

RIFLE
ARMS AND
THE MAN
OF AMERICA
NATIONAL

IN DEFENSE OF "THE SHORT GUN"
INACCURACY IN SIGHT SCALE MARKINGS
THIRTY YEARS AGO WITH THE HAND-GUN
Pistols the Early Experts Used
WITH THE SMALL-BORE LEAGUE
A FEW COMMENTS ON THE NEW COURSES
EDITORIALS and
LATEST NEWS OF RIFLE, REVOLVER AND
SHOTGUN, THE ARMY, THE NAVY AND
THE NATIONAL GUARD

VOL. LXII, NO. 20



AUGUST 11, 1917

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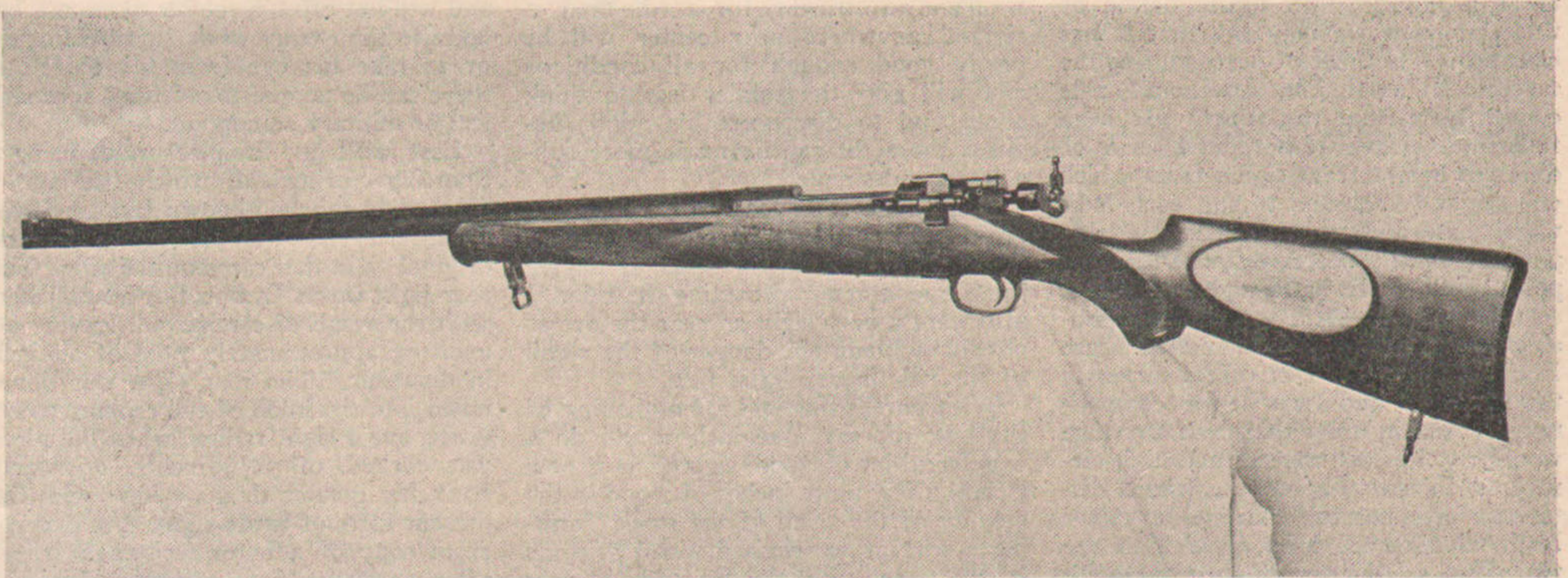
WASHINGTON, D. C., AUGUST 11, 1917

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In Defence of "the Short Gun"

By CAPT. JAMES H. KEOUGH

Formerly Ordnance Department, M. V. M.



The shooting qualities of the military Springfield have made this arm highly valued by big game hunters. Since there is much in common between big game shooting and the kind of marksmanship demanded on the field of battle, this speaks well for the service arm. This Springfield was transformed into a sporter by Fred Adolph.

MUCH has been said and published recently as to the merits and demerits of the U. S. Enfield, or rather the modified Enfield rifle adopted by the U. S. Ordnance Department, and comparisons with the U. S. Magazine, commonly known as the Springfield, have been made. From the several articles that have appeared in the papers, I am tempted to believe that there is a clear case of misunderstanding as to the relative merits of the old Enfield and the later model known as the Enfield 1914, hence the suspicion as to the safety of the Enfield action when the barrel is chambered to take the Model 1906 ammunition, 2,700 feet velocity.

There is, of course, some ground for alarm when we take into consideration the fact that in these days of high velocities and enormous chamber pressures that it takes but very little alteration to put the man behind the gun in a dangerous position, as I can attest, by having experienced the misfortune of blowing both locking lugs from the bolt of my service rifle in the 900-yard stage of the Leech Cup Match at Camp Perry, in 1913, which fortunately did me no more harm than to record a goose egg for my first record shot at this distance, forcing me from the match and putting me out of the running for the Palma Team. The shock of the blow-back had no serious effect on my nervous system, as I was well hardened to the echo of the boiler shop (as the shed in which the International Metre Matches were held was dubbed) by being a daily contestant in the several matches. On this same day on which this accident occurred a team mate, Col. Sergt. Leary, of the 6th Massachusetts Infantry, had a similar accident, but was

slightly bruised about the face. The cause of these blow-ups was attributed to the bolts being too hard or burned in the case-hardening process. Last year at the annual encampment of the 6th Massachusetts Infantry, at Martha's Vineyard, a blow-back put a sergeant of one of the companies in the hospital for a week and nearly cost him the loss of one eye, and I know of another case nearby when two bad accidents occurred in one afternoon, the rifles being blown to pieces in both instances and one of the men having the side of his face torn away. These are the only cases that I recall as having happened in my locality or where I was at the time. Records of many others are well known, so that perhaps there is some cause for this alarm as to the safety of the Enfield, which we all know is not as strong as the U. S. Magazine rifle; but I have not the slightest doubt that when our U. S. Ordnance experts have made the necessary changes that the modified Enfield will be capable of handling our U. S. ammunition with every degree of safety to the man behind the gun.

I have read with interest the articles in ARMS AND THE MAN by Gen. George W. Wingate, the greatest exponent of military rifle shooting in America; Mr. Stephen Trask, and others as to the merits of the new arm, and while I concur with them in much they have stated, I do not believe that the Enfield as adopted is on an equality with the U. S. Magazine rifle, which to my way of thinking is without a peer ballistically and is only exceeded in muzzle velocity by the arms of two other nations. "The Short Gun," as it is known the world over, has proved its superiority over the military arms of all other na-

tions, in rifle competitions, for the last seven years, and has held its own in competition with most of the match rifles, at home and abroad.

With a longer sight radius, I think it would hold its own in any company unless it was against the well-known Ross .280 Match rifle, which has a much greater muzzle velocity, so that when we sift it all down it comes to the question of whether it is a problem of ballistics or one of sights.

The story of the battle-sight is not a new one and has been a bone of contention with the Ordnance Department and School of Musketry for many years. During this period many changes have been made, but, as General Wingate says: "Our battle-sight is based on a theory which the present war has proved to be a fallacy." In substantiation of this statement we may say that it has been proven in times of peace, during the several National and Divisional rifle competitions, that the theory has been fallacious. Have we not had a series of different height front sights from which one might be selected to suit each individual case and try and make the rifle point blank at a nearer distance than the point blank of the battle-sight, as issued, so that the contestant would be reasonably sure of hitting the silhouetted figure in the middle of a 6 x 6-foot target in the rapid-fire and surprise-fire competitions? And in order that such a change would not lead to unnecessary high elevations, in slow fire, at the longer distances, have not the contestants in the National Matches been allowed to use two rifles, so that one of them might be dolled up to make a good rapid-fire gun?

General Wingate states further: "The breech of the barrel being much thicker than the muzzle, the front sight on the Springfield is *very high*, and is constantly catching in all kinds of obstructions. . . . On the other hand, the front sight on the modified Enfield, while *just as high* as that of the Springfield, is protected by two wings or flanges, so that it cannot be damaged if the rifle is dropped." All very well and good for the protecting flanges; they are a good thing and the stronger and wider sight is a good thing, but *why this height of front sight*, which is prejudicial to accuracy in any manner you may mention? Is it because they have followed in the same old rut of having the point-blank range of the battle-sight in the vicinity of 600 yards, as Mr. Trask, in his article of April 28th, states is the case, or is it because they cannot get the rear sight any lower and must raise the front sight correspondingly to meet the graduated scale of the rear sight?

I am entirely in accord with what General Wingate says, "That a soldier is essentially a hunter and that his rifle should be sighted upon the same theory on which the best hunting rifles are sighted"; but the General did not men-

tion the fact that "a soldier is also hunted" and a hit or a miss may mean the turning point of an otherwise victorious day and his very existence. Our one great oversight in the past has been in catering to a lot of target shooters and competition pot-hunters instead of getting right down to the requirements of actual field conditions. Of course it is essential that we have a graduated peep sight, capable of being adjusted to some degree of nicety for the different distances at which rifle competitions are held in various field-firing problems, but we should not let such a sight stand in the way of something that will enable a soldier to take aim quickly and *hit what he aims at*, over the distances called for in warfare as practiced today. Such a battle-sight need not necessarily have windage adjustment, for a rifle that is sighted anywhere near center will be plenty good enough for all conditions and will give the soldier less to think about and to disconcert his mind; besides, the sight can be made more substantial and simple.

I am a great advocate of sights that are as close to the barrel as possible, which minimizes to the smallest degree the common error of canting the rifle. I also want a peep sight as near the eye as possible without the danger of the recoil of the rifle bruising the face.

With our Springfield a lengthening of the butt of, say, one inch would do a wonderful lot of good, sighted as it now is, and a few more inches of wood in the vicinity of the small of the stock, forming a sort of improvised pistol grip, as is the case with the Enfield, homely though it is, would give a man the feeling that he had hold of a rifle stock rather than a club of wood.

While they are at it, I hope the Ordnance Department will not make a mere makeshift, but will get right down to the real thing in a battle-sight; one that will mean something and which will enable you to *hit where you aim*.

On our Springfield, I know from experience that these things can be done and that it is possible to place an auxiliary battle-sight, with a peep, on the bridge of the receiver, which could be folded down out of the way when the present graduated leaf sight was in use, eliminating, of course, that part of the present sight used for battle firing and lowering the base of the sight so it would not be so ungainly and cumbersome and permitting the lowering of the front sight a quarter inch or more. If things were not too pressing to make the change, a graduated sight combining the battle-sight feature could be installed on the bridge of the receiver which would give all distances up to 1,500 yards, which is greater than any distance at which rifle competitions are now held and beyond which I doubt the value of firing with shoulder arms, except in rare cases, even by the best of expert marksmen.

There is no question but what a peep sight, with an opening large enough to give good light, under all sorts of conditions, and set near the eye, is much superior to any form of open sight, set at any distance from the eye, as the peep sight can be found more quickly and the chances are ten to one that whatever is fired at, if it is within the magic circle when the trigger is pulled, will realize that there has been something doing. That there is a decided advantage: (1) In having the rear sight (peep) near the eye; (2) In having a peep-hole instead of a slot or bar; (3) In having a lower and more substantial front sight than we now have; (4) In having a longer sight radius, thereby reducing sighting errors to a mere fraction; (5) In having a sight that can be adjusted both day and night, and will not cause a soldier to expose his body to the enemy while so adjusting it, or to take his eye from his objective, there can be no question from a mechanical or military standpoint.

Last fall I had the pleasure of using a Sporting Springfield, which had for a front sight the well-known Lyman Semi-Jack, set 17/64 of an inch lower than the original sight that came on the rifle. The rear sight was a Lyman 1-A Mannlicher, with the small disc removed, leaving an aperture approximately 7/64 of an inch in diameter. The rear sight was dovetailed into the knob of the cocking piece, giving me a sight radius, when the piece was cocked, of 31 3/8 inches, or nearly 10 inches greater than we have with the present form of battle-sight. An excerpt from copy of a letter written a friend after my return from a hunting trip will show how it worked:

"Since our last meeting I made my annual trip to the woods in quest of buck deer, and had a most successful trip in every way.

"I had for a shooting iron a made-over Springfield, with home-made stock and all of the fancy fixin's, including a pistol grip, and weighing exactly 6 3/4 pounds. For sights I had a Lyman Semi-Jack on front and a Lyman 1-A Mannlicher (with large peep) on the knob of the cocking piece for the rear, which gave me a sight radius of 31 3/8 inches. While I had no opportunity of making any long shots, I did make two very fine running shots and got each deer with the first shot.

"My first was at a buck running quartering from me. I pulled just as his fore parts came up into the peep, the bullet catching him close to the back bone, tearing out a couple of ribs, making a frightful wound, letting his entrails out through. In fact, it about spoiled the critter for transportation home. The distance was about 100 yards. My second chance came two days later at a big buck going like a blue streak, because a local hunter had started him on his way with three shots from a — automatic.

(Concluded on page 390)

Inaccuracy in Sight Scale Markings

By J. R. MATTERN

MYSTERIOUS groupings and misses with many Springfield and Krag rifles often can be traced to irregularity in the range scale markings stamped on the leaf of the rear sight. Many owners of these rifles think that the scale is to be accepted as gospel, but that this cannot be done with all rifles is illustrated by the findings of a recent test of half a dozen military rifles with a precise sight gauge.

The gauge tells a surprising story—and one that was not even suspected by the men who shot the rifles. On the rifle with the most striking inaccuracy of sight marking, which will be used as an illustration, between the 100 yard mark and the 200 yard mark the gauge registers 2 degrees of elevation. Between the 200 yard mark and the 300, it shows that there are $4\frac{1}{2}$ degrees of elevation. In this there is nothing to be alarmed about greatly, though the increase from 2 to $4\frac{1}{2}$ degrees seemed somewhat out of the proportion.

Between the 300 and 400 yard marks, however, the difference of elevation is only $2\frac{1}{2}$ degrees, which is practically the same as between 100 and 200 yards, and only half as much as between the hundred yard marks preceding! This obviously is an error great enough to cause serious trouble on the range, but which can not be detected on the sight leaf by ordinary observation. Between the 400 and the 500 yard marks there is a difference of elevation of 4 degrees, which is more like it ought to be, and yet not enough in comparison to previous elevations, since it is well known that the bullet falls at a faster or greater rate over each succeeding hundred yards of flight.

The irregularities of elevation for each hundred yards between 500 and 800 are not quite so striking as below the 500 yard mark, but still are enough to cause trouble on the range. Above the 800 mark, a uniformity that is refreshing shows itself. The details are given in the attached table, and need not be commented on here other than to point out that the ratio of increase for each hundred yards is even. If this even ratio is correct at this part of the scale, it should be correct for the lower part.

The table tells the rest, better than anything else can do:

On this rifle the 200, 300, 400, 500 and 600 yard marks are out of place 50 yards or more. Other range marks are out, too, but only 10 to 20 yards, which do not make such a great difference,

Present Scale	Sight gauge degrees on present scale	Degrees increase per 100 yds.	Degrees increase if uniform ratio	Corresponding scale marks if uniform ratio of elevation	Degrees if elevation ratio is uniform
100	$25\frac{1}{2}$	100	$25\frac{1}{2}$
200	$27\frac{1}{2}$	2	1	150	$28\frac{3}{4}$
300	32	$4\frac{1}{2}$	2	225	$26\frac{1}{2}$ -
400	$34\frac{1}{2}$	$2\frac{1}{2}$	3	300	32
500	$39\frac{1}{2}$	4	4	425	36
600	44	$4\frac{1}{2}$	5	510	41-
700	$50\frac{1}{2}$	$6\frac{1}{2}$	6	660	$47\frac{1}{4}$
800	56	$5\frac{1}{2}$	7	780	$54\frac{1}{4}$ -
900	64	8	8	885	$62\frac{1}{2}$
1000	73	9	9	985	$71\frac{1}{2}$ -
1100	83	10	10	1090	$81\frac{3}{4}$
1200	94	11	11	1190	$92\frac{3}{4}$ -
1300	106	12	12	1290	105
1400	119	13	13	1390	118-
1500	$134\frac{1}{2}$	$15\frac{1}{2}$	14	1500	$134\frac{1}{2}$

(Note—Fourth column totals up $1\frac{1}{2}$ degrees less than the actual increase in degrees between 100 and 1500 on the sight scale—see third column. Hence the fourth column is accurate only to within one-eighth degree at the points marked with —.)

especially as the marks all are uniformly lower than they should be. The 400 yard mark is a full 100 yards out of place, and the 500 yard mark 75 yards wrong. The outstanding feature developed by the test is that the owner can not set the sight according to the scale, or according to any fixed relation to the scale, as for instance, a certain number of yards or degrees of sixty-fourths of an inch higher than the corresponding range in any case, as is the custom. If he does he gets badly fooled when he fires. The only thing he can do is to target the rifle at each range, and record and memorize the irregular elevations required to land in the bull. Even at that he is at a serious disadvantage when it comes to changing the sights for varying ammunition, or to shooting in another position than the one used in arriving at the recorded figures.

The fourth, fifth and sixth columns in the table are designed to give data that illustrates both the correct position for the marks on the sight leaf, and a working basis for shooting this and other rifles carrying such irregular markings. The figures in the fourth column are entirely arbitrary—that is, they are not the result of computation in connection with known trajectory and other figures for the Springfield rifle and cartridge, but are set down to show more plainly by comparison with those of the third column the errors under discussion, and to present concretely the definite and consistent relation that the marks on the Springfield sight leaf ought to bear one to another. The figures in the two last columns may or may not be correct shooting elevations at the ranges specified, but if one figure is high or low

they all likely will be wrong to the same extent exactly, which makes correction easy and regular throughout the series by the simple addition or subtraction of the required number of degrees. The marks on the sight leaf of the rifle *should be* just as regular, and just as easily used as a basis for correct adjustment at any range.

The sight gauge is a particularly desirable little tool for the man with an inaccurately marked sight leaf. It enables him to begin his calculations with the lowest or 100 yard mark on his sight leaf, and to make corrections for different ranges, varying ammunition, light, moisture, temperature, positions and other factors positively and accurately. It also serves as a check against marks wrongly placed.

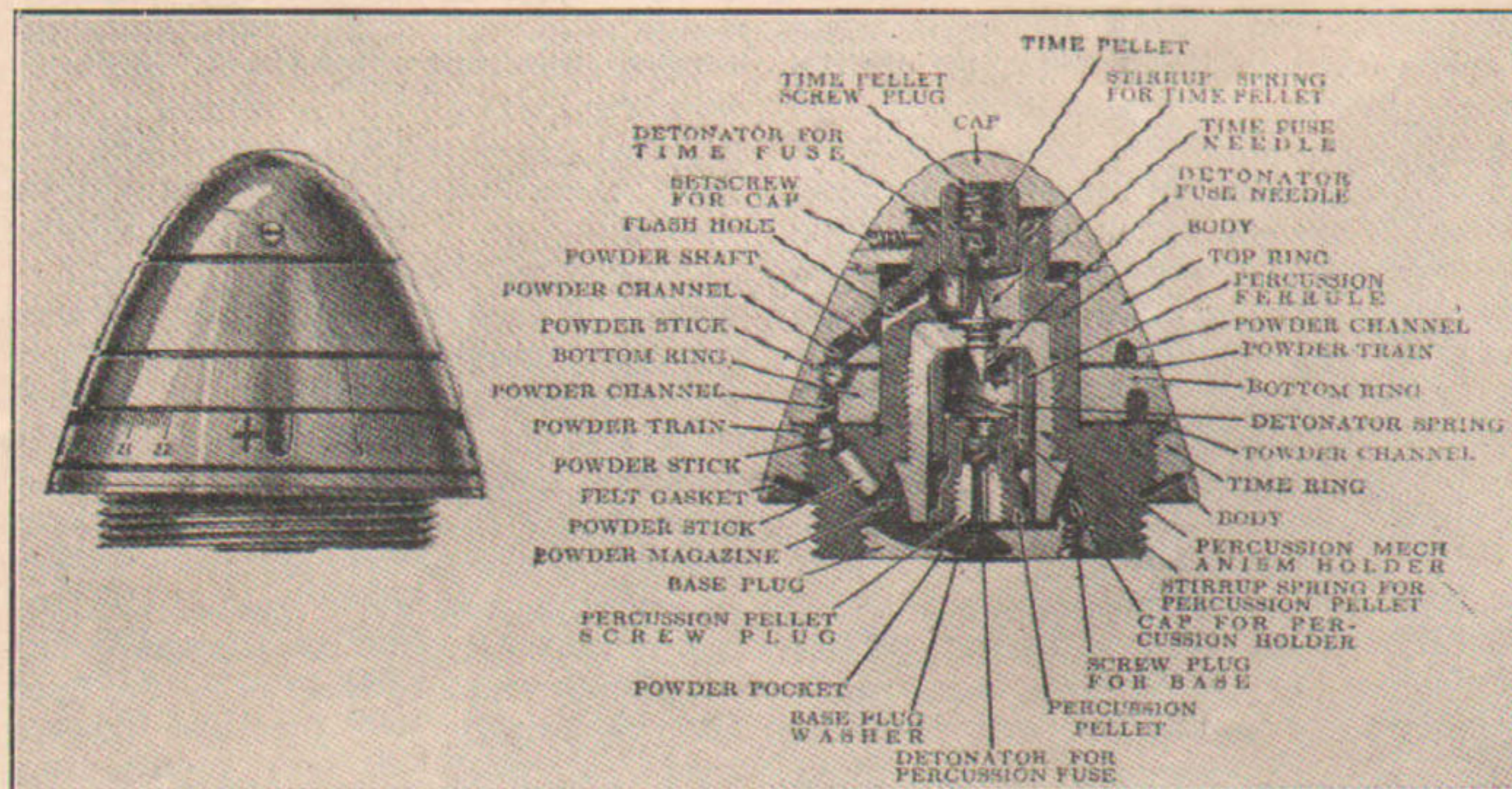
Many rifles are marked correctly, as a test will demonstrate. The writer had one on which every mark seemed to be just right. But enough of them are marked wrongly to justify every owner in checking up. This applies to Krags as well as Springfields. After the test each man can work up a table for his own rifle such as the one attached, and can paste it on the back or front of his score book for quick reference. To be thoroughly familiar with the uniform elevations for each range is particularly of advantage in certain parts of the N. R. A. qualification courses that require quick setting of sights.

It is unfortunate that the sight leaves are not all marked correctly, but incorrect marking need not interfere with accurate shooting and the making of high scores if the owner of the rifle becomes aware of the conditions and

(Concluded on page 390)

The Time Fuse and How it Works

By REGINALD TRAUTSCHOLD, M.E.
In the Popular Science Monthly



The time fuse which forms the nose of the projectile.

Photo from Popular Science Monthly

YOU have read in the war dispatches that the "troops advanced under a curtain of fire." What does that mean? Simply that a barrage of bursting shells, hurled over the advancing men into the enemy's lines, forms a protective screen. In order that this curtain of fire may be a real protection, however, and not a terrible menace, it is absolutely essential that the men who fire the guns should have precise control of the point at which the shrapnel or high-explosive shells are to break. It is easy enough to imagine the demoralization within the advancing lines if the men had to fear bombardment from the rear as well as the enemy's fire.

That danger has been practically eliminated by the perfection of the time fuse. By simply adjusting the time ring of the fuse the gunner can predetermine the exact point—be it feet or miles from the muzzle of the gun—at which the projectile is to do its deadly work. Shrapnel, and the even uglier high-explosive shells, may be exploded if desired within a hundred yards from the muzzle of the gun, notwithstanding the fact that the projectiles start on their mission of destruction at the rate of about 1,350 miles per hour. On the other hand, they may be sent whirling through space for miles. It all depends upon the adjustment of the simple little time ring of the fuse.

The time fuse is an ingenious little mechanism which forms the tip of the nose of the projectile. It contains a time pellet and a detonator of highly explosive material.

On leaving the muzzle of the gun, the projectile, traveling at a speed close to 2,000 feet per second, is literally shot away from the time pellet, the bent-over ears of the stirrup which held it in place

are straightened out, and the fuse needle is driven forcibly into the detonator. The resulting flash passes through the flash hole in the body and ignites the mealed powder in the powder shaft of the top ring. This ignites the train of powder contained in the circumscribing powder train. From the powder channel in the top ring a similar powder train in the lower ring is ignited through a connecting hollow black powder stick. From the second powder channel, the flash is transmitted to the powder magazine in the base of the time fuse through connecting sticks of black powder in the fuse body. The magazine connects with the powder pocket at the center of the base, from which the flash is transmitted to the powder tube in a shrapnel or to the corresponding "gaine" in the high-explosive shell, which, in turn, delivers to the main explosive charge of the projectile.

The passage of the initial flash from the detonator to the powder pocket in the base of the time fuse is varied in length by adjustment of the time ring, and the length of the powder train which has to be consumed before reaching the top of the powder tube or "gaine" controls the instant at which a shrapnel will "break" or a high-explosive shell will be shattered. The adjustment of the time ring simply shortens the passage by establishing short cuts between the powder channels or increasing the distance between points of communication.

Should, by any mischance, the time fuse element fail to work, the projectile will then break on coming in contact with a rigid object, through the action of the auxiliary detonating element of the device.

In the base of the mechanism is a second detonator which is held in place

both by a stirrup similar to the one which holds the time pellet behind the cap and the body of the fuse and also by a coiled spring between the holder of the detonator fuse needle and the percussion pellet. On the projectile striking a firm object, the percussion pellet with its detonator is thrown violently forward against the detonator fuse needle and the resulting flash is transmitted immediately to the powder tube or to the "gaine," as the case may be—thus avoiding the circumscribing powder trains through which the flash produced from the contact of the time detonator and the fuse needle must pass.

Destructive as is the time fuse when fitted to a projectile which leaves a gun, it is comparatively harmless under ordinary conditions, on account of the rigidity of the stirrup holding the time pellet and of the springs holding the percussion pellet.

SHOES ARE IMPORTANT IN SOLDIER'S EQUIPMENT

One of the many minor bits of information brought to the War Department by British officers who accompanied the British mission to this country dealt with the remarkable celerity with which army shoes went to pieces when subjected to the mud of French battlefields and the crushed-stone topping of her famous roads. A colonel who was with the visitors commented very favorably on the general qualities of the regulation footwear issued to our own troops, but expressed the fear that a pair would last about one-half the usual period if the wearer was on duty in France. Preparations have been made to offset such conditions, however. Each regiment leaving for foreign duty will take with it a special half-soling machine for the repair of shoes. The necessary leather for the regiment will be carried in the train equipment. If conditions warrant an "over-sole" will be tacked on the new shoes as soon as they are issued, in order that a fair amount of wear may be guaranteed. Similar machines are to be placed in each station in this country. They are largely automatic in operation and the shoes of an entire regiment may be re-soled in a remarkably short time.—*Army and Navy Journal*.

He (of the militia)—"Taps" are played every night on the bugle. It means "lights out." They play it over the bodies of dead soldiers.

Miss Innocence—What do you do if you haven't a dead soldier?—*Boston Transcript*.

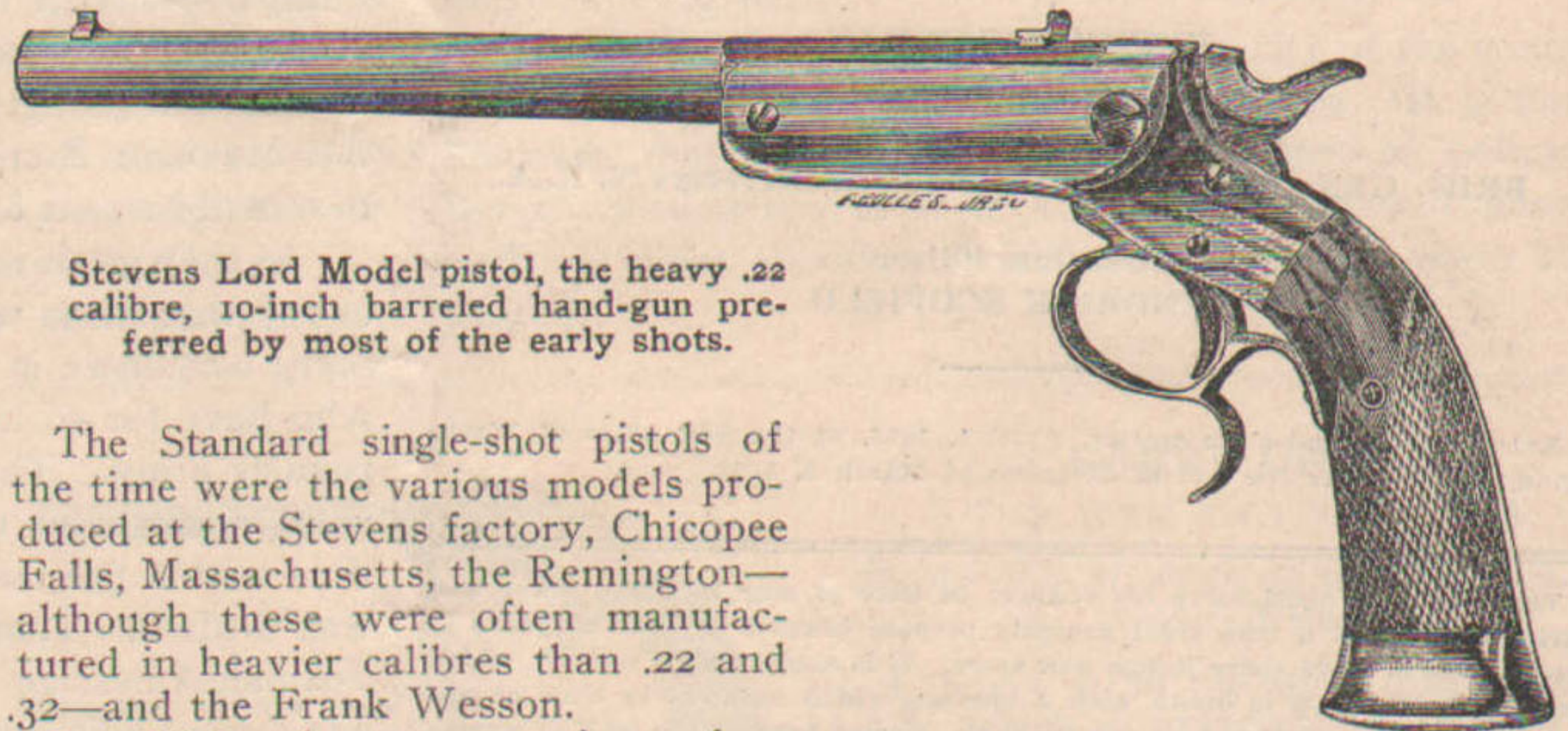
Thirty Years Ago With the Hand Gun

NO. 10—PISTOLS THE EARLY EXPERTS USED

DURING the years that standardized pistol shooting was emerging from the mass of haphazard practice at any distance, with any arm and at any target, which had until this time made up the hand-gun game, shooting at distances beyond 50 yards was hardly thought of by the majority of shooters in the United States.

It is true that among the early shots there were men who prophesied that pistol matches at 200 yards would ultimately become popular, and pointed to the success which officers of European armies had already gained in practice at distances as great as 400 paces.

Nevertheless since the game, as played at that time, called for a maximum range of 50 yards, accuracy to that distance was all that was demanded of the weapons used, and for that reason the single shot pistols used by the early experts were usually of .22



Stevens Lord Model pistol, the heavy .22 calibre, 10-inch barreled hand-gun preferred by most of the early shots.

The Standard single-shot pistols of the time were the various models produced at the Stevens factory, Chicopee Falls, Massachusetts, the Remington—although these were often manufactured in heavier calibres than .22 and .32—and the Frank Wesson.

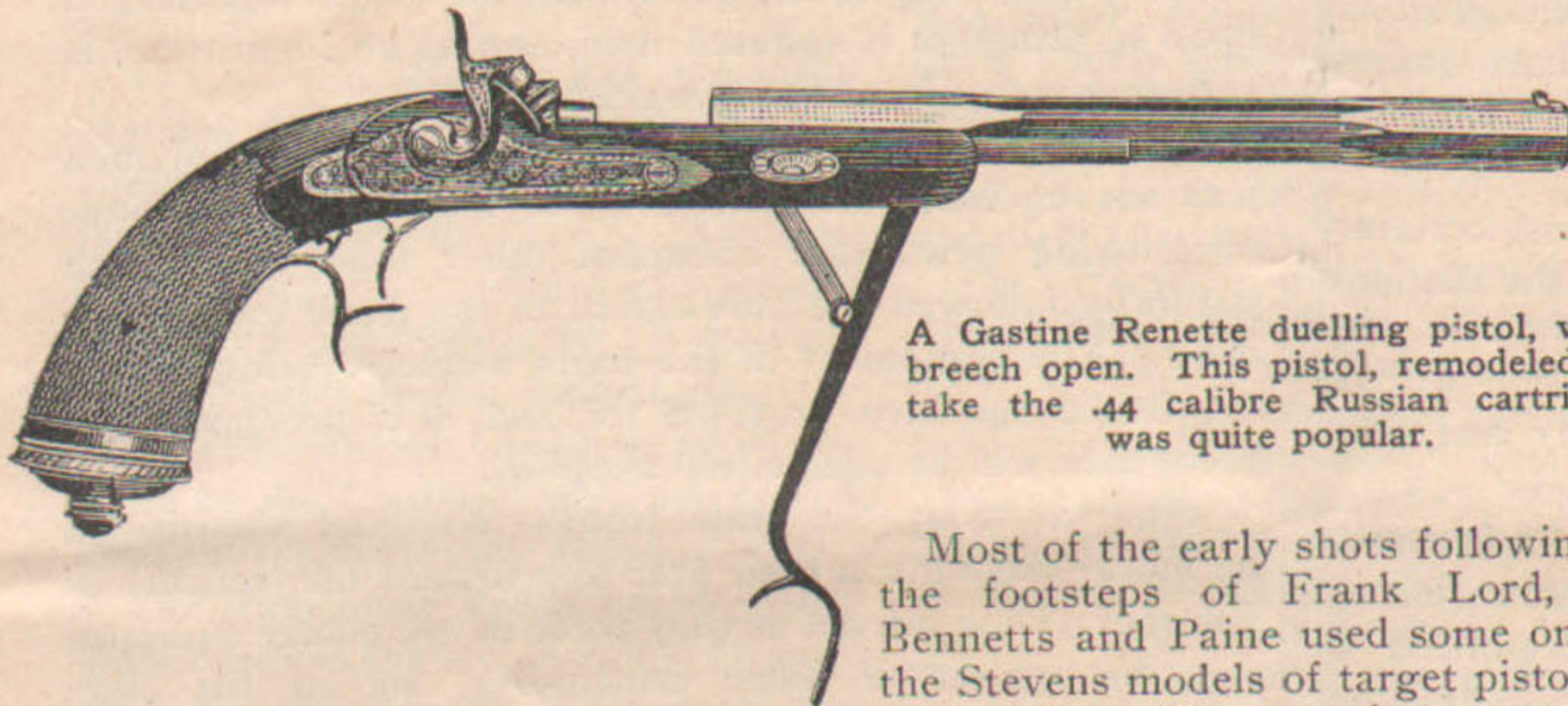
In addition there were various other types, including the Wurfflein which was adopted by several of the prominent shooters, the remodeled Gastine Renette pistols, and the single-shot Colts, which latter, being of the Derringer type, was not adapted to target work.

inch barrel, 11 ounces. The Diamond Model did not differ greatly from its heavier successors except that it had no trigger guard and the trigger worked between two "wings," as was often the case in the earlier pistols and revolvers. The barrels for the Diamond model were carefully rifled, but were mounted in frames of composition gun metal. These pistols were frequently equipped with a rear sight which was adjustable to a certain point, and an aperture front sight.

The Stevens pistols were so arranged that pressure on a stud let into the left side of the pistol, permitted the barrel to tip upward, opening the breech and operating the ejector. In the Lord and Conlin Models, the frame was constructed to permit of the interchange of different length barrels.

The Lord and Conlin models upon their appearance became instantly popular with the experts of the day, the first bearing the name of Frank Lord, the amateur shot, and the second having been called after the proprietor of the New York shooting gallery. These pistols, in addition to having carefully bored and rifled barrels, were

(Continued on page 389)



A Gastine Renette duelling pistol, with breech open. This pistol, remodeled to take the .44 calibre Russian cartridge was quite popular.

Most of the early shots following in the footsteps of Frank Lord, the Bennetts and Paine used some one of the Stevens models of target pistols.

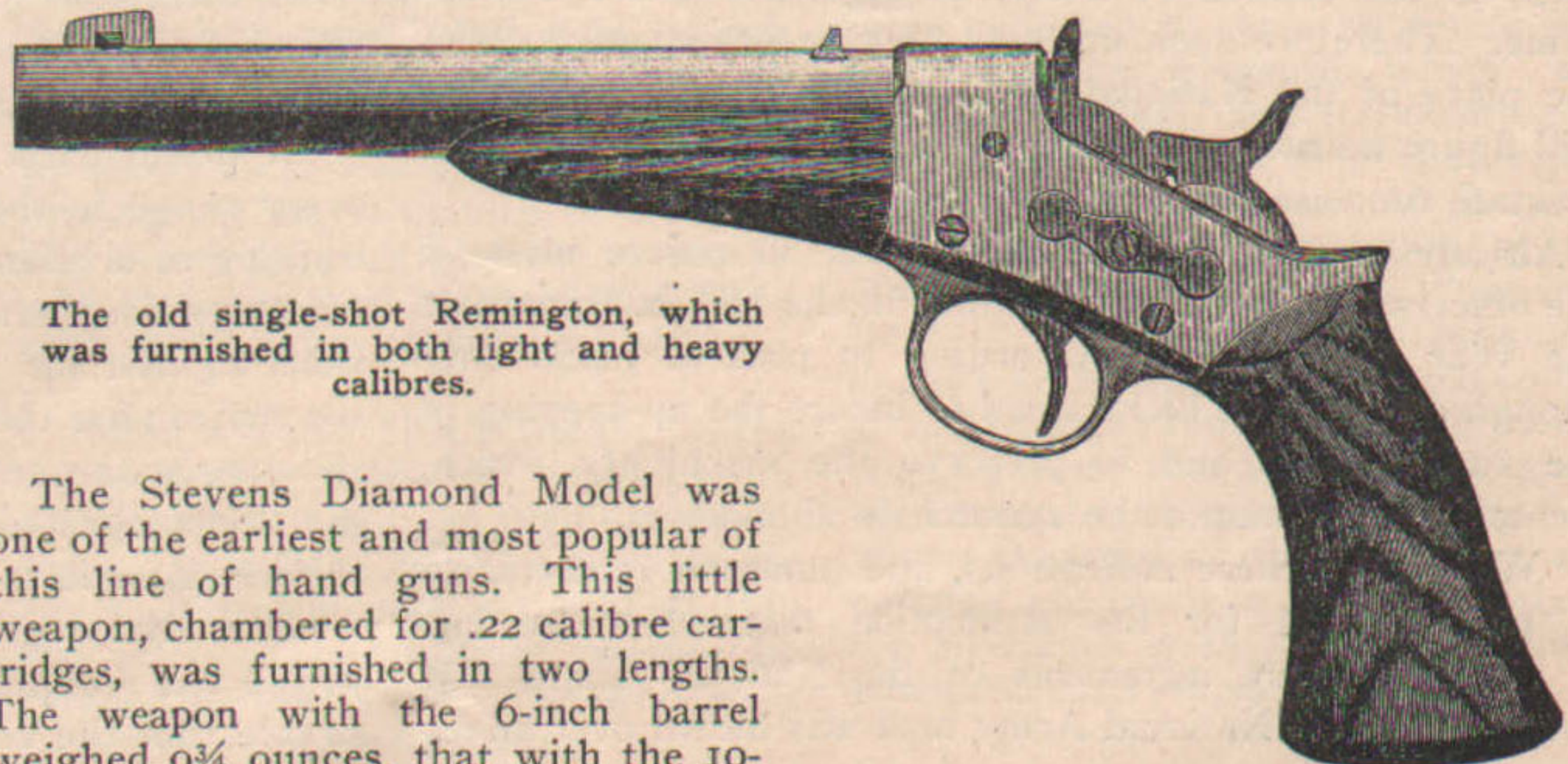
By 1890, three or four excellent models of this arm had been produced. They were the Lord, Conlin, Gould and Diamond models, all involving the same mechanical principles, but differing widely in weight, length of barrel, sights and trigger guard.

calibre and rarely greater than .32 calibre.

The revolvers of the time were, of course, the development of earlier forms of percussion cylinder weapons, both in shape and mechanism, yet the genesis of the hand gun was not as apparent in the cylinder weapon as it was in the early breech-loading target pistols which were reminiscent in the extreme of the earliest of such fire-arms.

The single shot pistols of thirty years ago were the direct descendants of a long line of similar arms, beginning with the old flint-lock dueling pistols of 50 calibre, and running through the long list of percussion hand-guns of smaller calibre.

That the percussion pistols used in the *code duello* were the first real target pistols is undoubtedly true. And it was upon these pistols, it is thought, that the breech-loading target pistol was predicated long after the code of honor had fallen into disuse.



The old single-shot Remington, which was furnished in both light and heavy calibres.

The Stevens Diamond Model was one of the earliest and most popular of this line of hand guns. This little weapon, chambered for .22 calibre cartridges, was furnished in two lengths. The weapon with the 6-inch barrel weighed 9¾ ounces, that with the 10-

ARMS AND THE MAN

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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.

THE NATIONAL GUARD NO MORE

NOW that the drafting of the National Guard has added to the National Army 430,000 fighting men, many of whom are already versed in the fundamentals, if not in the higher theories and practices of modern war, who shall say that citizen soldiery, as a national institution, have entirely failed of the purpose for which the National Guard was created?

The absorption of the National Guard almost certainly marks the passing of state troops as part of the National defenses. Among students of military affairs, the idea persists that future military policies of the nation will refuse to recognize state militia as possessing any real value to the military establishment.

Perhaps here and there through the country a few state executives will authorize the recruiting of new state regiments. These, however, it is believed cannot be organized as National Guard units, since there is a grave possibility that the law drafting the National Guard provides for the automatic absorption of additional regiments which may be organized after the drafting of the old units. Therefore, under such conditions, in the future the National Guard as an institution could not be anything more than a feeder to the National Army. To retain its identity as a state force it must, in the opinion of many, be organized under another name. Therefore such units as may be organized to take the place of the National Guard which has been drafted, will figure no more prominently in national programs than do state constabularies or mounted police.

Already preparations are being made to relieve most of the officers who have been on duty in the Militia Bureau of the War Department. According to present plans only enough officers will be retained to insure the up-keeping of the vital records and to preserve the machinery which, created by law, cannot be summarily abandoned.

With all of these indications, and more, there seems to be good ground for the assumption that when the last of the three great increments of the National Guard was covered into the National Army taps was blown over an in-

stitution which had existed as part of the military establishment of the United States since the Revolutionary War.

In the space of a few weeks the former Guardsmen will have been mobilized at their respective Divisional Training Camps, where, if indications count for anything, they will give a good account of themselves. After a short period of intensive training, for which their recent mobilization on the Mexican Border was excellent practical preparation, they will be sent to the trenches in France.

As they go, it is only fair and just to the National Guard to say that those who are familiar with the institution have every confidence in the ability and the patriotism of the men who have for so long a time been the "backers up" of the regular army. They are sure to acquit themselves creditably in whatever task is assigned to them. At one other time within the memories of most men the National Guard was drafted. That, of course, was at the outbreak of the Spanish-American War. Recalling that military occasion, one cannot help but be impressed with the contrast between then and now.

In 1898 the federalizing of the militia was accompanied by turmoil, confusion, misunderstanding and an absolute lack of equipment. Charges and counter-charges were frequent while the press printed column after column of censure and blame. The National Guard, however, was not entirely deserving of the condemnation which was heaped upon it, although it suffered then, and as an institution, is suffering today from the mistakes of '98.

In 1917 the drafting of a much larger number of men was accomplished with little or no friction, and without occasioning newspaper comment other than that which naturally followed the publication of the plans for the big draft. The equipment of the units formerly belonging to the Guard has been provided for and it is presumed that these men will be adequately supplied.

And so today the state troops—National Guardsmen no more—have taken their first step toward the trenches of Europe. They go, not as they went in '98, poorly equipped and the subject of bitter controversy, but as the clean American men that they are, 430,000 strong, ready and anxious to render the ultimate of service to their native land.

THE GREAT LAKES NAVAL RANGE

NO MATTER how many rifle ranges are established in the United States, the greatest good cannot be derived therefrom unless they are utilized not only for the training of the enlisted personnel of the regular service but of civilians as well.

It would naturally be foolish to advocate turning over every range in the country to civilians and to permit the training of civilians to seriously interfere with the training of forces for battlefield service. It is, however, equally short-sighted for those in control of ranges to refuse to see that unless they do everything possible to promote the shooting game among non-service men, they are keeping the rifle ranges of the country from being of the greatest service possible to the nation.

It is always gratifying to learn that some officer of the service has recognized that it is right, proper and highly desirable that the citizens of every community should know

how to handle the service arm, and that everything to this end is being done on a large and fully equipped range.

Such a man is Captain W. A. Moffett, commandant of the Great Lakes Training Station, at Great Lakes, Ill. By his action in placing the new range, just constructed on his post, at the disposal of civilian riflemen one afternoon a week, when the range is not being used to train embryo seamen, he has done more than any thing which could possibly have been done to encourage rifle practice among the citizens of one of the largest cities of the nation—Chicago.

In operating the range, which is to be an important part

of the largest naval training station in the world, Captain Moffett is following out the plan formerly in vogue at Winthrop, Md. There is no plan that is any better. It is based on a policy of teaching all comers to shoot, and to make nothing hard.

It is to be regretted that every large city of the country has not a Winthrop or a Great Lakes Range. It is likely, however, that if the Navy continues its present policy of range construction most of the large cities will possess such excellent shooting facilities before many years have passed.

THIRTY YEARS AGO WITH THE HAND-GUN

(Continued from page 387)

set in steel frames. The actions of these pistols were similar to that of the Diamond Model.

The old Lord Model was the favorite of well-muscled shots. It was a heavy arm, weighing 3 pounds, with a long stock and heavy trigger guard to which a spur was added to aid in holding. This model carried a 10-inch barrel.

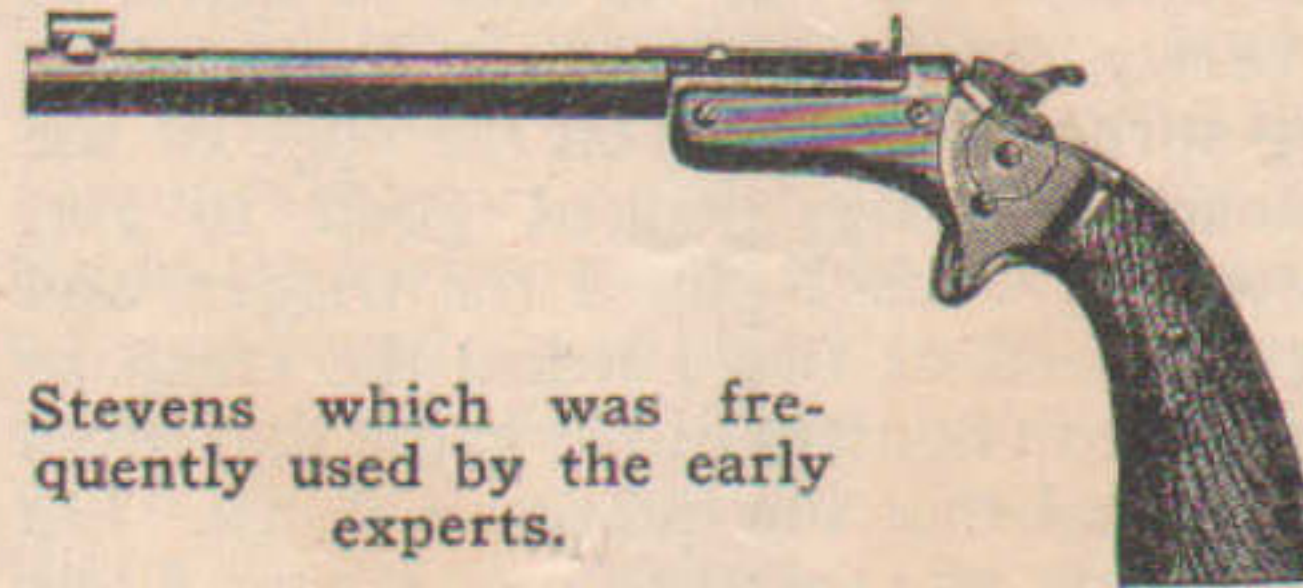
The Conlin Model was generally selected by those who preferred the conformation of the Lord Model, but lacked sufficient strength to handle so heavy a weapon. It also had a 10-inch barrel, but weighed only 2½ pounds.

The Gould Model, named after the late Arthur Corbin Gould, weighed the same as the Conlin Model, but lacked the spur on the trigger guard.

The Remington Pistol, based on the action used in the old, so-called "Navy" weapon, lacked much of the finish apparent in the Stevens pistols. What it lacked in elegance and grace, however, it made up in strength. It was also exceptionally well-balanced, and was one of the two pistols of the day which could be bored for the .44 calibre Russian cartridge. These pistols in the Navy Model were made for heavy cartridges, but for target work were bored for .22 and .32 calibre cartridges. The Remington had an 8-inch barrel and weighed about 2 pounds 8 ounces. The action was very similar to that of the old Remington rifles, which were famous for durability combined with accuracy.

The Gastine Renette pistol, while not properly an American arm, was sometimes used by the early shots. It was manufactured by the Frenchman, Renette, and was a very expensive arm, ranging in price from \$100 to \$1,000 a pair.

In the beginning, the Renette Pistol was a percussion cap weapon, designed



Stevens which was frequently used by the early experts.

for dueling. This method of loading, however, was tedious and unsatisfactory. Therefore when it was found practicable to alter these old muzzle loaders to take the .44 Russian cartridge, and to add a tip-up breech, such remodeled Renette pistols became quite widely used by some of the experts. Chambered for the .44 calibre cartridge, the barrel was slightly more than 10 inches long and the weapon weighed 34 ounces.

The Wurfflein pistol, manufactured by William Wurfflein, Philadelphia, while it had not reached the height of popularity it later enjoyed, had already become highly esteemed. This pistol perhaps followed the outlines of the old dueling pistols more than any other of American make. The grip was more rounded than those of the Stevens models, but the action was very similar, being also of the tip-up variety, although operated by a catch on the grip, back of the hammer. This pistol was furnished with a 10-inch barrel and weighed 2 pounds and 2 ounces.

The Frank Wesson pistol, manufactured at Worcester, Mass., was operated in this manner: The hammer was slightly raised and held in this position by a pin pressed in from the side. A projecting stud at the bottom of the receiver was then pressed, permitting the barrel to turn to one side, and the shell ejected by the extractor. The arm was well balanced and fitted with good sights of different styles.

Editor's Note: This is the last of the series dealing with the beginning of standardized pistol and revolver shooting. There have been some requests for a continuance of material of this character. The Editors would be pleased to hear from those who wish to see more of these stories.

CARRY ON!!!

THE WAR AND THE CLUB

By an Old Member of the N. R. A. of Great Britain

A WAY from the strife and torment which is invariably characterized some time in the career of every society, sect, or organization, of battling bravely among the breakers, one often, when in a retrospective mood, wonders whether the old haunts are deserted, the old and cosy clubhouse closed down and a derelict to shelter the tramp and vagabond. Or whether the smart little indoor range where we were accustomed to gather to match our ability and skill with that of our sporting rival in a cup tie, league, or "friendly" shoot has withstood the vicissitudes of the moment until, the denizens foreseeing promiscuous eviction, suspended activity until their khaki-clad pilgrims return.

Carry on! Carry on!! Carry on!!! is the shibboleth, the battle cry of all. The trench fighter, the bluejacket, the human machine which toils incessantly, modelling the raw material into the intrepid warrior, and the great industrial forces, all echo in unison those magic words "Carry on."

But what of the response? Why talk of patriotism and sentiment? We are beyond that now. There is no appeal. It is an imperative command which must be instantly obeyed. Get to grips at once!

Football clubs, cricket clubs, and other kindred sporting organizations were expected to cease an active pursuit of that pleasure which was familiar to them, and it reflects considerable credit upon them that within a few days of the burst of the war-cloud the greater proportion of the clubs could only raise a "one-man team." As a form of organized healthy recreation their mission to-day would be superfluous, although no one would gainsay that a lad who has spent his leisure hours upon the playing field where the seed of determination and courage are sown is well fortified for the strenuous work which awaits him when he enters upon his career.

(Concluded on page 391)

FRANCE LIFTS BAN ON HUNTING

France will allow the hunting of game for the first time since 1913. A dispatch from Paris states that the closed season of nearly four years has resulted in damage to crops by depredating animals.

The season will open only after the crop has been harvested and will be short. The Government has decided this measure is necessary to protect agriculture against the ravages of game, which has multiplied greatly in the three years during which only restricted destruction of depredating animals has been allowed.

Hares, rabbits, pheasants and partridges are particularly abundant, while wild boar, driven from the forests of Northeast France by the military operations, have done considerable damage in regions where they never were seen before. The opening of the hunting season, besides saving the crops, is expected to help relieve the provisions market.

MARINES LEARN PRIMITIVE METHODS

How to light a fire without matches is an important part of the training given to United States Marines. The primitive flint and steel, used long ago by our forefathers, and the old "wood friction" method borrowed from the Indians have been revived, so that the sea soldier may dispense with matches when dampness renders them useless.

U. S. Marines in the tropics can start a fire almost instantly by using a hollow piece of bamboo. This is done by slitting the bamboo, stuffing it with dry moss, and drawing a stick to and fro across it as a violinist uses his bow. These resourceful world-wide soldiers are expecting to find a substitute for the useful bamboo in France.

IN DEFENSE OF "THE SHORT GUN"

(Concluded from page 384)

I spied this deer coming down the mountain side and quartering towards me, at some 200 yards distance, but immediately lost sight of him. I expected him to break cover some 100 yards in front of me in a small clearing, but he evidently changed his course, and when I next laid eyes on him he was on the edge of a small opening about 25 feet wide and some 40 yards from me, which he cleared in two jumps, but I did manage to get one off at him before he disappeared in the thicket, but had no time to spare, as I barely avoided putting my bullet into a big spruce that stood on the edge of the thicket. Things looked good to me, however, when I pulled the trigger, and in a second or two I heard the crash so familiar to hunters of big game that gives the signal that the quarry is down. On advancing towards the spot where I last saw the critter I was assured of the accuracy of my aim by a streak of blood about the trunk of the spruce that nearly cost me my shot; on each side of his trail was a stream of blood for about 50 yards, at the end of which I found him, still in death, a handsome fellow with a spread of 21 inches—as good a head as I ever got.

"On dressing him off I found that the bullet had cut off one of the arteries close to the top of the heart and passed right through him, leaving a smaller hole where the bullet passed out than where it entered, which was probably due to the jacket stripping and the lead core passing on through him. I had this head set up by a local taxidermist and gave the other to a friend.

"I used a cartridge with a 180-grain, soft-point bullet and a charge of powder giving me approximately 2,500 feet muzzle velocity, and apparently a tremendous striking energy. . . . At the rifle range, in targeting the rifle, I kept all shots in the black all along the line from

25 yards, where I could plunk a target paster every shot, up to 200 yards, and as I have shot but very little game beyond this distance, I called it a point-blank rifle up to 200 yards and good enough for me. I shot several partridges and rabbits with it while on the trip.

"The extended sight radius, with the peep close to the eye, I found to be a great thing for accuracy and in making a quick shot; in fact, it was this feature that enabled me to make my shot at the big deer, as the clearing was so small he cleared it in two jumps and he was on me before I realized he was in the vicinity, although I had seen him a moment before in another direction and was expecting him to break cover at a greater distance from me. I would not give this rifle for all the hunting rifles I have ever owned nor do I think there is anything better, unless it is ———, which is a much smaller bore but at that seems to be plenty big enough for all kinds of game we have to contend with."

INACCURACY IN LIGHT SCALE MARKINGS

(Concluded from page 385)

arrives at a proper basis for making his adjustment at each range. The gauge is the easiest means of meeting the problem, though other means of measuring, or even careful targeting, may be made to serve the purpose.

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By L. RAMIREZ CASABLANCA

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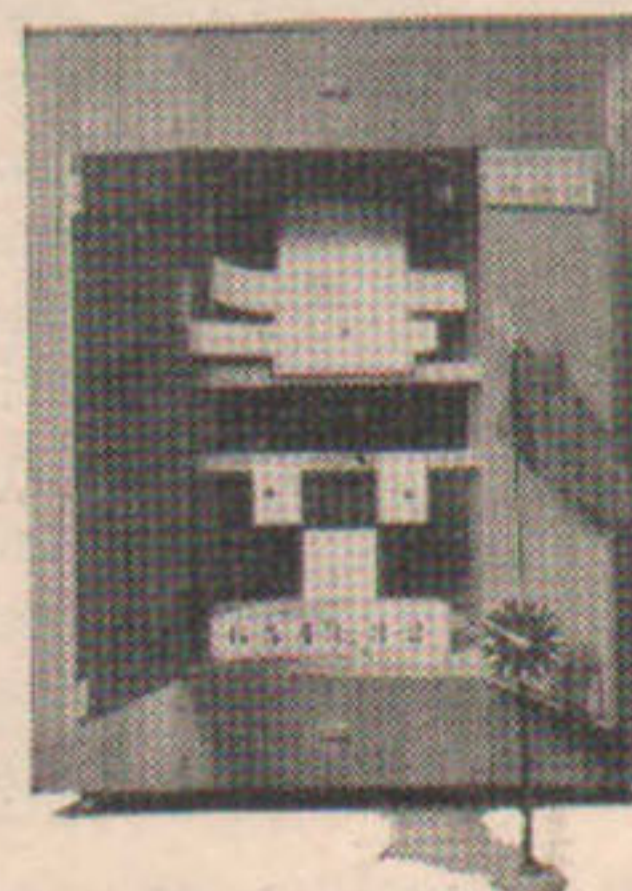
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CARRY ON!*(Concluded from page 389)*

But to a rifle club "Carry on" is a clarion call for help. I do not presume that the rifle club's assistance is indispensable, but I will put it to you without reserve that a lad who has some knowledge of hold, determination, and self-control when gripping a weapon, and who has had the principles of trigger pressing inculcated, is by no means a "back number" or a wash-out when the tests of elementary training are being carried out. It would be simply ludicrous to say that service rifle shooting can be taught or even approached upon a miniature rifle range under the conditions which govern club shooting under ordinary circumstances, but clubs who have adopted an expedient which shelved the elusive carton and introduced a modified service .22 Rifle Range Course are doing work of immeasurable value. The old club "shot" has gone out. The "pot-hunter" of yesterday is probably serving somewhere. No one maligns him now. They both volunteered long ago, and were accepted readily, a recognized useful asset at last. I know that the "going out" practically shattered many a club, but in a greater proportion the fabric which comprised men who had left youth for the sere and yellow and members who were necessary units of our great industrial army suffered but little. It is, however, understood that clubs are in an awkward position because subscriptions and donations have decreased alarmingly, commensurate with the membership roll. An infusion of new blood is necessary to insure the club's existence, so it has been said. Well, the new blood must be the youth of to-day, who will become the man of to-morrow. Rigid economy has up to now been practiced, but greater sacrifices must yet be made if the clubs are going to respond to the passionate cry of "Carry on." The member who pays his subscription and desires value for money spent gets it a thousandfold providing his club encourages the lad to enter the range and receive instruction in those potential factors which go far to build up the service rifle shot. I am quite sure that every Britisher will agree that personal pleasures must be held in abeyance till the nation's welfare is assured. Sport must be to a great extent a dead letter. Carry on, yes, carry on.

In the good old days preceding the war men were trained in rifle shooting. They were expert—some of them—in their cool, calculating methods of aiming and trigger-pressing. It was their determination and control of nerve that helped them to emerge successfully from a strenuous tussle. Most of them are instructors in the grand army to-day. Kitchener's lads, rough and ready, came up in their thousands eager to get to the

throat of the heinous invader. When at musketry the lad who had left the mill, the plough, or the factory, and who had and was perhaps then a member of a rifle club, sprang, as it were, out of the common rut and took the lead, thus giving conclusive evidence that his training was accelerated by previous experience, even if it were of a moderate or indifferent character. So it was with the men of the Derby groups who had to be more expeditiously trained. When the great tragedy which is now being enacted in the various theatres is finished and the curtain has descended we shall—those that survive the ravages of war—look back upon what we accomplished. Many will have added prestige and glory to the Empire's history; they will deserve all the lustre that environs them. Some will have amassed a wealth of respect, owing to the good work they accomplished when the nation had its "back against the wall," so to speak. The rifle club movement at its birth was subject to rather adverse criticism from folk particularly ignorant of its underlying principles because, to gather members and encourage them to shoot, it emphasized the attractiveness and fascination of the sporting side of shooting. But its critics were powerless to stem the tide of public opinion when, soon after the outbreak of hostilities, the War Office urgently called for their support, which was readily granted in various ways.

Having made good, you have to carry on. Some 500 miles separate me and my club, but I am consoled by the fact that it is striving to respond to the call. Lads of 18 summers are coming in their thousands to the various training areas. The student and the apprentice rub shoulders in their eagerness to fulfil a man's part in the great struggle. Category Aiv, lads they are called. But what's in a name? It is the material that is in demand, and this is just to our liking. There is now no need for that desire of preliminary experience which may be suggested. There is greater need, however. The field of training has broadened tremendously. The subjects have increased by multiples. Rifle clubs, you have made good; now an opportunity is presented to clinch your success. Your financial burdens are almost overwhelming you, but you must, in the dialect of the trenches, "stick it and carry on." Rope in the lads before they reach the age when the mother nation claims them—which may be dropped at any moment should necessity demand it. Do not worry about elaborate schemes; any old stunt will do so long as determination and control are emphasized. Do not worry about the difficulties of teaching aiming with open sights. I have 1,400 rifles of the latest pattern for the lads, each being fitted with three aperture sights, one for short range, one for long distance, and a battle sight. It is up to you now to "Carry on."—*The Rifle.*



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CAVALRY TO MAN BIG GUNS

That the dashing cavalry charge has no place in the warfare of the present has been further emphasized by the determination of the War Department to utilize this branch of the service as field artillery units. Such of the cavalry as are used in this connection during the present emergency, however, will not lose identity as cavalry and will revert to this branch of the service at the end of the war.

The Secretary of War, acting upon recommendations from the General Staff, has already ordered a provisional organization of cavalry regiments as field artillery, in accordance with the following recommendation of Brig. Gen. Joseph E. Kuhn, Chief of the War College Division:

"The Regular Army field artillery available (18 regiments) is sufficient only for six regular divisions. This leaves a large surplus of infantry, out of which additional divisions could be formed if artillery therefor can be formed. As United States cavalry, as such, is not to be used in Europe at present, that arm affords a means for obtaining additional field artillery. As cavalry horses and saddles have not yet been fully supplied to new cavalry regiments, the War College Division deems it wise to suspend further issues to them and to commence training with a view to conversion into field artillery. This will involve eight regiments, enough for two divisions and two regiments over, which can be assigned to the National Guard, which also lacks artillery. Pending issue of artillery material and until plans for training the new regiments are matured, these regiments should be trained, as far as practicable, for service as field artillery."

BRITISH SMOKELESS POWDER

From Arms and Explosives

TO DEAL with smokeless powders in strictly chronological order would appear at first sight to be the best method of giving a narrative of their development. But such a form of treatment would involve so much transference of attention from one company to another that the prime object of combining brevity and clearness would be missed. So many companies devoted their attention to particular types of powder, that the final form of each may be said to have been evolved from diverse and widely distributed efforts. Better then, than to trace the growth of each type of powder, will be to state briefly the more noteworthy contributions of the principal firms who have taken a hand in realizing long-awaited developments. As far as possible the firms or companies concerned will be dealt with in the order in which they first identified themselves with the task in question. Great Britain has been in many ways the cradle of the smokeless powder industry. The addition of its wealthy classes to sport with the gun, the ingenuity of our gunmakers and the epoch-making experiments conducted by our contemporary, the *Field*, during the period of transition—all these forces were combined to stimulate activity of sporting powder makers. Rifle powders came second, and were built up on the experience so gained.

Before proceeding to deal with individual samples of smokeless shot-gun powder certain particulars must be given with regard to the principle adopted for their classification. Sporting powders are primarily based on the standard 12-bore paper cartridge of $2\frac{1}{2}$ inches nominal length. The standard black powder charge was three-sixteenths of an ounce, commonly spoken of as three drams, or, by the older spelling, drachms. The volume of this charge is known as three drams by measure. A bulk smokeless powder is thus one of which the 12-bore charge occupies three drams bulk. Actually, the similarity of measure is only approximate.

Originally, a 12-bore cartridge was the strict $2\frac{1}{2}$ inches in length when empty, and it contained three drams of black powder together with 1 ounce of shot and the necessary wadding. A sufficient unfilled length of case then stood clear to form the turnover. Experience in the loading of sporting cartridges led to an increase in the amount of wadding between powder and shot. The accommodation then proving insufficient, the length of case was increased by a sixteenth of an inch, and this excess, though no longer necessary, prevails to-day in the form of a standard maximum length of 2.56 inches. Black powder, consisting as it does of highly polished grains formed from compressed cake, is incompressible. It assumes its minimum grav-

imetric density after a very slight amount of shaking, but mere compression has very little effect. A charge of smokeless powder when poured into a receptacle as a rule occupies less space than the equivalent in black, and its density is materially increased by the compression applied in ramming the wads. Firm compression is necessary to ensure such a tightness of packing as will prevent movement of the contents of the case in subsequent handling, and, particularly, railway transit. The object of imparting bulk to sporting powders is thus to enable them to support, by their own resistance, the various components of the load, which are inserted on top of the powder.

The number of grains of powder which represent the equivalent for three drams of black thus denotes the class to which a powder belongs. The original standard charge was 42 grains, the most prevalent to-day being 33 grains. There are also 38-, 36- and 30-grain powders, all observing the conventional bulk. Thus, a 33-grain bulk powder is not only one of which the standard 12-bore charge is 33 grains, but the charge also fills the allotted space. Powders, as already stated, may be either fibrous or colloidal. Fibrous sporting powders practically all belong to the bulked class, but colloidal or gelatinized powders may belong either to the bulk or condensed class. Bulk colloidal powders are either rendered porous or their bulk is increased by giving them an irregular shape. Condensed or dense powders possess only the bulk natural to the amount of substance they represent. Thus, we have:—

<i>Fibrous</i>	42-grain powders, such as	Schultz.
	33 " " " " "	E.C., No. 3
<i>Gelatinized</i>	33 " " " " "	Smokeless
	" 25 " dense powders "	Diamond Ballistite

A dense powder does not occupy the commonly allotted space in the cartridge. Hence the unused space must either be filled by forming the case with an interior cone, or by supplying it with a false lining capable of supporting the wads independently of the powder. Having made clear sundry points necessary for the proper understanding of the descriptions due to follow, the account of individual company's contributions to the development of smokeless powders will now be given:—

The Schultze Gunpowder Co., Ltd.—This company was formed in the year 1868, and the first powder it issued was the one described in patent No. 900 (1864), taken out by Captain Edward Schultze. The sawdust used at first was later replaced by cellulose obtained from woody matter, the method of extraction supplying the alternative descriptions, soda pulp and sulphite pulp. The base so used imparted for the first time the whitish tint to the granules of powder

which is still characteristic. Even up to the present day the products of this company are distinct from those of other manufacturers from the circumstance that wood is the base of the nitrocellulose used. Nitrocellulose so derived is frequently termed nitrolignin, so emphasizing the distinction between this substance and that formed from cotton waste. The following table gives comparative particulars of the composition of the various shot-gun powders made by this company:

Schultze Shot-Gun Powders

NAME. DATE INTRODUCED CLASS.	Sawdust, 1869, Fib. 42 Bulk.	Schultze 1883, Fib. 42 Bulk.	Imperial, 1902, Fib. 33 Bulk.	Cube, 1908, Gel. 30 Bulk.	Lightning, 1913, Fib. 33 Bulk.
<i>Nitrocellulose:</i>					
<i>Insoluble</i>	64.8	25.0	63.7	62.1	55.0
<i>Soluble</i>		40.0	18.9	27.0	27.0
<i>Metallic Nitrates</i>	33.0	29.0	8.0	5.0	11.2
<i>Vaseline</i>	—	4.0	7.8	4.0	5.0
<i>Moisture</i>	2.2	2.0	1.6	1.9	1.8

The analyses given above and to be supplied later refer either to actual determinations or to published figures. In some instances the details may refer to samples examined many years ago, and thus may not represent present-day practice with regard to living powders. The barium and potassium nitrates have been grouped together under the heading, metallic nitrates. As a rule the potassium nitrate forms about one-eighth of the aggregate. In a few instances barium nitrate only is used.

The New Explosives Co., Ltd.—This company's factory, situated at Stowmarket and erected in the year 1861, was the scene of Sir F. Abel's endeavors to develop guncotton and the sundry applications of the substance. Very naturally, there were from the start many proposals to utilize guncotton as the base of a smokeless powder. Thus, a patent granted to Prentice, No. 953 (1866), was for mixing unnitrated cellulose with guncotton and making it into a kind of paper which was rolled up and put into a shot-gun cartridge. About 30 grains of such paper made an appropriate charge for a 12-bore cartridge. Later on granulated mixtures of nitrocellulose with metallic nitrates coated with paraffin were developed. These finally took the form of E.C. powder, which was manufactured in Stowmarket about the year 1882. The letters E.C. formed the initials of the company's name at the time in question. A separate company known as the "E.C." Powder Co., Ltd., was in due course formed to take over the manufacture of this powder. Some twenty years later, viz., in 1906, the New Explosives Company, as its name had then become, resumed the manufacture of smokeless powders, and this company is now responsible for many well-known products.

(To be concluded)

Off Hand From the Clubs

A Few Comments On the New Courses

ENTHUSIASTIC responses from rifle clubs continue to indicate that the proposed small-bore outdoor qualification course and the suggested pistol course will become unquestionably popular with the civilian shooters of the country.

One thing, however, should be understood. Both of these courses as yet are tentative. Either or both will probably be changed to a greater or less degree before receiving the sanction of the N. R. A., although the small-bore course will perhaps be subject to less change than the pistol course.

A great many inquiries are being received concerning the proposed courses, and it might be well to clear up certain points as the try-out progresses.

In the first place, concerning the pistol course, there are two matters upon which light seems to be needed. The first is in connection with the .38-calibre military full-charge revolver. As published, this course called for 10 shots in 10 minutes, and two 5-shot strings, 20 seconds for each string, at 50 yards. The qualification figures were fixed at 70 or better for marksman, 80 or better for sharpshooter, and 85 or better for expert, under the timed fire; and 60 or better for marksman, 70 or better for sharpshooter, and 80 or better for expert under the rapid fire. Some misunderstanding seems to be present in the minds of several who have corresponded concerning qualification under this course. In reply to their questions about the scoring, it is possible to make 100 at timed fire, and 100 at rapid fire, a total possible under the course of 200. Therefore a marksman qualification would be 70 or better, timed fire, plus 60 or better rapid fire, or a total of 130 out of 200, and so on through the different ratings.

Another inquirer sought information on the point whether the N. R. A. contemplated requiring the prescribed score under all the courses for a single qualification. That is not the intention. The prescribed score under any course qualifies the shooter under that course.

The attention of ARMS AND THE MAN has also been called to the fact that an error was present in the proposed hand-gun course as published. The Colt Automatic course was prescribed for the .22-calibre automatic instead of the army .45-calibre weapon.

C. C. Crossman, President of the U. S. R. A., is among those in favor of the adoption by the N. R. A. of a pistol and revolver qualification course. He says:

"I note from ARMS AND THE MAN a possibility of the N. R. A. adopting a qualification course for pistol and revolver. This is good news and I hope it will be put on at an early date. Do not know who suggested the course, but I think it will be necessary to make a number of changes before its final adoption.

"In the first place, the scores are too high. While it is possible for any ordinary rifleman to make the rifle qualifications, there are very few men who could qualify with the pistol under the conditions named. Another thing, conditions governing timed fire are not clear.

"I will try to get out to the range and do some experimenting, and may suggest some changes in the proposed course."

Major S. J. Fort, one of the vice-presidents of the U. S. R. A., in a recent editorial in *The American Shooter*, had these comments to make on the proposed pistol course:

"Civilians not members of a militia organization have had little opportunity to qualify with the military revolver or its successor, the automatic .45, in the same sense that citizen soldiers perform this part of their military training; therefore, any plan offering a course of this nature with a reward of a decoration ought to prove a successful innovation.

"Headquarters of the National Rifle Association is considering the addition of such a course to that already proposed for the small-bore rifle, and so long as the shooting is confined to military models of revolvers or automatic pistols there seems to be no adequate reason why this should not be done.

"The United States Revolver Association was organized for and has been associated with a maintenance of interest in hand-gun shooting entirely from a competitive standpoint, and through this influence has done much to make hand-gun shooting a recognized sport, incidentally serving to make military revolver and pistol practice a greater success with the militia, and extending this interest to the regular service; no attempt has been made to break into the game as a rival of the required military qualification courses.

"The National Rifle Association, on the other hand, has endeavored to foster military rifle shooting, and except for its recognition of the small-bore rifle and competitions in which this model of weapon was used, has consistently stuck to the one idea, *i. e.*, making as many expert military rifle shots as possible.

"If, then, the proposed hand-gun courses are confined strictly to military hand guns, there seems to be no reason to criticize the suggestion.

"At the same time, the difficulty of obtaining the .45 pistol offers a serious objection to the success of the course, even though there remains the .38 military revolver, and there are few expert pistol shots without a sample of this weapon in their possession.

"A qualification with the single-shot pistol means nothing. It is a weapon made and provided for one purpose—target shooting—and should never be admitted on a level or considered in any way in comparison with military hand guns, any more than a target-sighted revolver should be used to make a military revolver qualification.

"Under these considerations it would seem that the N. R. A. is not trenching upon the U. S. R. A., and by adding such a course would increase interest among many riflemen who are not devotees of the hand gun.

"Utilizing the standard American target for the proposed course would also have a strong influence in doing away with the hybrid affair now used for army-pistol qualifications, which should never have been adopted. The standard American target has been criticized by army boards as belonging strictly to target shooting without just consideration of its good qualities for developing expert shots with a military revolver or pistol and taking in its place a target with a five-inch bull's-eye and giving it a count of 10, arguing that its size was a fairer criterion of skill to hit, but forgetting that its reduced size made it much more difficult to see and hold on with crude sights than an eight-inch bull's-eye would have been, thus penalizing both gun and shooter if the distances required went beyond 25 yards."

Sighting Shots

On Saturday, July 28th, the new rifle range at the Great Lakes Naval Training Station was formally opened and Captain Moffett, commandant, invited every member of the N. R. A. or an affiliated club residing in or near Chicago to attend as his guest and shoot the marksman course of the modified navy course, firers being furnished ammunition and Springfield rifles without charge, as well as the services of navy coaches, scorers, etc. Ammunition was even supplied for those who own Kraggs and preferred to use them.

The writer was among the many who accepted this kind invitation and feels that we riflemen owe the captain a vote of thanks. No doubt he reads our journal, and this means is taken of letting him know that at least one of us appreciated it. Undoubtedly all the others feel the same.

While the range was to close at 5 p. m., there were so many of us on hand that firing was still in full swing after that time. The range is very fine, and the service in the butts, of the coaches, scorers, etc., was excellent.

It was a great gathering of local "rifle cranks" and many pleasant meetings between fellow "bugs" took place, and many new acquaintances were made. We were, in fact, one great brotherhood, all with a common purpose and a common interest.

In spite of the intense heat which prevailed, it may be safely said that every one of us had a good time and many received valuable hints from the coaches. R. BUETTNER.

The Seneca Rifle Club, of Ossining, N. Y., has been organized, with the following officers: President, Thomas A. E. Wilson; secretary, William D. Knight; treasurer, F. E. Smith; shooting master, A. L. Smith.

The club will have three ranges—100 yard, 50 yard and 25 yards, to be located on the A. L. Smith place on upper Hawkes Avenue.

A meeting will be called at an early date to afford all who wish to join an opportunity to do so.

The training camp at Syracuse, N. Y., is to have a rifle range which will cost approximately \$75,000.

The range proposed is to be one of the largest in the country and will permit an entire infantry brigade to conduct rifle practice at one time. The ranges provided will be 200, 300, 500, 600, 800 and 1,000 yards, fifty-four targets to each short range and fifteen for each long range. Through the chamber of commerce, efforts are now being made to secure the necessary land for the range.

Thirty-five women practice rifle shooting an hour each day at the Iowa State University, under the guidance of Mrs. Jacob Maier, wife of Sergeant Maier, a member of the military instructional staff. There is even a possibility, it is said, that drilling will be begun by the women next fall with Mrs. Maier as instructor. Mrs. Maier became a crack shot with the pistol and rifle when her husband was stationed in the Philippine Islands and it was necessary for her to carry a gun at all times for safety. She has also absorbed the principles of drilling by being in close touch with the military life for many years and reli-



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The Mountain View, California, Rifle Club, whose members have become enthusiastic over the outdoor small-bore qualification course, are planning to try out the pistol course suggested for the N. R. A. members. Winfield S. Maxwell, who was interested enough in the club to supply that organization with small-bore rifles, is planning to equip the club with pistols.

The Birmingham Athletic Club Rifle and Revolver Association team has gone into the small-bore outdoor match with an idea of making good. One of the members writes: "Proofs of our unavailing efforts at the first match of the outdoor series have been forwarded to the powers that be under separate cover. We have had every condition except good ones to contend with. The targets were late in reaching us, which threw us behind in getting our first match shot. Then the heavens opened every day since—not to let the golden sunbeams play on us, but to let old Pluvius have an outing. And the old boy had it. He sprinkled and poured water all week with utter disregard for everything—and Sunday just let a whole cloud down on the range bodily. We wallowed around in the mud and swam around in the grass, but we shot just the same, during intervals when said Pluvius was resting a bit.

"The fellows are tickled with the course. Birmingham did not shoot in last year's matches, and our last work was done on the old course—fifty and one hundred yards. The sitting position, as usual, gets most of the pill-flippers' nannies.

"Major Robert V. Mabry, the Winchester representative, who was to shoot on our team, was called to the army before we got to fire a match. Several other of the boys are going in a few days, which will seriously cripple our team. In fact, about all we'll have left will be cripples or married men, which, of course, isn't any reflection on either the married men or the cripples.

"All the boys saw visions of 90 per cent medals, but after the first match, some of their visions are not so rosy after all. T. K. Lee and Shelnutt used telescope sights—others used iron. T. K. has to sit a yard further back than the rest of the bunch—he has a long, hungry-looking Savage rifle whose barrel is several inches (Flinn says feet) longer than his leg—and his leg is awfully long. The present intention of the whole team is to use repeaters, as a good repeater with proper sights and sling strap is capable of the possible easy enough on the target used, and the increased time to aim at the rapid-fire stunt proves valuable to most of us."

Of the outdoor series, F. W. Jefferson, secretary of the Warren, Pennsylvania, Rifle Club says:

"After much hard work and many discouragements the first match in the outdoor league has passed into history. The secretary feels very much gratified, not at the scores, but at the enthusiasm shown. Visitors outnumbered members two to one and three of them joined the club on the spot and started in to shoot in the matches. The scores made were low, as some of them had not shot much before,

but as we had enough official targets we decided to allow the beginners to shoot a score. Some of the new men are very promising and we hope will develop into good shots."

INQUIRIES OF GENERAL INTEREST

In this column will appear excerpts from requests for information and for official interpretations, made to the National Rifle Association, the replies to which may be of a generally informative nature.

Q. In the light of the embargo placed upon the free issue of ammunition, is there any reason why a club having a surplus of last year's issue on hand should not allot it among the members for this year's shooting?

A. There would seem to be no reason why this should not be done. The embargo was placed upon the 1917 issue after the date the suspension became effective, and does not retroact upon last year's allotment.

Q. What restrictions are placed on rifles and sights in shooting the outdoor small-bore qualification course tentatively adopted by the N. R. A.

A. Practically no restrictions have been placed on the arm; any rifle and any sight may be used provided the rifle does not weigh more than 10 pounds and the trigger pull is not less than 3 pounds.

Q. We understand that members had until July 1, 1917, to shoot the free issue of ammunition for 1916. What disposition is to be made of ammunition issued to a member not used by him in 1916 when said member does not continue his membership in 1917?

A. The ammunition, under such conditions, should be retained by the club, against whom it is charged, and either held to be accounted for as "unexpected" or expended by bona fide members who desire to qualify.

Q. Some people say that a Maxim Silencer will not make a .38 Special either in a revolver or rifle silent so that a person can not hear the shot ten yards away, some say that you can not hear it. I have a .38 Special revolver for target shooting with a 6 inch barrel. I was in a dealer's store and asked them about the silencer and they say that the report of the gun can be heard as far as 300 yards away. If this is true I don't feel like spending the money for a silencer. Therefore I am writing to you for the truth. Please let me hear from you soon as I want to go on my vacation.

A. A silencer will not give silent shooting with a revolver because of the short barrel and the fact that there is an opening between the cylinder and the barrel. Even if the silencer would give the result you desire, I would advise against it, because the added weight on the muzzle of your weapon would spoil its balance entirely.

Q. Is the take-down style of high power rifle satisfactory? What I mean is does

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the take-down have a bad effect on the accuracy?

A. If you get a well made rifle, you will find that the take-down has no bad effect and it is a decided advantage in making the rifle easier to carry.

Q. If a rifle is sighted correctly for shooting on the level, where should one hold in shooting at squirrels in the tops of trees, when standing directly beneath the tree?

A. The hold should be slightly under the object aimed at when shooting from such a position, since the effect of gravity on a bullet shot nearly vertically is not as great in pulling it away from the line of sight as it is when the shot is horizontal.

Q. I read occasionally of wonderful scores made with heavy muzzle loading rifles which are fitted with telescopes and set triggers. Are they like the old fashioned cap and ball muzzle loaders? I always thought that muzzle loaders were not as accurate as the modern breech loading rifles.

A. The muzzle loading rifles to which you refer are very accurate and they are not at all like the original muzzle loaders. The present day muzzle loading rifle is a development of the Schuetzen rifle game where no restrictions at all were placed on the rifle or its ammunition. The modern muzzle loading rifle is made with a false muzzle which is rifled and which fits in exactly the right position on the muzzle of the barrel. In this way the bullet is inserted base first into the rifling and the powder is placed in the usual brass cartridge from the breech. A very fine Schuetzen rifle when in the pink of condition, will give groups as small as one inch to one and one-half inches at two hundred yards. Such a rifle is, of course, utterly useless for any other purpose than deliberate target shooting.

Q. We have had quite an argument as to the right rifle for woodchuck hunting. I think that one which will shoot the .22 long rifle cartridge is powerful enough, but my friend says that the .32-40 is better. It seems to me if I hit the woodchuck in the right place a .22 long rifle bullet will kill it instantly and a more powerful cartridge couldn't kill any better.

A. As a sporting proposition, the .22 long rifle cartridge would require more skill to produce results in woodchuck hunting than a heavier cartridge because it would be necessary to land the bullet in the right place so as to cause its death. If you can do this every time, you will certainly get just as many woodchucks as will the man with the .32-40 or any more powerful cartridge.

With the Small-Bore Outdoor League

THE nearest approach to a "possible" made so far in the three matches of the small-bore outdoor league was registered during the third week's shooting by "Tackhole" Lee, of the Birmingham outfit. Lee's total for the week is 198. Good scores were also registered by C. H. Kessler, of the Des Moines, Iowa, Kiowa Club, who hung up 194; Emil Teich, of the Milwaukee Rifle and Pistol Club, and O. M. Schriver and W. R. Stokes, both of the Washington, D. C., Club, each of whom scored 192; G. L. Wotkyns, of Los Angeles; N. C. Nash, of the Massachusetts Rifle Association, and Capt. Frank Flinn, of the Birmingham, Ala., aggregation, all of whom reached the 190 mark, and by Fines, of the Kiowa outfit, who made 191.

The high individual score, however, was not included in the high weekly team score, the Milwaukee Rifle and Pistol Club having put across the most consistent work, on a score of 941, with the Kiowa Club second and the Massachusetts Rifle Association third.

In the aggregate for the three weeks of shooting, the Massachusetts Rifle Association team still leads on a total of 2,777 out of 3,000. The Brooklyn, New York, Rifle Club has moved up into second place on a score of 2,764, displacing the Birmingham, Alabama, outfit, which goes into third place.

The results of the third week's shooting are:

1. *Milwaukee, Wis., R. & P. Club:* Emil Teich, 192; N. E. Dahm, 189; H. W. Mansfield, 189; F. M. Teich, 187; Lawrence Teich, 184. Club total, 941.

2. *Kiowa Shooting Club, Des Moines, Iowa:* C. H. Kessler, 194; Fines, 191; W. E. Kessler, 189; B. G. Simmes, 188; Berry, 186. Club total, 938.

3. *Massachusetts Rifle Association, Boston, Mass.:* N. C. Nash, 190; O. C. Serrish, 189; L. H. M. Aleer, 188; H. Marshall, 181; A. Neidner, 179. Club total, 927.

4. *Brooklyn, N. Y., Rifle Club:* L. J. Miller, 188; Paul F. Lahm, 186; L. J. Corsa, 186; H. Otto, 184; W. Coffin, 182. Club total, 926.

5. *Washington, D. C., Rifle Club:* O. M. Schriver, 192; W. R. Stokes, 192; C. H. Himmler, 182; J. H. Robertson, 181; G. B. Cornwell, 178. Club total, 925.

6. *Los Angeles, Cal., R. & R. Club:* G. L. Wotkyns, 190; E. D. Neff, 189; F. C. Payne, 187; L. Felsenthal, 184; Tom Jordon, 166. Club total, 916.

7. *Birmingham, Ala., Athletic Club R. & R. Assn.:* T. K. Lee, 198; Capt. Frank Flinn, 190; Malven Jones, 189; A. F. DeFuniak, 186; E. D. Lee, 150. Club total, 913.

8. *Toledo, Ohio, R. & P. Club:* H. S. Crawford, 184; Bruce Aironi, 183; Henry Yunker, 180; R. W. Roberts, 180; H. G. Affleck, 179. Club total, 906.

9. *Manhattan R. & R. Club, N. Y. City:* Alfred H. Seeley, 188; David J. Gould, Jr., 188; H. M. Pope, 186; K. H. Fichtner, 172; J. C. Couzens, 166. Club total, 900.

10. *Jacksonville, Fla., Rifle Club:* G. W. Gray, 183; F. E. Brymer, 178; Wm. McMamce, 173; D. B. Vincent, 171; A. H. St. Johns, 165. Club total, 870.

11. *Norwalk Rifle Club, S. Norwalk, Conn.:*

A. N. Clark, 175; J. D. Milne, 173; Ed. N. Dart, 172; Wm. Pfeifer, 164; W. E. Mathews, 162. Club total, 846.

12. *Cazenovia, N. Y., Rifle Club:* Geo. L. Woodworth, 180; L. D. Hutchinson, 172; C. F. Huttleston, 169; S. M. Thomas, 165; H. C. Thorne, 160. Club total, 846.

13. *California R. C. R. & P. Club, San Francisco, Cal.:* Paul Thelen, 171; J. F. Beaman, 171; F. A. Daugherty, 171; R. M. Vaughan, 168; H. Schmidt, 163. Club total, 844.

14. *Scott, Ark., Rifle Club:* Jas. K. Thibault, 176; R. L. Pemberton, 176; Henry Thibault, 171; Walter Alexander, 164; H. O. Brown, 152. Club total, 839.

15. *Pentwater, Mich., Rifle Club:* J. B. Hendrick, 178; P. N. Lagesen, 170; E. B. Clark, 169; F. W. Finchugh, 160; Fred W. Cramer, 158. Club total, 835.

16. *Warren, Penna., Rifle & Rev. Club:* J. A. Clark, 189; F. A. Keller, 173; F. W. Jefferson, 166; F. P. Lauffer, 157; J. G. Smallman, 149. Club total, 834.

17. *Community Rifle Club, Sherril, N. Y.:* G. Burlingam, 181; P. Flick, 166; J. Amacker, 163; W. Chesboro, 161; L. Lee, 153. Club total, 824.

18. *Franklin, Pa., Rifle Club:* Chas. S. Boswell, 175; C. M. Campbell, 169; W. W. Mackey, 166; F. E. Cathers, 166; J. H. Gilliland, 147. Club total, 823.

19. *Citizens R. & R. Club, Rochester, N. Y.:* C. B. Spencer, 173; A. G. Johnson, 167; G. S. Serale, 159; W. W. Lewis, 159; F. C. Sherman, 156. Club total, 814.

20. *Niskayuna Rifle Club, Schenectady, N. Y.:* Harry Cregier, 174; H. O. Sattes, 166; C. S. Dick, 161; F. T. Marks, 154; John Crawford, 149. Club total, 804.

21. *New Bedford, Mass., Rifle Club:* G. Breault, 167; A. Aubut, 160; Jos. Blouin, 159; A. Clontier, 158; L. Deojardins, 155. Club total, 799.

22. *Canton, Ohio, R. & P. Club:* A. E. Hart, 180; A. N. Scott, 164; C. J. Foetz, 164; Brant, 148; W. K. Perdue, 141. Club total, 797.

23. *St. Johnsbury, Vt., Rifle Club:* O. E. Clark, 176; C. L. Stanley, 160; John Tann, 152; C. E. Merrill, 146; W. W. Barrett, 141. Club total, 775.

24. *Hoosier Rifle Club, Indianapolis, Ind.:* R. F. Haddath, 176; W. A. Walker, 176; W. F. Baker, 162; W. Marley, 147; F. Brown, 106. Club total, 767.

25. *Chicago, Ill., Rifle Club:* F. B. Roziene, 162; John Turner, 162; John S. Grimes, 156; J. Howard, 144; H. Walbaum, 143. Club total, 767.

26. *Greater Omaha, Nebr., R. & R. Club:* W. B. Riley, 175; C. G. Riley, 168; N. C. Nielson, 153; C. L. Mather, 137; M. O. Boydston, 133. Club total, 766.

27. *Hydraulic Rifle Club, E. Cleveland, Ohio:* E. Ginber, 171; J. M. Singe, 164; Fred

Ginber, 164; J. Patterson, 139; M. B. Nock, 121. Club total, 759.

28. *Middleborough Rifle Club, Middleboro, Mass.:* S. L. Brett, 169; A. E. Jinney, 165; Henry L. Pember, 160; R. G. Bowen, 140; R. P. Jenks, 123. Club total, 757.

29. *Antioch, Ill., Rifle Club:* H. Williams, 159; B. Worman, 159; N. E. Proctor, 152; Ed Garret, 140; Geo. Olcott, 139. Club total, 749.

30. *Ontario, Cal., Rifle Club:* C. H. Card, 157; H. E. Strunk, 149; E. Petch, 145; C. T. Casler, 143; F. H. Wallihan, 141. Club total, 735.

31. *Canyon City, Ore., Rifle Club:* C. O. Guemsey, 150; Denver Leedy, 146; C. G. Guemsey, 144; J. M. Blank, 143; W. C. Mason, 140. Club total, 723.

32. *Olig Rifle Club, Reward, Cal.:* C. M. Small, 167; S. J. Burris, 149; B. F. Mattison, 142; A. C. Dambacher, 134; W. D. McNairn, 115. Club total, 707.

33. *Gen. Phil Kearny Rifle Club, Kearny, N. J.:* John Crook, 148; Van Houten, 141; John Roche, 137; Samuel Marshall, 135; John Lang, 113. Club total, 674.

34. *Kenosha, Wis., Rifle Club:* D. Ripley, 168; H. J. Mellum, 147; Harold Hart, 132; C. A. Stuart, 126; A. Tuiglen, 95. Club total, 668.

35. *Patchogue, N. Y., Rifle Club:* F. P. Johnson, 145; R. B. Ackerly, 141; James H. McKnight, 137; Chas. C. Cave, Jr., 124; H. L. Rieth, 116. Club total, 663.

36. *Rochester, Minn., Rifle Club:* Louis B. Wilson, 168; Geo. Morrison, 167; S. Robinson, 163; E. L. Irish, 150. Club total, 648.

37. *Malta, Mont., Rifle Club:* J. R. Crabb, 135; J. R. Riper, 134; R. H. Frank, 129; J. L. Patton, 124; H. C. Plott, 121. Club total, 647.

38. *Joliet, Ill., Rifle Club:* Leo J. Deiss, 186; C. McKee, 175; H. D. Grose, 172; F. M. Barber, 112. Club total, 645.

39. *Wilsall, Mont., Rifle Club:* R. A. Cook, 146; W. R. Vinacke, 140; C. C. Denton, 123; C. E. Gilbert, 121; V. F. Guinzy, 112. Club total, 642.

40. *Massena, N. Y., R. & P. Club:* F. L. Roth, 158; F. H. Actis, 150; H. M. Hall, 115; G. O. Connor, 110; A. E. Johnston, 107. Club total, 640.

41. *Holbrook, Arizona, Rifle Club:* C. P. Cooley, 137; Wm. Lee, Jr., 123; J. Woods, 115; D. Y. Oyon, 103; F. H. Howard, 103. Club total, 581.

NOTE:—Several team scores arrived too late for classification.

The aggregate standing at the close of the third week is:

Massachusetts Rifle Ass'n, Boston, Mass.	2777
Brooklyn, N. Y., Rifle Club	2764
Birmingham, Ala., Athletic Club R. & R. Ass'n	2763
Milwaukee, Wis., R. & P. Club	2761
Washington, D. C., Rifle Club	2756
Kiowa Shooting Club, Des Moines, Iowa	2746
Manhattan R. & R. Club, New York City	2674
Toledo, Ohio, R. & P. Club	2604
Jacksonville, Fla., Rifle Club	2555
Scott, Ark., Rifle Club	2538
Franklin, Pa., Rifle Club	2527
Cazinovia, N. Y., Rifle Club	2524
Norwalk Rifle Club, So. Norwalk, Conn.	2519

Cal. Railroad Com. R. & P. Club, San Francisco, Cal.	2502
Canton, Ohio, R. & P. Club.....	2491
Pentwater, Mich., Rifle Club.....	2491
Community Rifle Club, Sherrill, N. Y....	2430
Olig Rifle Club, Reward, Cal.....	2465
Citizens R. & R. Club, Rochester, N. Y.	2429
Los Angeles, Cal., R. & R. Club.....	2392
Hoosier Rifle Club, Indianapolis, Ind....	2390
Warren, Pa., R. & R. Club.....	2370
Greater Omaha, Nebr., R. & R. Club....	2352
New Bedford, Mass., Rifle Club.....	2368
Niskayuna Rifle Club, Schenectady, N.Y.	2301
Antioch, Ill., Rifle Club.....	2295
Hydraulic Rifle Club, E. Cleveland, Ohio	2282
Middleborough Rifle Club, Middleboro, Mass.....	2266
Ontario, Cal., Rifle Club.....	2261
St. Johnsbury, Vt., Rifle Club.....	2253
Joliet, Ill., Rifle Club.....	2134
Rochester, Minn., Rifle Club.....	2028
Holbrook, Arizona, Rifle Club.....	1923
Wilsall, Mont., Rifle Club.....	1911
Massena, N. Y., R. & P. Club.....	1856
Canyon City, Ore., Rifle Club.....	1855
Chicago, Ill., Rifle Club.....	1831
Patchogue, N. Y., Rifle Club.....	1754
Kenosha, Wis., Rifle Club.....	1751
Malta, Mont., Rifle Club.....	1694
Gen. Phil Kearney Rifle Club, Kearney, N. J.	1414

THIRD MATCH MISSING

Denver City Rifle Club, Denver, Colorado	1650
St. Louis, Mo., Colonial Rev. Club.....	1745
Akron, Ohio, Rifle Association.....	1533
Ashburnham, Mass., Rifle Club.....	1733
Highland, Cal., Rifle Club.....	1427

SECOND AND THIRD MATCHES MISSING

Hopkins, Minn., Rifle Club.....	865
Litchfield, Conn., Rifle Club.....	491

NO MATCHES REPORTED

Saranac Lake, N. Y., Rifle Club.	
Mt. Olive Rifle Club, Reedley, Colo.	
National Rifle Club, Newark, N. J.	
Long Beach Rifle Club, Cal.	

RICOCHETS

The announcement of the qualification course for rifle clubs, to be shot with .22-calibre rifles on reduced military targets, certainly interested the members of the Hopedale, Massachusetts, Rifle Club at least, as it looked like the solution of our difficulties.

As we have been unable to obtain either Krag, Springfield, or the ammunition for them, due to the lateness of our formation, interest had lagged and our club was in danger of failure when the notice came of the new course.

No one will dispute nowadays the value of the .22 rifle as a teacher of proper shooting, but neither will they dispute that there is considerable satisfaction in handling a rifle which lets out a satisfying "whang" and makes its presence felt by snuggling back against one's shoulder in a friendly way. In fact, the big rifle interests more men than the .22 ever can.

However, if you can't have the big gun, we believe the time is well spent with the .22, and we intend to try and use it to make our club better able to do good work with the army rifle when we finally get it.

Needless to say, we were making sample targets for the new .22 course less than an hour after the July 7th issue of the ARMS AND THE MAN arrived.

The usual delays made a real test of the course impossible until the 21st, when everything was ready.

One-half of the pleasure of military shooting seems to come to most of the members when the regular thing in targets, spotters, and the other paraphernalia is on hand, so we fixed up a sliding target carrier for the new targets and installed them in the 300-yard butt. From this butt we measured off the 50, 75, 125, 150 ranges as well as the 200- and 250-yard firing points.

Fortunately, our range is almost flat on the 300-yard range, so that almost perfect conditions for the new course were possible.

On Saturday, the 21st, three members of our club, two with experience in firing through the full-length course, tried the new course. The rifles used were a Winchester musket with Krag rear sight and open front, and a Stevens armory with rear peep and globe front sight.

From our experience the A-4 and B-4 targets are fully as difficult as the regular A and B targets at the longer ranges, the A-4 being a real test for one's holding.

The rapid-fire course is to our minds altogether too easy; however, we found that two minutes was ample time for either 50 or 75 yards with single-loading rifles.

The following are the scores made on the 21st:

<i>Slow fire</i>			
Name	75 yards A-4	125 yards B-4	
L. Wells	40	34	
E. A. Darling.....	41	47	
W. F. Roper.....	42	45	
<i>Rapid fire</i>			
150 yards B-4	50 yards	75 yards D-4	
38	43	38	= 193
39	48	49	= 224
45	46	49	= 227

From these scores Wells qualified as a sharpshooter and Darling and Roper as expert riflemen.

Lack of time made shooting at the 200- and 250-yard ranges impossible, but as we have done some shooting at the 300-yard range with these rifles and made several 40 x 50 and a few 45 x 50, we believe the new targets will be fine at the 200 and 250 distances.

From our limited experience we believe, therefore, that this course, with the exception of the time allowed for rapid fire, is a very interesting and worth-while course. It will certainly be a good thing for clubs who, like our club, cannot shoot any other way.

We have found that unless there is something for members to work for, like a qualification, it is difficult to interest them, so that we hope this course is adopted at least until Krags can be obtained.

THEO. H. SHELDON,
Secretary.

C. A. McCubbin, Secretary of the Redlands, California, Rifle Club, declares that "after waiting patiently for some time and not seeing anything in ARMS AND THE MAN in regard to the return match between his club and the Los Angeles team," he wishes to report that the return match was shot on schedule and that it resulted in defeat for the Los Angeles boys. As a result of the match, high score on all three ranges went with the high total. This match gives one to Los Angeles and one to Redlands, so it is likely that a third match will be staged to determine the winner of the series.

The detailed score of the match, 10 shots slow fire at 3 ranges, shows:

<i>Redlands—</i>				
	300 yds.	500 yds.	600 yds.	Tot.
Moore	45	49	48	142
Crain	44	46	48	138
Jones	43	49	46	138
Park	44	45	43	132
Wittwer	43	45	43	131
Rigby	41	43	39	123
Team total.....				804

<i>Los Angeles—</i>				
Jackson	47	49	44	140
Wotkyns	41	48	46	135
Seifert	45	44	45	134
Thompson	44	44	46	134
Neff	45	46	40	131
Donaldson	42	42	40	124

Team total..... 798

Coming back at E. C. Crossman's account of the first match, McCubbin says:

"I believe a few statements of the facts in regard to the match at Los Angeles would not be 'amiss'! After journeying over the hot sands from Redlands to Los Angeles, the bunch from Redlands sure expected to take home the bacon, but when the teams lined up at the firing point the 'Chuckawallas' took just one look at the Los Angeles team and were scared out of all the possibles that were stored away in their hides. Expecting to see a gentlemanly-looking bunch of rifle experts, they were horrified to see what looked more like a bunch of deep-sea divers, fully equipped with elbow pads, shoulder pads, telescopes, micrometers, big colored eyeglasses, and last, but not least, camphor lamps. And after all that the temperature had to drop several degrees and freeze the poor 'Chuckawallas' out. The match on the Redlands range showed that the Redlands team had gotten over some of their fright and that luck was with them, inasmuch as there was no drop in the temperature. Redlands' team is anxiously looking forward to another match with the same team, but not until after the month of August, as it is even too hot for a 'Chuckawalla' to shoot at present. Members of the Redlands team are equipping themselves with all the necessities, so that they will compare favorably (in looks) with the team from Los Angeles. Owing to the fact that E. C. was not present at the Redlands range when the teams shot, he may try to pull some of that 'St. Louis' stuff and say that the scores were not official, but we have got the dope to show and there was no chance for picture-taking or 'gum-shoeing.'"

Seven marksman qualifications have been reported by the Grand Rapids, Michigan, Rifle Club under the new course. They are:

Harry P. Gray, 168; Carl Armendinger, 179; Ira W. Enos, 185; Ernest H. Williams, 166; Frank Whaler, 168; Martin Donker, 172; Elgin F. Lewis, 186.

The Corvallis, Montana, Rifle Club has reported twelve qualifications under the old course. They are:

Experts—Carl E. Magni, 242; C. M. Barnes, 235; Herman De Young, 240; C. D. Hoblet, 219; Hans De Young, 226; L. D. McCarthy, 222; D. Washburn, 222; L. Christoffersen, 222; Clifton Dale, 216.

Sharpshooter—F. E. Locke, 190.
Marksmen—B. Hamilton, 181; C. R. Thornton, 166.

The Brainerd, Minnesota, Rifle Club has reported nine qualifications under the old course. They are:

Experts—Wm. Nelson, 216; Francis Britton, 212.
Sharpshooters—W. V. Turcotte, 190; Edw. Wicklund, 195; Wm. Wicklund, 200.
Marksmen—Fred Drexler, 172; R. L. Russell, 163; R. A. Stickney, 178; R. J. Tinkelpaugh, 177.

Five marksman qualifications have been reported by the Seligman, Arizona, Rifle Club under the new course. They are:

G. E. Rowen, 156; A. F. Ervin, 162; J. W. Rothwell, 151; O. L. Bailey, 165; J. R. Ashleman, 162.
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Two qualifications have been reported by the Ottumwa, Iowa, Rifle Club under the new course. They are:

- Expert—Dr. W. W. Sellers, 140.
Marksman—Ray D. Utech, 163.

Two qualifications have been reported by the Scott, Arkansas, Rifle Club under the new course.

- Expert—Dr. H. Thibault, 142.
Sharpshooter—W. O. Scott, 175.

Five sharpshooter qualifications have been reported by the Tarpon Springs, Florida, Rifle Club under the new course. They are:

- Harry McCreary, 172; A. E. Allemand, 166; O. C. Hill, 163; L. K. Vinson, 161; J. R. Crellin, 154.

Twelve qualifications have been reported by the Santa Fe, New Mexico, Rifle Club under the old course. They are:

- Experts—Carlos Vierra, 237; H. L. LeDuc, 212.

Sharpshooters—T. H. Parkhurst, 207; W. L. Danbury, 196; O. L. Wood, 194; B. H. Gibbs, 191.

Marksmen—R. P. Fullerton, 188; J. C. McConvery, 179; A. R. Southard, 175; M. L. Burrows, 171; E. C. Hamilton, 161; Frank I. Dorr, 160.

The Mt. Pleasant, Iowa, Rifle Club has reported five qualifications under the new course. They are:

- Experts—Geo. W. Conner, 168; C. E. Hampton, 188; Herman E. Elgar, 162.

Marksmen—E. C. Rogers, 176; C. H. Redden, 154.

Four marksman qualifications have been reported by the Empire City, New York, Rifle and Revolver Club under the new course. They are:

- Daniel Rosch, 169; Lieut. Ralph Eberlin, 172; William Henry Norris, 164; Albert E. Wagner, 179.

Three sharpshooter qualifications have been reported by the Perth Amboy, New Jersey, Rifle Club under the new course. They are:

- A. Boysen, 168; Geo. Peterson, 165; A. Thorstesen, 152.

The Gonzales, Texas, Rifle Club has reported five qualifications under the new course. They are:

- Sharpshooter—Jack Bickley, 159.
Marksmen—Fred Boothe, 153; J. B. Kennard, 171; Dr. W. J. Hildeboard, 163; A. R. Allen, 157.

Seven qualifications have been reported by the Rugby, North Dakota, Rifle Club under the new course. They are:

Sharpshooters—W. C. Wharton, 144; Oscar Blessum, 158; J. M. Torson, 152; Martin Topness, 153.

Marksmen—Henry Albertson, 172; G. D. McClintock, 163; R. E. Wenzel, 174.

The Kingsville, Texas, Rifle Club has reported sixteen qualifications under the new course. They are:

Experts—B. F. Thompson, 155; F. H. Laws, 150; P. Christensen, 155; H. W. Laws, 150.

Sharpshooters—J. B. Wyatt, 165; J. O. Walton, 155; R. J. Kleberg, 153; R. M. Kleburg, 156; C. P. House, 163.

Marksmen—Frank Barnett, 158; Kenny Wagener, 162; R. J. Crabb, 157; E. W. Laws, 167; E. B. Clark, 176; Geo. Turmon, 166; D. R. D. Jones, 164.

The Long Beach, California, Rifle Club has reported seventeen qualifications under the new course. They are:

Expert—S. W. Hall, 166.

Sharpshooters—H. M. Faulke, 174; H. Har-

rington, 172; C. C. Cole, 164; C. M. Krieder, 166; F. W. Vincent, 181; L. G. Bodine, 156; Earl Dougherty, 170; Paul Anderson, 158; John Kelly, 172; Will J. Reed, 158.

Marksmen—H. H. Hylman, 181; S. M. Rand, 162; C. Moist, 183; M. A. Jones, 156; F. H. Bigness, 152; H. S. McNeil, 154.

Nine qualifications have been reported by the Ventura County, California, Rifle Association. They are:

Expert—W. T. Kemper, 216.
Sharpshooters—J. E. Reynolds, 208; Howard Davis, 207; Ivan Bliss, 203; Chas. Mattson, 203; Tom Gould, Jr., 198; A. C. Jones, 197; Chas. Morrison, 197; Geo. Likens, 193.

Nineteen qualifications have been reported by the Bristol, New Hampshire, Rifle Club under the new course. They are:

Sharpshooters—A. W. Moody, 160; J. O. Lovejoy, 152; L. E. Allard, 154; O. L. Fowler, 153; W. H. Harriman, 160; F. M. Robertson, 153; S. Ferguson, 163.

Marksmen—L. A. Moody, 157; W. J. Bartlett, 150; E. L. Coolidge, 153; R. D. Calley, 164; J. W. Dole, 151; S. F. McIntyre, 169; R. A. Eggleston, 167; A. S. Tracy, 178; R. C. Haynes, 164; R. P. Pope, 161; R. C. Mitchell, 153; E. A. Tracy, 168.

The Monrovia, California, Rifle Club has reported fourteen qualifications under the old course. They are:

Experts—C. L. Daniels, 213; J. H. Terry, 213; Frank Painter, 212.

Sharpshooters—Chas. Cramlet, 194; C. W. Corner, 190; Walter Dunn, 198; K. L. Lawrence, 202; W. E. Sergeant, 194.

Marksmen—Geo. L. Baker, 175; E. A. Bovee, 167; Chas. Robbins, 164; Roy W. Sargent, 185; A. A. Seymour, 180; C. W. Root, 162.

Eight qualifications have been reported by the Magdalena, New Mexico, Rifle Club under the new course. They are:

Experts—C. N. Cox, 156; Charles Wrenholm, 160; Harry Mitchell, 162; Paul B. Moore, 141.

Sharpshooters—L. H. Canoll, 154; Simeon Exter, 162.

Marksmen—H. Basil Wales, 154; George Owsley, 173.

The Goffstown, New Hampshire, Rifle Club has reported six qualifications under the old course. They are:

Experts—H. E. Grady, 228; N. H. Roberts, 225; S. H. Foss, 225; N. H. Perley, 215.

Sharpshooters—C. W. Millikin, 194; C. A. Putnan, 199.

The Davenport, Iowa, High School Rifle Club has reported the qualification of Edwin C. Kuehl as a marksman with a score of 167.

Two qualifications have been reported by the Denver City, Colorado, Rifle Club under the old course. They are:

Experts—S. G. Carlson, 215; A. L. Williams, 222.

Two expert qualifications have been reported by the Duquesne, Pennsylvania, Rifle Club under the old course. They are:

Clyde H. Wolford, 223; Andrew Presnik, 234.

Three expert qualifications have been reported by the Guthrie Center, Iowa, Rifle Club under the old course. They are:

Charles Kennedy, 216; Dennis E. Boots, 229; S. W. Aldrich, 218.

The Stanton Government, Nebraska, Rifle Club has reported Alban M. Emley as a sharpshooter with a score of 200 under the old course.

The Eastern Detroit, Michigan, Gun Club has reported Al. Brown with a score of 157 and C. E. Wagner with a score of 175 as marksmen under the new course.

Two expert qualifications have been reported by the Seattle, Washington, Rifle and Revolver Club under the old course. They are:

Chas. L. Lindsay, 219; W. R. Hinckley, 221.

The National Board for Promotion of Rifle Practice:

- President, Hon. Wm. M. Ingraham, Assistant Secretary of War.
Recorder, Capt. Frank R. Curtis, U. S. A.
Assistant Recorder, Brig. Gen. Fred H. Phillips, Jr., Tennessee.
Brig. Gen. C. D. Galther, Maryland.
Brig. Gen. Lee S. Tillotson, Vermont.
Brig. Gen. Chas. W. Thomas, California.
Col. G. W. McIver, U. S. A.
Col. Wm. Libbey, New Jersey.
Maj. Palmer E. Pierce, U. S. A.
Maj. William C. Harlee, U. S. M. C.
Maj. Thomas Holcomb, Jr., U. S. M. C.

Officers of the National Rifle Association of America, for the Year 1917:

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First Vice-President, Maj. W. C. Harlee, U. S. M. C.
Second Vice-President, Maj. Smith W. Brookhart, Iowa.
Third Vice-President, C. C. Crossman, Missouri.
Treasurer, Lieut. Col. David M. Flynn, New Jersey.
Secretary, Brig. Gen. Fred H. Phillips, Jr., Tennessee. (Woodward Building, Washington, D. C.)

Additional Members of Executive Committee:

- Brig. Gen. Fred B. Wood, Minnesota.
Col. John J. Dooley, Maine.
Lieut. Col. E. B. Bruch, New York.
Col. S. W. Miller, U. S. A., representative of the Assistant Secretary of War.
Maj. Thomas Holcomb, Jr., U. S. M. C., representative of the Assistant Secretary of the Navy.

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- Note: Secretaries whose names are followed by asterisk are on active duty.
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1330 N. Clark St. Chicago

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307 St. Charles St., New Orleans

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- New Mexico, Capt. Norman L. King*.....Santa Fe
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South Dakota, Capt. Otto B. Linstad.....Pierre
Tennessee, Brig. Gen. Fred H. Phillips, Jr.,
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- Texas, Gen. O. C. Guessaz.....San Antonio
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238 W. 2d South St., Salt Lake City
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Wyoming, Major Charles W. Sheldon.....Sheridan
Porto Rico, Joseph A. Rose.....San Juan

Trapshooting Is Safest of Sports

DESPITE the fact that guns and powder are necessary requisites of trapshooting, the sport is singularly free from accidents, in this respect being far in advance of football, baseball, golf or tennis.

The reason for the absence of accidents is the fact that the very first thing impressed upon the mind of a new shooter is that the careless handling of a shotgun is exceedingly dangerous both to users and those near or within 100 yards of him.

The management of most trapshooting clubs provide fines for the infraction of certain rules relative to the intelligent and safe handling of shotguns. A second offense usually means expulsion from club membership.

Dr. Robert E. Coughlin, writing in The New York *Medical Journal* says that 943 lives were sacrificed on the fields of athletic endeavor in the 10 years from 1905 to 1915, inclusive. Not one death is attributed to trapshooting—in fact there has not been an accident in the quarter century history of trapshooting. The more thought one gives to this statement the more remarkable it is. Twenty-five years of trapshooting and not an accident. It seems incredible, yet it is a fact. With millions of shots being fired at the clay targets each year you would think that something would go wrong some time—but it is safety first at all times at gun clubs.

During the last four years 20,487,630 shots were fired in the tournaments registered by the Interstate Association, and fully that many more were fired in club events. That means that more than 10,000,000 shots were fired in each of the last four years—which you will admit is quite a few—and nary an accident. All of which causes us to make the assertion that trapshooting is the safest of all sports.

A movement was begun recently to secure the adoption of a uniform set of regulations by the trapshooting clubs with the thought of continuing the marvelous record of the past quarter century. In this connection "Jack" Fanning, of New York, offers the following rules, the observance of which will prevent accidents or incidents to mar the pleasure of contestants and spectators:

1. Do not place a cartridge in your gun except when standing at the firing line in your proper place in the squad and with the muzzle of the gun pointed in the direction of the trap house.

2. Place only one cartridge in your gun when shooting single targets and but two cartridges when shooting double targets.

3. When changing from position No. 5 to position No. 1 at the firing line, be sure to have your gun open and unloaded.

4. When pointing a gun in the club house or on the shooting grounds, always open the gun and inspect same before pointing.

5. Do not question the referee's decision. The person shooting is the least competent to judge the result of a shot, as the recoil of the gun for an instant impairs the vision.

6. Avoid being late getting to your place on the firing line.

7. Remain at your position at the firing line with gun empty until the last man has finished shooting.

8. Do not converse with your neighbor while at the firing line nor use any expression that might disconcert others in the squad. Loud talking or other noises should not be indulged in by other contestants or spectators while a squad is shooting so that they can hear same.

9. Do not refuse a fair target. In competition a refused target is scored or counted "Lost." The referee will decide what is a fair or unfair target.

10. Do not shoot at an imperfect target in competition. Only whole targets are to be shot at. An imperfect target is a "No bird."

11. Always carry from two to four extra shells with you to the firing line, so that you do not delay the shooting in case you have to shoot at other targets on account of shooting at imperfect targets.—P. P. C.

"SPEAKING OF ACCIDENTS"

By C. L. GILMAN

Too many small children kill, or are killed, with firearms. There's no getting around this fact, and no use trying to disguise it.

The one remedy, suggested entirely by members of both sexes who don't own any guns and don't want to, is—of course—the good old remedy for the other fellow's vices, abolish 'em.

Aside from its manifest unfairness, this remedy is under the further defect that it would meet with prompt opposition on the part of those adversely affected by it, said parties being the folks best equipped to make their arguments felt as well as heard.

The other remedy, like vaccination, is a preventive one applied to the child himself. Though painful for the moment, the effect is complete and lasting.

After many years the writer still remembers vividly his own inoculation. It was a hot August afternoon. We were thinly dressed, as became the season. Father, deeming the prairie chickens about "ripe"—this being the golden age before the game laws began to bind—was oiling up his double-barrel. The old fuzee was in sections, and the stock, with its hammers and triggers, struck us as something in the gun line which about fitted us.

Inevitably, father impressed us as a good target.

"Cut that out," he ordered, or the mid-eighties' equivalent of the same.

"Tain't dangerous," we countered.

"Always is."

"Not now."

"Yes."

"Tain't dangerous."

"I'll show you that it's always dangerous to point any kind of a gun at anybody."

Father was a strong man; he had a large hand, ridged with the hard calluses of farm labor.

As before noted, we were thinly dressed.

There you have it, in all its stark, primitive simplicity. It may not accord with modern ideas of child training—but it sure taught one young idea how not to shoot.

Scattering Shot

On Saturday, July 28th, the shooters at the Towson Gun Club, Towson, Md., witnessed a wonderful performance of shooting. Mr. Lester German, who has just returned from Dover, where he made a remarkable record of 150 straight, shot at 25 doubles, breaking all 50 of the targets. All those who witnessed the shoot said that not one of the targets was scratched, as all were clean targets and were powdered. Mr. German made this remarkable score with the Black Shells loaded with 3 drams of powder, 1 1/4 ounces of 7 1/2 chilled shot.

Peters Paragraphs

Mr. W. R. Crosby, with a score of 148 x 150, was high gun at Chicago, Ill., May 20,

using Peters factory-loaded shells. Mr. James Groves was second amateur, also shooting the "P" brand. Score, 143 x 150.

The Oklahoma State Interstate Championship was won at Tulsa, Okla., May 17, by Mr. Geo. W. Lewis, of Garber, Okla. Score, 98 x 100. Mr. Lewis, as usual, shot Peters factory-loaded shells.

High Professional Average at Madison, Wis., May 20, was won by Mr. C. E. Robbins, using Peters shells. Score, 140 x 150.

Mr. Neaf Apgar won High General Average at Tower City, Pa., May 17, 144 x 150, using the "P" brand shells.

High Professional Average at Danville, Ill., May 20, was won by Mr. H. W. Cadwallader, 144 x 150, with the "P" brand shells.

High Amateur Average at Wichita Falls, Texas, was won by Mr. J. D. Clay, of Houston, 93 x 100, using Peters factory-loaded shells.

Mr. C. T. Stevens was High Professional at the Central Ohio League tournament, Kenton, Oh'io, May 22, 94 x 100, using the "P" brand shells.

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.

FOR SALE—Rifle trunks, marine and British shooting bags, imported telescopes, British cleaning rods and brushes, shooting glasses, rifle rests, British micrometers and verniers, telescope rests, Marble cleaning rods and brushes; locking front sight protector and rear sight cover, Hoppe No. 9; bull's-eye score books, Marine score book, sweat bands, elbow pads, the adjustable shoulder pad, gun covers, "Never Nickel" lubricant, Mottet paste, rim oil, Winchester oil, barrel gauges, Marble field and rifle cleaner, cleaning patches, all kinds and calibers of brushes, Spitzer greaser, Mobile lubricant, Ideal micrometer, B. S. A. Rifle Saftipaste, Elliott ear protector, gun bore wicks, revolver and pistol rods, rifleman's Favorite sight, black; barrel reflectors, officers' hat cords. Send for catalog and price list. P. J. O'Hare, Importer and Manufacturer of Shooting Accessories, 33 Bruce St., Newark, N. J.

FIREARMS AND ANTIQUES—Buy, sell, exchange old time and modern firearms. Antiques wanted. Stephen Van Rensselaer, 805 Madison avenue, New York City.

CLOSING OUT SALE—One Springfield '06 star gauged, like new, Lyman micrometer sight, \$27.00. 1 Krag carbine, good condition, \$10.00. 1 Savage .22 H.P., like new, Lyman rear and V.M. front sight, mo'd and full set tools, 160 cartridges, \$30.00. 1 Sauer .32 automatic, brand new, \$15.00. 1 Colt .45 S.A., good shape, \$9.00. Lot of Frankford .30 Springfield Cartridges, \$2.00 per bandoleer. Dr. Lincoln Riley, Wisner, Nebraska.

FOR SALE—7 mm. Sporting Mauser, \$25.00; Sporting Krag, \$20.00, windgauge receiver sights on both; .22 Remington-Stevens single shot target rifle, fancy stock and windgauge tang sight, \$18.00; .22 Stevens off-hand pistol, 10-inch tapered barrel, \$7.00; .45-70 Springfield carbine, \$5.00; all perfect condition and extremely accurate. R. A. Fairless, Box 494, Portsmouth, Va.

LARGE COLLECTION antique fire-arms, blunderbusses, daggers, powder horns, spears, catalogue 6c. Ye Olde Curiosity Shop, 33 South 18th St., Philadelphia, Pa.

FOR SALE—Winchester, Model 1873, 44 calibre Repeating Rifle in fair condition. 24-inch octagon barrel. 150 rounds 25-20 Winchester cartridges; 200 rounds 30-30 Winchester Cartridges. M. C. Swartwout, 1916 Loring Place, Borough of Bronx, New York City.

FOR SALE—.38 S&W Spl, 6 1/2; case of Springfield cartridges; 32-20, 25-30 target rifles; .22 Stevens "Gould" pistol. WANT—.45 Colt automatic, Krag and bayonet, Colt or S&W revolver or pistol. "Adams" North Canton, Conn.

FOR SALE—New Krag, \$16.00 (strap); Luger, \$35.00, nearly new; .22 Colt Pol. Pos, \$15.00 (new); .32 Colt automatic, \$15.00 (new); .22 Colt automatic, \$25.00 (new); .22 S. & W. Target pistol, \$15.00; .22 Winchester Musket, \$14.00 (new). All in "gun crank" condition. Address M. L. Wixon, 390 Tremont St., Boston, Mass.

DuPont Rifle Powders

DuPont Military Rifle Powder No. 10

For .280 Ross, .30 Adolph, and similar cartridges

DuPont Improved Military Rifle Powder No. 15

(Progressive)

For .30 Springfield, .280 Ross, and similar cartridges

DuPont Improved Military Rifle Powder No. 16

(Progressive)

For .250/3000, .30/40 Government, and similar cartridges

DuPont Improved Military Rifle Powder No. 18

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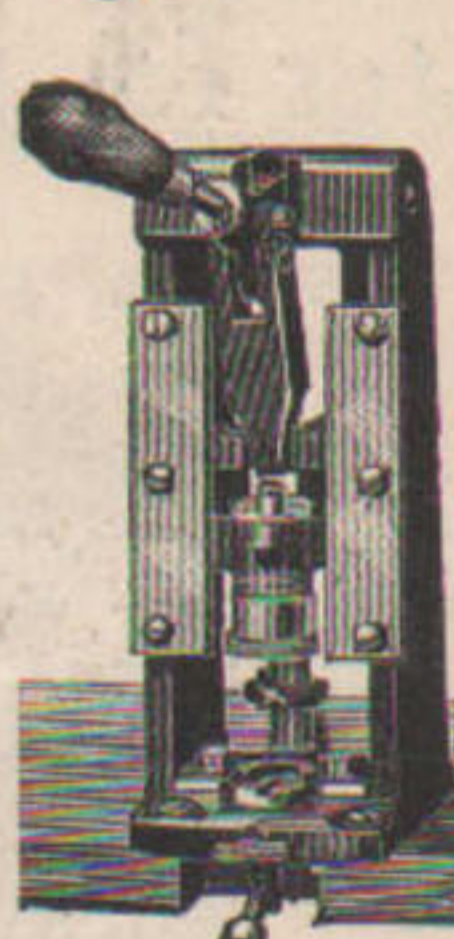
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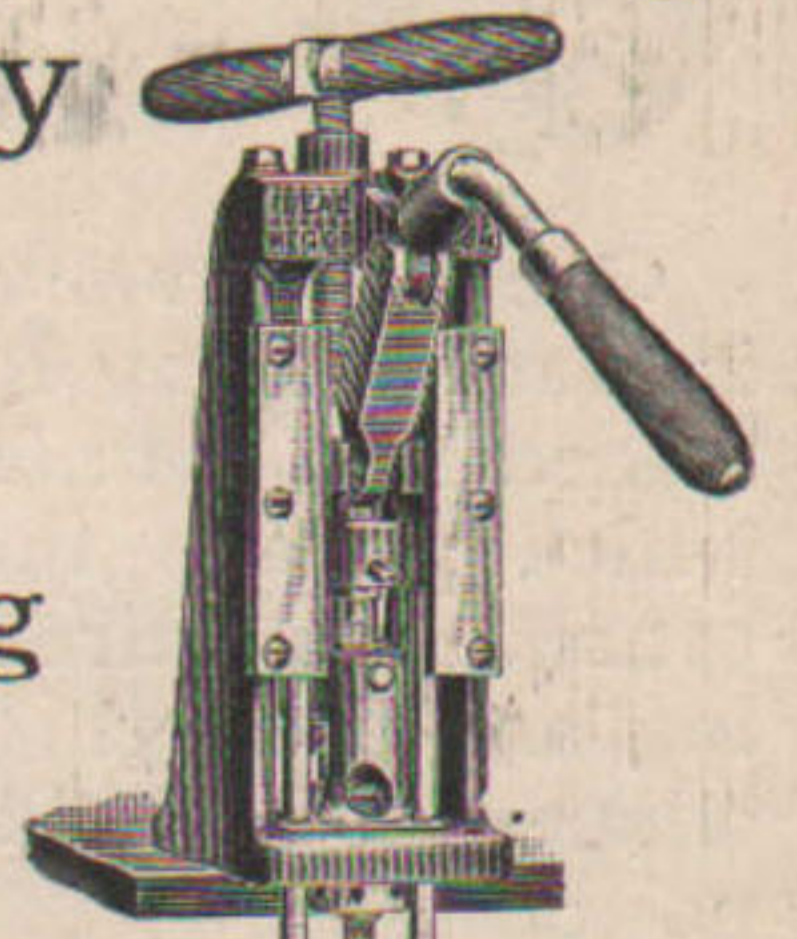
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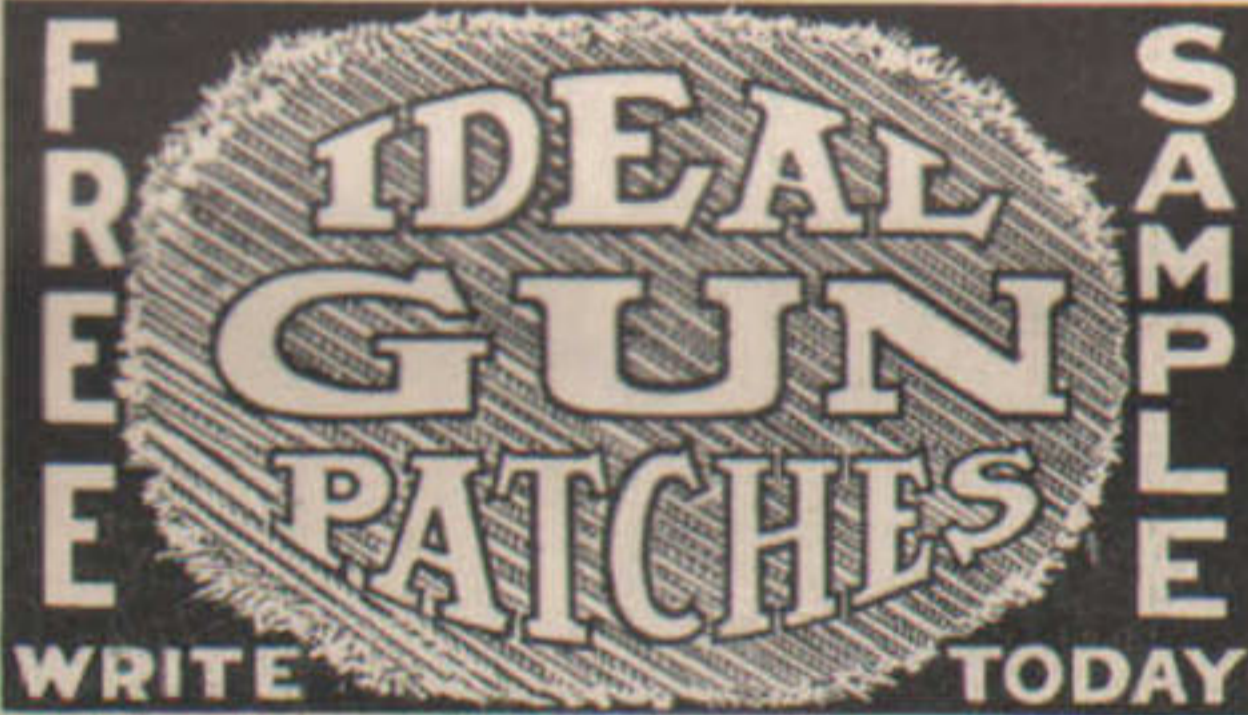
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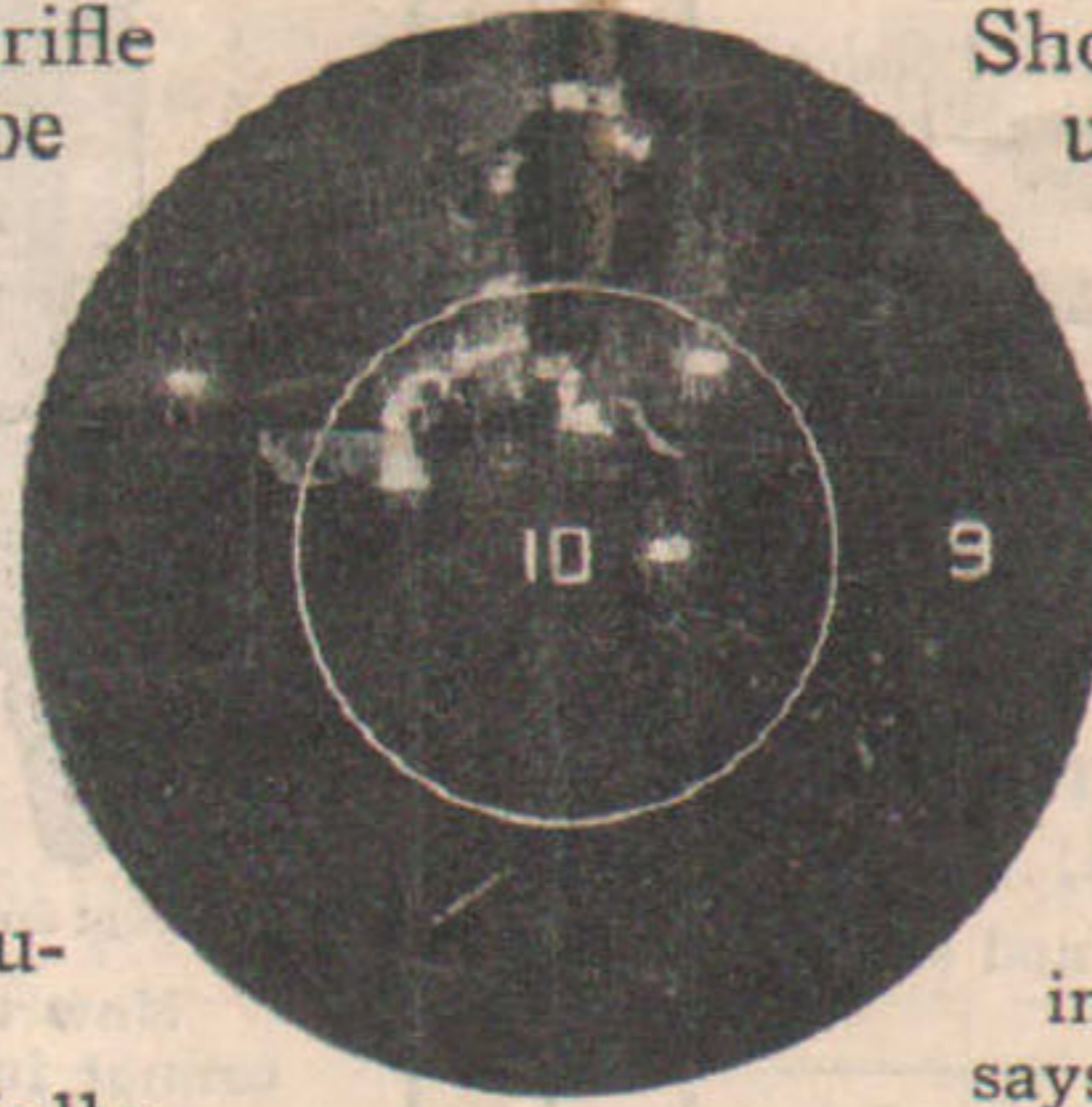


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10 shots at 100 yds. prone
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T. K. Lee, of Birmingham, Ala., one of the leading American small bore shots, speaking of his practical experience with this rifle, says: "It is a very good rifle. My opinion of it is that it will prove the 'hold' of the most expert. It surely does shoot surprisingly well."



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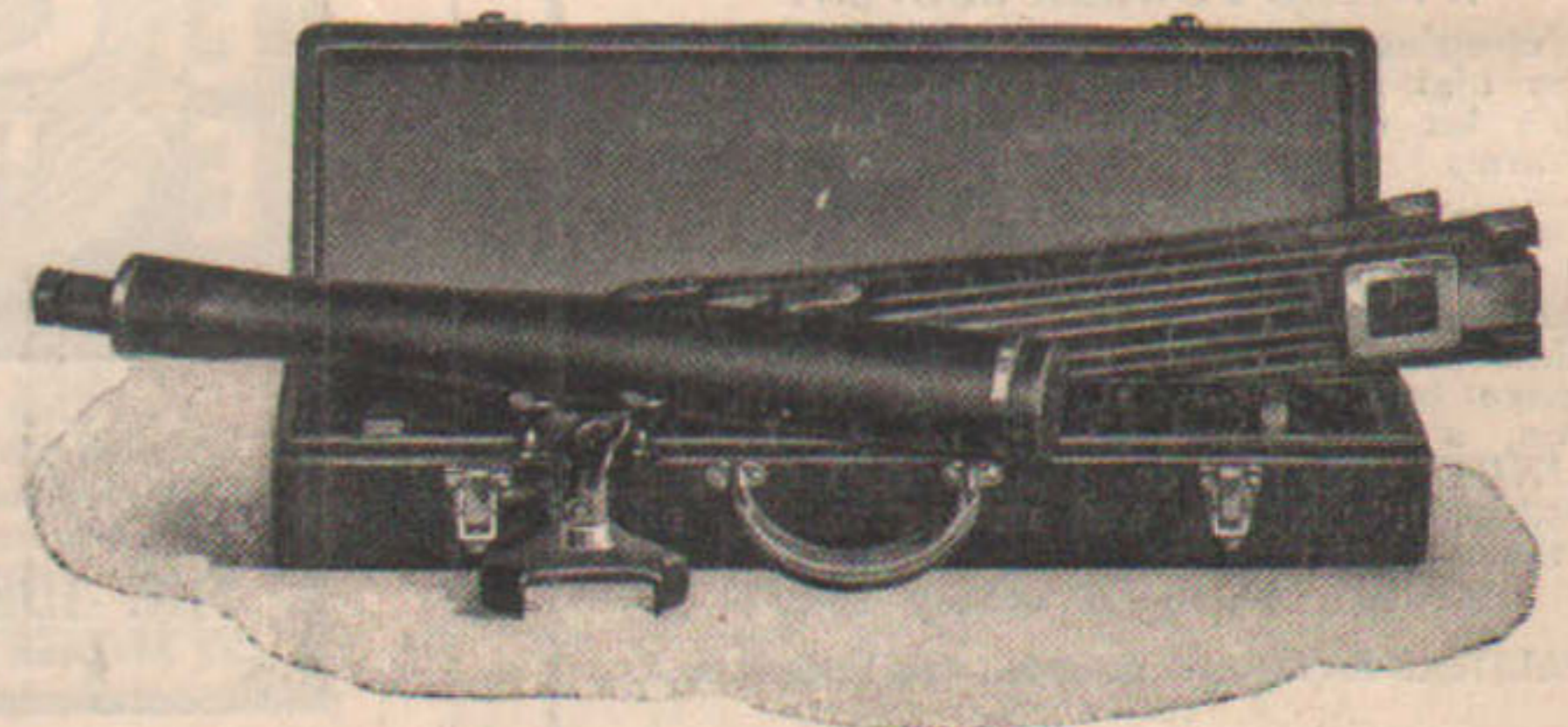
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