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NOTE AND COMMENT.

UPON the question as to what should be the average size of the soldier, Archibald Forbes, in a recent article, says :—"Man for man, the moderate-sized sturdy recruit, perhaps even the sturdy little recruit, is likely to make a better all-round soldier than the big fellow. He has more endurance, he seems to carry his burden more easily, having less of himself to carry, and he is generally healthier. But your narrow-chested, 'herring-bodied,' undersized gutter weed is pure trash on campaign; you cannot make decent 'cannon fodder' of a creature of this sort and it is of creatures of this sort that the ranks of the British Army to-day are full."

THE New York *Herald* in a recent article on the best kind of shoes to wear, refers to a suggestion by M. Colin, a surgeon of the French Army, that rubber-heeled shoe might prove a great boon to soldiers on the march, and says: "In forced marches the feet of infantrymen suffer so much from soreness and fatigue that more or less straggling often becomes inevitable and the movements of whole army corps are often retarded. As there can be little doubt that troops shod with rubber-heeled shoes would, *ceteris paribus*, outmarch troops otherwise shod and reach the battlefield much less fatigued, it would seem to be good policy to adopt M. Colin's suggestions. An easy regulation shoe in the army might possibly do more to win great battles than any new gun that will ever be invented."

THE *Broad Arrow* makes the following kind reference to our late Premier, "Sir John A. Macdonald was an Imperialist of Imperialists. He it was that conceived the idea of connecting the two wings of the Empire by means of the Canadian Pacific Railway. He was influenced as much by strategic as by commercial considerations. Sir John has not lived to see a British battalion carried that way to or from India, and it will probably be some years before this remarkable railway line is utilised as a military road to the East; many things will have to happen in Europe first, but as far as it stands as an alternative the route C.P.R. is there. Sir John Macdonald was essentially a statesman, notwithstanding the name which his reputed predilection for postponing unpleasant duties acquired for him of 'Old To-morrow.' He was a necessary force in Canada, and did more than his contemporaries to raise the dignity of the Dominion."

A CONCESSION TO R. M. C. GRADUATES.

Instruction has been given to the Royal Military College ex-Cadet Club that the Law Society of Ontario has amended its rules by enacting as follows :

1. A cadet of the Royal Military College who has received his diploma of graduation shall be entitled to be admitted on the books of the society as a student-at-law or articled clerk, on and subject to the same terms and conditions as a graduate in the faculty of arts is, or shall for the time being be entitled to admission thereon.

2. Every such cadet shall be entitled to be called to the bar, and to be admitted and enrolled as a solicitor, after the like period of service and on and subject to the like terms and conditions as are or shall for the time being be applicable to a graduate in the faculty of arts.

3 The provisions of these rules shall apply retrospectively, so as to entitle any such cadet who has heretofore been admitted on the books of the society, and has not yet been called to the bar, or admitted and enrolled as a solicitor, to apply to be so admitted or enrolled after the like period of service, as is required in the case of graduates in the faculty of arts.

This concession entitles Military College graduates to a year in the ordinary law course, and places them on the same footing as university graduates. It is a question which the College Club has been agitating for the past three years, and the secretary, Lieut. F. W. White, has been one of the foremost in endeavouring to secure the privilege. The same concession will now be asked in the other provinces.

REGIMENTAL.

THE FIFTH ROYAL SCOTS.

For the first time since Lt.-Col. Hood has been in command of the Fifth Royal Scots, says the Montreal *Gazette*, they have passed an inspection, and that inspection, which took place on Saturday, was fully up to the previous ones of this fine corps—fine in physique, fine in appearance and fine in drill. Taking the inspection as a whole, leaving out a few minor points, a better inspection could not be asked, for the muster was not only a strong one, but the recruits of this year are a fine body of men in appearance, nearly all of them being over standard height. The crowd began to gather shortly after three o'clock, and when the battalion, accompanied by the Highland Cadets, marched on the Champ de Mars, the squad of the Sixth Fusiliers had all they could do to keep the ground clear. By the way, it would be a good idea at future inspections if vehicles were relegated to the opposite side of the Champ de Mars, instead of obstructing the view of the spectators on the steps. When the Scots marched on at the west end of the Champ de Mars, a detachment of the Duke of Connaught Canadian Hussars rode on at the east end and pressed the crowd back. When the battalion had come to a halt the muster was seen to be as follows: Lt.-Col. Hood in command; Majors Strathy and Ibbotson, five staff officers, six captains, five lieutenants, eight staff-sergeants. Musters of companies: A Company, 4 sergeants, 1 corporal and 32 privates; B Company, 3 sergeants, 2 corporals and 27 privates; C Company, 4 sergeants, 4 corporals and 27 privates; D Company, 3 sergeants, 3 corporals and 29 privates; E Company, 3 sergeants, 1 corporal and 24 privates; F Company, 4 sergeants, 4 corporals and 29 privates; buglers, 6; pipers, 6; pioneers, 4; band, 26, and ambulance, 10; making a total of 283 on parade. Soon after four o'clock Major-Gen. Herbert arrived with his staff, and after being received with a general salute the inspection commenced with the inspecting of the companies. Major-Gen. Herbert inspects the companies very thoroughly, calling attention to any fault in clothing or any accoutrement, that are not correctly placed. In inspecting the Scots companies, however, he had nothing to find fault with. After the march past, in which No. 5 Company lost a little distance, Lt.-Col. Hood put the Scots through battalion movements, the Cadets also obeying the same commands in the line to the left of No. 4 Company. There was no distance lost and the dressing was quickly caught up; in fact regulars could not have executed this command better. Major Strathy put the battalion through the manual and firing exercise, which was exceedingly well accomplished. Major Ibbotson then put the men through the review bayonet exercise, which, with the exception in the low guard point of the bayonets striking the ground once or twice, was very good. But, as the Major-Genral said in his speech to the Scots afterwards, this was to be expected, as the men had only had a month's drilling at bayonet exercise. Major Strathy then put the men through a number of manœuvres, which were well done. At this time Major-Gen. Herbert asked to see the Cadets in physical exercise, and the line was halted and 32 of the 56 on parade came forward. That the boys drilled well to the music of the Scots fine band was to be expected, but on Saturday they outdid themselves, every arm swinging in unison and every movement being in exact time. A few more battalion movements were then gone through, under the command of Lt.-Col. Hood, and the line was formed, and the Scots advanced in review order, coming to a halt and giving the general salute for the last time for the day. Three sides of a square were then formed, the Cadets filling up the other side.

Major-Gen. Herbert then addressed the men, complimenting them highly, not only on their appearance, but on the splendid manner in which they had executed the different commands. He also referred to the other Highland regiments, which, he said, were always first, especially at Alma and Tel-el-Kebir. At the last place he had not only the honour, but the pleasure of seeing them. Turning to the Cadets, he said: "I wish to say a word to the Cadets on the manner in which they drill. Their smartness in executing the commands deserves praise, and the physical drill is beyond all praise."

The line was then reformed, and, with the Major-General and the staff at the head, the battalion marched off the parade ground, and the Scots' inspection was over.

After the Scots' inspection the Major-General paid a visit to St. Mary's College, where he witnessed the Cadets go through a number of movements, which were done in the Cadets' best style. Afterwards he addressed the boys in English and in French, thanking them for the pleasure they gave him, and said he was glad to see that their proficiency in drill had been attained without detriment to their studies.

THE RIFLE.

[*Secretaries of Rifle Clubs and others interested are invited to send in the chief scores of practice or other competitions.*]

OTTAWA RIFLE CLUB.

The ninth spoon competition of the Ottawa Rifle Club was held on Saturday last, on Rideau range, with Snider rifles, at 200, 500 and 600 yards, and resulted as follows:

T. McJanet	30	29	27	86
H. L. Ross	30	26	27	83
W. A. Jamieson	29	25	24	78
E. D. Sutherland	28	28	21	77
J. G. Lyon	22	27	26	75
H. F. Perley	24	27	23	74
T. Carroll	25	27	22	74
J. W. O'Grady	28	29	27	74
J. H. Ellis	25	25	21	71
R. Moodie	23	20	27	70
J. Wright	26	27	17	70
Dr. G. Hutchison	26	27	17	70

HISTORY OF PROJECTILES.

(The Broad Arrow, 23rd May.)

On Wednesday last, Capt. Berthon (Durham Artillery) delivered a lecture to the members of the Military Society of Ireland, taking for his subject the "History of Projectiles." Major-Gen. G. H. Moncrieff, commanding Dublin District, was in the chair. The attendance was remarkably small.

Gen. Moncrieff, in introducing Capt. Berthon, said that he felt that an apology was due to him for the paucity of the audience, which was accounted for by the fact that there had been a large field-day in the Park that morning, and officers quartered in Richmond, Wellington, and other distant barracks could not possibly be in time. He hoped Capt. Berthon would accept this explanation. He was sure they would hear a most interesting lecture.

Capt. Berthon said: On the subject of projectiles there is and always has been great diversity of opinion, many most interesting and ingenious contrivances have from time to time been in use, and many wild theories propounded; indeed there is hardly a subject in the world that has proved so attractive to would-be inventors as war projectiles. Some few ideas certainly have been worthy of trial, but in most cases they have been of the useless type, from the imaginations of those who did not understand the requirements. [Capt. Berthon here gave an able *resumé* from the earliest period down to the present day.] Many appliances have from time to time been in vogue for imparting the necessary "spin" to projectiles, *i.e.*, to keep their points to the front, a few of which may be noted. There is the Arm-

strong system, having a lead coating which is cut into by a number of small grooves in the bore; the strain is enormous on the gun, it would take a pressure of about 3 tons to the square inch to push a 40-pounder shot along the bore, and it has several other disadvantages not necessary to mention. Then there is the "Stud" system; this weakens the gun from the depth of the grooves. Then there is the system of depending upon mechanical fit, such as the Whitworth and Lancaster, but they jam in loading; this was found to be the case in the Crimea with the Lancaster guns. There is the projectile that gets its spin from a soft copper ring, and the projectile that gets its spin from a gas-check, that is rammed into the gun with it and attaches itself thereto; and not only does this system impart the necessary rotation to the projectile, but at the same time stops the escape of gas, which rush of gas causes the erosion of the bore, a very serious enemy to the life of a gun. The different shapes and devices for making a projectile spin are countless, as a visit to the Rotunda at Woolwich, or to the Royal United Service Museum in London, would prove. I think Sir Henry Bessemer got the nearest of anyone to making a shot spin from a smooth bore gun; this he did by cutting special grooves on the shot; it did not, however, answer his expectations. There is being tried at this present time a most ingenious device for spinning a shot; the shot is rifled one way and the gun rifling the other. Though a pump upon this same principle gives remarkably good results, I cannot help thinking that in a gun it would not act, as there will be no time for the shot to take any spin during its swift flight through the bore. . . . Gen. Boxer brought out the time-fuse which is in use at the present time; it had the very great advantage of being kept apart from the projectiles (which might then be kept filled); and, also, by simply making a small hole in it, it could be made to burst almost exactly when required. Not that any time-fuse can ever be quite accurate, for the simple reason that it will seldom burn under the same atmospheric pressure, the greater the pressue the more rapid is the rate of burning (the time of burning, however, increases with the age of the fuse), the time of burning increases as the barometer pressure diminishes. Every diminution of pressure by one inch (equivalent to one thousand feet in height) increases the time of burning by about one-thirtieth, hence, it is always advisable to fire a shot to see what the fuses are going to do. Another very great advantage professed by the Boxer fuse over the old ones was the powder channel, which explodes and ensures a "burst," whereas the old ones simply burnt down to the powder in the shell, no doubt causing many blinds. There is the speral-tube fuse, which was marked so that it could be cut off with a knife to the exact place in a second; it was used in the Navy before Boxer's fuse, though I don't think very long. How we come to the present day it would be simply wearisome to attempt to wade through a list of all the projectiles in use, a few examples will suffice to show the character and enormous power of many of them. The Whitehead torpedo is a marvellous piece of mechanism; for explanatory purposes it may be divided into seven parts, or compartments. First, there is the magazine containing discs of wet gun-cotton, and, of course, the firing arrangement, this is compartment 1. No. 2 compartment contains the immersion regulators, the object of which is to keep the torpedo the desired depth under water; this is called the "secret chamber," full working drawings are to be obtained at the office of Naval Intelligence at Washington. No. 3 is the reservoir compartment containing the compressed air reservoir, which, by the way, is tested up to 105 atmospheres to the square inch, or upwards of 1500 lbs. to the square inch. No. 4, the machinery compartment, which holds a 3-cylinder engine which propels the torpedo. No. 5, the buoyancy chamber, which is flooded as soon as the run is over by a small valve that opens automatically and sinks the torpedo that has missed the target to either fall into the hands of the enemy or to float about as a source of danger. No. 6, the bevel gear compartment; bevel gear is necessary, considering that the engines only go around one way, but the two screws go round different ways. No. 7, the screws and the rudder. This torpedo will travel for about 500 yards at the rate of about 35 miles an hour, and with the latter patterns there is a reasonable certainty of hitting a small boat at 900 yards. The Brennan torpedo is worked from the shore or ship, and can be guided at will in any direction, and can be brought safely back again; it will explode about 300 lbs. of blasting gelatine against any ship travelling up to 23 miles an hour. Many European and other Governments are experimenting with the pneumatic gun which discharges dynamite shells, the great difficulty has been to prevent the dynamite from exploding from the shock of discharge; this is, however, now overcome, and I believe that shells containing 1200 pounds of dynamite have been successfully thrown a diitance of 3 miles. . . . As an illustration of the effect of steel projectiles upon armour, the following will, I think, prove interesting. The Dutch Government last year had a competitive trial of four compound armour-plates. The first two were made in England, and the other two in France. They fired at a range of about 100 yards, the projectile was of forged steel, 11 inches diameter, weighing 566 lbs., having a striking energy of 7079 foot tons. The plates were bolted to backing of 24 inches of teak and two ¾-inch steel plates at the back of the wood, all held by heavy timber struts. First shot went completely through. Second projectile broke up, leaving joint in plate; developed several slight cracks. Third projectile clean through everything, breaking the plate into three pieces. Fourth, practically the same result as third. A Palliser chilled shell of similar diameter and energy would probably be reduced to mere dust, except just the point. Palliser shot were all very well against wrought iron, but when their points encounter such material as compound plate of a hard steel face and tough backing, it is easy to see what happens. The points are cast in iron moulds, consequently the moment the metal touches the cold metal it is chilled, and all the fibres in the head of projectile radiate to one point, thus forming a series, as it were, of concentric cones, which act as wedges to split up the base of shot when the point strikes as above indicated. It was necessary to cast these shot with a hollow, as they would spout, split after manufacture if cast solid in chill. This hollow was filled with powder, which burst without a fuse; if the shot struck an iron object the bursting charges were afterwards extracted and sand substituted. It may be interesting to note that the energy of a shot from our 30-ton rifle muzzle-loading gun, at 2000 yards, is about equal to that of the *Rupert* running at 10 knots. It is curious to note how the bullets of small arms have decreased in size from the old Brown Bess down to the ·303 Magazine rifle just adopted, which will, in all probability, be found an excellent weapon should Connon be clever enough to invent the ammunition for it. The size has very much decreased since the Crimea, taking the Enfield and Minié bullets at about the same size, namely, ·672, and weighing 720 grains. Then the Martini ·45 diameter, weighing 480 grains; then the ·303 Magazine rifle, weighing 216 grains. The same remark applies to large spherical projectiles from mortars. . . . The Nordenfelt and the Hotchkiss guns of 1·85 calibre seem to be the favourite quick-firing light guns for the purpose of resisting an attack from torpedo-boats. The projectiles of these two guns are practically of the same power, weighing respectively 3·3 lbs. The muzzle velocities are roughly 2000 feet per second, firing a calculated penetration of steel 3 inches, ditto at 1000 yards 1¾ inches, and at 2000 yards a good inch; with both of these guns 14 aimed shots per minute may be fired. No one could realise what beautiful shooting can be made

with these guns without trying them, for simply guide the gun with your shoulder, looking through the sights, and fire by pulling a trigger which is attached to a pistol handle, it is obvious what a far better chance you have of hitting a moving object. The relative efficiency of these guns for defence against torpedo-boats compared with that of high guns may easily be seen. Assume a torpedo-boat to be coming on to the attack of an armed cruiser, for example sake, say we open fire upon her with a 3-pounder Hotchkiss at 1500 yards (about ¾ of a nautical mile), as she could not discharge her torpedo until she got within 400 yards, at least she would have a very remote chance of getting her torpedo home. She would thus have to travel a distance of 1100 yards under fire, presenting a target of 5 feet high by about 14 broad (which coming dead on would be practically a stationary mark), coming on at her maximum speed of say 22 knots (about 37 feet per second), it would take her 1 minute 29 seconds before she arrived within the 400 yards, during which time the 3-pounder could fire at least 20 aimed shots, out of which one may reasonably expect to get to hits; whereas, with a high-power gun that required gearing for trading and elevating, it is hardly likely that more than 3 shots could be fired, and without nearly such good chances of hitting, I don't think, however, that a daylight attack would ever be made by torpedo-boats in actual warfare, the chances of success being apparently so very remote. Illuminated sights for night use have been adopted in the English service. These sights are so constructed that they can be put on or removed from a gun in a very short time. The front sight consists of a metal socket, enclosing a very small cone of pale green glass, point up, and with only the rear half showing; under this is a small incandescent lamp, the light from which shines up through the base of the cone, and is then reflected to the rear. The rear sight is similar, except that, instead of the cone there is a V notch, which has light reflected on it, which first passes through a ruby-coloured glass. In sighting, the point of pale green light is brought between the V notch, and the line of ruby-coloured light brought into coincidence with it. The sights are said to work well. The electric current used is local for each gun, and is supplied by a small battery so arranged that when turned upside down it is out of action. There is an arrangement whereby the light can be regulated to suit any degree of darkness of night.

Gen. Moncrieff then said it was usual at that time to invite officers present to make any remarks on the lecture that they might wish to. No one appearing to wish to speak, the chairman said it only now remained for him to return to the lecturer the best thanks of the society for the great trouble he had taken in preparing his most interesting lecture, and he was sure they would all join with him in returning Capt. Berthon their most cordial thanks.

DISCIPLINE.

(By Colonel H. B. Hanna, late Commanding at Delhi.—From the Broad Arrow.)

VI.—CRIMES, PUNISHMENTS, LAWS AND COURTS-MARTIAL.

"Soldiers must, for the sake of public freedom, be placed under despotic rule; must be subject to a severer penal code and to a more stringent code of procedure than are administered by the ordinary tribunals."—LORD MACAULAY.

The penal powers given to commanding officers are, I think, ample for the purpose of maintaining discipline, and since Section VI., para. 35, Queen's Regulations, has been redrafted, there are very few crimes which cannot be summarily disposed of by them. I am aware that some commanding officers desire to be invested with larger powers than they at present possess, but, in view of the fact that not every man could safely be entrusted with them, I think it wiser to make no change in this direction.

The crime of attempting suicide is a very common one in India. In many cases it is one of the many sad results of drunkenness; in others it may be attributed to the sickness and suffering attendant on an Indian summer, and then calls rather for pity than for punishment. Still, as the offence is a contagious one, a certain amount of severity is necessary to prevent its spread; but I should advise its being generally disposed of regimentally, since a regimental trial gets more talked about amongst the prisoner's immediate companions than a trial before a higher tribunal, and its moral effect is, therefore, greater. The same remarks apply to cases where a man wilfully maims or injures himself.

The question of corporal punishment cannot be omitted from an essay on discipline, since, though for the time being it has been abolished in the British Army, there are many men, I among the number, who hold that there are certain offences in time of war for which corporal punishment is at once the most efficacious and the most merciful treatment. Where the choice lies between the lash and death—and there are times, especially in an enemy's country, where there is no third alternative possible—surely humanity itself pleads for the lash. And even in time of peace certain crimes, such as mutiny or cases of aggravated assault, seem to me to demand corporal punishment. I could give many instances in support of my opinion, but I have only space for one. A non-commissioned officer was one day reading in his room when in stalked a powerfully built soldier. The man was a bully, the terror of all respectable men in his regiment. When asked by the non-commissioned officer what he wanted, he coolly replied: "I have come for six months, sergeant," and then knocked the unfortunate man off his chair with his clenched fist, and, when on the ground, kicked him repeatedly in the face with his heavy ammunition boots, mutilating him in a most shameful manner. It transpired at the court-martial which tried this ruffian that the non-commissioned officer was a very inoffensive man, and that the assault was quite unprovoked. The culprit was sentenced to a year's imprisonment, as every one must admit, a most inadequate penalty. But a much longer term of imprisonment in my eyes would not have met the rights of the case; at once a coward and a brute, he needed the one punishment he would have feared—the lash, and the flogging should have been inflicted in the most public manner possible, as an example to men of the same calibre. For cases like this, I am in favour of the reintroduction of corporal punishment into the Army. But I am no advocate for the brutal flogging which was in vogue fifty years ago, when sentences of 1,000, or even 2,000, lashes were passed upon men, sometimes for very trifling offences; and I would lay down stringent rules both as to the nature of the crime for which corporal punishment should be inflicted, and the number of lashes to which a man could be sentenced, fifty being the maximum; nor would I allow any military tribunal below that of a district court-martial to pass such sentence. But with these safeguards, I believe that corporal punishment may safely be reintroduced into the army without endangering our supply of recruits, with the approval of many of our best soldiers, and to the useful terror of our worst.

As regards military law, a few changes in the Army Act are much needed. Section 56 (5) of this Act, as now constructed, is vague and misleading; indeed, it has led, on more than occasion, to a grave miscarriage of justice. For example, a prisoner was charged under section 8 (2) of the Army Act with using violence to his superior officer; he pleaded not guilty, and the court acquitted him of using violence, but found him guilty of offering violence to his superior officer. The finding the prisoner guilty of the latter offence, with which he was not charged, was held to be illegal, as the two offences stand in exactly the same position in respect to the measure of punishment awarded to them, and the finding did not therefore come within the

provisions of section 56 (5).* The proceedings therefore were quashed! The following is a somewhat similar case: If a man be charged with criminal misappropriation under section 18 (3), but the evidence shows that he has been guilty of embezzlement, he must be acquitted, because section 17 specially provides for this offence. Now the distinction between the two crimes is a purely technical one, and cannot affect the merits of the case in the least. In military law, nice distinctions of this kind are quite out of place.

In regimental courts-martial I would make no change, but I would reduce the powers of district courts-martial, because those powers are now practically limited to six months in the scale of punishments laid down in Section VI., para. 99, Queen's Regulations, and, therefore, if a man commits an offence calling for a more serious punishment, he ought to be arraigned before a general court-martial. The reconstruction of this section was a step in the right direction, as, owing to unequal sentences being awarded by different courts for similar offences, a scale of punishment for their guidance had become absolutely necessary. The scale, however, should be made more elastic, and confirmations by general officers should not be lightly interfered with, lest their authority be brought into contempt. For this same reason, as far as possible, no alterations should be made in the sentences of courts-martial.

But if discipline demands that punishment shall be commensurate to crime, and that the law shall provide no technical loophole by which the culprit may escape, still more urgently does it claim from all who are responsible for the efficiency of the army that they should leave no stone unturned to diminish the temptations to which our soldiers are at present so constantly exposed. I need hardly say that chief among these is drink, since it is a recorded fact that 90 to 95 per cent. of all crime in the army is due to this cause. I am not one of those who think that simply closing all the canteens in India would give us a sober army. On the contrary, I believe that, if such a step were taken, we should have a worse form of drunkenness to contend with, since the men, debarred from obtaining good liquor, would buy the poisonous spirits sold in the bazaars, which convert all who drink them into dangerous madmen. It is to education, healthy recreations, and the moral influence which officers and fellow-soldiers can, and often do, exercise over their weaker companions, that I look for a gradual redemption of our army from this degrading vice. The temperance societies have done much to promote sobriety in the army, but the efforts made by Sir F. Roberts and others to improve the general condition of our troops have done more; and the continuance and extension of such ameliorative measures must bring with them a steady decrease in drunkenness, and a corresponding gain to discipline.

*Section 56 (5): "A prisoner charged before a court-martial with any other offence under this Act may, on failure of proof of an offence being committed under circumstances involving a higher degree of punishment, be found guilty of the same offence under circumstances involving a less degree of punishment."

Smokeless powder was discussed in a book published in 1650.

The *Popolo Romano* states that since 1871 a sum of $32,554,600 has been expended in providing small arms for the Italian Army, out of which $1,400,000 was spent in altering the Vetterli into a repeating rifle on the Vitali system. As a result of this expenditure there are now 1,500,000 rifles of the 1870 pattern altered to the Vitali system, 35,000 revolvers, 32,000 cavalry swords, and 18,000 lances, besides a supply of nearly 250,000,000 metal cartridges. The cost of the Vetterli rifle, which was originally as high as $15, has now been reduced to slightly under $10.

VOLUNTEER MOUNTED INFANTRY.

(Volunteer Record, 13th June.)

"The Mounted Infantry Question in its Relation to the Volunteer Force of Great Britain," formed the subject of a lecture by Lieut.-Colonel Hutton, Commandant of the Mounted Infantry Regiment, at the Royal United Service Institution, on Friday, the 5th inst. Viscount Hardinge, A.D.C., Lieut.-Colonel Commandant, 1st V.B. West Kent Regiment, presided.

Colonel Hutton, after making a few prefatory remarks, said:—It is connected with the subject of my lecture to state for the information of those not hitherto aware of the fact that nearly every infantry battalion serving in this country (the Brigade of Guards excepted) has a detachment of trained Mounted Infantry soldiers. The total number is approximately 65 officers and 1,700 men, who are organized for mobilization into 12 companies. The officers are specially selected for this particular duty by their own commanding officers, and the non-commissioned officers and men similarly chosen for their physique, their bearing as soldiers, and their shooting capabilities.

They serve as mounted infantrymen upon the understanding that they represent their own regiments in a corps specially organized for difficult duty, and that they return to their own regiments when no longer required. * * * The companies so formed are complete in every respect, and ready to be mobilized for immediate service. To this force is about to be added eight Maxim machine guns. Horses and horse transport for eight of the above companies are registered for service in case of national emergency, and can be concentrated at Aldershot within seven days of the order being given, while the whole of the saddlery, camp equipment, and other stores are ready at Aldershot for immediate issue. This country has, therefere, a picked force of infantry marksmen who have been trained, equipped and organized in such a manner that they may be given any means of rapid locomotion which is best suited to the service for which they may be required.

I ask you to consider the enormous value of the fighting power possessed by a force of this description, which, consisting only of highly-trained infantry marksmen under selected and carefully-trained officers, stands possessed of the best fire-arm in Europe. * * * A portion of my lecture in June, 1886, was devoted to a proposal for the organization of a brigade of Mounted Infantry Volunteers upon the same lines as that proposed for the regular troops. The system proposed for the regular troops has, as I have shown, resulted in a movement successful beyond all expectation, due to the military foresight and genius of the late Adjutant-General, who has been influenced doubtless by his knowledge and keen appreciation of the lessons to be learnt from the American War in 1861-65, as well as from his unique personal experience of war.

The system proposed for the volunteers has not yet got beyond an embryo stage, and though since that date there has been a remarkable increase in the number of isolated companies or detachments in various parts of Great Britain, these companies or detachments can only be looked upon as isolated fragments and disconnected atoms. * * * However, we know that all great military developments in this country are the result of the demands of public opinion. Our political history shows that no Government will ever vote supplies for any innovations upon existing institutions, until the public, through the press, have demanded it, and will no longer brook refusal. * * *

I will begin by defining "Mounted or Mobile Infantry," and making a broad distinction between them and what may be best defined as "Mounted Rifles." It is essential that the distinction should be clear in your minds in order to follow my argument and proposed scheme. Mounted or Mobile Infantry are infantry soldiers *pur et simple*, who

are so organized, equipped and trained as to be capable of receiving any available means of rapid locomotion to enable them to act as infantry soldiers with the greatest rapidity and mobility. Mounted infantry may thus be provided with horses, ponies, mules, camels, elephants, or any mechanical contrivance. Mounted rifles, on the other hand, are defined as horsemen trained to fight on foot, men who are mounted and intended to perform all the duties of cavalry, except that which may be best described as "the shock." It is expected of them that they should perform all the outpost, reconnoitring, and patrolling of an army in a manner similar to cavalry; the only difference being that they must rely solely upon their fire powers for defensive and offensive action.

From the above it follows that, on the one hand, a "mounted infantry soldier" may or may not be mounted upon a horse, and that he need only be but a rough-and-ready horseman; while, on the other hand, a "mounted rifleman" must be mounted on a horse, and well mounted, while he must of necessity be a good rider. The mounted infantry of the regular army are of the type indicated, and it is a force of the same description which I venture to propose to you for your consideration as applicable to the volunteer force. [Colonel Hutton here explained the organization system, training, equipment and tactics of the Regular Mounted Infantry.]

It may be argued that the Volunteers are not to take the field, but are to be employed on the defensive, and for holding strategical points, and that a proportion of mounted troops is applicable in this case. Surely such an argument will hardly stand. . . . We may assume that an invader would be accompanied by a picked force of cavalry. . . . It would be to court obvious disaster were we to oppose such troops as these by any but Regular cavalry in any country suitable to the action of this arm. Consequently, no commander would think for one moment of opposing an invader's cavalry by the hastily raised and untrained squadrons of our Yeomary. But the physical condition of the country between the coast and the metropolis is peculiarly unsuited to the action of cavalry.

On the other hand, it is a part of England suited above all others to an active defence from mounted troops trained to fight on foot, or from infantry having means at their disposal of rapid locomotion. Every hedgerow, every bank, becomes a position; every village, every town, a stronghold from which infantry can alone be dislodged by infantry or by cavalry acting dismounted. A force of mounted troops with tactics such as to utilize these physical disadvantages should be able to delay an enemy's advance until forced back by his infantry column; it should further be able to operate on his flanks, and threaten his rear. Let us consider what troops we have available for this important *role*. We may put aside our Regular cavalry, as their efforts would be confined to holding in check and operating against the enemy's cavalry, and we therefore find that we have the Yeomanry, or such of them as could be concentrated in the southeast corner of England.

In a recent lecture at this Institution one of the most conspicuous of the Yeomanry commanding officers, Col. Crichton, an ex-officer of long standing and experience in one of our most brilliant cavalry regiments, has declared that "shooting is not a popular part of their duty," and again, that in case of invasion the Yeomanry, "having been for some time under training would be a most rough-and-ready cavalry force, who would give a good account of any foe who came against them." It is to be understood that the prevailing opinion among the Yeomanry themselves is that their regiments aspire to be considered as cavalry of the accepted European type? Do the Yeomanry squadrons consider themselves fitted to compete with the serried squadrons of highly trained Continental cavalry under the conditions of modern European cavalry tactics?

Surely such arguments show that the necessity of a close study of the American War of 1861-65 cannot be too strongly pressed upon those who hold such views as these. Careful readers will find, especially if they read between the lines, the unspeakable advantage to an army of having, as had the South, mounted troops possessing that audacity begotten of individual daring, intelligence, and horsemanship, which enabled them to penetrate an enemy's line of outposts, to execute harassing raids upon the flanks and rear in a close and difficult country, to supply guides and scouting parties capable of directing divisions of infantry through difficult and intricate country.

In the bloody pages of that war, the student will discern the hopelessness of Volunteer cavalry attaining that proficiency in their work which fits them to move in mass with the speed, unity and precision essential to effectual action in the shock of battle which would alone justify their being utilized against the trained and disciplined squadrons of an invader's cavalry. The student will there find that the southern cavalry, which gained an imperishable renown at the outset of the war as Mounted Riflemen, possessed the same qualities which we now find in the ranks of our Yeomanry—men who, owning their horses, possess a knowledge of horsemanship, an eye for country, and a readiness of resource in critical moments of danger which are begotten of a natural aptitude for field sports, men who have that familiarity with firearms which makes natural marksmen.

The *rôle* that a consensus of military opinion urges upon the Yeomanry is that assumed by the American cavalry of becoming "mounted Rifles" according to the definition that I have given. It is a *rôle* distinct from that of Mounted Infantry, as to be a mounted infantryman a man must first be a thoroughly trained and highly efficient infantry soldier, which a mounted rifleman has never been and is not required to be. If the Yeomanry seriously decline to accept the position assigned them by the majority of thinking soldiers and professional writers, it becomes a question whether they can take any place in the defence of the country, except as scouts or orderlies. If, however, they will accept the *rôle* of Mounted Rifles, the force of Mounted Infantry such as may be well furnished by the Volunteer infantry battalions would be a most powerful and valuable adjunct to them in their dismounted action, while they on their side, with their superior horsemanship, horses, and knowledge of country, would perform all the outpost and scouting duty for their comrades of the Mounted Infantry.

It would be unwise, in dealing with this important subject, to omit reference to the one weak point in this question—a weakness which, common to the whole volunteer force, is more conspicuous in the present instance, dealing as it does with a force intended for special and critical duties before the enemy. I allude to the unprofessional character of the officers and their want of professional knowledge and experience. It requires, I venture to think, the experience of at least one campaign to make the necessity of having officers of a high calibre obvious. I am very sure that men who are not by profession soldiers cannot realize in peace time what the want of highly trained and professional men as officers really entails in war. It is a fact well-known to all students of war that the more intelligent and better educated the soldier, the better in degree must be the officer.

Nothing is more true than the fact that "to lead men in battle is a profession demanding careful education and thorough training." A knowledge of drill and the possession of intelligence and zeal sufficient to pass the standard of a professional examination are not the only qualifications which make subordinates rely upon the dictates of their

superiors in military rank upon moments of danger. * * * This is the great weakness, the great blot, in our volunteer system and organization, and the command of a company of mounted infantry is a position which requires a captain of such knowledge and professional attainments as can hardly be found among unprofessional men, no matter how able or how conversant with their theoretical duties. The only plan to compensate for this want seems to be that specially applied officers should be named for the responsible command of the mounted infantry companies and battalions. Officers of the reserve, or officers who have retired from the service, should be found who would undertake the duty.

Militia General Orders (No. 10) of 19th June, 1891.

No. 1.—RETURNS.

Officers commanding permanent corps of Active Militia will render a return to the Adjutant-General on form A. G. O. No. 261, not later than the 31st July. The period reported on will be from the 30th June, 1890, to 30th June, 1891.

No. 2.—ANNUAL DRILL.

The following corps of Active Militia have been authorized to drill at their respective Headquarters, on the usual conditions:

1st Brigade Field Artillery.
Gananoque Field Battery.
London Field Battery.
Montreal Field Battery.
Ottawa Field Battery.
Welland Canal Field Battery.
Winnipeg Field Battery.
55th Battalion Infantry.

No. 3—GZOWSKI CHALLENGE CUP FOR ENGINEER CORPS.

The following are the conditions for the competition for the year 1891-2:

GZOWSKI CHALLENGE CUP.

Conditions for the Competition of 1891.

GENERAL IDEA.

The Company of Engineers is sent to prepare a mountain defile for defence in view of a possible retreat of the field force, to which it is attached, through the defile. The company may be attacked by hostile partisan corps, unaccompanied by artillery, and consequently has to provide for its own safety by constructing a defensible work suitable for its full strength and requirements.

WORK FOR COMPETITION.

The work for this year's competition will be the construction of such a defensible work as can be thrown up in six hours.

INSTRUCTIONS.

The commanding officer of each Engineer Company will select for the defensible work the most convenient spot he can obtain permission to work upon.

He will furnish a sketch plan (to scale) of the proposed work and its details.

He will also furnish a report on the following points:

(*a*) The advantages and disadvantages of the site chosen as regards its tactical relations to the surrounding country and as regards a daily supply of water for the men and horses.

(*b*) The design proposed for the work as a whole and for its details.

(*c*) The resources available in tools and material for the construction of the proposed work.

(*d*) The general distribution of the working parties, tools and stores under stated N. C. officers.

(*e*) The proposed arrangements for water supply, day and night latrines, abattoirs; for transport animal lines; for the safe storage of ammunition, stores, food, forage and fuel; for the housing of the officers and men; and for guards and sentry duties.

The last item (*e*) is only to be reported on and is not to be included in the six hours work.

Item (*a*) of the report is required to ensure that the commanding officer, if he be compelled to make use of an unfavorable site for the defensible work, has a clear view of its disadvantages.

In preparing the above sketch, plan and report the commanding officer can make what use he pleases of his subaltern officers and senior N.C.O., but he is requested to make them thoroughly acquainted with what he proposes to do and his reasons for so doing, in order that they may receive all the instruction possible from the scheme as a whole.

Any materials required in the construction of the work may be collected and prepared before the competition takes place.

Special attention is directed to Rules 2 and 4 of the competition, published on page 160 of the Militia Report for 1885.

By command.

WALKER POWELL, Colonel,
Adjutant General of Militia,
Canada.

The *Mail's* issue of Thursday, 25th inst., reported the military popularity contest to stand as follows for the leaders: Regiments—13th Battalion, 56,220; Queen's Own Rifles, 52,515; 10th Royal Grenadiers, 35,452. Officers—Lieut.-Col. Macdonald, Guelph, 16,864; Major Delamere, Q.O.R., 16,473; Lt.-Col. Hamilton, Q.O.R., 13,888; Capt. Manley, 10th Royal Grenadiers, 13,491; Lt.-Col. Gibson, 13th, 12,302; Lt. Col. Jones, 38th, 10,418; Lt.-Col. Todd, G. G. F. G., 10,176; Lt.-Col. O'Brien, 35th, 10,048.

The death of Count Von Moltke reduces the number of Field-Marshals of the German Army to three, viz., Count Von Blumenthal, Prince George of Saxony, and Prince Albert of Prussia. All three received their batons, in 1888, from the late Frederick, and in recognition of their distinguished military services, the first-named as chief of the staff to the Crown Prince, with whom Von Blumenthal was always an especial favourite; Prince George of Saxony for services in command of the 12th (Saxon) Army Corps in the 1870-71 war; and Prince Albert as commander of the 4th Cavalry Division on the same occasion. The remaining marshals of the European armies are few in number. In France, the survivors of a rank which both Napoleons knew so well how to bestow, are Marshals Canrobert and MacMahon, Duke of Magenta, both octogenarians, but, by all accounts, carrying their years and honours well. In Russia, the marshalate appears for the time being to have become extinct by the death of the Grand Duke Nicholas, who was well entitled to an honour very grudgingly bestowed by the Romanoffs, seeing that he had held the chief command of the Russian armies in the last war with Turkey. In other continental armies the rank seems almost unknown, if we except the Muchirs of Turkey and the Captains-General of Spain, an honour enjoyed by five soldiers of note in the Carlist wars, viz., Vezuela, Conde de Chesto; Pavia y Lacey, Marquis de Novaliches; José Gutierrez de la Concha, Marquis de Habana; Martinez de Campos, and Jovellar y Solar. Marshal Concha is, like Von Blumenthal, in his 91st year, and as the last surviving soldier of note who fought in the Carlist War of fifty-five years ago, has outlived all his contemporaries.

The Italians have been having successful trials of the first of the revolving turrets ordered for coast defence. Armstrong supplies the turrets, Krupp the guns, and Gruson the mounts. Each has two 40cm. 15 74-inch guns, firing 2,084 lb. projectiles, with 662½ lbs. of prismatic powder, manufactured at Fossano.

THE REVELRY OF THE DYING.

The following poem was written by an Irish officer, Lieut. Arthur ———, in the English service, while on duty in a city in East India in which the plague was doing its terrible work. The inhabitants, particularly the foreign residents, were dying every day by hundreds, when twenty officers of the English Army, without the shadow of a hope of ever seeing their country or friends, formed a club and sought to drown their senses in the wine cup, and by jest and song to divert their thoughts from the terrible and irrevocable fate which each one knew awaited him. The author of this poem died almost before the echoes of "Hurrah for the next that dies" had ceased to reverberate, and in less than a week every member of the club had crossed the "sable shore":

We meet 'neath the sounding rafters,
And the walls around are bare;
As they echo our peals of laughter,
It seems that the dead are there.
But stand by your glasses steady,
We drink to our comrades' eyes;
Quaff a cup to the dead already,
And hurrah for the next that dies.

Not here in the goblets flowing,
Not here in the vintage sweet;
'Tis as cold as our hearts are glowing,
And as dark as the doom we must meet.
But stand to your glasses steady,
And soon shall our pulses rise;
A cup to the dead already—
Hurrah for the next that dies.

Not a sigh for the lot that darkles,
Not a fear for the friends that sink;
We'll fall 'mid the wine cup's sparkles,
As mute as the wine we drink.
So stand to your glasses steady,
'Tis this that the respite buys:
A cup to the dead already—
Hurrah for the next that dies.

Time was when we frowned on others,
We thought we were wiser then;
Ha! Ha! let them think of their mothers,
Who expect to see them again.
No! stand to your glasses steady!
The thoughtless are here the wise;
A cup to the dead already—
Hurrah for the next that dies.

—*Army and Navy Journal.*