

The men should be relieved in this way every three to five minutes. When the trench has been completed to the width of twenty four inches, and depth of fifteen inches, it will afford cover for one rank kneeling in it, and file closers lying down in rear, and may then be considered available; but it should if possible, be widened to four feet, and will then afford cover inside the trench for two ranks kneeling. While the men in ranks are busy throwing up the work, the sergeants or file closers, should be placing any available obstruction on the work to strengthen it, as logs, stumps, or fences, or may cut sods for loop holes, or collect branches to plant on the parapet for a screen; and, if the trench be thrown up on grass, may cut turf to cover the parapet, so that it may not be distinguished at a distance. If such materials be abundant enough to render it advantageous, the rear rank, or a portion it, or if in one rank, certain sets of fours or numbers, may be directed to aid in this portion of the work. In this way the intrenching would be carried on along the whole front, with the assistance of all the soldiers. Half of them would watch over the others, and should any unforeseen danger occur, the battalion would be under arms in less than a minute. Should there be but a few minutes to work, the commanding officer will order: 1. Commence—2. Work. Both odd and even numbers will step two paces to the front, and drop on the right knee, throw up as much earth, and as rapidly as possible, until the command: 1. Stand to—2. Arms. When they will cease work, sheath bayonets and take their places in rear of their stacks or grounded arms. 1. Take—2. Arms. 3. Take post—4. In trench. At this command the men will move up to the trench, and either sit in it, or on its reverse (or rear side). At any period of the operation of forming shelter trenches, if there be not time to complete the work, the commanding officer may order the battalion to take post in trench, if there be room, but if not lying down in rear of it. If the trench is to be occupied for any length of time, it should be widened out to the full width of seven feet, this will allow the men in two ranks to lie down in it. 1. Under—2. Cover. At the command "Cover," the men will kneel and conceal themselves in the trench. Fire will be opened as may be directed; after which orders will be given: 1. Cease firing—2. Fix Bayonet.

1. Battalion forward.—2. Guide centre.—Double time.—March.—The battalion will advance as at a charge as far as the commanding officer may desire. The shelter trench exercise is invariably to conclude with a charge. When in two ranks it is necessary to have a heavy field work, the front rank should be marched five paces over the proposed line of shelter trench, and faced about, when the commanding officer will command, "Old numbers commence work," or, "Commence work," simply, according as he may desire a part or the whole of the two ranks to work. The men working in this way, facing each other will have a heavy work in front of them in a very few minutes.

Men skirmishing should be able to make cover for themselves. In most instances the men will only have to improve natural cover, but it may be necessary to dig small pits, and each should be for one man only. In a few minutes he can in this way render himself almost entirely safe from the enemy's fire, and at the same time aim correctly, using as a rest either both his elbows or his left one only. After a little practice, each man will soon ascertain

the exact form of pit that suits him. The depth need not be uniform, but should be about ten inches where the man's body will be and about six inches in the other parts. If time admits, a small mound of earth may be built up on each side of the spot on which the barrel rests, in order to give cover to the head, or the parapet may be made thicker and the trench deeper. Natural cover should always be taken advantage of when possible. Sometimes it will suffice of itself; sometimes it only wants a little improvement. It is a known fact that a well protected skirmish line can easily drive back a line of battle. The trowel bayonet requires the digger to work on his knees. This is but a slight drawback when the work is of short duration, and it is even an advantage when it is being carried out under the enemy's fire, as a man lies in this way a smaller mark for bullets and shrapnel. The bayonet inspires the skirmisher with confidence, since he knows it will serve him when suddenly attacked. He can lie down, and in that position throw up a work in front of him, and from this parapet he can keep up a steady fire without exposing himself.

After the shelter trench exercise has ended, men should be sent out—prisoners, if possible—to level the parapet and fill in the trench. No men from the ranks should ever be detailed for this duty; they should always be men who have not been out, as garrison prisoners.

*Note of work done before the Small Arms Board, at Springfield, Mass., of which General Alfred Terry, U.S. Army, was President.—October 17, 1872.*

The weapon was placed in the hands of three men who were detailed for that purpose. By direction they dropped upon their right knee, and holding the socket of the instrument with both hands, they thrust it into the earth, seven to eight inches, rapidly pressing it first to right, then to left, the point of the bayonet acting as a fulcrum, cutting the sod for a distance of twelve to fourteen inches, and then pushing the weapon under the sod cut, they loosened it from the earth; by continually stepping backward, and repeating the operation described, they loosened the soil for a space of five feet ten inches square. After piling up the sods in front of the trench dug, they grasped the socket with the right and the point of the bayonet with the left hand, holding the instrument in this manner, drew the loosened earth forward, throwing it up and over the sods, forming a breast-work five feet long, three feet thick at the bottom, one at the top, and nineteen inches high—"time four minutes." The soil was very hard, not having been disturbed for over twenty years, besides being full of roots, but the wedge shape of the bayonet parted and drew the earth out from between them. In the second trial, which was in easier digging, from the experience they had just received, the men handled the weapon much better, so that in the short space of two minutes and three quarters they dug a trench six foot square, throwing the earth up in front in the same manner as in the first trial, forming a ball proof embankment six feet six inches long, nineteen and one half inches high, three feet thick at the base, and one on the top, behind which the three men were directed to lie down, when they were so concealed that they could not be seen at the short distance of ten paces. This is making cover in a much less period of time than intrenching tool could be ordered and brought from the rear to the front

of an army. One of the bayonets was then fixed upon a musket, and on attempting to dig with it proved that the length of the piece caused the weapon to hang at such an angle that the earth could not stay upon it, which demonstrated the fact that the soldier could not, if he would, use the bayonet as an intrenching instrument when fixed upon the gun. These men undoubtedly worked as rapidly as possible, but no faster than they would if under fire, and their lives depended upon the rapidity of their labors.

NEW COLONY.

Mr. S Macdonald, who left the 31st July for Dufferin, has now arrived. He paid a visit to Emerson which he describes as a fine location with a few habitations in course of erection. Many members of this colony have not yet arrived. No buildings. The town location has no appearance of building on it at all.

He went to view three townships in the neighborhood for the colony he himself proposes to bring out—the land was good but bare of trees. There was a small stream flowing through the spot and water could be found by digging 10 or 12 feet.

Mr. Macdonald followed this stream down to the Rosseau River and found a good show of wood along its banks, the best however had been already cut down. Following down the Rosseau he passed the rapids which had a good head of water easily convertible to mill purposes by the erection of suitable dams. He went back to Pembina, and following the B. and N. Commission road got to Pembina Mountain. The land begins to rise about 20 miles west of Pembina and consists of clay subsoil with some gravel on surface.

Found plenty of oak, elm and poplar timbers near the mountain chiefly on east side. Good springs of water in the gullies.

He then took a course east of Government Depot; passed over a big ravine till he came to Buffalo Hill; found the soil good and ready for cultivation. Good spring water in ravines with a few settlers in the East Valley.

At Greasy River (a small stream) he stopped. The name of this river appears to be appropriate, as it is actually greasy and dirty water, but can be made usable by boiling. He passed over Lizard Lake, a large body of water full of fish. All around this locality was good soil and plenty of building stone right at hand. About 4 miles east of Buffalo Hill were indications of iron but found no coal, although some of the stone appears similar to that beneath which coal is usually found. During his trip he shot over 200 prairie chickens.

Mr. Macdonald is engaged in prospecting for a reservation in behalf of a colony from Ontario, under the auspices of W. Gilson, M. P., for Dundas. Wm. Barrie of Morrisburg, and himself.

They propose bringing in 500 families, 150 of whom are at the present moment ready to start. Mr. Macdonald next means to make a trip to the Saskatchewan.—*The Manitoba.*

WAR REGULATIONS.—The Secretary of War has directed that hereafter no officer of the army be detailed at a college or University, under section 26 of the Act, July 8th, 1866, for a longer period than three years, and that the limit thus fixed be applied to officers detailed as will be relieved at the expiration of three years from the date of detail.