

## A DYING NATION.

rifles, e. g., the Woolwich 12-ton or the Krupp 96-pounder, are for most purposes and at considerable distances superior to the 15-inch."

We are firmly of the conviction that for all our forts could do, a single iron-clad with a few modern rifles, could anchor off the Horse Shoe in Hampton Roads and, if her ammunition held out for a day's firing, reduce Fort Monroe to a harmless ruin. Fort Carroll and Fort Delaware—bandboxes of stone—the main defences of Baltimore and Philadelphia, could offer no effectual resistance. Without the heaviest calibre of rifled guns, the defences of New York could not prevent an iron-clad fleet from laying that imperial city under tribute. We speak now without regard to torpedoes as a means to harbor defence, or of the Navy, whose part in the defence of our harbors we have considered in two previous articles.

It is suggested in the report on the fabrication of iron for defensive purposes, previously referred to that our 15 inch gun might be converted into a 11-inch or 12-inch rifle by reaming it out and inserting a tube of wrought iron. We are not aware that any experiments have been made with guns of so large a calibre, and a mechanical difficulty in making the coiled tube for so large a calibre might be experienced at first on account of the lack of the requisite skill or machinery at our shops. In view of the grave importance of this subject we hope immediate steps may be taken to ascertain the exact course pursued in the conversions at Woolwich, and a number of trial guns made here. We hope also that Congress may give the Chief of Ordnance the means to test the invention of Dr. Woodbridge, which we hear commended very highly. This dead-lock between Congress and the Ordnance Department must be terminated in some way or other, or a great disaster may befall us.

No one can read the report on the Fabrications of Iron without coming to the conclusion that breech loading guns of large calibre have not yet lost the field in their contest with muzzle-loaders. That the Krupp gun is a success it is idle to deny. About 9,000 of them have been supplied to Germany, Russia, Austria, Belgium, Spain and other countries. Of the heavy calibres there have been 600 from 6 to 8 inches; 700 from 8 to 9 inches; 400 from 9 to 10 inches; 50 of 10 inches; 150 of 11 inches; 6 of 12 inches; and 2 of 14 inches calibre. Besides these, it is known that Krupp has large orders from Russia for 9, 10, and 11-inch guns. It is very probable, then, that in fixing ultimately the system of rifled guns for our forts we shall be called upon to seriously consider the question of breech-loaders. But our immediate and pressing wants must be met in other ways. We hope something definite and tangible has been decided upon by the engineers with reference to torpedo defence of our harbors. Let us have at least a few trial mortars of large calibre, and one large rifled mortar for experiment. The cost would be comparatively trifling, and the most important and unexpected results might be attained. The subject of vertical fire is yet in its infancy.—*U. S. Army and Navy Journal.*

There are in New Brunswick 388 miles of railway in working order; in course of construction and to be finished within eighteen months, 220; under contract, and at present being located 160 miles. In all, 768 miles which will cost, when finished, \$23,785,000; of which the Government of New Brunswick and of the Dominion contribute over \$15,000,000 in cash, and 1,729,000 acres of land.

The accounts of the famine in Persia, which continues to arrive in great detail, bid fair to treat the world to a spectacle of a calamity the like of which has not been witnessed, in historic times at least,—the sudden extinction of a nation by want of food. This has really been the fate of the great States which once filled the valley of the Euphrates, and it is a fate which has for centuries been threatening some modern States—Spain, for instance. Man has stripped the soil of trees; the absence of trees has brought droughts; droughts have slowly diminished the productive powers of the ground, and finally destroyed them,—the population, in the meantime, dwindling in numbers and vitality. Spain had forty millions of people in the time of the Romans, and flowed with milk and honey; it is now an arid region, only half of it under cultivation, with only sixteen million of inhabitants, and, if modern science had not come to its aid, would probably go the way of Babylon. Persia was one of the most powerful States of antiquity, and even in the fourteenth century was able to support the army of Tamerlane, who marched without commissariat or baggage during a bloody contest. It is now almost a wilderness, with a population of about two millions,—about half of them nomads, which is rapidly perishing from famine brought on by three years' drought. The worst of it is, that owing to the absence of either common roads or railroads, it seems to be impossible for the charity of the rest of the world to reach the sufferers, so that there is really a strong prospect of the total depopulation of the country. The moral of this horrible story is,—look after your trees.—*Nation.*

ENGLISH SEA FORTS.—The London *Times* of a recent date has an account of the first of the iron sea-forts, to be erected at Spitehead as a protection to Portsmouth. This fort, the skeleton of which has, after being put together in the manufacturer's yard for examination has been taken to pieces again packed off by rail to Spitehead. It will cost a million pounds sterling; the shell alone costing £450,000. The skeleton weighs about 2,400 tons. It is to be fitted up with fifteen inch plates, costing \$1,000 each. This fort, and the others which are to be constructed like it, will be each 700 feet in circumference and 230 in height, and will be armed with two tiers of guns, one tier comprising 24, 600 pounders and the other 25, 460 pounders. The two principal forts, commanding the only deep channel leading from the area into Portsmouth harbor, will be about two thousand yards apart. Their guns, it is calculated will pierce twelve inch armor, at two thousand yards distance, while no gun yet invented is credited with power enough to injure the plates of the fort, however near the fort it may be brought. The English Government congratulates itself that these forts render Portsmouth virtually impregnable, and the "Thunderer" devotes more than a column of editorial to an estimate of their efficiency in case of what it significantly calls a "not wholly improbable war."

REVOLUTION IN GUNS.—The "battle of the guns" having been brought to a conclusion, at least for a time, we learn that the new muzzle-loader is taking the place of the breech loader in our Royal Artillery batteries. The gun with which Sir W. Armstrong astonished the world soon after the close of the Crimean war has now given

place to a more powerful weapon, with which our artillerymen expect to be able to hold their own against the best breech-loaders of Krupp. It is incidentally mentioned in the "Naval and Military Intelligence" of the *Times* that "the whole of the guns on the Armstrong principle are being withdrawn from service." Along with this announcement should be read a passage from a report of a committee of the House of Commons, who declared in 1863 that even at that moment there was no practical evidence "that any other system of constructing rifled ordnance exists which could be compared to that of Sir W. Armstrong." The guns which have been made on his principle must be numbered by thousands.—*Volunteer News.*

COAST FORTIFICATIONS.—Preparations are being completed for mounting a large number of the 64 pounder rifled muzzle-loading guns (old smooth-bore cast-iron 32-pounder guns, bored out and fitted with a rifled steel tube, on Major Palliser's plan) in the Pott-down forts, the Hilsa lines at the entrance to Portsea Island from the mainland, and other parts of fortifications defending the Ports mouth other than on the sea face of the defences. These latter will be armed with as large rifled guns as room can be found within the works to mount them, and the maximum size of gun that can be mounted under the circumstances will be found to be the 10 inch one of 18 tons.—*Broad Arrow.*

CANADIAN SILVER COIN.—Mr. W. Wier of Montreal announces that by arrangement with the Government, he is prepared to distribute the new silver coin to the public at par in such sums as are wanted, from one dollar upwards. Mr. Wier also states that arrangements are in progress for the distribution of the coin in places which, owing to the want of bank agencies, have hitherto had considerable difficulty in obtaining a supply. The receipts of silver coin last week amounted to \$50,000, and each succeeding steamer is expected to bring a further supply until the demand for the coin has been freely met. Care will be taken at the same time against an over issue of the new coin. Last week's receipts consisted of halves and quarters only, an accident to the machinery at the mint having delayed the coinage of the smaller pieces, a quantity of which however, is expected by the next steamer.

The London *Telegraph*, commenting on the establishment of a book printing house at Rouse's Point by Mr. John Lovell, of Montreal, says Mr. Lovell not only imports his books into the Dominion, but also Yankee notions of "smartness." It lays the whole blame, however, on the Canadian tariff, and says "the proper remedy is, either the imposition on American reprints of a duty so high that the supply of pirated editions would be unprofitable, or that all imports of such literature should be prohibited."

The Havana papers publish some curious statistics regarding the importation into the Island of Cuba, of the arms intended for the use of the army and volunteers. Since November 1, 1868, there have been introduced, Remington rifles, 40,280; Peabody, 5,551; Peabody carbines, 1,874; counting also the arms consigned to Spain, the total result is 92,266, at a cost of \$1,450,000 gold.

A new cable, four thousand miles in length, is being manufactured in London for the "European and South American Telegraph Company."