


RIFLE
ASSOCIATION
OF AMERICA

ARMS AND THE MAN



TRYING OUT THE NEW RAPID FIRE

SNIPERS AND SNIPING

The Problem in the U. S. Army

MORE ABOUT THE REAL "OLD TIMERS"

Lieutenant Fred Kuhnle

N. R. A. WILL HOLD 1918 MATCHES

EDITORIALS and

LATEST NEWS OF RIFLE, REVOLVER AND

SHOTGUN, THE ARMY, THE NAVY AND

THE NATIONAL GUARD

VOL. LXIII, NO. 15



JANUARY 5, 1918

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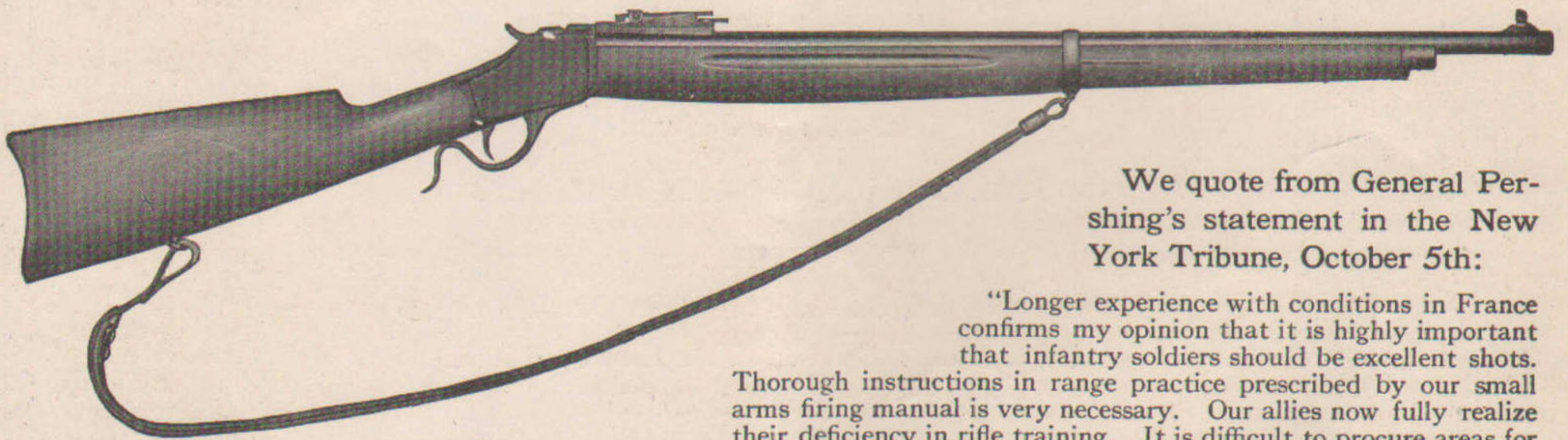
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"Longer experience with conditions in France confirms my opinion that it is highly important that infantry soldiers should be excellent shots.

Thorough instructions in range practice prescribed by our small arms firing manual is very necessary. Our allies now fully realize their deficiency in rifle training. It is difficult to procure areas for

target range in France even now, when crops are off the ground. Much greater difficulty soon when ploughing begins.

"I therefore strongly renew my previous recommendations that all troops be given a complete course in rifle practice, prescribed in our firing manual, before leaving the United States. Specially, trench warfare instruction at home should not be allowed to interfere with rifle practice nor with intensive preliminary training in our schools of soldiers, companies and battalions."

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ARMS AND



THE MAN

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Trying Out the New Rapid Fire

By EDWARD C. CROSSMAN

FOR the first time a real rapid fire stunt has been put on the programme for the soldiers of our Uncle Samuel. The new firing regulations call for 10 shots to be fired in the time of one minute, range 100 yards, position prone behind shelter trench, target "head." But also the *soldado* is permitted to fire as many as 20 shots instead of 10, the sole obstacle being the minor matter of the target diving into the pit at the end of sixty seconds. If he so fires 20, he gets all there is on the target in the way of score, but if he fires less than 10, he not only gets the small score on the paper, but gets nicked one point for each shot not fired.

Wherefore the inducements are strong to fire as many shots as possible in the short time available, and I'm strong for the new stunt. My British friends write me that 15 rounds rapid—15 rounds in one minute—was just what was needed to discourage the ambitious Hans und Fritz to come over and occupy part of your own trench with you.

Times were when they used to have a form of skirmish with the old black powder Springfield, in which a man was allowed to fire all the shots possible in a given time, somewhat after the fashion of this present stunt, and I've seen Gun-Sling Dave go down the line with his mouth and his fingers stuck full of the coarse, crude, and abrupt .45 calibre pills for the old Springfield. Also when that gentleman flopped himself into the Texas Grip and began to flop the clumsy breech bolt of that rifle, it got up and talked. Don't let anybody kid you that because a man has managed to slop off 10 shots with the Springfield in a minute or so, that he has done anything an expert couldn't do with that old single shot fusee.

The coming of the repeating military rifle brought with it problems of fire control and ammunition conservation which, together with the long ranges at which "The Normal Attack" began, made the military brethren look with jaundiced gaze on speed of fire. Two shots per minute, they said, was fast enough for the long and mid-ranges in the attack, while even at short range there was a tendency to make rapid fire stampede the firer and cause inaccuracy and undue haste in getting rid of ammunition.

Wherefore since I can remember, rapid fire has seen a minute or a minute and a half for ten shots, the maximum rate. It has varied from the standing position and the half-man figure we used with the Krag to the various spasms of fire from the knee at the silhouette or the A target, but never has it made a man get up and rustle and really see how fast his rifle can be worked.

Now things have come to such a pass that the other gentlemen to the dispute that must be settled with the rifle, insist on digging in within three jumps or so of the spot where you've dug in. So when they take a notion to come on over and prod you and your friends out of your own section of sewer-ditch, the time in which to discourage them is very, very short.

Where the defending force used to lie snug in their trenches bathed by a gentle shower of shrapnel from the far-off field guns, and where 10 per cent of losses used to be enough to halt an attack, and where the defenders had some half mile of space over which to pot the attackers before the shock-attack could begin, now said defenders are made the recipients of a few thousand high explosive shells ranging to a bigness never before dreamed of in the philosophy of a military man, and then in the cold grey light of the dawn, from the line of rusty and tangled barbed wire maybe two hundred yards away, there suddenly bursts the yelling wave of dim, grey-clad forms, bound for what is left of your trench. Also that wave, contrary to the attacking waves of yore, is made up partly of men carrying most frightful bombs to hurl into your trench when within 40 to 50 yards, and partly of men carrying light machine guns—automatic rifles—to set up and slaughter the survivors and to enfilade any trench line still held, and the rest of them are old in the philosophy of the bayonet and consider the prisoner as a pest. A jab of a bayonet makes taking a prisoner unnecessary.

So, to stop such a horror and stop it quickly they no longer talk about rapid fire in which 10 shots are fired in one and a half minutes and they no longer crab about wasting ammunition. The time available to stop that grey line is not more than a minute—and if it gets to your trench neither you nor your officers are likely to have to worry again about ammunition supply.

The man who can fire 30 shots in the minute and hit, is 50 per cent better than the man who can fire 20 shots with the same accuracy. Machine gun rapidity of fire is not only desirable but necessary, the target is large and getting ever larger, ammunition is plentiful; the only thing that is scarce is time.

Mr. Newitt is sponsor for the statement that a British sergeant made 48 hits with the Lee in one minute at 200 yards. I am frank to say that I don't believe this. Also another Britisher writes in a public print that he can fire 15 shots with the Enfield in 27 seconds. Here, of course, he starts with the magazine full and with 10 shots—possibly 11—in the rifle. In this time he reloads but once—and it is the constant reloading that takes time. Even then with our own scanty trial of the game, I take off my hat to such speed of fire.

There came a Sunday or so ago a chance to try out the new game on skilled military rifle shots, but men a bit rusty in their "rapids" owing to absence of matches calling for this stunt.

Our Redlands friends, one of the strongest rifle clubs in Southern California, suggested that we get together in one of our little seances, and I proceeded to spring the new army rapid fire thing on them for the purposes of science. "You draw up the menu, we'll go through it with you from

soup to nuts," replied Austin Park.

I tried to get our own bunch to try the thing out in practice during the week but in vain. They were usually sharks at rapid fire from long experience at Jax, in drilling for the Civilian interclub teams of 1915 and 16, and from other matches calling for the somewhat hurried sort of fire. In the list was Thomson of the 1916 California Civilian Team, and winner 4th place in the National Individual, Grove Wotkyns, high man for the 1915 interclub match and member of California Civilian team of 1916, Price, another man of the same team, Felsenthal, another member, and Ed Neff still another veteran of the same outfit. Dickey shot on the 1915 team and scored the possible, Gardiner shot in the '15 and '16 teams, with good rapid fire scores, Jackson was on the '15 civilian team and the '16 California Guard outfit and Kemper shot on the '16 civilian club team.

So that outfit didn't have any alibi as to unfamiliarity with rapid fire, they'd all shot about 50 scores at the game.

The Redlands boys were men of far less experience, albeit fine rifle shots at the slow fire game.

So the match went along through the specified 300 and 600 yard stages—with our gang, by the way, hanging up 45.7 average for 300 on the A target, and with 44 low score, and presently we came to the rapid fire.

We didn't fancy the trench stuff, nor yet, for the first time, the prone position because few men can work the bolt rapidly prone without much practice. So we settled on a modified rapid fire, using the A target at 200 yards, position kneeling or sitting, time the same as in the army course, one minute, not less than 10 nor more than 20 shots—which latter proviso we also removed for the sake of experiment. Also we permitted them to sit down and get position, and await the target with rifle in position and unlocked.

Moore, high man for Redlands, and first man up, led off with 16 shots fired and a score of 58, one 5, eight 4's, seven 3's, a good score for 200 on the A target.

Rolfe got on not so well, with 13 shots fired, 11 hits, and 38 points.

The feature of the shoot was the work of Ed Neff, a telescope sight fiend, because Ed is not so young as he used to be, and finds the metallic sights treacherous at times. His scope is a Winchester A-5, mounted on Cap Knoble's Wotkyns-improved mount which snaps on and off any Springfield without using a tool on the rifle or altering it in any way. As the mounting plate blocks the magazine,

clip loading with the scope on is not possible.

So the Hon. E D rattled in his first six shots—the wise guys of course loading six to start with—then he snapped the rear end of the mount off the rifle, pushed in a clip, snapped the scope back on and again commenced to bang 'em in. Again he snapped off the scope and put in the clip and replaced the scope.

In his minute's time, using the small-field 5 power scope Neff fired 14 shots, scored 14 hits—nothing worse than a 3, and ran up 52 points. Let the gentlemen who talk about the scope sight not being practical, consider this score, hung up by a man with full-grown sons and well past the half-century mark. Also his score, like those of the others in the game, was without preliminary practice—save possibly that of the "dry" variety. That put Ed on the team with 146 total—the grand little scheme being to permit any number to fire and select the high six men for the team.

Doc Felsenthal fired 16 shots, like Moore, and scored 61, knocking out five bulls and hitting the target every shot. This was high for the two teams.

Ira Gardiner, veteran of many a rifle shoot, took his own sweet time, as usual, always deliberate and not to be hurried. He got in but 10 shots and scored but 39.

Old Reliable Grove Wotkyns evidently made up his mind to try for the machine gun record—but he got too fast. Firing from the kneel in preference to the sit, he fired 21 shots—but he got only 14 hits and scored 39. Ed Kemper fired 20 shots and quit, but he scored only 46, John Siefert got the grand idea that firing until you saw something over the front sight was useless, and with 15 shots scored straight hits and 55. Austin Park of Redlands fired 15 shots and scored 52, Sanborn fired 15 and scored all hits with 56 total.

You'll note a strange relation between good score and about 15 shots. The high men without exception fired either 15 or 16 shots. Ray Jackson of our outfit fired 21 shots—and scored but 46.

It went to show, however, that even men without preliminary practice save enough to give familiarity with the rifle, can fire 15 shots per minute and hit the 4 x 6 foot target every time at 200. This reduced, would be a 2 x 3 target at 100 yards, or roughly man-proportion.

One of our gang, trying out the stunt with a borrowed rifle, and also without practice, fired 16 shots, with a spilled clip and one shell not ejected and snapped on twice, and scored 66, with no shot out of the four ring.

Also we tried the Krag, the firer much handicapped by a rotten trigger pull which in rapid fire makes one "fudgy," by its failure to go at just the right pressure. Even with the old slow coach there was no difficulty in firing 14 to 15 shots per minute. The secret here is to take it easy in reloading the magazine—because fumbling with those five rim cartridges in the open magazine gate can produce some lovely snarls.

Here is a game in which thorough familiarity with the working of the rifle pays. Practice will count big. The man who handles his rifle like a bear-cub with a knife and fork, and who takes it down from the shoulder to reload between shots, might as well make up his mind that he's licked before he starts if the other man can handle the bolt as it should be handled.

The top shell of the first clip into the rifle—or the extra shell that Wiseheimer loads to make the ante six, ought to be well coated with lubricant, which oils the chamber and greatly facilitates extraction. The clip loading ought to be smooth and unhurried, nervous fumbling, particularly with a spilled clip, "gooms the deck." If a clip spills or jams—usually from the first shell wedging forward against the ramp and refusing to let the others in, the firer ought to throw the whole thing incontinently out in the cold world, push back the offender, and load four shells out of another fresh clip, which is easy to do by removing the fifth shell with the empty clip.

The whole game is one purely of "technique" combined with the ability to loose off smoothly and quickly without yanking. Some men never do learn this business of getting off smoothly and quickly the instant the front sight touches.

As ever, the secret of shooting fast and smoothly is to forget the element of time, forget that the watch is inexorably ticking off the seconds. That produces *hurry*—what is wanted is *haste*—and if you don't know the difference consult your dictionary.

The new course is hard on ammunition, and eventually hard on the barrels, although this is considerably over-estimated in effect. It pays big in practice—the more practice the faster and smoother one can shoot.

Here again the ambitious rifleman ought to study the easiest and fastest way to handle the bolt—keeping in mind the assistance afforded by making the left hand roll the rifle over to the right as the right hand closes on and starts to lift up the bolt handle.

In this game the great superiority of the large peep close to the eye makes itself manifest over the small peep of

(Continued on page 292)

Snipers and Sniping

By STEPHEN TRASK

PART 3—THE PROBLEM IN THE U. S. ARMY

ORGANIZED sniping by expert riflemen using telescopically-sighted weapons, is a new departure in methods of warfare on the part of the British government.

It is true that sniping originated in the Crimean, played no unimportant part in the War Between the States, and that sporadic instances cropped up during the Indian Mutiny of '56. But these were no more than unorganized efforts, and so little was thought in England of the value of sniping at the outbreak of the European struggle, that the British War Office at first opposed the establishment of a snipers' school at Bisley.

Until the United States entered the war, a quite similar attitude existed among the officers of our own army. Of course many tests were from time to time conducted and a form of telescopic sight finally adopted for use in the army by snipers; yet no great enthusiasm was apparent over the question of training marksmen for this kind of warfare.

Not so, however, with the Hun. Long before Germany sent her invading hordes into Belgium, the staff officers of the Kaiser's army had given much more than passing attention to the subject of sniping and snipers' weapons. As a result Germany sent into the field a well-trained corps of snipers equipped with rifles to which had been fitted the excellent Goerz 'scope.

With such a force in the field against them, nothing remained for the British but to match mechanical genius with cunning; to pit against the accuracy of the German sniper's rifle the wiles of *camouflage*, while their own philosophy of sniping was being developed.

Now after nearly four years of combat, the British have, if anything, outstripped the Hun at his own sniping game. Precedents for this hazardous work have been established. Equipment—so far as available and varying supply will permit—has been at least partially standardized. And, with the knowledge gained by the Allies at our disposal, as well as the facts which have been gleaned concerning the Hun sniper practices, the United States is beginning to pay close and serious attention to the necessity of sending complements of snipers overseas with our fighting forces.

From the sniping annals of the British, the United States may well take many valuable hints, the first and foremost being that there is a vital

need for training individual shots for lone-handed warfare against the Hun. Details of the devices and methods which have been found to circumvent the enemy are also of prime importance. We should not, however, necessarily, adopt *in toto* the equipment which at present, and to some extent *for want of a better*, is being used along the Western Front.

No more propitious time than the present could be found by the War Department experts to decide upon and adopt an outfit for our snipers; and whatever is adopted should be the best possible, both from scientific and practical standpoints.

The preponderance of evidence, based upon actual sniping conditions in the present war, seems definitely to point to the telescopic sight as the best possible aid to the sniper. There seems to be no other form of sight which so thoroughly meets the peculiar conditions presented in the warfare which the lone rifleman wages.

The sniper does not need a battle sight. He does not need a rapid fire sight. He does not defend against rushes or against bayonet charges.

Concealment is the first and constant necessity of the sniper, who is constantly in battle even when all of his lines are quiet. His is a one-shot performance, and must be accompanied by quickness and by accuracy. Concealment is made easy by the use of the telescope sight, because cover can be taken farther from the opposing trenches than would be possible when non-telescopic sights are used. Quickness and accuracy are increased because the sniper sees better with the telescope sight, and because he sees better he aims quicker and will discover his enemy through this optical aid when he could never hope to do so with the naked eye. Also the sniper's aim will be improved by the use of the telescope, since the point of aim will be made more distinct, and he will hold steadier because his errors will be magnified and he will fight harder to overcome them. Therefore, the sniper without a telescope sight has no equal chance against snipers provided with them.

Now it is no difficult matter to visualize a telescopic sight which would meet every condition presented by the snipers' warfare. In the ideal outfit, the diameter of the 'scope should be small, and the tube long, extending near to the muzzle so that it could be projected through covering with the

least opening. The 'scope should have a large field, and should be of high power so that the objective would be more clearly defined. It should be effective in twilight—the sniper's harvest time—and should enable the user to pick up his target even at night. It should permit the "freezing of the face" to the stock in aiming and firing. It should have strong and stable mountings, and simple accurate adjustments for both windage and elevation. Also the material for lenses should be easily obtainable.

So much for the ideal, since unfortunately it is impossible to obtain such a sight. Why? Because it is not possible to have a small long body and either a large field or a high power; and a high-power 'scope is neither effective in twilight or even a dim light; wherefore those who set about supplying the 'scope with which the United States snipers will be armed, must sacrifice some points of the ideal to more important points in the practical.

Notwithstanding the fact that the ideal telescope cannot be realized, at least an equipment which embodies most of the highly desirable qualities can be provided. In discussing what these possibilities are, it might be well to start with the rifle.

Either the Springfield or the modified British arm known as the United States Rifle Model 1917, is a better sniping weapon than any at present in use in the Allied armies. Perhaps the Model 1917 will be found the slightly better choice, since it is a bit more accurate—at least theoretically. Rapid fire does not enter into the sniper's calculations, so none of the drawbacks which have been urged against it as a service arm, can lie when, equipped with special sights, it is issued to snipers. The one point which might be chalked against it is the fact that the rifle "as issued" cannot be used as a single loader. That is true, but it is an easy matter to remove the "locking open" feature of the magazine by the simple expedient of beveling off on a grinder the little ridge of the magazine follower which catches the bolt and locks the arm open. With this alteration, the rifle can be used either as a magazine weapon or a single loader. Again, it is a simple matter to slip into place the "magazine follower depressor" provided by the Ordnance Department.

Whether the Springfield, or the so-called "Enfield" is chosen will make

little difference in results, since the shooting qualities of these rifles, barring the difference made by the sighting equipments, are so nearly identical.

The type of telescopic sight with which the snipers' rifle will be equipped, however, is a matter for very careful consideration.

In addition to the fact that there are many makes of telescopic sights, there is a very vital difference in the manner of fixing them to a rifle, and each method has supporters among experienced riflemen.

One method of putting the telescopic sight in place can be referred to as the "top mounting" as, when this is used, the 'scope follows the customary line of sight along the top of the barrel. This is the method originally followed in the days when the fore-runners of the sniper, the sharpshooter, used the breech-loading single shot rifle.

The other method is referred to as the "side mounting." Telescopic sights of this type are usually affixed to the left side of the rifle. This method can be directly traced to the fact that in recent years, with the coming of magazine, bolt-action military rifles, the old top-mounting offered an obstacle to clip-loading, projecting as it usually does above the opening of the magazine well.

It is between the old and time-tried "top mounting" and the more recent, but in some ways less satisfactory "side mounting" that the men who determine upon the type of scope which the United States will use will have to decide.

For this reason, consider the case of the side mounting. The argument that it is advisable to use this mounting in order to preserve the service sights and the bayonet on a sniping rifle, can be disposed of in short order.

Time was when the sniper worked under conditions which might at any time force him to abandon deliberate fire with the telescope and resort to rapid fire with the battle sight, or even make use of his bayonet to preserve his life. Therefore every effort was made to retain the service sight and the bayonet. Now changed sniping conditions have altered all of this. Both Germany and England have come to the conclusion that nothing is to be gained by retaining the service sight and the bayonet on the sniper's weapon. If the lone wolf of the battle fields needs an emergency weapon, an automatic pistol will serve him as well, if not better, than anything else.

Now comes the matter of practicability. Many proponents of the side mounting contend that this method permits the marksman to assume an easy, natural position and to aim with his right eye. This is true,

as far as it goes. The side mounting, however, does not permit the rifleman to "freeze his face" to the stock of his weapon and thereby insure a steady hold. All efforts to alter the stock so that the shooter can "freeze his face" while using a side mount, have largely proved failures, chiefly due to the fact that any enlargement of the stock which is necessarily a clumsy makeshift, tends, it has been found, to "canting" the rifle.

Now as to the "top mounting" for 'scopes. While Germany has held to the Goerz instrument, and originally mounted it on the side of snipers' rifles, she has lately abandoned this method and is now mounting the Goerz on top of rifles for snipers' use.

This development co-incides largely with the consensus of opinion among many of the riflemen in the United States. These riflemen are not part of the regular army where little attention has been paid in the past to telescopic sights. They are to be found largely

MEMORANDUM

By direction of Colonel Wm. Libbey, President of the National Rifle Association of America, the annual meeting of the Board of Directors of the Association for the election of officers and the transaction of other business will be held at the Willard Hotel, Washington, D. C., Monday, January 9th, 1918, at 8 o'clock P. M.

All directors who plan to attend the meeting should make hotel reservations in advance, and notify N. R. A. headquarters.

F. H. PHILLIPS, Jr.,
Secretary N. R. A.

in the ranks of the National Guard, and in the Marine Corps. Still it cannot be denied that the "top mounted" telescopic sight has won the most notable matches of the National Rifle Association, where this equipment has been permitted, and the most notable events in many state competitions, especially those conducted by the Ohio Rifle Association. When a good mount is used, and no attempt made to preserve the service sights on a rifle, a telescopic sight can be fixed just as firmly to a weapon by this method as it can with the "side mounting," and more simple adjustments for windage and elevation are possible. Last, and in many ways most important, is that fact that the "top mounting" permits the shooter to "freeze his face" to the rifle stock.

So much for generalities. Now for a few details as to the "side mount"

'scope which the army believes suitable, *but cannot obtain in any large quantity*, and a "top mount" 'scope which seems to have the approval of the practical telescopic rifle shots of the country and which can be obtained.

Up to the present, the "side mount" idea has carried a very strong appeal for officers of the United States Army. The telescopic sight now issued by the Ordnance Department is of this type. Also, a few years ago a series of telescopic sight tests were conducted at the Ft. Sill School of Musketry. In these tests several of the "top mount" sights were entered against the Ordnance Department's "side mount" and the German Goerz. As a result of these tests, the report made was all in favor of the Goerz.

Among the points made in favor of the Goerz was that due possibly to the large field, and fine optical qualities of the 'scope, riflemen using the sight commented on the steadiness with which they could hold their aim on the target. Also, the officers pointed out the now discredited "advantage" that it was possible with this equipment to retain the service sights, and added "in firing at indistinct and temporary targets, the comparatively large field and brilliant definition give the firer every advantage it is possible to secure from a telescopic sight."

Now, since the Goerz 'scope seems to have appealed to the officials conducting the test much more than the 'scopes which were produced in the United States, and from which it is more than likely the snipers' 'scope of our overseas forces must be selected, a brief description of this instrument might not be out of place.

The Goerz entered in the Ft. Sill tests, was a gun-metal finished telescope, 10 $\frac{7}{8}$ inches long, 1 inch in diameter for 8 inches from the object glass and then expanding to 1 $\frac{1}{2}$ inches to accommodate an eye-piece 1 $\frac{5}{8}$ inches in diameter. Its focus was universal. It could not be classed as a high power instrument since it magnified only 2 $\frac{3}{4}$ diameters.

It was mounted on the left side of the rifle, extending from the rear of the hand-guard to the rear of the safety lock and just cleared the left inner edge of the well. It was attached to the rifle by being screwed to a brass plate, which was provided with an undercut slot. This slot engaged a slide affixed to the side of the rifle. When properly in place there was no play whatever, and the position of the 'scope did not interfere with clip loading.

The telescope itself had no motion in a vertical plane. Changes in elevation, made by turning the graduated

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More About the Real "Old Timers"

LIEUTENANT FRED KUHNLE

WHATEVER shortcomings the gentlemen of the regular army may impute to the National Guard as an institution for defense, the fact remains that in the ranks of the National Guard rather than in the ranks of the federal forces was individual military rifle shooting fostered and established.

National Guardsmen were the first to undertake long range shooting, and from them the army learned much about this powder-burning art, when after years of independent existence, riflemen from these two military institutions were brought together in competition at the first of the National Matches.

As a result of this mingling of the two services on the firing line, changes in rifle and ammunition have been brought about which have proved most valuable to the army and to the entire nation. That is why the early history of rifle shooting in the National Guard must always be an important chapter in rifle shooting history, and why the shooting careers of the men who were pioneers in this work are of importance.

The fact that most of the rifle shooting records of the early Eighties were made with match rifles, and only a very few were made with the military arm, lends more than passing interest to the performances of the men who demonstrated that the weapon with which the rank and file of the fighting forces were equipped, and which, of course, was fitted with nothing more complex than ordinary military sights, was capable of doing remarkably fine shooting.

One of the first National Guardsmen to individually win national prominence in the shooting game, was Lieutenant Fred Kuhnle, of Petaluma, California, who at the age of 40 years, began his shooting career in 1877. Ten years later, when in his shooting prime he stood 5 feet 7 inches in height, weighed about 160 pounds, and possessed that compact, muscular build which enabled him to establish records with the military arm that were not only regarded as exceptional, but which caused many experienced shots to scarcely credit the reports of his skill so frequently published.

In most of his military shooting, Lieutenant Kuhnle used the old Sharps-Borchard military rifle, with military sights. In all respects save one this weapon closely adhered to the military standards. The one departure was that Kuhnle had it stocked with a pistol grip. The weapon shot a car-

tridge containing 65 grains of Hazard's F. G. Powder and a bullet weighing 460 grains. The empty shells, Kuhnle would reload time after time without even cleaning them.

Kuhnle enlisted in the California National Guard in 1877, and began shooting at once. The excellence of his early scores attracted the attention of the Governor of the State and he was appointed Rifle Inspector, Fifth Infantry, State of California, and attached to Colonel Ranlett's staff.

His position when shooting was markedly similar to that used by a large number of the British expert rifle



Lieutenant Kuhnle
(From an old cut)

shots of the time. In this, the rifle is brought to the shoulder, the heel-plate being placed firmly against the fleshy part of the shoulder, the right arm being raised sufficiently high to avoid the lower part of the heel plate recoiling upon the muscles of the arm, and thereby preventing the bruising which in those days so frequently nearly disabled military rifle shooters and certainly impaired their shooting when called upon to enter matches in this condition. By carefully assuming his shooting position Lieutenant Kuhnle was able to shoot one hundred shot matches without a bruise.

When in position the trigger guard of Kuhnle's rifle was rested in the palm of his left hand, the forestock between first and second finger. The right hand grasped the grip of the rifle, the thumb across the stock. Kuhnle always pressed the trigger with his third finger, the claim being made that this was an advantage over the index finger as it avoided a tendency to drift the rifle to the right.

When Lieutenant Kuhnle began shooting he sighted with his left eye closed; he later, however, gave up this practice and did all his shooting with both eyes open because, he declared, when shooting with one eye closed he often suffered the optical illusion that the bull's-eye was moving toward him and on these occasions his shots always went high and to the right.

Although he had done considerable target shooting Lieutenant Kuhnle won his first prize in 1880. It was at the meeting of the California Rifle Association, and the contest was known as the "Pacific Life Cup." The winning score was 24 out of a possible 25, Creedmoor target, 200 yards offhand. At the fall meeting of this Association in the same year he again won this trophy on a full five shot score.

In the spring of 1882 he won the Governor Perkins' medal on a score of 48 out of 50, at the fall meeting of the California Rifle Association that year, won it a second time on the same score, and at the Spring meeting in 1884 he again carried away the Perkins' medal on a perfect score.

At the Spring meeting in 1884 he also purchased two entrance tickets. On the first he scored 47 out of a possible 50, the three last shots of his string being bull's-eyes. He immediately commenced shooting on his second ticket and made a perfect score. In this way he made a run of thirteen consecutive bull's-eyes. The clean score made on the second ticket was the first "possible" Kuhnle ever made in a record match, although he had twice before performed the feat in practice. A few weeks later in a private match for a small purse Lieutenant Kuhnle scored his second 10-shot possible.

In a 100-shot match match in 1884, offhand at 200 yards, with a military rifle Lieutenant Kuhnle rolled up a total of 457 points out of a possible 500. In the summer of that year following the making of this record Colonel Ranlett of the Fifth California Infantry donated a "Champion Medal" to be awarded to the person beating Kuhnle's record of 457 points. Seven contestants and Kuhnle entered this match. None of the seven equaled Kuhnle's record. Kuhnle, however, raised the record to 460 points.

Lieutenant Kellogg of the California Infantry then challenged Lieutenant Kuhnle and went down in defeat, while Kuhnle shot the record up to 463 points.

As the result of this challenge other
(Concluded on page 292)

ARMS AND THE MAN

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EVERY SATURDAY

Editor

BRIG. GEN. FRED H. PHILLIPS, Jr., Secretary N. R. A.

Associate Editor

KENDRICK SCOFIELD

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That the man shall serve his country in time of war is noble, brave and patriotic; but that a man shall properly prepare himself in time of peace to serve in war is all of these things and more. It is noble with a nobility which is real, not ideal. It is brave with a bravery which assumes in time of unemotional peace many burdens, among them that of bearing the lack of appreciation of those who do not consider military preparation or training necessary.

WORK FOR THE U. S. R. A.

IN connection with the campaign which C. C. Crossman is waging to rejuvenate the United States Revolver Association, he has published among other correspondence, a suggestion from a prominent U. S. R. A. official that because the nation is at war, the U. S. R. A. should suspend operations. The official further suggested that all of the trophies be sold at auction and the proceeds, together with the cash balance of the Association, be devoted to the purchase of liberty bonds. On another page we print the full text of this letter.

For refusing to sponsor such a move, President Crossman should be commended. It is to be hoped that if this, or any other such proposition is presented for the consideration of the annual meeting which will come within a few weeks, that it will be unanimously voted down.

The idea of an association of national scope, standing for practical preparedness and patriotic effort, investing its savings in government bonds of any character is highly commendable. But for such an association to close its doors, dismantle its ranges, and wind up its affairs at the one time in the history of its existence when it can be of service to the nation, would be extremely unwise.

One thing that is vitally needed in every city of any size at the present time is a pistol range where army officers will be welcome.

When it became apparent that the United States would undertake to raise by draft an immense army, the clubs of the National Rifle Association threw open their ranges not only to the National Guard but to every man liable to service. As a result thousands of recruits who had never handled a rifle were given a good grounding in the theories and practices of shooting before they went into the service.

Now while the army was acquiring its hundreds of thousands of new recruits by the draft, officers were being added to the army lists by the tens of thousands. Most of these men, while equipped for their commissions so far as education and special training went, were absolutely ignorant of the workings of the service pistol. The greater

majority of the officers who have been stationed in the large cities of the country instead of being sent to cantonments or abroad, are just about as ignorant of hand-gun shooting today as they were when they entered the service. But this is not their fault entirely. Practically every one of them is anxious to perfect himself in pistol practice.

Here then is an important task for the U. S. R. A. Perhaps in some of the cities club ranges have been thrown open to the officers and men of the army, and there is little doubt but what some such step has been taken by individual clubs. But what is needed is an organized drive to bring army men to the civilian pistol ranges—such a drive as was made by the N. R. A. to bring those subject to the draft to the rifle galleries.

We cannot think that any proposition to abandon the U. S. R. A., or to pigeon-hole it during the war will be considered for a moment. If as the official who wrote the letter in question stated, army officers told him that he and all the other pistol enthusiasts "might as well be playing croquet" there is all the more reason why a special effort should be made immediately after the annual meeting, not only to open the old ranges of the U. S. R. A. to army officers, but to establish new ones.

If army officers feel that the U. S. R. A. might as well go out of business, that should be the signal for the hand-gun enthusiasts to lose no time in converting them, nor should this statement be accepted as being in any way an expression of the opinion of all army officers. Most of them would undoubtedly welcome an invitation to a range where they could indulge in pistol practice.

All of which, summed up, means that there is work for the U. S. R. A. to do. It is work that cannot by any stretch of the imagination be classed as amusement. It is a serious duty, and should be undertaken at the earliest possible moment.

THE RIFLE SPECIFICATIONS

IN the person of Fred H. Colvin, editor of the American Machinist, has appeared a critic who, before the Senate Committee investigating our war preparations, scored the Ordnance Department for insisting upon absolute interchangeability of parts in the Model 1917 rifle. The specifications drawn for this arm, Mr. Colvin declared were "too rigid."

Mr. Colvin was perhaps looking at the matter from the standpoint of a production expert, since the reason he gave for taking exception to the interchangeability feature was that it resulted in a production delay of three months. Production delays should certainly be reduced to a minimum in a time like the present. But the wisdom of the Ordnance Department in insisting that the bolt of one rifle should fit every other rifle, and so on through the scores of parts, will undoubtedly be apparent before the war is over. In a conflict conducted on the gigantic scale which the present war has assumed from the beginning, it is highly important that there be as little waste, and as little delay as possible along the firing line. The ability to repair in the trenches such rifles as refuse to function because of some minor breakage will contribute much toward the minimizing of these two things.

Now as to the "too rigid" general specifications, there might, of course, be an extreme which would cost the government in delays more than would be gained in producing an accurately shooting and perfectly functioning weapon. But it is not likely that the authorities of the War Department went to any such lengths. Therefore it is safe to say that, in insisting that the weapons issued to United States soldiers be the best that could be produced in the emergency, the Ordnance Department officials seem to have been fully justified. It would be a national shame if the soldiers of the United States Army were forced to throw away on the field of battle the rifles which had been provided for them, because those rifles malfunctioned, jammed, or otherwise became unserviceable. The world has already had an example of this in the Canadian service rifle, which because of a tendency to jam in action was abandoned by the thousands on the battlefields of Europe

whenever an opportunity offered to obtain an Enfield from a fallen comrade.

Again much capital has been made by critics of the Ordnance Department for insisting that the British rifle be rechambered to take United States service ammunition. Whatever virtues the new rifle possesses outside of its excellently-placed rear sight, can be traced directly to this change.

If there has been any laxity in the methods employed by the Ordnance Department in bringing about the production of rifles for the new army, aside from the matter of interchangeability of parts and rechambering, it is proper that these be pointed out; but those who criticise the department should first take pains to discover what specifications repaid the delay occasioned and what could be classed as needless.

Snipers and Sniping

(Continued from page 286)

disc, moved three black lines vertically in the field of the telescope.

Windage adjustment was obtained through the horizontal motion given the entire telescope on a rear attachment to the brass plate as a pivot, by a small, thick, graduated disc with roughened edge set on the left side of the forward attachment. This disc was graduated from 0 to 10 through R. and L., permitting deflection to Right and Left. This motion was governed by a worm, so no spring was utilized.

In the field of the telescope three heavy black lines appeared. These lines were of a thickness that subtended about one-thirteenth of the entire field. The aim was taken over the point of the vertical line; the broken horizontal line assisting in centering the aim on the target, and tending to prevent canting the piece.

The Goerz's 'scope is unquestionably an excellent instrument. Also it is susceptible of a "top mounting" which, while it may not appeal to the general run of army officers, seems to be the choice of many of the American telescopic rifle shots. But—fortunately, or unfortunately, according to how one looks at it—the Goerz would seem to be out of the question. A few of these instruments might be rounded up; but the bulk of them are either entirely German products, or depend upon a German product for the most important component part—the lenses, which are ground from glass produced only in the Kaiser's dominions.

For this reason, if for no other, the chances are that the army officials who will be charged with selecting the United States snipers' outfit, will find themselves limited to a choice of

'scopes which can be produced in the United States. And admitting the excellence of the Goerz instrument, it will probably prove no difficult matter to find an American product which will have all of the excellent qualities of the German 'scope.

Consider one point upon which the School of Musketry officials laid great stress in favor of the Goerz—that riflemen using it commented upon the steadiness with which the Goerz enabled them to hold on the target, in comparison with the performance of other 'scopes submitted. In emphasizing this point, the army officers apparently overlooked the fact that the average power of the American 'scopes was 5 diameters, and that of the Goerz just a little more than $\frac{1}{2}$ of that. This probably explains the ease of holding mentioned, since with the Goerz, an error is magnified to a much smaller extent than with any of the more powerful American 'scopes. It must be remembered, also, that men who have used the telescopic sight for years contend that the more a mistake is magnified, the harder a rifleman will fight to overcome it. So it would seem that if men of long experience had been firing in the Ft. Sill tests, an absolute opposite conclusion on this point might have been reached.

However, a $2\frac{3}{4}$ power telescope would probably prove ample for the needs of a sniper, being of low enough power for twilight shooting and strong enough for ordinary work, and a new American telescope sight has been perfected which would seem to have all of the good points of the Goerz, and which will probably be given serious consideration as the sniper's glass of the U. S. Army.

The new 'scope is an improvement on the Winchester A-5. Its lenses are an American product. Any number of them can be obtained, and in time of war, where source of supply must be considered, this at once appears to be an important point in its favor. The new 'scope can be mounted either on the side of the rifle, or better perhaps on top of the barrel. Those who have tried out the first models, believe that it will prove even more satisfactory than the German instrument.

The new Winchester 'scope is a $2\frac{1}{2}$ power sight. With its low magnification, it is ideal for work in the twilight and semi-darkness, and it will perhaps prove as great an aid to steady holding over more powerful instruments, as did the Goerz in the Ft. Sill tests.

While the Goerz system for windage and elevation is based upon the manipulation of the cross hairs—necessarily a delicate operation depending upon mechanism connected outside of the 'scope proper and which might be thrown entirely out of adjustment by a light blow, the new Winchester will probably be equipped with a simple but accurate micrometer outside adjustment for windage and elevation. An added argument for an outside adjustment is that because the objective of a telescope is better in the center of the lens, the raising or lowering of a reticule or cross hairs, results in a loss of efficiency.

It is mainly because of this that the outside adjustment will probably be adopted in the new 'scope. As planned, at present, the system will be simple, strong, and practically "fool proof."

Elevation will be obtained by a micrometer screw rising above the 'scope. On either side of the screw are graduations. On one side of the micrometer sleeve, starting at 200 yards, distances are shown, rising in hundreds up to 1200. On the opposite

side of the sleeve, degrees are marked, 0 corresponding to 200, 5 corresponding to 300, 10 corresponding to 400 and so on, in multiples of five, each division being subdivided into 5 degrees each correcting approximately 1 inch for each 100 yards of range. The elevation mechanism also automatically corrects for drift.

Windage will also be obtained by a micrometer screw, graduated on the basis of 1 inch for each 100 yards to

the target, the total correction being about 20 feet each way from zero, at 1,000 yards. The screw will be equipped with a large knurled head, and will have but a half turn each way, making the entire correction in this arc. On the windage screw it is contemplated to make the graduations read 5 and the multiples thereof each way from the zero, right or left. In addition to the micrometer windage device, a device for an absolutely ad-

justable zero will probably be provided. This, in effect, is nothing more complicated than a moveable base, operated in the same manner that the windgauge is worked. When by actual firing the true zero of the rifle is ascertained, the zero screw is turned to correct for the zero, and the zero on the windgauge made to conform with it.

NOTE: *This is the last of the articles dealing with snipers and their work.*

A Battle Control for the Rifle

(From the *Scientific American*)

THE inefficiency of massed rifle fire at fairly close range has been a matter of observation and comment ever since battles were first fought with bullets. It seems that no amount of preliminary training, no possible adjustment of battle sights, can eradicate the inborn tendency of the race to hold a rifle too high when working under the slightest stress. The disintegrating effects of battle conditions are widespread; nowhere are they more real or more disastrous than in their influence upon rifle fire.

That the difficulty really is one of holding the rifle too high is clear from the most cursory compilation of authorities. Uniformly the statement is made that fire at long ranges was effective, while at shorter distances it became less and less so. Alike in the Franco-Prussian War, in the Crimean campaigns, and in the Russo-Japan conflict, it was found again and again that losses from rifle fire at ranges well above a thousand yards were serious, while from five hundred yards down they were remarkably small, sometimes ceasing altogether. Thus, at Beaugency, in 1870, a French battalion fired at close range for half an hour at a German company lying down; and the net result of their efforts was one man hit!

As the last word in proof of the point, we may cite the record made by the Boers at Colenso. Conditions here were favorable beyond any reasonable expectation. The Boers were skilled shots, the action was fought in full daylight at ranges under a thousand yards, the Boers were not under a severe fire, and their enemies were thoroughly out in the open and exposed. Yet with all these advantages, the best the Boers could do was one hit in 600 shots fired; and so far as we can discover, this is the world's record for accuracy in battle fire! The law of probabilities makes it certain that if the Boers had had the proper angle of fire they must have done better than this.

It is at the short ranges that the fiercest fighting occurs, and it is here that battles are won and lost. Formerly one of the first requisites for a good infantry posi-

tion was an open field of fire, several hundred yards in depth. But the searching power of high explosive shells fired in great volumes has forced infantry to seek cover from vision in order to gain cover from fire; it must hide during the terrific shelling and be ready to repel the assault that follows. Often a hundred yards or even less is the greatest depth of fire attainable; and since an assault will cross so short a space in a very brief time, it is obvious that the defense must make every shot count. The failure to do this with the rifle has led to the new vogue of grenade and bayonet—the one to give a fire effect certain to lie close to the ground, the other as a necessary last resort in view of the uncertainty of fire.

Now bayonet and grenade are good weapons in their place; and they have, in modern warfare, a very definite place. But is the failure of the rifle a final one? Certainly this arm possesses potentialities of long-range destruction which are not inherent in the grenade, even more emphatically not in the bayonet. We have recently heard a tale of a clash between small forces of British and German soldiers in the open, at a range of a hundred yards. The Germans turned and fled; the British, armed with loaded rifles, fixed bayonets and frantically pursued the Boches, endeavoring to come within bayoneting distance, or at least within grenade range. The possibility of shooting the fleeing enemy never occurred to them, so far have they got from looking upon the rifle as a shooting-iron; in their hands it is nothing but a handle for a bayonet. And presumably if they had opened fire, they would have shot far above the heads of their foe. Their failure to realize the possibilities of the rifle, inspired by traditional ill success with it, put it out of their power to damage an enemy at this ridiculously short range. Surely this has gone far enough; and it is time to call a halt. As a first step, we may well inquire whether it is not possible to overcome in some way the tendency to hold this arm too high.

Colonel Frank D. Ely, of our army,

has for years been engaged in a constant but losing endeavor to interest the ordnance officials in a device which he claims will do just this. Its mechanical features are of no great import here; enough to say that it is an attachment to be put on the rifle, which will add but two ounces to its weight, which is fool proof in every respect, and which makes it impossible for the rifle to be discharged when held higher than a given angle. It is not rigid; that is to say, the angle at which it permits fire is controlled at will by adjusting the device. Accordingly, it can be used at any range, and even for shooting up hill or down hill. This adjustment is the work of but a moment, and so simple that any man who can learn to shoot a rifle at all can certainly learn to do this also. Colonel Ely calls his invention the battle control, and has got out a little pamphlet in its behalf.

In the normal cone of battle fire the vertical dispersion is enormous—even greater than one would be led to suppose from the bare statements already made as to the inaccuracy of battle fire. It was actually demonstrated by Wolozkoi that the mean of fire—the average elevation at which the soldiers will hold their rifles—is about four degrees. For the modern rifle this elevation corresponds to a range of some 2,200 yards. Any hostile force inside this range is comparatively safe, the fire passing well over it and beyond. The function of the battle control is to flatten this cone, bringing it close to the ground. Every bullet in this flattened cone, according to Colonel Ely, has a continuous danger space throughout its path; it may not meet a hostile soldier but it can miss him only by going between him and his neighbor, never by going over his head. It makes its strike on the battlefield, instead of a mile away.

The battle control is a simple mechanical improvement in the lock of the rifle which absolutely prevents discharge if the rifle is held too high—which is to say, if it is held above the angle for which the control is set after the range has been determined. The rifle simply cannot be fired until the aim is properly lowered and the trigger pulled again. When this correction in aim has been made, the control causes not the slightest diminution in the volume of fire that can

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be delivered. There is no change made in the existing methods of sighting and firing; all the control does is to prevent the shots which would be wasted, and force the rifleman to fire at the proper range. Nor does the device interfere with the normal use of the rifle; for it can be set "on" or "off" at will, and when "off" has no function—the rifle is then the normal rifle.

It is not even necessary to take Colonel Ely's word for it that the control is mechanically satisfactory. Mechanical experts, civilian and military, including the present superintendent of one of our greatest arms factories, have passed on it and pronounced it O. K. in this respect. So the only questions which can be considered as at all open are its performance in increasing the effect of fire, and the desirability of incorporating it in the army rifle.

Colonel Ely himself has covered the first of these points. He has shown us the records of a test made with blindfolded riflemen—blindfolded in order that no opening might be left for a claim that the results achieved were due to aiming, and that accordingly the com-

parison should be with target practice rather than with battle fire. These blindfolded men shot at a single row of 25 kneeling silhouette targets; and they scored four per cent of hits. It requires no great knowledge of higher mathematics or ballistics to deduce that this showing is 24 times as good as that of the Boers of Colenso—which was the best previous record for fire under battle conditions.

So much for performance; and our preliminary remarks have certainly demonstrated the need for a device of this character. The only question left to answer is "Why has not this device been adopted and incorporated in our service rifle?" One reason is that after a trial at the School of Musketry at Monterey, the Director, while admitting in his report all the advantages claimed for the control, recommended against its adoption because it was "not an instrument of precision"—precision being the hobby of this school. Such a remark, if it possesses any meaning at all, can only mean that the whole purpose of the control escaped the understanding of the men

who had its fate in their hands; for of course it is not an instrument of precision. It does not claim to be one. The sight is an instrument of precision, and it is enough in this direction; if a soldier won't or can't use one instrument of precision to advantage, he certainly won't use two instruments of precision. The fire control is not intended to supercede the sight, as the worthy director perhaps feared: it is merely designed to supplement the sight, and to control the fire when effective use of the sight alone is out of the question.

This wholly inadequate report has so far operated to seal the fate of the battle control. Whenever the subject is now put forward, the Ordnance Bureau refers to the Monterey test as conclusive and satisfactory to it; occasionally descending to the good old plea, "if the infantry wants this control, why don't they ask for it? We will build anything the infantry wants." This of course, is begging the question altogether; for how can the infantry say whether it wants a

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thing which it has never seen, but knows only from hearsay?

Until the Ordnance Bureau builds enough rifles equipped with the control and issues these for a thorough demonstration and test by a thoroughly representative board of infantry officers, the infantry will certainly not ask for it; and until the infantry asks for it the Ordnance people won't build it; so the matter is plainly running around in a circle like a kitten chasing its own tail, and can never reach any point outside the circle.

Mauled and smothered by the artillery, with her prestige threatened, the battle control appears to be the infantry's answer—and a fitting one—to what has become an intolerable situation of blindness under deluge of shell and smoke and gas, of comparative vulnerability to attack in storm or darkness. The battle control meets all these difficulties by sending the bullets of the infantry along a straight line close to the ground, in which they can meet and stop anything that lies between the beginning and the end of their path, instead of sending them in a curve which only comes low enough to do damage at the point of descent—and in which that point of descent is usually far behind the supposed objective. Shall lack of intelligent investigation, requiring little time and little expense, keep us from gaining a tremendous superiority of fire over the enemy?

Searchlights have often been used in warfare as a means of discovering enemy forces, but the Italians have put searchlights into play in order to blind the enemy to an advance against them. In a recent movement of troops, the Italians desired to cross a deep gorge on the other side of which the Austrians were stationed. The Italians therefore concentrated the glare of scores of powerful searchlights upon the Austrian position, so blinding the enemy that it was possible for engineers to throw bridges across the gorge undetected.



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MORE ABOUT THE REAL "OLD TIMERS"

(Concluded from page 287)

challenges were given, among them one from Sergeant Hovey, and the resulting match shot on the Petaluma Range in 1884 was one of the most important events in the annals of Pacific coast rifle shooting, although Kuhnle fell one below his high record. The strings shot by Kuhnle were as follows: 45, 45, 46, 45, 49, 46, 46, 44, 47, 49, or a total of 462.

Hovey's total was only 445, which being 17 points below the score of Lieutenant Kuhnle gave the latter permanent ownership of the medal and championship of the State.

On November 16, 1884 Kuhnle shot a 100-shot match with Private John D. Houx of Company C, Fifth California Infantry, to whom he gave 32 points. The actual scores made in this match were 468 points for Kuhnle and 440 points for Houx. This again boosted Kuhnle's best 100-shot record, the results of the strings being: 46, 48, 47, 48, 48, 47, 46, 49, 43, 46.

At a practice shoot at Petaluma February 14, 1885, firing 50 shots he made a score of 235 or 94 per cent, and in March 1885 on the same range he participated in a 50-shot match at 200 yards with Private Smith of the Cali-

fornia Infantry, scoring 232 against his rival's 210.

On April 4, 1885 an endurance match of 100 shots at 200 yards was staged between Lieutenant Kuhnle and his former rival, Houx, the contest being held at Petaluma. In this contest Kuhnle again surpassed his 100-shot record. In this contest the strings were: 45, 46, 47, 46, 50, 46, 46, 47, 48, 47, or a total of 469. The score made by Houx was 442.

THE NEW RAPID FIRE

(Concluded from page 284)

the far-off Service sight. Many of the men firing used bridge aperture sights—Lyman and B. S. A. Of the six men making the team for Los Angeles, only one man—if any—used the service sight, and this man's equipment escapes my memory.

Early in 1918 we visit our Redlands friends for a return match and I'm going to suggest that this time both teams fire the straight Government rapid fire—prone at 100 yards with trench parapet rest.

Try this out on your own rifle range, it is a mighty interesting course even though it move to tears the able statistician who stops to figure what it might cost if one had to buy the ammunition out of a store at \$1.75 for 20 rounds.

Off Hand From the Clubs

Matches to Begin Early In February

IN spite of the very apparent effect which the war has had upon the shooting game, the National Rifle Association will endeavor to conduct its program of matches for the year 1918 as nearly on schedule as possible.

The first of the series is the N. R. A. Gallery matches. These competitions, which usually begin early in January will start about one month later than usual, the first stage of the shooting coming early in February.

This delay has been caused by general unsettled conditions in rifle club affairs. Unusual conditions which were the result of the war are being met however, and there seems to be no reason why all of the indoor matches and the spring outdoor series should not go on as usual.

Many of the best shots, whose names have appeared year after year as team members in these matches, will of course be absent, since there is hardly a club which has not sent its quota to the big firing line 'cross seas, but new shooters from among the ranks of the exempt or those under age, are being developed, and considerable new blood can be looked for in the coming series.

For a time there was ground for a little doubt as to whether the entries would be of sufficient number to warrant putting on the matches, but for the past three months provisional entries have been arriving at N. R. A. headquarters. These entries, few of which were accompanied by the entrance fee—being merely a statement that such-and-such a team would participate—have been listed and show that a good participation can be expected.

One of the causes which brought about most of the delay was the matter of announcing conditions for the 1918 competition. Manifestly no announcement could be made until the matter of probable changes in the course from that of 1917 could be discussed and passed upon. The final draft of the conditions has not yet been made or approved, but it is likely that they will be put into the mails within the next ten days.

N. R. A. officials are considering altering the conditions so that class winners will be eliminated, and in their place 90 per cent and 95 per cent medals be awarded. If this is done, the trophy and medals will go to the winning team, as heretofore. In addition to this a medal will be awarded to every man making 90 per cent or 95 per cent. This will give every entrant something to work for. A similar plan was adopted in the out-door small-bore matches of 1916, and proved entirely satisfactory.

Among the teams that have signified their intention to enter the competition are:

Bordentown Military Institute Rifle Club, New Jersey.

San Diego Army and Navy Academy, California.

Miami Military Institute, Germantown, Ohio.

Culver Military Academy, Indiana.

The Citadel Military Academy, Charleston, S. C.

Marion Rifle Club, Ohio.

Dartmouth Rifle Club—New Hampshire.

Nazareth Hall Military Academy, Pennsylvania.

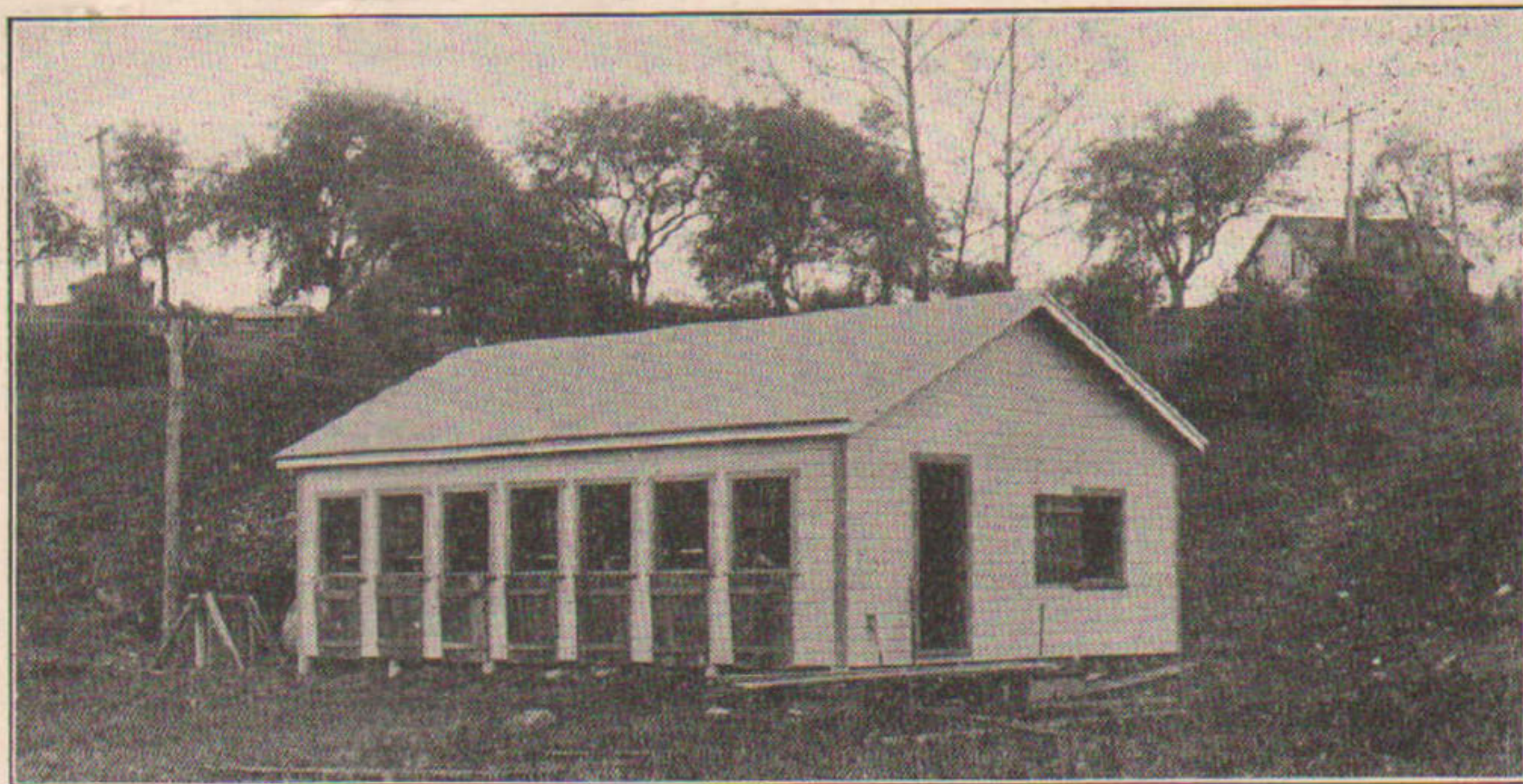
New York Military Academy.

Navy Rifle Team, Annapolis.

West Virginia University Rifle Club.

Technical High School, Springfield, Mass.

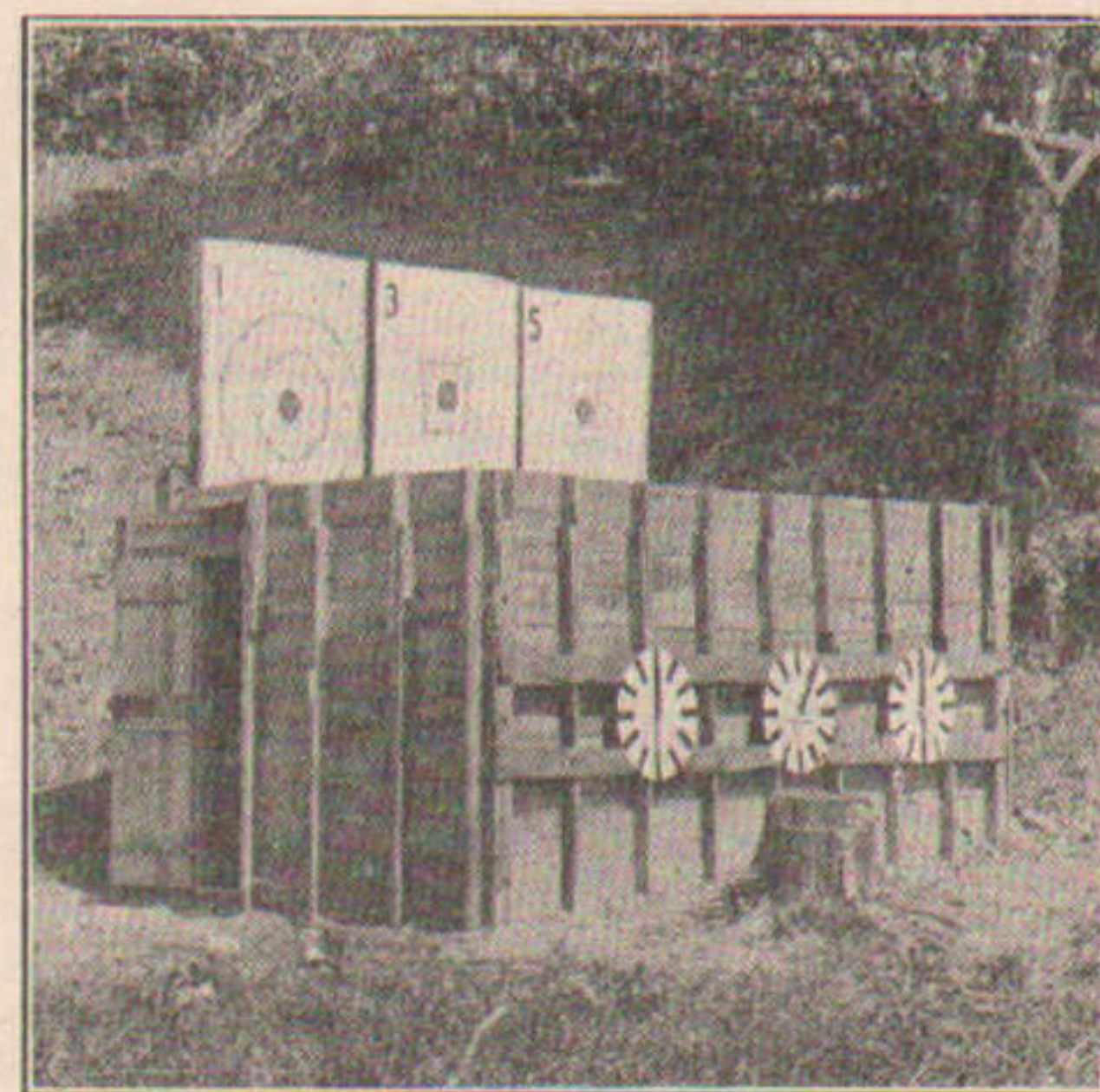
University of Illinois.



SHOOTING house and target butts of the Cleveland, Ohio, Rifle and Revolver Club where the members will undertake winter outdoor shooting.

The range house cost about \$600. It is equipped with six rest benches and one observation window. The house is 20 feet wide and 30 feet long. It is substantially made. A kitchen has been installed in one corner where club lunches are prepared.

The target butt is for 200 yard shooting. At present six men can shoot on the butt at once. The members contemplate altering it so that it will be better adapted for .22 calibre work.



Iowa State College, Iowa.
University of Vermont.
Iowa City Public Schools Rifle Club, Iowa.
Mount Tamalpais Military Academy, California.
Kenyon College Rifle Club, Gambier, Ohio.
Erasmus Hall High School, New York City.
Shawnee Rifle and Revolver Club, Lima, Ohio.
Newark Rifle Club, New Jersey.
Crosby High School Rifle Club, Waterbury, Conn.

Harrisburg Opens Range

The City Grays' Armory has been leased and formally opened by the Harrisburg, Pennsylvania Rifle Club. The range which has not been operated for two years, will be open two nights a week for the benefit of the club members.

The range is a 25-yard one in the cellar of the Armory and has accommodations for two targets being used at the same time, the targets are operated on what is known as the "trolley system" and shooting can be done in standing or prone position. The National Rifle Association presents watch fobs for qualification on indoor ranges. The regulations governing indoor shooting are as follows:

Any .22-caliber rifle weighing not over ten pounds, and with a trigger pull of not less

than three pounds, shall be used. Any sights except those containing glass may be used, and the rear sight may be placed anywhere on the rifle barrel or stock. If desired a sling may be used. The number of shots in the qualification course are ten in each position in strings of five shots; no sighting shots allowed on the official targets. In order to qualify a competitor must make a score of not less than 85 points standing and 90 points prone for a marksman's decoration, and 90 standing and 95 prone for a sharpshooter's decoration. To those who qualify for the first time the National Rifle Association of America, will present a watch fob inscribed "Proficiency in Indoor Rifle Shooting," (bronze for marksmen and silverplated for sharpshooter); in subsequent years a bar only will be issued.

The Harrisburg Rifle Club will have on hand a .22-caliber rifle and the necessary ammunition and practice targets for any member of the club who wishes to participate. The small charge of 5 cents for use of the rifle for each twenty shots fired, will be made to cover the cleaning and caring for the rifle.

The range will be opened every Tuesday and Friday nights from now on until the first of April, 1918, and it is hoped that as many of the members as possible will avail themselves of the opportunity of this indoor shooting and help boost the rifle shooting game in Harrisburg.

Range Opened to Clubs

Through the efforts of Bird W. Spencer, Inspector-General of Rifle Practice of New Jersey, an order has been issued to permit N. R. A. Rifle Clubs of that State to make use of the armory ranges.

Initial steps in the matter were taken several months ago, but the State has been very busy organizing a new State Militia and inducting Home Guards and Defence Units into the Militia Reserve with State recognition.

General Spencer's circular just issued provides that the custodian of the several armories throughout the State shall set apart nights for the use of the rifle clubs. It is expected that in according the riflemen the range privileges a very substantial benefit will accrue to the State in obtaining an abundance of competent instructors for the newly organized companies of militia.

Edward O'Byrne, Secretary of the Paterson Rifle Club, represented the clubs in the negotiations with General Spencer. However, General Spencer's sympathy with the wants of riflemen, whether military or civilian, is so warm that there was little need of urging to secure his hearty co-operation. As a result of the State recognition, a league of the clubs is projected. General Spencer has promised to support this move also. It is hoped arrangements may be perfected in time to hold a State indoor championship match this winter or early spring.

Sighting Shots

To the Editor of ARMS AND THE MAN:

In a recent number a contributor, in describing target shooting at Walnut Hill some thirty years ago, ascribed the design of the "Decimal" target to F. J. Rabbeth.

Your contributor's memory was at fault. I designed the "Decimal" target, which was used about a year, and also the "Standard American." In the "Decimal" target the bull's-eye was subdivided on one principle and the rest of the target on another. The "Standard American" target was subdivided so that, beginning at the center, the area of each division increased in a constant ratio towards the edge of the target.

Rabbeth designed a target about the same time, and there was no great practical difference between the three targets.

CHARLES W. HINMAN.

Winchester, Mass.

The .22-caliber Krag and the gallery Springfield have the right of way over service arms on the range of the Ridgewood, New Jersey, Rifle Club since full charge ammunition has been so difficult to obtain. The Ridgewood club has just completed the installation of its out-door targets. The club is undergoing a reorganization under the direction of P. Meigs, Jr., the Secretary.

The Oberlin, Ohio, College Rifle Club has begun life with a charter membership of 50. The club members are working on a three-target indoor range.

The festive little .22 is winning friends down in Panama. Walter A. Koerber, Secretary of the Isthmian Rifle Club, of Cristobal, Canal Zone, writes that the small-bore is proving more satisfactory for 200- and 300-yard shooting than the Krag.

Twenty-one members of the Ottawa, Illinois, Rifle Club have entered the service of the United States.

(Concluded on page 296)

U. S. R. A. Column

EDITOR'S NOTE: The President of the U. S. R. A. has requested ARMS AND THE MAN to co-operate with him in an endeavor to broaden the scope of that organization and to insure for it a progressive future.

In his efforts to do this, ARMS AND THE MAN is thoroughly in sympathy, and will be glad to accord space in its columns for full and free discussions of suggestions which come from members of the U. S. R. A.

This publication, however, cannot permit itself to become a vehicle for unpleasant personalities, and the editors reserve the right to exclude any communication which might come under this head.

Editor, ARMS AND THE MAN:

In further reference to U. S. R. A. matters, may I be permitted to offer a suggestion, having in mind the betterment of the Association and the increasing of interest in the things it stands for. It is this:

Elect Brig. Gen. F. H. Phillips, Jr., as Secretary of the United States Revolver Association, with headquarters at Washington in the same offices as occupied by the N. R. A. Preserve the separate identity of both the U. S. R. A. and the N. R. A., but place both under the same management.

Personally, I know of no man better qualified to conduct the business of the Association than General Phillips. N. R. A. and U. S. R. A. matters would occupy his entire time. I understand that the present secretary of the U. S. R. A. is unable to devote his time in full to Association matters, although he has the future success of the U. S. R. A. deeply at heart. I have no doubts but that Mr. Crabtree, the present secretary, would be a most hearty supporter of such a change.

I hope this suggestion may come before the annual meeting in January. I believe the U. S. R. A. would take on a new lease of life under such a change. The views of other members on this suggestion, would be welcomed, I am sure, including an expression from ARMS AND THE MAN itself.

Yours very truly,

T. K. LEE,
Birmingham, Ala.

Another new slate for the U. S. R. A. has been put into the field by the St. Louis-Colonial Revolver Club, as the result of the report of its special committee named to make recommendations for further promoting the affairs of the Association.

The suggested slate includes: For President, C. C. Crossman, Missouri; for first vice-president, A. L. A. Himmelwright, New York; for second vice-president, A. C. Hurlburt, Connecticut; for third vice-president, C. W. Linder, California; for fourth vice-president, Roy S. Tinney, New Jersey; for fifth vice-president, Brig. Gen. Fred H. Phillips, Jr., Washington; and for secretary-treasurer, Frank J. Kahrs, New York.

The report of the committee reads:

St. Louis, Mo., December 28, 1917.

St. Louis-Colonial Revolver Club,
St. Louis, Mo.

Gentlemen:

Your committee desires to make the following report:

Living in the same town as the President of the United States Revolver Association, and knowing the conditions under which the President has been forced to work, we are fully convinced that the responsibility of properly conducting the affairs of the Association must be placed in the hands of one man. We know that the President has tried repeatedly to get action, and has been unable to do so.

We, therefore, requested the President of the U. S. R. A. to furnish the Committee a brief outline of the condition of affairs dur-

ing his administration, and his letter is attached and made a part of this report. It is our understanding that copies of this report are to be mailed to all Club Secretaries and individual members of the U. S. R. A.

In addition, we offer the enclosed nominations to the members of the U. S. R. A. to be voted on at the January election.

In making these recommendations we believe we have submitted names of members who can be depended upon to devote the necessary time to the affairs of the Association, and we cannot too strongly urge that this ballot be voted as drafted. In suggesting these nominations we realize that members must concentrate on a few men selected for their ability and willingness to manage the affairs of the Association in an efficient manner. The scattering of votes over a large field of candidates will tend to complicate an already unsatisfactory situation; in other words, a vote for officers other than the above will be a vote for a continuation of the present conditions.

Respectfully submitted,

M. B. PETERSON, Chairman,
G. C. OLCOTT,
A. R. PICKER.

Following the submittal of the Committee's report, the St. Louis-Colonial Club has sent to all U. S. R. A. members the ballot as outlined above, together with the form of a proxy, in case any member cares to avail himself of this method of casting his vote.

Appended to the Committee report is a statement from C. C. Crossman, president of the U. S. R. A., setting forth more completely his version of the conditions which have for the past several years existed in the U. S. R. A., including considerable correspondence which he has had with association headquarters.

Among the letters published is one from a prominent U. S. R. A. official to President Crossman. It reads:

"Our country is at war. Officers of the regular army practically told us the U. S. R. A. might as well be playing croquet. This was a great disappointment to me. However, a lot of well-known members of the U. S. R. A. and myself have farms that we are trying to make "do their bit." There is likely to be little time and money for mere amusements.

What would you think, in view of the situation, of selling our trophies at auction? Men whose names are on them would be glad to pay more than the cost price for them. Make a special appeal to our members to pay up, invest all our money in the next government loan and put the Association on the shelf until peace comes. Incur no expense whatever; make no charge for dues until the time seemed propitious to resume activities once more. The next annual meeting could appoint trustees to take charge of our resources, and they could issue a call whenever the time seemed ripe for the Association to begin again."

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National Lead Comapny.

City,

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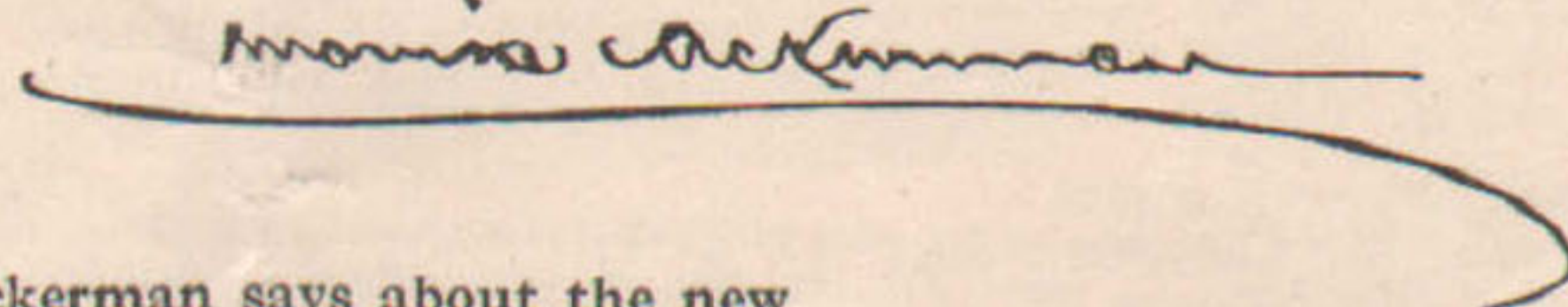
Gentlemen:-

I beg to state that I have returned home from a hunting trip in Quebec where I had an opportunity to use your new 22 long rifle cartridges.

These pills sure woke our guides and our hunting companion, Dr. E.F. Romig, of East Cleveland. The new 22s are the most shootiness little splints of lightning any of us had ever seen.

Please accept our endorsement of this new cartridge for field work. Dr. Romig is taking one hundred of them to try out at the range of the Cleveland Rifle Club, of which he is a member.

Sincerely Yours,



This is what Mr. Morris Ackerman says about the new
 (US) .22 N. R. A. Outdoor Cartridge.

ARMS AND THE MAN:

Permit me to add my approval of the plan suggested by President C. C. Crossman. The Association needs a capable business manager who can devote at least half time to its affairs.

Mr. Crossman is entirely correct in stating that all ballots should be entirely filled out before being sent to the annual meeting. I would suggest Mr. Crossman for president, A. M. Poindexter for first vice-president, and Mr. Crabtree for treasurer, with the understanding that some capable man, not a member of the executive committee, is hired for manager to work under the supervision of the president.

For Dr. Fort's information beg to say that the U. S. R. A. is organized under the laws of the State of New York, which laws require that the annual meeting of any corporation must be held within the State. Washington is a poor place to hold an annual meeting, owing to high prices and scarce hotel accommodations.

Another point: Mr. Crossman's difficulties in handling the affairs of the Association have been increased by the fact that the vice-presidents did not give him power to act as their proxy at meeting of the executive committee. Any man running for office this year should be prepared to do this, and the members of the U. S. R. A. can then put it squarely up to the president to get results. At least its worth trying for one year.

Very truly,
 J. A. BAKER, JR.,
 New York City.

ALONG THE FIRING LINE

CLOUDY weather accompanied the Thanksgiving Day Turkey Shoot of the Davy Crockett Rifle Club on the Municipal Range, San Antonio, Texas.

M. M. Nuessle, A. L. Cotton, Aubrey Schofield, Irwin Archer, Erich Menger and Miss Tina Strelzick were returned winners in the contest, all being awarded fowls because of their marksmanship. Each event was staged on the 8-inch bull's-eye at 300 yards, with the exception of the women's event.

Nuessle won the Class A championship with 92 out of a possible 100. A. L. Cotton and Aubrey Schofield tied for top honors in Class B, both scoring 72 out of a possible 100.

Erich Menger captured Class C with 76, and Irwin Archer took second honors with 72.

Miss Tina Strelzick surprised even her most ardent adherents in the women's event, scoring a possible 100 with the .22-calibre rifle at 50 feet. Mrs. M. M. Nuessle won the consolation event at this style of shooting with 63.

Mrs. W. A. Hohner took second honors in the 50-foot event with 94 and Mrs. H. L. Moths third with 92. Mrs. Albert Siegel scored 72. The scores in the various classes follows:
 Class A—M. M. Nuessle, 92; Paul Lindgren, 80; H. L. Moths, 80; J. W. Schofield, 72; Grant Taylor, 72.

Class B—A. L. Cotton, 72; Aubrey Schofield, 72; August Erfurth, 68; Mrs. J. W. Schofield, 64; Gus Delph, 56; Albert Siegel, 50.

Class C—Erich Menger, 76; Irwin Archer, 72; W. A. Hohner, 55; R. A. Menger, 42; Jake Dodic, 40; A. Winter, 38.

Women's event—Miss Tina Strelzick, 100; Mrs. W. A. Hohner, 94; Mrs. H. L. Moths, 92; Mrs. Albert Siegel, 72; Mrs. M. M. Nuessle, 63.

Lieutenant W. H. Spencer, of St. Louis, a member of the Mound City Rifle Club and winner of the Individual Championship at State Camp, Florida, 1916, is now in the Signal Corps and is stationed at Camp Travis. He was present at the Thanksgiving shoot.

Unofficial scores from the St. Louis Colonial Revolver Club in U. S. R. A. Match No. 1, are:

Colonial Revolver Club in U. S. R. A. Match				
G. C. Olcott	45	47	39	131
L. C. Niedner	44	44	39	127
R. A. K. Traber	44	42	38	124
M. B. Peterson	46	39	38	123
E. A. Kronld	44	38	40	122
Team total				627

Zero weather did not prevent the Cincinnati, Ohio, Automobile Rifle Club from holding its regular indoor shoot, but it resulted in small scores. The club has decided to limit the membership to 25, but as there are only 18 members, there are a few roosts still open.

The following scores were made on the evening of December 14th:

Stanley Runck	45	47	48	45	49	234
A. Keenan	43	49	48	43	46	229
Chas. Runck	46	38	46	38	43	211
W. T. Foley	34	39	42	35	32	182
Mr. Beisse	32	34	36	33	31	166
Frank Strietmann	33	36	30	40	27	165
Mr. Dcwald	27	32	34	31	36	160
Dr. Tangeman	30	35	35	25	33	158

The J. G. Dillon trophy, the contest for which closed in the Crescent Athletic Club of New York, December 15th, was won by M. M. Sterling. The winning score was: 2,406 (offhand), and 2,467 (prone), out of a possible 2,500. J. G. Dentz was second with 2,331 and 2,403.

Shooting in a gale, Mrs. Keefauver, of the Philadelphia Rifle Association made high score in the weekly military rifle match held by the club on its Llanerch range, December 15th. She recorded strings of 48, 47 and 46 in the regular 200-yard match, and a 46 and a 45 in the 200-yard practice event which preceded it. The scores:

200 YARDS RIFLE—RECORD MATCH—MILITARY
Mrs. Keefauver, 48; Mrs. Keefauver, 47; Mrs. Keefauver, 46; Schneering, 46; Schneering, 45; Schneering, 45; Patrick, 46; Patrick, 46; Rose, 46; Rose, 44; Rose, 44; Marsden, 43; Marsden, 43; Marsden, 44; Vosburg, 46; Vosburg, 45.

HONOR TARGET—3 SHOTS

Dubbs, 66; Oliver, 65; Twaddell, 66; Johnson, 68; Gibbs, 67; Broadhead, 67.

SPORTING RIFLE MATCH—10 SHOTS

Henderson, 93; Smith, 93; Carpenter, 90; Wuligins, 89; Keefauver, 96; Thomas, 95.

MILITARY MATCH—200 YARDS

Keefauver, 46; Keefauver, 45; Keefauver, 44; Harris, 46; Harris, 45; Cooke, 46; Cooke, 45; Schaeffer, 45; Schaeffer, 44; Schaeffer, 44.

REST MATCH—POSSIBLE 250

Gibbs, 248; Gibbs, 247; Gibbs, 242; Williamson, 247; Williamson, 242; Williamson, 241.

50 YARDS REVOLVER MATCH—10 SHOTS

Huntingdon, 97; Huntingdon, 95; Huntingdon, 94; Quicksall, 97; Quicksall, 96; Quicksall, 95; O'over, 93; Oliver, 90; Johnson, 49; Johnson, 92; Johnson, 91; Vosburg, 91; Vosburg, 90; Vosburg, 90; Haines, 95; Haines, 93.

50 YARDS PISTOL MATCH—10 SHOTS

Rose, 94; Rose, 93; Rose, 92; Dubbs, 94; Dubbs, 94; Dubbs, 93; Dubbs, 92; Butler, 96; Butler, 94; Butler, 93; Pringle, 95; Pringle, 94; Pringle, 94; Pringle, 93.

MILITARY PRACTICE MATCH—200 YARDS

Mrs. Dubbs, 46; Mrs. Dubbs, 45; Mrs. Dubbs, 44; Mrs. Keefauver, 46; Mrs. Keefauver, 46; Mrs. Keefauver, 45.

The Ottawa, Illinois, Rifle Club held its annual Members' Match on November 11, with ten members present. C. B. Sharp was the winner on a score of 139.

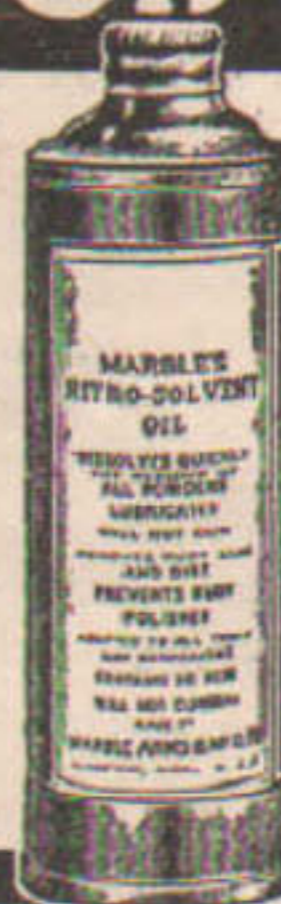
Two marksmen, eight sharpshooters, and eight expert qualifications have also been reported by this club for the season ending December 31, 1917. They are: Experts—Clyde Allan, 223; C. B. Sharp, 227; Frank Woolbert, 225; John Engelson, 216; Fred Johnson, 216; D. G. Cairns, 210. Max Kneussl, 210; E. C. Woolbert, 210. Sharpshooters, J. B. Stewart, 205; Chris Stewart, 199; Chas. Brown, 195; Roy Esmond, 195; E. F. Sullivan, 195; E. W. Weis, 195; A. R. Denny, 190. Marksmen, D. L. Dunavan, 177; Otto Kaiser, 167.

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RICOCHETS

These scores were made at a recent shoot of the American Rifle Club, of San Francisco, the shooting being done at Shell Mound range: H. H. Watson, 90; W. H. Williams, 90; S. R. Kellogg, 74; T. L. Bromley, 96; W. H. Seaver, 85; P. Lichenstein, 80.

During the practice period beginning July 1, 1917, and which will end December 31, these qualifications were made by members of the Kiowa Shooting Club of Des Moines, Ia.: Expert riflemen—W. E. Kessler, 244; G. A. Hall, 233; Herman Paul, 224, and H. S. Boice, 221.

Marksmen: Ed Eastman, 183; Frank Walton, 183, and Fred Eastman, 180.

Using the .22 calibre rifle, over the N. R. A. marksman course, at 200 yards, Ned B. Lauffer, the 12-year-old son of Fred P. Lauffer of the Warren, Pennsylvania, Rifle and Revolver Club, qualified as a marksman. The youngster made 90 at slow fire and 86 at rapid fire, a total of 176.

Five expert riflemen have been qualified as the result of practice in the Towanda, Pennsylvania, Rifle Club. They are: Hubert D. Crouch, 231; Carl V. S. Patterson, 221; Edward J. Barnes, 228; Frank DeLa Montanye, 239, and Fred W. Reuter, 233. The work was done with the .22 calibre rifle equipped with telescope sights.

W. E. Dwyer of the Seattle, Washington, Rifle and Revolver Association, has qualified as an expert rifleman with a score of 221.

James M. Carroll of the Torrington, Connecticut, Rifle Club has qualified as an expert rifleman with a score of 214.

SIGHTING SHOTS

(Concluded from page 294)

A rifle club of 100 members is being organized at Locust Grange, Charlottesville, Va. This club, it is planned, will in addition to perfecting its members in rifle practice, take over the duties of a Home Guard when the Albemarle Rifles are ordered away from Charlottesville.

Thirty-five members of the San Francisco Telephone Rifle Club have entered the service of the United States. All but four of this number volunteered. The others were taken by the selective draft.

Qualifying Scores Win Watch Fobs



BRONZE and silver-plated watch fob medals are offered by the N. R. A. for proficiency in indoor, small-bore shooting.

A score of 85 standing and 90 prone entitles the rifleman to the marksman's bronze decoration.

A score of 90 standing and 95 prone wins the sharpshooter's silver-plated decoration.

Ten shots are fired from each position, with a rifle weighing not more than 10 pounds and equipped with any sight which does not contain glass. The distances are 50 feet or 75 feet as desired.

The shooting must be done on registered targets which can be obtained at a cost of 20 cents for each target.

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is largely used by British soldiers at the front. It abolishes labor because the bore has merely to be coated with it immediately after firing. Abolishes anxiety because steel destroying powder gas deposits are immediately and positively killed by Safetipaste. Bore may be even more brilliant when Safetipaste is wiped out before firing again. Safetipaste is soap-like and assists washing of hands. Invaluable for hunting and knockabout rifles and guns especially when benches, vises and refined cleaning apparatus are not available.

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Enables the shooter to practice under conditions accurately approximating those of the open range.

It is possible to vary distances, shooting one string on a target which has been reduced to represent the regulation target at 200 yards, another at 500 yards, and so on through all the ranges.

Individual problems in windage and elevation can be worked out. The same benefits as those resulting from out-of-door shooting in sight setting and elevation, can be obtained by indoor gallery work with the Winder System.

Winder Targets are inexpensive.



Aiming Targets, mid and long range, each	.05
Windage and Elevation Charts, each	.25
200-yard Targets, slow fire, per hundred	.35
300-yard Targets, slow fire, per hundred	.40
500-yard Targets, slow fire, per hundred	.40
600-yard Targets, slow fire, pin wheel, five targets to sheet, per hundred targets	.40
600-yard Targets, slow fire, 5 targets to strip, per hundred	.40
800-yard Targets, slow fire, 5 targets to strip, per hundred	.40
1000-yard Targets, slow fire, 5 targets to strip, per hundred	.40
200-yard Targets, rapid fire, per hundred	.35
300-yard Targets, rapid fire, per hundred	.35
"X"-Target, "Gallery Practice," per hundred	.40

Wind Allowance Tables, each .05
Spotting Targets, 1 1/4, 3/4 and 4-inch bullseye, each .05

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Facts for Farmer On Game Protection

THE matter of Game Protection has been rightfully placed by the United States Government in the hands of the Department of Agriculture.

This interest is inseparably connected with the men who till our soil or occupy our acres. The days of hunting on "no man's land" are over in almost all parts of this country.

The farmer is the man on the ground and the game is as much his to raise and protect as his other crops. And in many cases it is of as much value to him, if he knows how to market it, as any of the others.

He would not let his own or his neighbors' boys tramp down his half-grown wheat or set the dogs on his sow with a litter of sucking pigs.

But he will say nothing to them for robbing nests, trapping half-grown coveys of partridges, running the dogs the year 'round on rabbits, chasing to death a brood of flappers in the near-by marsh where the local ducks nest, or pot shooting before the season is open, or a thousand other things that are fatal to the game, and he will very often even go so far as to participate in these sports himself.

In every county there are men who are willing to pay for all the shooting that can be offered them and see that there is enough

"seed" left to make the crop better on the following season.

One effort at investigation in this direction will make the most skeptical farmer realize that one live game bird or animal is worth five dead ones.

Don't look to the men who want shooting for nothing; that is not the way you dispose of your wheat. Many a man will pay you liberally for the privilege of working his dogs on your coveys of birds without shooting a single one.

Make the local game wardens your friends, and if the State Commissioners are not the right kind, see that they are put out and others appointed—they should be your officers, they represent you and should and will assist you in every way.

Make every man who wants to carry a gun buy a license to pay these wardens and gladly pay for a license yourself. You will find it one of the best investments you ever made.

Both the State and the National governments will give you more help in getting "seed" and raising this crop than any other you have ever tried.

Farmers, you are shrewd in business in other ways, now it's up to you not to waste one of your best crops—the game.

Trap Records Compiled

These world's records of trap shooting have been compiled by Peter P. Carney, editor of the *National Sports Syndicate*:

Yds.	Score.	Shooter, Place and Date.
16	565	*C. G. Spencer, Viola, Ill., Sept. 18-19, 1909.
16	419	J. R. Graham, Chicago, Ill., Aug. 30-Sept. 1, 1910.
17	99	E. C. Carlton, Omaha, Neb., Aug. 6, 1913.
18	104	Harvey Dixon, St. Louis, Mo., Aug. 21, 1916.
19	100	Riley Thompson, Chicago, Ill., June 23, 1910.
19	100	C. A. Gunning, Omaha, Neb., Aug. 7, 1913.
20	138	*H. S. Wells, Betterton, Md., July 26, 1915.
21	119	Fred Plum, Maplewood, N. H., July 6, 1916.
22	108	Mark Arie, Chicago, Ill., Aug. 25, 1917.
22	99	*Walter Huff, Atlanta, Ga., July 2, 1917.
23	100	*C. A. Young, Peru, Ind., July 13, 1916.

All of the above are straight scores.
*Professional.

TWO-DAY TOURNAMENTS

400 straight by Charles G. Spencer, professional, at Viola, Ill., September 18-19, 1909.
400 straight by J. R. Graham, amateur, at Chicago, Ill., August 30-September 1, 1910.

THREE-DAY TOURNAMENTS

499 by 500, by Lester German, professional, at Atlantic City, N. J., September 16, 17, 18, 1915.

439 by 450, by O. N. Ford, amateur, at Ray, Arizona, October 8, 9, 10, 1915.

CONSECUTIVE TOURNAMENTS

2066 by 2100, by James S. Day, professional, in five consecutive tournaments, in Texas, in 1910.

1912 by 1950, by O. N. Ford, amateur, in five consecutive tournaments in Arizona and California, October, 1917.

FIVE-MAN TEAM

497 by 500 at Maplewood, N. H., July 7, 1916, by A. C. King, Toms River, N. J. (99); R. L. Spotts, New York (100); C. H. Newcomb, Philadelphia, Pa. (99); A. B. Richardson, Dover, Del. (99); Fred Plum, Atlantic City, N. J. (100).

LONGEST SHOOT-OFF

A. G. Flickinger (199), O. A. Evans (198), 200 targets, at Vernon, Cal., June 11, 1917.

1,000 TARGETS

961 by Mrs. Ad. Topperwein, professional, at San Antonio, Tex., September 16, 1903. Time consumed, 4 hours and 15 minutes. (Exhibition.)

927 by J. W. Garrett, amateur, at Colorado Springs, Colo., October 13, 1908. Time consumed, 5 hours. (Match race.)

Against time—each contestant shooting in turn—Alexander Mermond (929), Fred Stone (901), at St. Louis, Mo., January 13, 1911. Time consumed—2 hours and 30 minutes. Actual shooting time—1 hour, 30 minutes and 23 seconds.

2,000 TARGETS

1952 by Mrs. Ad. Topperwein, professional, at Birmingham, Ala., November 11, 1916. Time consumed—5 hours and 20 minutes. Actual shooting time—3 hours and 15 minutes. (Exhibition.)

DOUBLE TARGETS

96 by 100, by William Ridley, amateur, Denver, Colo., September 6, 1912.

96 by 100, by C. B. Platt, amateur, Chicago, Ill., August 23, 1917.

All of the above records were made from 16 yards.

5,000 GLASS BALLS

4,844 by Captain A. H. Bogardus, in 1888. Time consumed—6 hours, 13 minutes and 45 seconds.

Scattering Shot

An authority states that but one man has been hit for every 10,000 shots fired during the present world war. "This," said a prominent trapshooter during the recent meeting of the Interstate Association, "is an evidence of the poor marksmanship of Europeans and would be something of a joke were it not for the tragic phase of warfare.

"Of course, there are reasons for this," the speaker continued, "among them being the fact that the peasant classes of Europe are not permitted, in some countries, to own firearms, and where there is no law against it these folk cannot afford to buy guns or even pay the tax levied on firearms.

"In the United States an invading force would find a high degree of marksmanship, not only because of the widespread and growing interest in rifle shooting, but also because of the hundreds of thousands of men who more or less regularly devote a half day a week to clay target shooting.

"During a number of years—due in great part to the decrease of game and stringent game laws—the art of shooting straight stead-

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ily declined, but beginning some five years ago there was a revival of shooting, and now marksmanship is quite as general as it was in the days of Concord and Lexington, only it is of greater proficiency.

"The poor marksmanship of the European soldier has been most noticeable in shooting at dirigibles, aeroplanes and other moving objects, such as motorcycle troops and military automobiles.

"Had some of the sharpshooters, so called, been recruited from the ranks of American trapshooters, whose success depends on their ability to hit objects moving at lightning speed, the work of the bomb-droppers, air scouts and motor troops would have proved decidedly more hazardous than has been the case."

Beginning the year of 1918 there are 4,610 trapshooting clubs in the United States, Alaska and Canada.

One year ago the number of clubs was 4,638. The failure to meet the figures of one year previous is attributed to conditions over which we as individuals have no control.

Trapshooting is more firmly entrenched now than it was a year ago. In past years trapshooting clubs were fly-by-night affairs, but now they are substantial affairs; 326 clubs saw the light of day in 1917.

Trapshooting clubs are also to be found in the Bahamas, Philippines, China, Cuba, Panama, New Zealand, Australia and Hawaii.

"Things are often not what they seem, particularly in the fur line," says a British sporting weekly. "A correspondent wants to know what sort of fox furnishes the skin for 'natural foxes' as shown in the shop windows in the form of fur coats, cuffs, collars, etc. We believe the fur is not from the fox at all, but is the covering of an Argentine wild dog. There are other 'foxy' furs. For instance, the 'white fox,' which many ladies imagine comes from the Arctic regions, is obtained from the Belgian hare. Of course, there are genuine skins of silver fox, black fox, and white fox, but the prices asked will be a very good guide as to their being genuine or not."

A subscriber writing from Montreal says: "I am hoping to have a trip after deer very shortly up in the mountains, about 90 miles north of Montreal. They have been having a great deal of trouble in this district of late with the wolves—large packs of which have been doing much damage amongst the sheep—so I may be able to get a rap at them also."

Anent the question of shoulder marks for a second lieutenant, now settled by the adoption of a gold bar on each shoulder, Col. John C. Stiles recalls the plan of General Rosecrans, who, in July, '63, ordered that second lieutenants should wear a single bar on the right shoulder only. He adds: "As this bar is not very weighty, there will be no danger of a starboard list to the wearer as was the case in the old U. S. Navy, where, I believe, a first lieutenant was only allowed to wear one epaulette when in full dress."—Exchange.

The United States Navy now has under construction 424 "capital and important ships," this being exclusive of special patrol boats. Included in the 424 ships, according to Secretary Daniels, are battle cruisers, battleships, scout cruisers, destroyers, fuel ships, gunboats, hospital ships, ammunition ships, seagoing tugs, minesweepers and submarines. The Navy now has more than 1,000 ships in commission as against 300 two years ago, and an enlisted personnel of 280,000 officers and men, compared with 64,680 men and 4,376 officers when America declared war.

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WANTS AND FOR SALE

Each subscriber of ARMS AND THE MAN is entitled when his subscription is paid up for one year, to one free insertion of a half-inch want ad in this column.

All he needs to do is to send in the advertisement for insertion at the same time calling attention to the date when his subscription was paid.

WANTED—Springfield rifle, 1903 Model, in A. No. 1 condition. Give best cash price for shipment by express, subject to inspection. Also want Bayonet for Krag rifle if in good condition. Clayton H. Waite, Bellows Falls, Vermont.

FOR SALE—Model 1894 Solid Frame 25-35 Winchester; in good condition; 100 rounds soft point ammunition, saddle scabbard, new. Price \$20.00. J. R. Kingham, Fresno Rifle and Revolver Club, 481 Calli-ch St., Fresno, Cal.

EXCHANGE—A New Krag Carbine, 198 cartridges in bandoliers; for a Remington No. 12 C, .22 calibre Target and Lyman sights. Geo. Korb, 1833 Crotona Ave., Bronx Co., New York.

FOR SALE—Krag rifle with 100 service cartridges; price, \$15.00. One Colt .22 Automatic target pistol; price, \$20.00. One S & W .22 heavy frame target revolver, good holster; price, \$20.00. One Winchester Musket, .22 long rifle, price \$10.00. All arms in fine condition, practically good as new. 1,000 primers, fit Krag or Springfield shells, U.M.C., price, \$1.75. Also an excellent set of reloading too's with a lot of primers and wads for 12-gauge shells, cheap. Dr. Lincoln Riley, Wisner, Nebraska.

WANTED—Winchester 5-A, cross-hair rifle telescope; with or without mounts. Will pay highest cash price for same, if perfect. S. N. Murphy, Grand Gorge, New York.

WANTED—One Bolt Piece and one Rear Sight for Model 1903 Springfield Rifle. G. W. Sweet, 804 San Pedro Ave., San Antonio, Texas.

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Therefore, tests of the regular Remington UMC .22 Long Rifle Lesmok cartridge were recently made, and these proved conclusively the sterling merits of this excellent cartridge for small bore rifle shooting at all short range distances. The tests referred to consisted of firing ten targets of ten shots each from fixed rests at 200 yards distance.

The maximum measurement for any one target was 3.20 inches; the minimum 1.80 inches. The average mean radius for the entire 100 shots was 2.45 inches.

The significance of this is important. It means that the Remington UMC .22 Long Rifle Lesmok cartridge, which for years has been standard with riflemen the world over, is exceptionally accurate and dependable for all requirements of the small bore rifleman.

In order to insure a good supply of ammunition for the entire shooting season, rifle club secretaries should place their orders immediately specifying either Remington UMC .22 Short or Long Rifle Lesmok cartridges.



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George Earl Cook, winner of the President's Match, 1902; Leech Cup Match, 1904; Wimbledon Cup Match, 1904; and the National Individual Pistol Match, 1916, writes under date of September 29, 1917:

"It affords me great pleasure to state that my experience with the 'Hollifield Target Practice Rod Indicator' convinces me that it would be of very great use in instructing raw recruits both in the proper and proficient handling of the rifle and of the Automatic Pistol. The fact that the latter arm has so many devices to become familiar with, and is so dangerous when in unskilled hands, especially when large bodies of men are together for instruction work, also convinces me that this ingenious device can be utilized to tremendous advantage in preventing a waste of valuable time, expensive ammunition and possibly the saving of irreplaceable lives by getting green men reasonably familiar with their weapons and the various complicated devices, before sending them to the range without proper and explicit preliminary training."

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