The Rifle Gallery of the Seventh N. Y.

Gallery rifle practice, intelligently conducted, is essential to proficiency in the use of the rifle by the Guard. Here the beginner can learn all the fundamental principles of shooting, can train his nerves and accustom himself to handling his piece readily, gaining confidence and accuracy. Were more time devoted to systematic gallery practice with the State arm, and less in endeavouring to obtain clock-like regularity in drill, the value of the State troops would be greatly advanced. Successful work at the out-door range is advanced, and efficiency would be obtainable by a much larger percentage of the guard, if systematic armoury practice were within the reach of all. As a writer in the Brooklyn Daily *Times* says: "the great object to be kept in view is not the development of a few skilled marksmen, but the training of the entire rank and file so as to enable all to have a fair degree of skill with their rifles."

The best example of what systematic armoury rifle practice can accomplish, is given by the 7th N. Y., which has made such excellent use of its well equipped and intelligently managed rifle gallery. On a recent visit to the armoury we were courteously shown its ins and outs from beginning to end. The first thing that struck us was the business-like way the firing was conducted. It was one continual "bang-bang" from 7 until 11 P. M. and without the slightest interruption. The men showed a familiarity and self reliance in the aiming and firing that was most satisfactory to note, getting through their shooting quickly and with a regularity that showed a thorough system. There was no bad ammunition, no guns out of order, nor was the range monopolized by a few crack shots; the rawest recruit is given the same privilege as the best shot in the regiment. Everything is in the most perfect order and there is a system which is intelligently adhered to. Each company shoots on its drill night: the men usually come down in squads while their company is drilling, shoot quickly, return to their company and another squad takes their place. In this way much time is saved. Some shoot by company and commence an hour before drill. There is a large sized waiting room adjacent to the firing point provided with seats and lockers. Each company has its quota of ammunition separate and in a special locker, and it is available on the instant. One of the sensible regulations is that each man must shoot with his own gun. Each member of the regiment is allowed 50 rounds per annum free, for use in gallery practice; all used over this is paid for by each company at the rate of one cent per round, the amount collected going into the regimental treasury. Each company has its own inspector of rifle practice, a private being usually appointed to the position; he in turn appoints a committee to aid him, and in this way interest in shooting is developed, records kept, and each man's progress carefully looked after. Various matches are also arranged, which adds additional interest. There is shooting six days in the week. Each Saturday evening is set apart for the use of the regimental rifle club, which has a large membership, and on this evening during the season a variety of matches are contested for, and for these liberal prizes are offered.

The range was built under the supervision of Gen. C. F. Robbins, he at that time being regimental inspector of rifle practice, and it was the first indoor range in the United States to be fitted up on the improved system of sunken trench for markers, double acting sliding targets, etc. It is 100 yards in length and is supplied with six sliding, double acting targets, the marking being done by men detailed from the employees of the armoury. The value of the shot is announced by disk, and is also transmitted to the firing point by electricity to a register, from which scorers keep the record of shooting. The firing point is partitioned of and has 12 apertures for shooting through, so that the men can shoot either standing, kneeling, sitting, on the back, or prone. There are receptacles in which the shells are dropped as soon as fired. There are on an average from 1,200 to 1,500 shots fired each night.

One of the most recent and valuabe improvements of the gallery is the new projectile receiver, invented by the armourer, Mr. O. H. Decumbus, for catching all the bullets that have passed through the targets, saving all the lead. It consists of a deflecting plate or plates behind the target, inclined at a sharp angle to the path of the bullets, and a cylindrical chamber, having an opening in its wall, connected to the plate. The bullets impinge upon the deflecting plate and slide along it to the chamber, where they revolve until their energy of motion is expended, and finally drop into a receiver placed below, from which they can be readily removed for remoulding. The bullets are never liquefied, and remain separate in the receiver, the only effect of the concussion being to flatten them somewhat. There is not the slightest spattering of particles, and all possibility of injury to the target men is avoided. During six months use there was some 10,000 pounds of lead shot at them, 95 per cent. of the lead being recovered and recast. Mr. Decumbus, who is a practical man, is also the inventor of the very useful sight protector which bears his name, it being well known at Creedmoor and elsewhere. All the cleaning of shells, casting of bullets, and reloading of shells is done by the employees of the armoury. The bullets are cast by the thousand, there being a complete plant for this purpose in a special room in the engineer's department. It is here that the great mass of expended bullets are taken to be melted and recast. The dirty shells are also cleaned by the thousand. There is a simple appliance, consisting of two half cylinders; in the first is a strong solution of potash. After being given a bath in this they are lifted automatically into the second half cylinder, where they are thoroughly rinsed in clean water and dried in the boiler room. The shells are then taken to another special room, where the reloading is done, there being various appliances for tapping, filling, seating the bullet, and lubricating.

It was a very instructive visit, and demonstrated that, aside from its proficiency in the various evolutions of tactics, the 7th N. Y. is still further proficient in the most important of the soldier's art, viz.: marksmanship, and that every possible effort was made to attain it. The greater the skill of this and other regiments and companies in rifle shooting, the less chance of riot, the existence of so many expert marksmen, with deadly breech-loaders, being the surest preventative against it.—*U. S. Army and Navy Journal.*

Gleanings.

A French paper notices the re-introduction of the hand-grenade into the French service as an arm for its sappers. It is to be charged with melinite.

The French service papers criticize the marked tendancy of the military authorities, especially Gen. Gallifet, in favour of the lance as a weapon not only for Dragoons, but for Chasseurs and Hussars.

The Italian Government will, it is said, shortly be in possession of a gunpowder which is expected to rival, in power of propulsion, in comparative noiselessness and absence of smoke, the new French explosive as used in the *fusil Lebel.*

Some sensation has been created in French military circles by the removal of Col. Pierre from the command of a regiment quartered in Paris to that of a corps stationed at Annecy, because of his too great intimacy with Gen. Boulanger, who was his fellow cadet at Saint Cyr, and raised him from major to the command of an infantry corps.

The men employed at the Royal Small Arms Factory, Enfield, have been put on overtime until nearly midnight, in order to clear away all the Martini-Enfield rifles, and to make the utmost possible progress with the new magazine weapon, the pattern of which has at last been definitely settled. These are to be turned out in Birmingham, Byw and Enfield at the utmost speed.

The Danish engineer, Gloesner, has obtained from the Danish Government the concession for the construction of a canal, which, crossing the peninsula of Jutland, will bring the Baltic in direct communication with the North Sea. The width of the canal will be 30 metres at the bottom, and 180 at the water line; the depth will be 24 metres. At every distance of 2,000 metres wider basins will facilitate the passage of the ships. The works will be completed in five years. The capital, which is estimated at $400,000, has been almost fully subscribed.

Dating from the beginning of October, cuirassiers in the German Army have been disestablished. All regiments hitherto so named are now armed with the lance and converted into Uhlans. Their lances are, however, a foot longer than the weapon of the Uhlans in the Franco-German War,and they are provided with carbines, for which shortly a magazine attachment will be furnished. The newly-created Uhlans are not armed with revolvers. The authorities are discussing the question of equipment to the least possible proportions.

A repetition of experiments on a large scale tends to show that iron and a very solid sort of concrete, rich in cement, are the only materials capable of offering a prolonged resistance to the action of modern artillery. Sand may be usefully employed under certain circumstances, but the uselessness of earth ramparts has been clearly demonstrated. In future, therefore, the main feature of a fort is most likely to be a round ironclad tower emerging from a glacis of concrete, and furnished with heavy ordnance to reach the assailant at long ranges, and with lighter artillery for flank firing and for firing at shorter ranges. Forty or fifty machinists and artillerymen will probably compose the whole garrison of these forts. But the defence will, moreover, consist in a body of movable troops and artillery, to be conveyed to any point in the circumference, under the shelter of natural or artificial cover, by a narrow-gauge railway. According to this system of defence, the assailants will no longer enjoy alone the advantage of concentric fire. Important experiments of this kind have been witnessed by the French Minister of War at the fort of Lucey, near Toul.