

THE LOCOMOTIVE IRON REDOUBT.

By ARTHUR LITTLE, (late Regt. of Lucknow.)

(From Colburn's United Service Magazine.)

The following project to strengthen an army manœuvring in the field, by means of what I term the *Locomotive Iron Redoubt*, is based upon two deductions from the experience of the Franco-German war, which are now generally accepted as axioms:—

1. That a position defended by infantry armed with the breech loader cannot be carried by a front attack.

2. That an army when its flank is turned, and it is exposed to a serious enfilading fire from the breech loader and the modern field piece, cannot escape defeat.

It results that the crucial problem of the defence is now to force an enemy, if he attacks at all, to commit himself to a front attack, and expose himself to a flank attack.

The solution of this problem attempted in these pages is by unusually prolonged lines of defence, made possible by the introduction of the naval principle of moveable heavy artillery.

First of all, let me describe the *Locomotive Iron Redoubt*. It should mount ten very heavy guns, the platform of each gun being worked on two connected railway trucks, one on the up line and one on the down line of an ordinary railway. Besides the twenty trucks required for this purpose, there should be six iron plated luggage vans, to carry infantry, and then to be detached to act as what I call *Gatling Blockhouses*. The iron plating of the redoubt to the front should be sufficiently thick to resist field artillery, and the flanks and rear should be proof against musket bullets. Two engines could transport the redoubt to any position selected. They would not require to be plated, as they could travel along the inner line, with a *Gatling Blockhouse* between each one and the enemy. I am told by a civil engineer that there is no mechanical difficulty in moving a coupled train; but the front portion and the rear portion could go down separately if required. Guns fired from plated carriages were introduced during the French war, and used with great effect to beat in a portion of the line of defence of the Commune. But the French pieces were field pieces fired from a single carriage. What is new in my proposal, I believe, is the idea of working very heavy artillery on a double track. I propose that thirty iron redoubts be prepared, mounting in all three hundred seven ton (one hundred and fifteen pounder) guns. The plating might be so arranged that it could be detached and shipped off to Belgium or Canada and the guns could be worked on trucks and luggage vans in these countries.

Besides the necessary gunners, I propose that a special force of ten thousand infantry should be trained, called the *Garrison Division*. They could be regulars, or what would be more convenient, as my project has important duties for the trained British troops, they could be specially trained reserves, willing to serve abroad, and officered by professional soldiers. Their duties would be to jump upon the redoubt, and support any part of the lines of defence that was being hotly attacked. As they would only come into action when the enemy was about to try and carry a position, I propose to arm them with a special weapon, Meig's Magazine Rifle, (fifty shooter) which I will describe by and by.

I now proceed to enumerate some of the advantages of the *Locomotive Iron Redoubts*:—

1. They can bring upon a field of battle guns of calibre with which it would be impossible for field artillery to cope.

2. This would deprive the German "swarm" attack of its principal weapon of offence, the concentrated artillery fire.

3. They are able to assist an army manœuvring in the field by turning a selected railway into a fortification, held strongly by reserve forces or allies in shelter trenches.

4. From their unexampled powers of concentration, and the strength that their presence, and that of the *Garrison Division* and of the *Gatling Blockhouse*, sprinkled about in the weaker positions of the line would afford; the said line of defence may be extended to a length hitherto unknown in war.

5. This would render it quite impossible for an attacking enemy to deliver a flank attack.

6. Also, it would render it almost impossible for him to escape a flank attack, as the opposing army manœuvring in the field, having no communications to be anxious about, would have nothing to do but seek the point where his attacking line ended.

7. It is proposed, also, to show that it would be quite possible to bar the progress of an invading enemy advancing on London from any possible point of landing except the Thames and Severn.

Let us first view the tactical aspect of the question, and imagine that an English general, with allies, has determined to fight a pitched battle in defence of, say, Belgium. Let us further imagine that he has divined with tolerable accuracy the line of advance of the enemy. Whether the said enemy wears a *kepi* or a spikert helmet, each reader can settle according to his political proclivities.

These are the dispositions that I suppose the English general to have made. He has selected a line of railway running at right angle to the enemy's line of march, and on some twenty-five miles on either side of the point at which he expects the said enemy, he has manned this with the infantry of the allies. These at once throw up shelter trenches, fell covering woods, barricade villages, and hurriedly place it in a condition of defence. The thirty locomotive redoubts are brought up, and posted in convenient positions, ready to get up steam at the shortest notice. The *Garrison Division* (ten thousand men) are bivouacked or encamped where they can at once jump up on the redoubts. From this moment the railway ceases to be a railway, and becomes a fortification. I mean by this that it is devoted exclusively to the passage up and down it of the locomotive iron redoubts. Meantime the English army, some forty-five thousand men, with the allied Cavalry and field artillery, is feeling for the enemy to the front. It retires as he advances, and covering the front with mounted riflemen and light cavalry, seeks the most convenient position from whence to deliver a flank attack. Let us fix the total forces of our ally at eighty thousand men, and the enemy at one hundred and sixty thousand: One word on this principle of defence. Readers of the *United Service Magazine* probably all know Count Molke's new tactical defensive disposition. It is in brief a long thin extended line of shooters, thickened when necessary, but the bulk of his army, although posted in the rear, is destined for the flank attack. This defence is almost identical with the German "swarm attack"; and it is expected in the next war that two armies will keep amusing each other with

lines of shooters, and seeking to gain each other's flank. This process will require an adroit general, mobile troops, and some luck. And as the mobility of an army is to be rated not by the activity and flexibility of its best, but of its worst troops, it is expected by many that a motley force of English Volunteers, Regulars and Militia, if ever it be called upon to defend the country, would fair badly.

The principles of our railway defence is virtually that of the Germans; only the thickening riflemen move up laterally instead of from the rear, and as they have the advantage of the telegraph and the steam engine, and, moreover, bring with them fortresses as well as rifles, coming to the menaced point almost as rapidly as a staff officer could gallop off and fetch a column posted two or three miles to the rear, it is urged that my shooting line, the volunteers or allies in shelter trenches, could be unusually prolonged. This would take away the flank attack from the assailant, however highly trained, and give it to the defence.

To go on with our imaginary battle, let us suppose that the enemy has made dispositions to attack us on a front, say of nine miles; and that the English general has ordered a concentration of the locomotive redoubt and the *Garrison Division* to meet that attack. I now proceed to analyse the tactical power of this line of defence.

A line of railway may be divided into—

1. Country sufficiently open to allow an enemy to view the line of defence at a convenient distance for artillery fire, and to assail it with that arm if he likes. This portion I defend with my redoubts and their heavy guns.

2. Country not sufficiently open to allow the enemy to use his artillery. This portion I defend with all the resources of multiplying fire that have been made available by modern science.

It seems scarcely necessary to consider the defence of the first portion of the line at any great length. If the enemy can use his guns, we can use ours; and there can be little doubt as to the issue of a duel between field artillery and three hundred seven ton guns, worked by gunners secure from the enemy's fire, and with the advantage of a perfectly level platform. The Prussians are against firing at very long ranges, and Captain Von Boguslawsky lays it down as a maxim that they should never open at a greater distance than from 3,000 to 1,500 paces. But the crowd of men and horses that constitutes a field battery would be simply blown to pieces if exposed to one hundred and fifteen pounders at these ranges, and to the hundreds of sand shot which their bursting shells would scatter broadcast around. And yet the importance of depriving the enemy of his artillery fire must not be under estimated. The *Times* correspondent with the Army of the Loire especially asked the Prussian officers how shelter trenches defended by breech loading small arms were to be overcome. The answer was, "By a disproportionately large number of field guns, not tied fast to particular brigades, but acting as a distinct arm to prepare the way for others."

I now come to the second portion of my line, and here, perhaps, at the first superficial view of my project, a military observer may exclaim, "Here is the weak point of it! A railway does not consist throughout its entire length of convenient sites for the service of artillery; certainly for not much more than half its extent. It is often obstructed with cuttings and tunnels. It sometimes runs through undulating country, where guns could only command some three