

Goderich Battery Garrison Artillery; 3 officers; 32 non commission officers and men.

32nd "Bruce" Battalion of Infantry.
33rd "Huron" Battalion of Infantry (6 companies only), total strength 512 officers and men, and total strength of Brigade, 617, being an average of 32 per company, or corps.

The "Wellington" Field Battery turned out nearly full strength, and were in a very efficient state, they had the advantage of an instructor from the School of Gunnery during their drill, and profited very much by his exertions in teaching them.

The whole strength of the district that have drilled so far, are 2,058 officers and men; leaving one field battery, 1 troop of cavalry, and 35 companies of infantry to perform drill next year. The drill was carried out, as a general rule, by separate battalion camps, and squad and company drill was chiefly practiced, but they having to fire 40 rounds of ammunition, per man, at target practice necessarily reduced the drill hours considerably, which, in camps of only eight days' time, was found to interfere very much with satisfactory progress. As a general rule, the whole of the corps turned out very well, their uniform was in good order, and the arms and accoutrements in a very efficient state.

I have to report that the orders from the Department of Militia and Defence, regulating the muster and payment of the force that turned out for drill, were strictly carried out.

Many of the company drill sheds are in a bad state of repair, and will be found to be a constant expense if kept in proper order; but it appears to me, that it is a question whether, instead of expending more money on them, it would not be advisable to erect a battalion drill shed in each county where there is an efficient battalion, and to have a caretaker to attend to the arms and uniform when the corps is not at drill; by such a method the arms, accoutrement and uniform would be found to last very much longer, and thus save considerable expense to the country.

I have much pleasure in acknowledging the great assistance rendered me by the Staff Officers of the District; and I beg most particularly to call your attention to the efficient state of the First Brigade Division, which is in a great measure due to the care and energy shown by Lieut.-Colonel Moffat, its Brigade Major.

I have the honor to be, Sir,

Your most obedient Servant,

JOHN B. TAYLOR, Lieut.-Colonel,

Deputy Adjutant-General,

Military District, No. 1

To the Acting Adjutant General, &c., &c.,
Ottawa.

HEAD QUARTERS,

LONDON, 1st Nov. 1873.

List of corps not inspected up to this date.

1st Regiment Cavalry, St. Thomas Troop.

" London Troop.

" Bayfield Troop.

" Stratford Troop.

London Field Battery Artillery.

7th Battalion Infantry.

25th Battalion.

23th Battalion (except No. 5 Company.

29th Battalion.

30th Battalion Rifles.

33rd Battalion, Nos. 2 and 6 Company's.

JOHN B. TAYLOR, Lieut. Col.

D. A. G., Mil. Dis. No. 1.

(To be continued.)

THE INFLEXIBLE.

Some time ago we laid before our readers certain particulars in reference to the design of the coming ironclad—the Inflexible. Since that period the data concerning this vessel have become more fixed and definite, and have assumed a character which renders them in the highest degree interesting. In fact, more is now promised than we had dared to hope for, though not more than we had ventured to advocate. Circumstances have pressed the Admiralty to take not merely a step but a stride. We believe this to be the truest economy, and we are glad to find that the constructive department of the Admiralty is giving proof of eminent ability, sufficient to cope with the high demands now made on naval architects. The late Chief Constructor, after resigning his post, pointed out that it was competent for a second rate naval Power to make itself suddenly formidable by the possession of a ship of war which should be superior to any other that could for a time be brought against her. Whether Mr. Reed's attention was fixed on Italy we know not. Certain it is that this Power has attempted to play just such a part. The Italian Government have asked Sir William Armstrong to produce the biggest gun he can, with the intention of applying it to naval purposes. What is likely to be the answer to such a challenge, or, commercially speaking, such a commission? Sir William founded the race of giants in artillery, and he is doubtless anxious to rival Woolwich—it may be to excel. Woolwich must be equally anxious to excel Elswick. At this hour it would seem that each one is waiting for the other. The War Office Committee, who have so long endeavored to find the proper powder for the big guns of the present era, have gone on building up their grains until they think at last they have an explosive worthy of their weapons. We have now advanced to "mammoth pebble"—something like the "arf a brick" with which the denizens of the Black Country are supposed to salute unwelcome strangers. The grain of this extraordinary species of gun-powder is in the form of a cube, measuring 2 in. each way, a black shmy mass like a piece of coal, and weighing half a pound. Itself a missile, if such a lump escapes the muzzle of a gun unconsumed, it will score a plate of iron, or kill a man, as may have a chance. A blank cartridge of this sort of stuff when fired sends a portion of its material whistling and shrieking through the air as if a shell were speeding on its way. When the gun is loaded with both powder and shot of course the combustion is more complete, and the requisite propulsion is given to the projectile without that sudden and useless excess of strain on the gun which occurs when powder of smaller grain is employed.

But what sort of a weapon is the new gun likely to be? The Inflexible is to carry four guns of equal size. We may reckon that they will not weigh less than eighty tons each, or more than double the tonnage of the "Woolwich Infant." The battering charge would doubtless exceed 2 cwt. of powder, or more than three times the weight of the actual shot fired from the heaviest guns originally supplied to the Warrior. Possibly the charge might not be much less than 300 lb. The projectile may be estimated as weighing 1300 lb. or 1400 lb., and, indeed, we should rather expect to see this weight exceeded, for there is no apparent reason why it should not be as much as 1600 lb., or very nearly three-quarters of

a ton. At all events we are sure of something more than half a ton. Such a shell will hold a charge of powder sufficient to propel a 400 lb. projectile from 18-ton gun—that is to say, about 70 lb., if not more. What then shall be the armor of the ship that carries guns like these? We have gone on adding inch by inch, from the 4 1/2 inch plates of the Warrior and the Achilles to the 5 1/2 in. of the Agincourt, the Minotaur, and the Northumberland, the 6 in. of the Bellerophon, the 7 in. of the Monarch and the Captain, the 8 in. and 9 in. of the Hercules and the Sultan, and the 12 in. and 14 in. of the Thunderer and the Devonstation. But now comes the leap. The belt line of the Inflexible is to carry no less than 2 ft. of armor! It is true that this will not be one thickness, but there are good reasons why it should not be, and we are reckoning without the inner skin. In the first place, there can be no doubt that plates of 12 in. can be made of finer quality than plates of 14 in. Secondly, it has been found that although laminated armor composed of thin plates is weak, there is but little loss of strength in building up a series of thick plates in contrast with one plate of the total thickness. Probably the two 12 in. plates of the Inflexible will be collectively quite equal in strength to the best single plates that could be made of 24 in. solid. But the question of construction is next to be considered. These two plates will be at considerable distance apart, and between the two there will be a compact mass of wood and iron work, so that when a blow is struck on the outer plate the shock will be distributed over a wide area. Supposing a shell from the "Woolwich Infant" to be fired at the Inflexible from a distance of 1000 yards, the shell would explode as it passed through the first plate, and its shattered fragments alone would reach the second; whereas, if the plate were all in one the entire substance might receive damage.

The Inflexible will be a turret ship, but will carry her sides 20 ft. out of water. We hardly expect that this extraordinary extent of freeboard will be maintained throughout the entire length of the ship. It may also be apprehended—as we signified some months ago—that there will be certain peculiarities in the form of the hull, to obtain buoyancy. The two turrets will carry armor of 18 in., and will be placed on a line oblique to the keel—one to starboard and the other to port—so that both may fire at the same instant and on, or very nearly so. This is a curious arrangement, and will probably meet with certain objections. The guns will be loaded outside the turrets, the muzzles being depressed so as to receive their charge up a species of hatchway constructed for the purpose. Mechanical means must necessarily be devised for lifting and moving the heavy weights represented by the shell and the cartridge. The ship will be without rigging, but her engines are to give her a rate of speed at least equal to that of the fastest of the existing ironclads. Despite her superlative qualities the Inflexible will cost less than the Minotaur. Her gun power will be enormous, and her armor a wonderment. At least, so we think them now. If we could only build such a vessel in a twelvemonth, instead of taking three or four years to accomplish the task our confidence would be greater. It is now said that Krupp's breech-loading 2000-pounders are intended for sea service. As breech-loaders they are well adapted for such a purpose, providing the breech-loading is itself effective. But how rests the question of guns versus armor? Our 35 ton gun