organisations cannot be expected to stand the strain of real war. If—though Heaven forbid—their ranks should thin before the enemy, thousands would no doubt, rush to fill them, but what thousands? Men who had never held a rifle in their lives, who, despite their pluck would fall out helpless on the first forced march, and who would lose their heads under fire, and throw whole divisions into disorder simply from their want of experience and discipline. A fortnight's drill every year would do no one any harm, in fact, it might be highly beneficial to the "dwellers in cities," whose professions chain them to town. The new depot centres offer every facility for the perfect and easy working of such a system, against which no truly patriotic and thinking man can raise an objection.

As things stand now we are fast sinking into a second rate power, for though our money is supreme, it is by a military standard that they judge on the Continent; with four or five million Militia at home, and 100,000 horse, foot and artillery, to act as a sort of flying squadron, we should be again, undoubtedly, the first power in the world. However "bloated" the armaments of foreign countries may be, they could rarely, at the very utmost, bring ten to one against the forces above mentioned; in Mr. Vernon Harcourt's lecture and elsewhere, between thirty and fifty thousand has been always taken as the probable force of an invading army. Therefore we conclude, that if we had a hundred thousand men free at our command, not a nation in Europe but would look upon us with respect.

INTERIOR OF THE LATE WOOLWICH INFANT.

The report of the Inspector of Ordnance upon the state of the interior of the first 35-ton muzzle loading rifled gun built for the Devastation, after thirty-eight horizontal discharges from its 12 inch bore, is illustrated in *Ira* with an excellent diagram, in which a section of the inner portion is shown to scale. The positions of the 700lbs. powder charge—1st, in its seat; 2nd, registering the greatest pressure; and 3rd, with the rear studs coming into "driving" bearing eight inches in advance of their seat. This latter point corresponds nearly with that at which the front studs hammer at starting. With shorter powder charges these several positions of the shot would be nearer the chamber. The longitudinal positions of the four cracks, four fissures, and the deep roughness or erosion caused by the escaping gases, are shown, and that of the greatest enlargement of the bore. The nature of these injuries would be hardly visible on so small a scale, and the vertical positions could not be shown in a section. Two of the cracks were on the lower side of the bore, all the other injuries on the upper side, and their centres were three and a-half to four feet from the place where the greatest powder pressure occurred, but coincided with the point where the front studs hammer and the rear studs come into "driving" bearing. The gun is being rebuilt at a cost of about £700 or £800.