

ARMS AND
THE MAN
RIFLE
NATIONAL ASSOCIATION OF
AMERICA

TUNNEL RANGE SOLVES PROBLEM OF HOME
PRACTICE

BENJAMIN ROBBINS, PROPHET OF FIREARMS

THIRTY YEARS AGO ON THE FIRING LINE

No. 7

PETERS CLUB WINS CIVILIAN GALLERY MATCH

EDITORIALS

and

LATEST NEWS OF RIFLE, REVOLVER AND
SHOTGUN, THE ARMY, THE NAVY AND
THE NATIONAL GUARD

VOL. LXII, NO. 7



MAY 12, 1917



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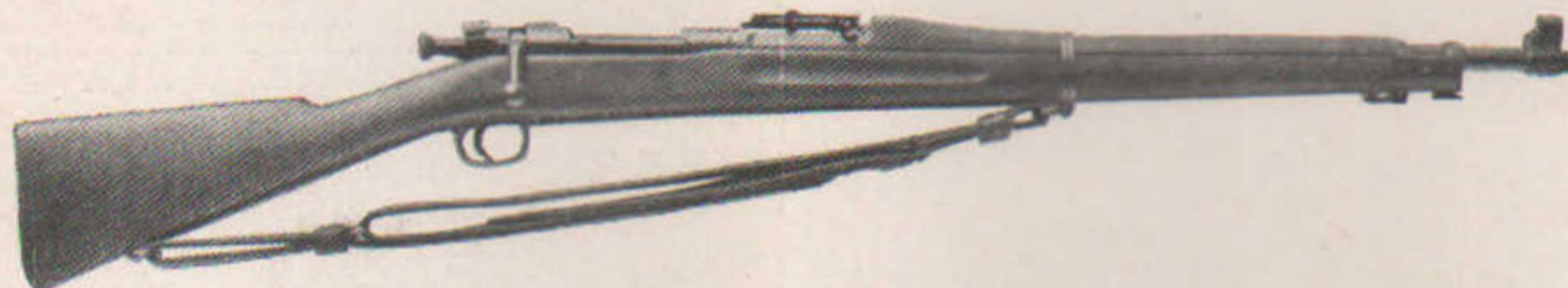
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ARMS AND THE MAN

WASHINGTON, D. C.

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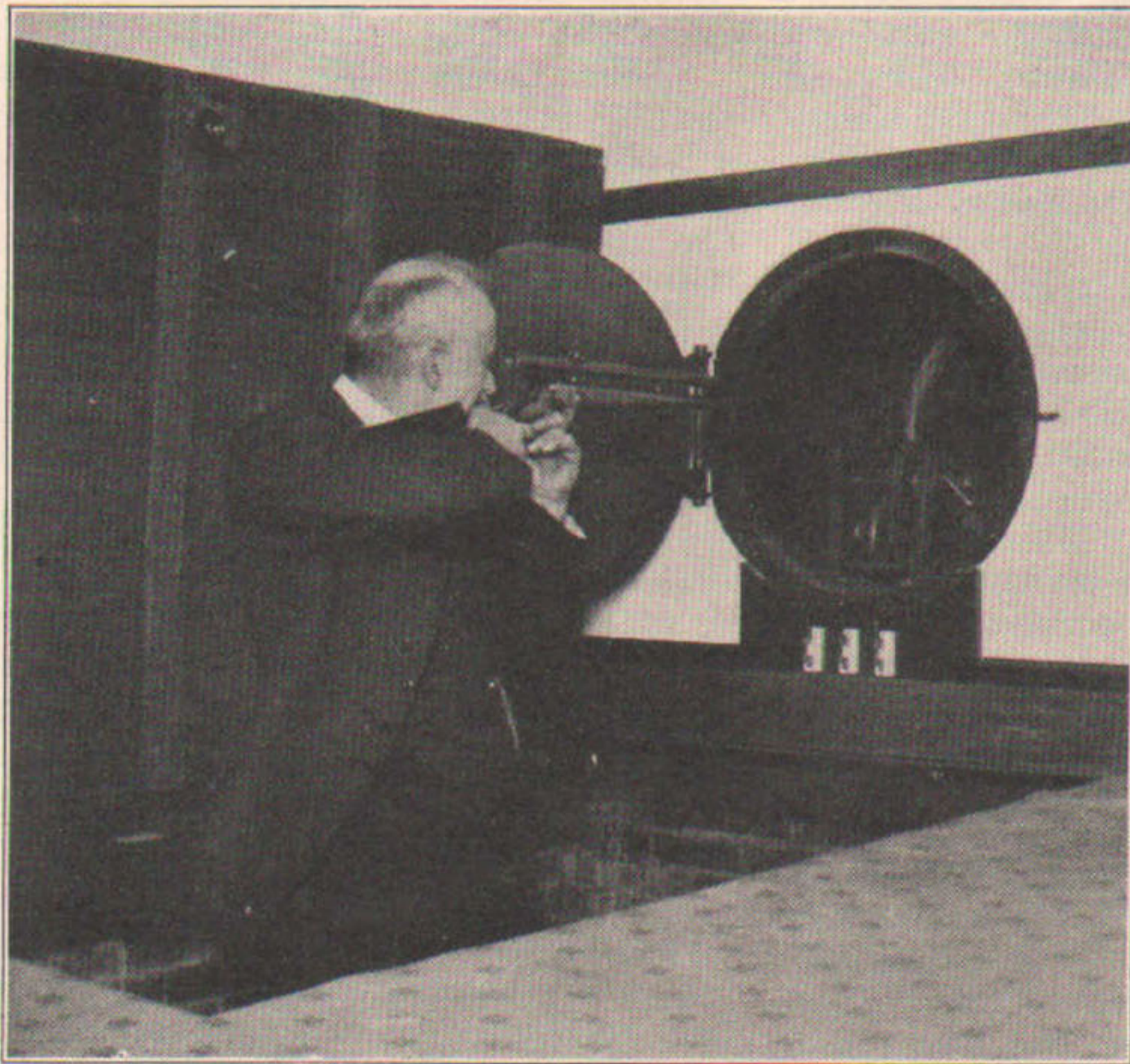
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Tunnel Range Solves Problem of Home Practice

By. STEPHEN TRASK



Mr. Fraser in the Firing Pit

HERE is little to suggest that the basement room under the dwelling of W. D. Fraser in Cleveland, Ohio, is other than a cellar finished a trifle better than such spaces usually are finished, except that in one corner a heavy trap door has been let into the floor, and above it an iron door, suggestive of an exterior coal chute, has been set into the wall.

But when the trap door has been raised and hooked back against the wall, and when the pseudo coal chute has been opened, one of the most ingenious and practical of home rifle ranges ever devised is ready for operation.

W. D. Fraser is a member of the Cleveland Rifle and Revolver Club. He is a staunch believer in the doctrine that after a man passes his fortieth milestone, and can indulge in athletics only to a limited extent, the shooting game offers an interesting and beneficial field. He admits that he is a "gun crank," and holds that rifle practice carried into the home, whenever practicable, is not only something of a novelty but a source of pleasure, not only to the man who undertakes it, but to his friends as well.

Like many other rifle enthusiasts, Mr. Fraser learned when he endeavored to take rifle practice into his home that there were many obstacles to overcome. If one's cellar does not permit of at least a 25-yard range, under ordinary conditions and for practical purposes the case is almost hopeless.

But hopeless hopes, so far as rifle shooting is concerned, hold no terrors for Mr. Fraser. And his solution of the prob-

lem is to be found in his subterranean rifle range, which runs from one corner of his cellar, through a tiled tunnel, to his garage in the back yard.

To begin with, Mr. Fraser constructed the rifle pit in the corner of the cellar, sinking it 8 feet deep from the outer ground level, which permitted a covering of eighteen inches of soil on top of the tile. In describing the construction of ranges such as his, Mr. Fraser said:

"This pit should be six feet long by four feet wide. I would not recommend less. The pit must be central with tube, so that either right or left shooters can shoot.

"Excavate a trench 52 inches deep, 36 inches wide, 76 feet long from end of pit in basement. Trench should be slightly lower at target end, so that any water in wet soils can drain in sewer at target end.

"Place in bottom of trench 2x12-inch planks the entire length and set the plank level. This will make much less work to lay the tile. Lay the tile with the flange end toward the target. Stretch a line on one side and line it up; the plank in the bottom will bring it level. When the tile is set and lined up accurately, place a little of the soil on each side carefully, so as to steady the tile in place. Cement the joints on the outside down to the center and allow the cement to become hard.

"Fill in the trench, taking care to fill in carefully, so as not to shift the tile. When filled in, cement the tile up to the



The Tunnel Which Forms the Fraser Range

center in the inside. This furnishes the tube.

"At target end of tube build a vault three feet square at end of tube for target. Bottom of pit to be even with bottom of tube. The walls of the pit to extend two feet above the ground and a hinged weather-proof roof placed on top, so that pit can be entered to adjust anything necessary.

"In bottom of tunnel place an iron track eight inches wide made of $\frac{1}{4}$ x2-inch iron spaced with pipe and $\frac{5}{16}$ rods running through pipe and holes in track, which will hold it solid at the joints. Put a piece of same as track on outside of joint and let bolts run through them. This will leave the inside of track smooth. Make a small car of one-inch by four-inch iron about 16 inches long and rivet axles on each end.

"Drill a $\frac{3}{4}$ hole in top of the one inch by four near the target end. Construct a clamp to fit in this $\frac{3}{4}$ hole. Use small pin in stop, to keep clamp from turning around. Clamp a sheet of hard pulp board cut to a size that will go through the tunnel and fasten same in the clamp. This will give an upright disc on which targets can be fastened.

"A sheave wheel is fastened to target end of track and $\frac{1}{4}$ -inch line passed around same and fastened to target end of car. The other end is passed down the center of the track around another sheave wheel at firing end of track and other end to the end of car. This makes it endless.

"By taking hold of line, car can be quickly pulled either way. Place in target pit a steel plate 30 inches square, two inches with $\frac{1}{4}$ x4-inch iron bolt on all sides of same. This prevents a splash of bullets and holds plates in position. Run wires in conduit for electric lights and place a ventilating pipe in top of pit. Arrangement can be made in pit for rest or prone with very little trouble or expense. The estimated cost for material and labor would be about from \$150 to \$175."

Mr. Fraser has found his tunnel range entirely practicable and absolutely safe, which is one of the most important features where the shooting is to be done in city limits. He is able to indulge in prone shooting by closing the trap door of the pit and placing a reclining bench in front of the tunnel.

GEN. PARKER DISCUSSES TRAINING

THESE is a good deal of loose talk going around as to the time it requires to train infantry for battle. It, of course, must be conceded that the training of infantry depends very much on their officers, and that the longer infantry is trained the more they are fit for fighting. But to claim, as many people do, that soldiers should not be sent into action, even with the best training, before they have been in service twelve

months, is ridiculous. It is true that many of the English troops were trained a year or more before they were sent to France. Why this was considered necessary is not known; but the English seem to have changed their ideas, and we are informed on good military authority that the British War Council orders now require infantrymen to be sent to France after only sixteen weeks' training, of which the first month is largely consumed in getting the men in physical trim. During this month, of course, the inoculations and vaccinations, which consume so much time in our service, are conducted. We are also informed that this first month is utilized to train officers independently of the men, theoretically and otherwise. On arrival in France the troops are tested for eight days, and if found qualified are sent to the trenches. It would seem that as a result of experience the British have developed methods of expediting training. It is probable that instruction is limited almost entirely to trench warfare.

It is further said that cavalry and field artillery units and recruits are sent abroad after a correspondingly short training.

I have also been reliably informed by competent authority that the Germans, after exhausting their reserves, called into service one million or more "volunteers"; that is, men who for one reason or another had been excused from the requirements of universal service, and that the period of training of these volunteers was six months or less.

I do not intend to imply that I think that from four to six months' training will turn a raw recruit into a thoroughly trained and disciplined soldier, mentally and physically equipped to perform the many duties that fall to the lot of the regular soldier. I do mean, however, to emphasize the fact that there are certain essentials which a soldier must be taught to equip him for the usual duties of a soldier in combat, and that the time it takes to train him to this degree has been much exaggerated.

We who have been on the border during the past year have had some valuable experience in training raw troops. In the Brownsville district 20,000 Militia—one-third of whom at least were, when mustered in, new men, and the others little better—after four months and a half intensive training, took part in a maneuver of nine days' duration, continuing day and night. "Comparisons are odious"—but it must be said that ordinarily it was difficult, from the way in which movements were executed, to tell whether the troops one was looking at were Militia or old soldiers.

What fits man best for fighting is experience in fighting. It is true that discipline ordinarily is a habit gained by long service, but the volunteer who has been through a number of fights, as a rule, becomes disciplined quickly. Pride and a sense of the overwhelming neces-

sity for obeying orders promptly without discussing them will make good soldiers out of civilian troops in a remarkably short time.

The Regular, except in an emergency, seldom drills more than four hours a day, and much of his drill is wasted, due to the fact that certain details of drill have to be repeated an unnecessary number of times on account of the recruits that come to our Regular regiments by dribbles. Volunteers and Militia, on the other hand, are ready to drill eight hours a day in an emergency. There is no delay caused by accession of recruits. And it is safe to say that the ordinarily intelligent man can, working eight hours a day, learn all the details of rifle practice, grenade practice, trench digging, bayonet exercise, skirmishing, and the attack, in a period of six months.

As for the officers, that is a different matter. If we want efficient volunteer or conscript armies we must draw heavily upon the Regular Army to supply them. The colonel should be a Regular officer. The regimental supply officer should always be a Regular, and the importance of his duties will warrant a volunteer rank of major. Each company should contain at least one officer, to be a good drill instructor, trained in the Regular Army. We shall then whip our civilian soldiers into shape in the shortest possible space of time.—James Parker, Brig. Gen., U. S. A., in "The Army and Navy Journal."

WILL RECRUIT FROM TRENCHES.

As an appeal to the imagination it is suggested by the U. S. Marine Corps Recruiting Bureau that, where practicable, recruiters make arrangements to dig trenches, make them bomb proof and erect wire entanglements, in such suitable and available places as parks, public squares, etc., and that, as a novelty, recruiting be done in the trenches.

Sunday would seem to be a good day for the construction of the trenches. Newspapers, movie concerns, photographers, etc., should be notified in advance. Sand bag huts for recruiting should attract attention. The carrying out of this plan during National Marine Corps Recruiting Week, May 6-12, should prove advantageous.

NEW ADJUTANT GENERAL NAMED

Major Gen. Frank D. Baldwin, U. S. A., retired, of Denver, has been named Adjutant General of Colorado. General Baldwin is a man of mature military experience, having served both in the Indian and Philippine wars, and in the Cuban and Philippine campaigns. He holds two Congressional medals for gallantry in action.

Benjamin Robins

By F. H. KELLY

OF all the great men whose names are associated with the history of fire-arms it is safe to say that none holds a more justly honoured position than does Benjamin Robins. His popular fame rests chiefly on his remarkable prophecy, so often quoted, as to the possibilities of the rifle. His real claims to fame rest on more secure foundations, namely his many and illuminating investigations with regard to fire-arms. He was the first to understand the real reason for the advantages obtained by rifling the barrel.

His great distinction from his predecessors was that he never theorized without a basis of honest experiment on which to build his theories, whereas before his day writers on gunnery seldom troubled to perform any experiments at all. His writings, though often quoted by later writers, were generations before their time, and even a century after his death one finds writers of repute disputing over matters which he had settled correctly.

Benjamin Robins was born at Bath, England, in 1707. His parents were Quakers. Not much is known of his early life, but he eventually came to London and became a teacher of mathematics.

In 1742 was published his famous book, "New Principles of Gunnery". The first part of this work deals with "The Force of Gunpowder". He conducted his experiments by exploding some powder in a closed chamber by causing it to fall on a heated iron plate within the chamber. As the result of his experiments he came to the conclusion that the gas evolved by the explosion, or "permanent elastic fluid", as he called it, would have a volume of 244 times that of the powder when cooled to normal temperature and at atmospheric pressure. Modern experiments place the correct figure at just over 200; a remarkable degree of accuracy for Robins' results. The augmentation of this volume resulting from the heat evolved by the explosion he determined by the following method. A tubular iron rod, closed at one end, was heated until it was red hot, which he estimated represented the heat of the explosion; he then plugged the open end of the rod, plunged the rod in cold water, and unplugged the end under water. By measuring the distance to which the water flowed in he was able to estimate the previous expansion of the air due to heating it in the tube. As a result he concluded that the heat of the explosion increased the volume of the "permanent elastic fluid" by $4\frac{1}{6}$ times, thus making the total volume about 1000 times that of the original powder. Later observa-

tions have shown that he greatly underestimated the heat of the explosion, but in the absence of any means of measuring the heat of the gases it is difficult to see how he could have made a nearer estimate. He was the first to make any attempt at all to measure the force of gunpowder, or even to realize properly how it worked.

He endeavored to correlate this action of gunpowder with the resultant velocity given to the ball. Up to his time no one had ever measured directly the velocity of a projectile, but Robins solved the problem by the invention of the ballistic pendulum. This consisted essentially of a pendulum with a flat blade against which the ball was fired. The distance the pendulum was swung as the result of the impact of the ball was measured by means of a tape which was pulled out as the pendulum moved. The height to which the pendulum swung, and the weights of the pendulum and ball being known, the energy of the ball and consequently its velocity could be readily calculated. The value of this simple instrument can hardly be overestimated; apart from its bearing on the striking effects of projectiles it afforded the first practical means of measuring the resistance of the air to bodies moving at high velocities. Until the invention of electricity it was practically the only method of measuring velocities. It has now been almost entirely superseded by the electric chronograph, though a modification of the ballistic pendulum has been used recently for measuring the velocities of rifle bullets at long range.

The second part of Robins' book deals with the resistance of the air. Up to his time most writers had been content to assume that the resistance of the air was negligible, and that therefore the flight of the ball was a parabola. The incongruity of this theory when compared with practice must have been striking even before Robins' time. Sir Isaac Newton, as the result of experiments consisting of dropping balls of various densities from the dome of Saint Paul's Cathedral, had determined that for low velocity the resistance of the air varied as the square of the velocity. Robins determined the velocities at various distances of similar balls fired with the same weight of powder, i. e., of balls which therefore presumably started with the same muzzle velocity. He found a great reduction in velocity as the distance of the pendulum from the gun was increased, and by calculating the energy of the bullet at these different ranges he was able to calculate the resistance of the air which must have been present in order to produce this loss of energy over a given range. His experiments showed that the resistance of the air does not vary at any

definite power of the velocity; he found that the variation of resistance was much greater at about the velocity of sound, i. e., about 100 f/s, and varied less rapidly above and below this maximum point. He showed clearly what an enormous effect this resistance of the air had upon the flight of the bullet; he calculated the actual ranges of a projectile, and showed what a mere fraction this may be, when the ball starts with a high velocity, of the theoretical range when the air resistance is neglected, or of the "Potential Random" as he called it.

Robins later amplified his experiments on the resistance of the air by means of the device of a ball which was made to whirl round a vertical axis on the end of a horizontal arm; the motive power was supplied by the drag of a known weight which unwrapped a cord around the vertical axis. The speed of rotation produced by a known weight gave an indication of the resistance of the air. This device, however, was not so valuable as the ballistic pendulum as a means of measuring the resistance of the air.

These and other experiments were described before the Royal Society, of which he was a fellow, and in 1747 he was awarded the great honor of the gold medal of that society, when he was addressed in the following words by the president:—

"Mr. Robins:

"It is now, Sir, with the greatest satisfaction that I can assure you of the high esteem the Royal Society have for you, and of the just value they set upon your very curious and useful communications. It is by their command, and in their name, that I put into your hand this faithful token of their regard: in which you will not attend to the smallness of the gift, but consider it as it comes from a Society, neither abounding in sums of silver or gold, not pursuing or coveting worldly riches, but the improvement only of philosophical knowledge. You will please, therefore, in such a light to accept this medal, and in some sort to compare it to those crowns, that were given to eminent persons, in the first ages of simplicity of the ancient *Greeks*; and which although only wreaths of olive, or even garlands of grass, were not on that account the less esteemed by those upon whom they were bestowed, as they were still authentic testimonials, of the most exalted virtue, and of the most distinguished merit."

(To be concluded)

SIGHTING THE RIFLE

ONE man's meat is another man's poison." Nowhere in human experience does this old proverb more aptly apply than in the selecting and adjusting of a set of sights so they will accurately control a rifle barrel. The youngster with a season's experience on the range is liable to have very positive ideas on this subject. He will assure you that such and such a combination is "absolutely perfect" and any deviation therefrom is "dead

wrong," and to prove the soundness of his reasoning will proudly display a "Marksman," or maybe a "Sharpshooter" button. Yes, he has tried it all out and "knows."

If he is "one of the elect"—blessed with a love of the game and keen enough to apply the instructions of his coach—by the end of the second season he will probably be wearing an "Expert" rating and have a "sinker" or two culled from the indoor ranges, but you will note one thing; he no longer indulges in positive statements regarding the absolute perfection of his sights of yester-year. He has made some changes and experimented a bit in his own peculiar way. He asks questions, listens attentively to what older men say, consults an oculist, sends for some catalogues, buys a book or two, and does some quiet thinking along the right lines.

Then as he graduates into the great brotherhood of marksmen, becomes a veteran in experience, if not in years, he gradually discovers that the sighting of a rifle is governed by a number of separate and distinct elements, and ultimately compiles a list something like this:

1. Peculiarities of the eye; whether or not there is a defect in his vision, and if so, how best to correct it.
2. The condition of the light, both at the firing point and at the target.
3. The size, shape and color of the target. He begins to understand what the older men mean when they talk about "centering."
4. The color, shape and size of the various apertures and points through which and over which the sighting is done.
5. By this time he can "savy" the meaning of definition and learns to look *through* his sights and not *at* them.
6. He discovers the value of a maximum sighting radius and increases the distance by placing the rear sight closer to the eye.
7. And last, but not least, he learns when, where and how to use the telescope. Also he discovers that there is not such a thing as a "universal sight" suited to the eyes of all men, nor is there a sight that will meet the requirements of *one* man under all conditions.

The government attempted to do this when the Ordnance Department placed the "1905" sight on the Springfield rifle, and if you want to know how utterly they failed, just ask some veteran of Seagirt, Camp Perry and Jacksonville. His reply will be forceful and to the point, but it would not be safe to quote his opinion, either in polite society or in print.

Once the rifleman has discovered the basic principles governing this problem, he starts out to find just what is best suited to his own peculiar needs, and while working along these lines

he becomes a "good, steady, consistent shot," which among old timers is the highest form of praise. Yet he doesn't solve the problem—goodness, no!—but by that time he is a simon-pure gun bug and is absolutely content to steadily improve. Deep down in his heart he does not want to solve the problem, because once the solution is found, the problem disappears and is no longer interesting. The best all-around shot I know is old Ike Walton, an engineer by profession, but by nature a "ranger" and a "desert rat." Old Ike has been burning powder for over sixty years, and to this day can set a pace very few of us youngsters can follow, for Ike is one of those rare geniuses who is master of all three weapons—rifle, pistol and shotgun—yet he is still studying the question of sighting just as keenly as he did half a century ago.

One day when we were walking home from the range, I asked this question: "Ike, if you could drop into the gun store tomorrow and buy a shootin' iron that would exactly suit you, what would you do?"

It was a full minute before he replied: "Boy, I'd chuck the whole game and never fire another shot."

Another good plan is to go down to the public library, dig out any books they may have there on marksmanship, and see what the men who have gone before had to say on the subject. Many of those old boys worked out the game to an exact science, and with slight alterations most of their ideas are just as good today as they ever were. For instance, the old cross-bow-men of France thoroughly understood the use of the peep sight and the wind-gauge, and the device they used is almost the twin brother of the modern military sight. They also appreciated the value of placing the peep close to the eye. Why our Ordnance Department has ignored this important fact is one of the "military secrets" carefully guarded by the War College at Washington.

In writing on this subject I fully realize that I have attempted an endless task, but what does that matter; the object is to assist in the great work of making more good shots, and the man who studies the problem of sighting naturally studies how to "hold" and trip the hammer of his rifle without deflecting his aim, which after all is exactly what makes a good shot. Just so long as the shooter continues to study the problem of sighting, just so long will his work continue to improve, and with each advance in skill the game becomes more, ever more, interesting.—*Army and Navy News*.

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UP-TO-DATE ARMOUR

THE combination of the development of the latest scientific research and appliances with a kind of reversion to primitive methods, has been quite a remarkable feature of the present war. The use of the hand grenade, as it may justly be termed, will, no doubt, have occurred to everyone. The same tendency is manifested in protective measures, as in the case of the steel helmets worn in the trenches. A good deal has also been said about body shields. Advertisements of such armour have appeared and "bullet-proof" waistcoats have been seen exhibited in shop windows in London. At present we have no reliable knowledge as to the extent to which use has been made of such devices. It has been asserted that they are widely purchased and presumably worn; but more than one officer, interrogated on the subject, has said that he had certainly heard of such protections, but that it would be a point of honour among officers not to wear them. In the meantime we hear that the supply of body shields for our troops at the front and those of our Allies is being made the subject of constant scientific investigation. Two points appear to have been established with tolerable certainty. The first one is that low velocity missiles are, under existing conditions, considerably more dangerous than missiles of high velocity. Secondly, that the helmets, as indeed is well known, have effected an enormous saving of life, and that a certain number of shields issued for experiment have proved equally efficacious. To the lay reader this is rather astonishing. We all learned in our school days that soldiers gave up the use of any form of armour because they could fight better without it, and because it afforded no adequate protection as soon as firearms were rendered at all reliable. Undeniable as this seemed to be, the theory now looks as if it were shortly going to be upset. At any rate we are assured that important developments are now pending, and it is said that included among these is the use of chain armour.—*The United Service Gazette*.

SCORPION, FIRST NAVAL LOSS

THE internment of the U. S. S. *Scorpion* at Constantinople marks the first naval loss of the war to the United States. The *Scorpion* is a small vessel of 775 tons, having a length of 212 feet and a speed of 17.85 knots. She mounted four 6-pounder rapid-fire guns, and was converted from a —?— in April, 1898. She was used as a dispatch boat for the American Embassy in Constantinople.

Thirty Years Ago on the Firing Line

Being short sketches of men who a generation back burned black powder; hand-loaded their own shells; seated bullets apart from the cartridge which contained the charge; made high offhand scores on the Creedmoor target, and kept alive for posterity, the art of marksmanship.

No. 7—G. H. WENTWORTH

BACKWARD glances over the history of rifle shooting cannot but emphasize that prototypes of the same theories and practices which now engross the rifle crank were present very apparently in the calculations of other and far-removed generations of riflemen.

Wherefore, in 1835, Lt. Col. Baron de Berenger, while setting down instructions to guide his son in acquiring steadiness, bade him take his flint-lock, insert in place of the flint a wooden "snapper," and press the trigger frequently while practicing aiming—nothing more nor less than the "snapping in" exercises of the present. Even the men-at-arms of feudal days equipped their cross-bows with sights permitting an adjustment for windage, and a magazine rifle was perfected in the days of snap-haunces.

And so it is not strange that G. H. Wentworth, of Dover, New Hampshire, in the early Eighties insisted—and put in practice what he preached—that shooting with the .22 calibre, then despised by the majority of riflemen, improved one's shooting immeasurably, and that to succeed as a marksman, every man should do his shooting with a gun constructed to meet his special needs.

In this latter contention Wentworth was supported by the majority of his fellows, who agreed with him even to the extent of producing veritable rifle freaks in an endeavor to obtain weapons suited to individual taste.

In present-day military shooting, this doctrine has largely been forgotten, chiefly because most of the competitions call for the service rifle "as issued"; but the habit of fitting guns to the men who will use them is still strong in the trap-shooting field, with its ingenious "try-guns," by which the exact length of stock and thickness of butt best fitted to every individual is ascertained.

Many ardent sportsmen and not a few unusually skillful riflemen in Dover, New Hampshire, were doing their part in the making of shooting history about the time Creedmoor and Walnut Hill were at their match-shooting zenith.

These men were members of the old Cocheco Rifle and Gun Club. Among them, none was better known or more widely skilled than G. H. Wentworth.

Although his shooting career was destined to bring him distinction as one of the steadiest and most reliable team-match shots of his day, Wentworth did not gain his reputation in a single shooting season. His progress in the art was slow and steady.

He commenced off-hand shooting in 1882, in spite of a physical handicap which included nearsightedness and extreme nervousness—a condition which prevented him from shooting more than 10 or, at the outside, 20 shots at a time.

From the first, Wentworth used the Maynard rifle, and after a few seasons of constant conscientious practice, began to make his performances count.

On the Dover range a re-entry match was a thing abhorred. In practically all competitions, the first score was the final score; and in such shooting, ability to go day after day to the firing line and shoot a consistently good string was what won matches. As a result, when Wentworth was at his best it was seldom that he failed to hang up the high score.

Carrying out his belief that a man should obtain a rifle thoroughly suited to him, he obtained different barrels for his Maynard. For hunting he used a .40-calibre, 26-inch barrel, a charge of 40 grains of powder and a 240-grain bullet, and at times a .32-calibre, 26-inch barrel, with the ordinary rim-fire cartridges. For target work he shot a .40-calibre, 28-inch barrel, using 60 grains of powder and a 330-grain bullet; a .38-calibre, 28-inch barrel, and a .32-calibre, 28-inch barrel. For practice he used a .22-calibre, 24-inch barrel and a .22-calibre, 28-inch barrel.

It was during the fall of 1883 that he forsook the old .40 calibre, in target shooting, for the .38, and later dropped to the .32.

By this time the trouble with his eyes had practically disappeared, his nervousness had vanished, and he was able upon occasions to shoot steadily for eight or ten hours without discomfort.

After making almost a clean sweep of club events in 1882 and 1883 with the .40-calibre rifle, Wentworth in switching to the .38 showed a remarkable improvement. After he had adopted the .32-calibre rifle, his average for 16 match days at the Cocheco Club for 78 consecutive scores was 46.6 out of 50, and his average per score for 9 team scores was .46 5/9. On August 29, 1885, he made a run of 11 bull's-eyes, and a similar run on September 12, following these on September 26 with a run of 15 bull's-eyes, none of which were within an inch of the edge of the bull. Runs of 10 consecutive bull's-eyes were frequent with him, he having made them during that year on October 13, October 16, two runs on November 26, and on that date

he placed 27 consecutive shots within a ten-inch circle.

In a contemporaneous interview concerning his theories, he said:

"A word about the .22-calibre barrel I practice with. I use the same sight that I use on the .32 calibre, having but one sight for both barrels; the base on the .22 barrel is lighter than on the .32, so that the elevation for the .22 at 25 yards is the same as the elevation of the .32 for 200 yards. That makes the practice with the small barrel very much the same as with the larger. The only difference is that the .32-calibre barrel is slightly heavier.

"I never clean the .22-calibre gun until I am through shooting, no matter how many shots I have fired. Have shot 160 shots with the .22 without cleaning, and it shot first rate to the last.

"I attribute my success, such as it is, to good habits, an accurate gun, and practice with the .22-calibre barrel.

"To succeed, marksmen should get a gun that fits them; the gun, after being brought to the shoulder, coming to the eye without any undue changing of the head. The stock should not be so long that the head must be shoved forward to enable the user to see distinctly."

"IN DAYS GONE BY"

By TRIM NAT

THE series of articles being published in ARMS AND THE MAN, under the captain of "Thirty Years Ago on the Firing Line", is very interesting to me and I have no doubt they are to all riflemen who were in touch with the game at that time. I am not aware who this writer is, but because he is so conversant with the facts in the case, I presume I must have known him, or of him, as I did most of the riflemen of that time and later.

He mentions so many personal traits, that he must have been well known to those with whom he came in contact and of whom he writes. With all due and proper respect for the fine riflemen of the present time, it pleases me that the worthy work of the experts of the past days, should be shown up in so fine a shape and so correctly, to compare with the results of the present days.

The factories which made "arms of precision" about the time mentioned were the Sharps, Eli Remington & Sons, (Concluded on page 129)

ARMS AND THE MAN

1110 WOODWARD BUILDING, WASHINGTON, D. C.

EVERY SATURDAY

Editor

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

Associate Editor

KENDRICK SCOFIELD

Entered as second-class matter, April 1, 1908, at the post office at Washington, D. C., under the Act of Congress of March 3, 1879.

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 RIFLE-PRACTICE APPROPRIATIONS

THE unwisdom of permitting civilian rifle practice to be shoved down out of sight for lack of encouragement during the present war was evidently recognized by the Congressional conferees on the Army Bill, who included in the measure items amounting to \$320,000 to be applied to this purpose.

The appropriations would undoubtedly have been materially greater but for the universal drain upon the treasury of the country in financing preparations for hostilities. As matters stand, however, the amounts authorized for civilian rifle practice provide even a little more Government support to the shooting game than last year, and insure its unabated continuance.

None-the-less, it is to be regretted that the legislators did not feel able to devote more money to this important work. If the gods of war smile upon the battlefield fortunes of the nation in this emergency, the first draft, or at the most, a second, can be counted upon to supply the men needed. Yet there is no assurance that this will be the case. And if the war proves to be a long, protracted struggle, the million dollars which Congress might have spent during the coming year in promoting rifle practice among men and boys as yet exempt might be returned in skilled marksmen when such, without regard to age or dependents, are urgently needed in the ranks of the nation's defenders. And ten millions of dollars, at such a time, could not supply qualified men upon a tragic moment's notice.

So far as the promotion of rifle practice is concerned, the army bill as agreed upon by the conferees is substantially the same as the bill reported by the House, and which at the last session was defeated of passage by the Senate filibuster.

The largest of the items—\$300,000—is provided for the purchase and manufacture of arms, ammunition and target practice accessories, and includes a fund of \$60,000 specifically provided for the defrayal of expenses of teams attending the National Matches of 1917.

The other item provides \$20,000 for the establishment and

maintenance of indoor and outdoor ranges, for collateral expenses and for the purchase of medals and insignia.

In another part of the bill, the Secretary of War is authorized "in his discretion, and under such regulations as he may prescribe, may authorize the detail of enlisted men of the army as temporary instructors in rifle practice to organized rifle clubs requesting such instruction."

A JUSTLY MERITED VETO

IF every state was governed by a man possessed of an insight as keen to detect the fallacies of the usual brand of anti-pistol legislation as is Missouri, there would be little fear that this sort of "reform" would even be dignified by becoming law.

A short time ago the chief executive of that state vetoed the so-called Allender Bill. In doing so, he is entitled to the gratitude not only of the pistol enthusiasts of his own state, but of those throughout the country. His is a worthy example, for the bill in question, like most of its fellows, would simply have operated to discourage legitimate possession of weapons by citizens who have a constitutional right to the ownership thereof, without preventing the possession of "gats" by the footpad fraternity.

Apparently unaware of the fact that the Allender Bill, drafted from a typically police viewpoint by the Chief of the St. Louis Detective Bureau, received its merited *conge* at the hands of the Governor, *The Policeman's Monthly* devoted a column in its May issue to extolling certain meritorious features which, in its opinion, the bill contains, and in congratulating the Missouri legislature for having enacted it.

Of course the Allender Bill was perhaps no more malignant of effect than a score of other such measures which are constantly being presented to state legislatures disguised as municipal cure-alls for epidemics of murder, suicide and thuggery. The unfortunate part of it all is that many legislators—mature men who should have a keener sense of discrimination—blandly swallow whatever specious arguments may be made in favor of such bills, vote for their enactment, and ever after feel that they have rendered humanity a signal service.

With but a few exceptions among the larger cities of the country, where an effort is made to teach the policemen to handle firearms with accuracy and with due regard to the safety of others, the average policeman is the last man in the world who should be entrusted with a weapon and a blanket permission to use it; and when it comes to knowing how to handle the short-gun, almost any civilian enthusiast can give the copper on his beat all sorts of points, then take him on for a match and leave him straggling far behind. And yet legislature after legislature complacently accepts the policeman's estimate on what anti-firearm legislation should provide.

Perhaps it is because *The Policeman's Monthly* is published in the interests of the policemen of the United States that this publication editorially supports such measures as the Allender Bill. The publication in question might better serve the interests of the guardians of the peace if it devoted more of its space to urging pistol practice among both police and civilians, and to condemnation of measures which seek to put the citizen who must obey even anti-pistol laws, once they are on the statute books, at the mercy of the thug whose very existence and safety depends upon ignoring such legislation.

IN DAYS GONE BY

(Concluded from page 127)

Massachusetts Arms Co. (Maynard), Ballard, and Frank Wesson. True it is that several other fine rifles were made and used, but as a rule they were the product of individuals and practically hand-made. The calibres most commonly used about those times were .44 and .45, and a .40 calibre was termed then "Small-bore."

It was my privilege in those days to be honored with the intimate and in many cases—personal friendship of many of the old time riflemen, as a warm friend of the late Arthur C. Gould, then Editor of "The Rifle"—the fore-runner of "Shooting and Fishing"—now ARMS AND THE MAN, I came into contact with many of the "Rifle Cranks" of those days.

At the time nearly every rifleman was more or less of an inventor and individual experimenter, the results gained by each as a rule, being given out freely for the mutual benefit of all. Rivalry was very keen, but always most friendly. It would take much space to mention all the prominent names of those days, whose advice and individual experiments contributed so much to the present advancement of rifle arms, ammunition and ballistics in general. Many of the names are almost forgotten now, except in the fraternal memories of those who associated with them—Rice, Malcolm, Mogg, Lefevre, Farrow, Mann, Bennett, Patridge, Wurfflein, Pope, Harris, Munroe, Kirkwood, Leopold, Lowe, Gould, Judd, Harwood, Dittmar, Russell, Chase, etc., etc. The list is endless and these were names to conjure with then. Though most of them are gone and practically forgotten, the riflemen of the present owe them much for the advancement in things mechanical, chemical and practical.

In the serial article about Col. William E. Fitch in ARMS AND THE MAN, issue of March 31, there is one paragraph to which I wish to take some exceptions, and from personal knowledge to add a little more data. From the last paragraph I quote—"Only in one particular, was he ever consistent, he used but one type of front sight, an open bead, with the aperture (?) fitted to show the butt (?) distinct".

Now I do not know, of course, whether that "Bead with the aperture fitted to show the butt," was a slip of the pen, or not. Bead sights as they are generally made and understood, have no aperture and are sighted on the bull and not the butt.

I had intimate personal correspondence with Col. Fitch nearly all the time from 1885 to 1892 inclusive, although I never had the pleasure of meeting him and from 1890 to 1902, I feel quite sure that I made all the front sights the Colonel used on his

target rifles. That he was very fond of experiment and change I certainly can vouch for, as he was constantly ordering new forms, ideas and sizes. For many years the Colonel held the record on my books, of having ordered more sights from me than any other

The Marines' Hymn

From the Halls of Montezuma,
To the shores of Tripoli,
We fight our country's battles
On the land as on the sea.
First to fight for right and freedom
And to keep our honor clean
We are proud to claim the title
Of United States Marine.

From the Pest Hole of Cavite
To the Ditch at Panama,
You will find them very needy
Of Marines—That's what we are;
We're the watch dogs of a pile
of coal
Or we dig a magazine,
Though he lends a hand at every
job
Who would not be a Marine?

Our flag's unfurled to every breeze
From dawn to setting sun,
We have fought in every clime or
place
Where we could take a gun;
In the snow of far off Northern
lands
And in sunny tropic scenes,
You will find us always on the
job—
The United States Marines.

Here's health to you and to our
Corps
Which we are proud to serve,
In many a strife we have fought
for life
And never lost our nerve;
If the Army and the Navy
Ever look on Heaven's scenes,
They will find the streets are
guarded by
The United States Marines.

customer and all were made to be used in a front hood, not one of them being what is known as an "open" sight. Nor in all the twelve (12) years mentioned, did I ever make a "Bead" front sight for him, either open, or hooded. All were of the "Aperture" type, in various styles and sizes of aperture. He finally narrowed his choice down to two styles of aperture sights—No. 51 and No. 77—his next two for choice being the No. 50 and No. 76.

These four styles of front sight discs—intended to be used in a front hood—were specially designed and made by me for Col. Fitch and in one of his letters to me after he had thoroughly tried them all out, he stated that No. 51 and No. 77 were the very best for his eyes, of any he had ever tried; that if he had to narrow his choice down to one disc, it would be a No. 51 style. Col. Fitch seemed to prefer apertures about .114", although he had them made from .100" to .125" inclusive.



The Sights Preferred by Colonel Fitch

He always seemed to prefer styles of front sights, which were open at the bottom—like No. 51 and No. 76, or No. 77—as these showed all the foreground in front of the target and anyone in front and in line with the target, would be seen at once. It struck me very strongly, that he was very decided on this point.

The style of front sights shown with this, are in direct opposition to all those known as "open bead", and I wonder if the writer of the article in question, in naming it "open bead", did not mean "Aperture ring".

It is to be hoped that the writer of those articles will continue the series, for they are excellently written and instructive as well as entertaining.

I have sent cuts of these discs mentioned, that riflemen may note the style and the fact, that what proved good in the bygone days, are still of value at the present time, being much in use today. They are suitable for any range, or conditions, providing the bull is a round one.

USE GERMAN CRAFT AS RECEIVING SHIP

THE Navy Department has issued orders that, pending the equipment of additional naval barracks, the German steamers caught in American ports at the outbreak of the war shall be used as receiving depots for naval recruits.

This was made necessary by the greatly increased enlistments, which are adding an average of 1,000 men a day to the sea forces of the nation.

MISUNDERSTOOD.

Doctor—"Got any scars on you?"
Applicant—"No, but I've some cigarettes!"—*Recruiters' Bulletin.*

1917 N.R.A. CHAMPIONSHIP

Civilian Matches—5 Men Teams—10 Contests—20 Shots per man—
Prone Position—75 ft. Range

WON BY THE KING'S MILLS CLUB

(Peters Rifle and Revolver Club, King's Mills, Ohio)

9925 out of a possible 10000 points

This great shooting aggregation won FIRST PLACE IN THE 1916 Indoor Matches and the 1916 Outdoor Small-Bore Matches, and by their latest victory have clinched their hold on the title of U. S. SMALL BORE RIFLE CHAMPIONS. In all of these matches, every member of the team used

Peters .22L.R. Ammunition
Semi-Smokeless


The High Individual Record in the 1917 Matches

Was Made by Mr. T. K. Lee, of Birmingham, Ala.

1999 out of a possible 2000 points

with

Peters Semi-Smokeless Cartridges

The wonderfully consistent shooting of these winners in matches of national scope and importance, was due in no small measure to the extreme ACCURACY and uniformity of the famed  brand, loaded with the original and only SEMI-SMOKELESS powder.

THE PETERS CARTRIDGE COMPANY

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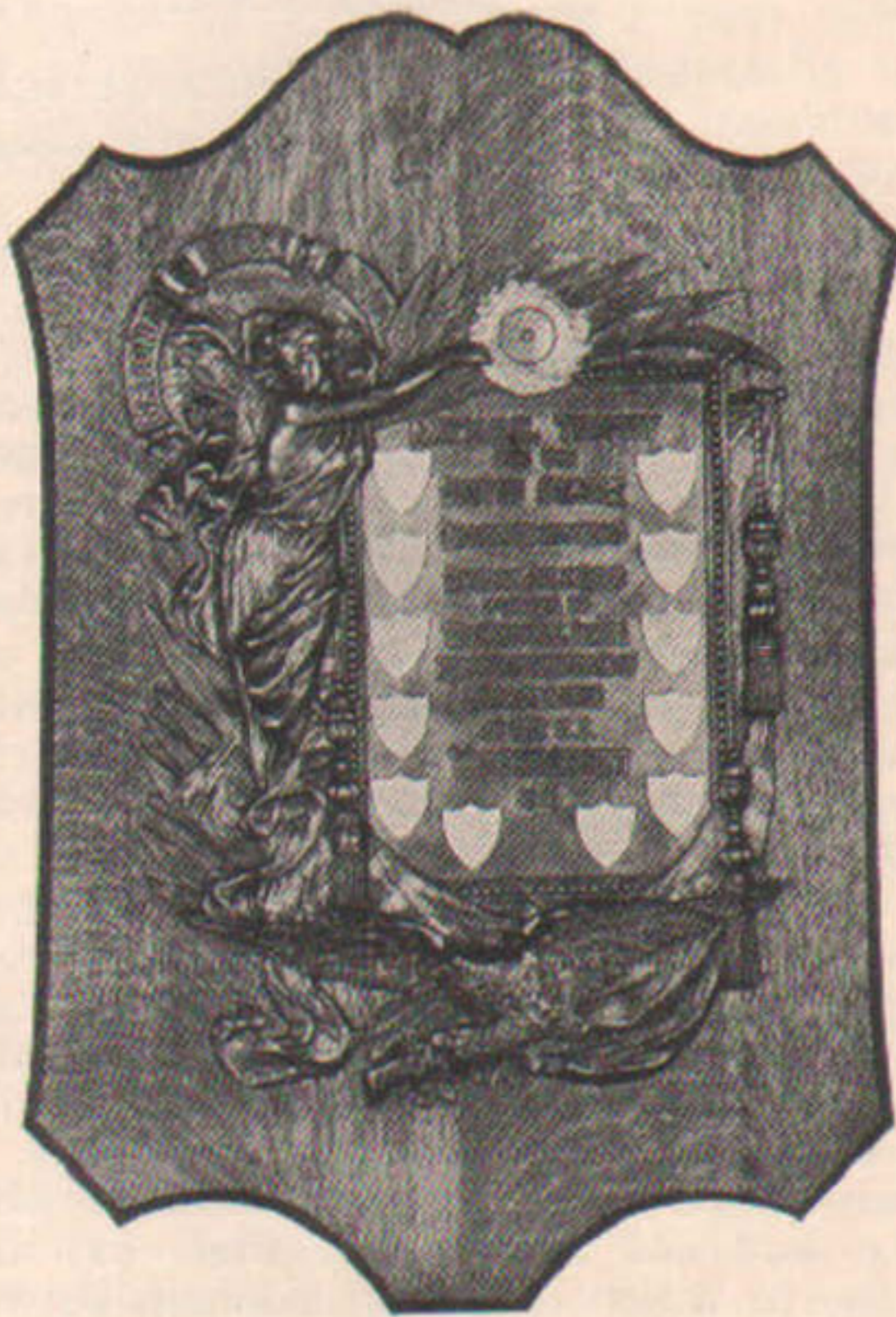
NEW ORLEANS: 321 Magazine St.

AT THE TARGETS!



Peters Club Wins in Civilian Competition

By "PARALLAX"



National Civilian Indoor Championship Plaque Won by the Peters Club

ON an aggregate score of 9,925 points out of a possible 10,000, the Peters Rifle and Revolver Club, of Kings Mills, Ohio, has been declared winner of the Interclub Civilian Gallery Competition of the National Rifle Association, which terminated a few weeks ago and in which nearly a hundred teams were entered. To the Peters Club will go the Interclub Civilian Trophy and a set of ten medals—one for every man who shot on the victorious team.

Because of pending protests which have not yet been disposed of, the finals in the High School, Military School and College competitions, which were shot simultaneously with the civilian match, are not ready for publication. The winners in these matches, however, will probably be announced within the next week or two.

At the time of announcing the winner of the civilian match, the National Rifle Association also published the class winners in this competition, the rules governing the match having made it possible not only for every team entered to win, no matter in what class it started shooting, but also for any team to win in its own class or any class higher than that in which it was originally rated upon a basis of past performances.

Under these conditions, and upon a total of 9,889, which placed the team fifth in the aggregate list, the Washington, D. C., Rifle Club, listed at the beginning of the contest in Class "E," has been declared winner of Class "B." The Washington team, as well as those winning in all other classes, will receive 5 medals to be distributed among the five team members who were most frequently included in the weekly high scores during the duration of the match.

The Class "C" medals were won by the Boston, Massachusetts, Rifle and Revolver Club, on a total of 9,856, which put the club in 9th place in the aggregate list.

The Class "D" medals were won by the Chicago, Illinois, Rifle Club, 16th in the general list, with a total of 9,766.

The Class "E" medals were won by the Newport, Rhode Island, Rifle Club, on a total of 9,714, 19th in the general list.

The Class "F" medals were won by the Gunnison, Colorado, Rifle Club, on a score of 9,530, 44th in the general list.

The Class "G" medals were won by the Main Line Rifle Club, Berwyn, Pa., on a total of 9,318, 63d in the general list.

The Class "H" medals were won by the Niskayuna Rifle Club, of Schenectady, N. Y., on a total of 9,037, 74th in the general list.

The Class "I" medals were won by the Highland, California, Rifle Club on a total of 8,082, 91st in the general list.

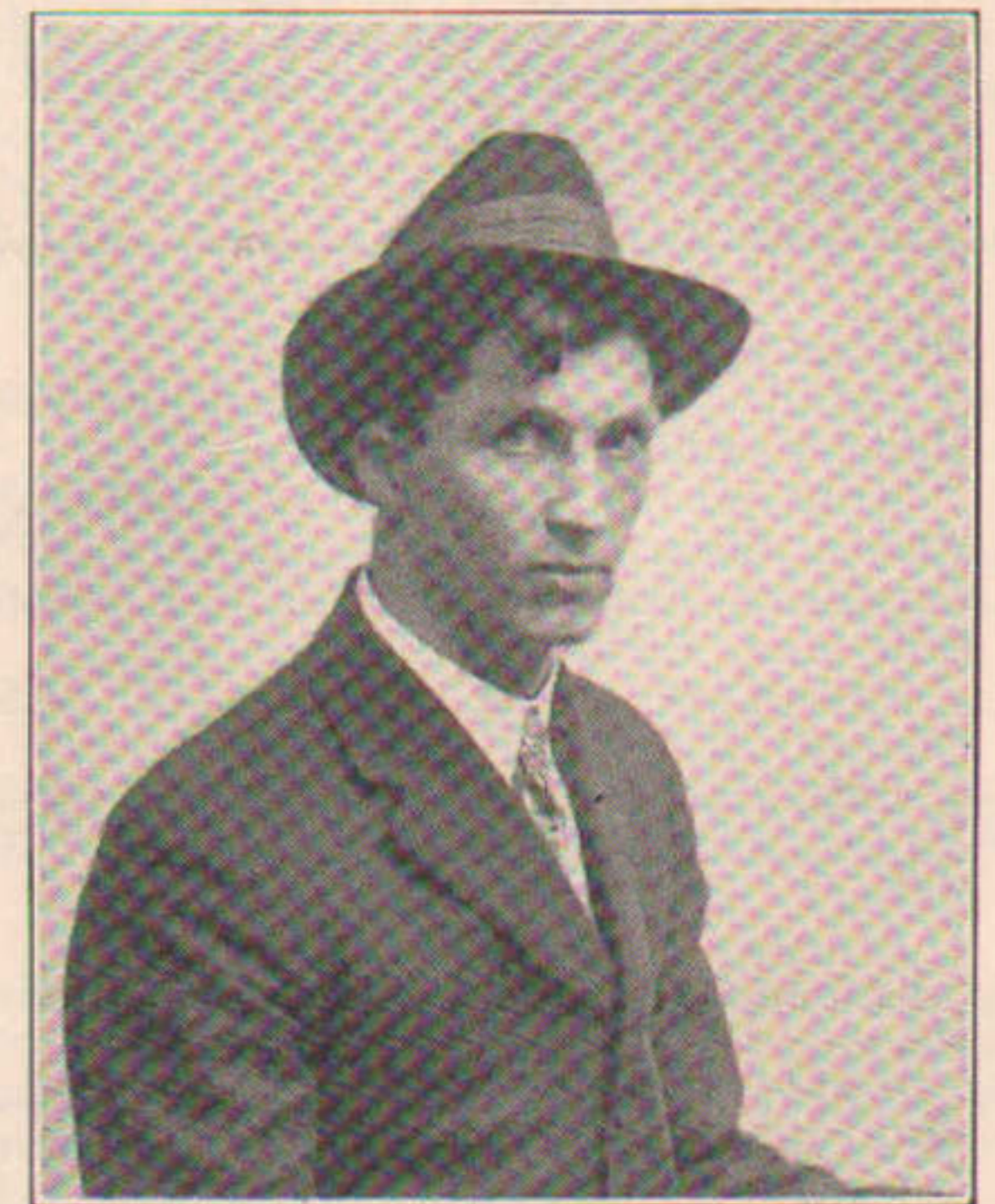
In winning the championship, the Peters Club added another victory to its already long list of first prizes, although throughout the matches there were a few weeks when the Peters Club did not maintain its lead in first place, taken at the beginning of the competition. The score of 9,925 gives the club a weekly average of 992.5 out of a possible 1,000, and an individual average for the entire series of 198.5, which very nearly approaches perfect holding.

To make such a record, consistent good shooting from every man on team was demanded. How well each member shot can be realized from the fact that although the Peters Club finished 13 points ahead of the Park Club, the King's Mills outfit, during the entire series, made only eight possible scores as against 12 registered by the Park Club shots, 9 by the Marion, Ohio, Rifle Club, and 8 by the Washington, D. C., Rifle Club. The star shot of the Peters aggregation proved to be A. D. Rothrock, who made 5 of the 8 perfect scores.

Rothrock's individual record, however, could not touch that of "Tack-hole" Lee, of Birmingham, who carries away high individual honors, having made nine possibles and a "199" during the matches. Incidentally, Lee's performance also emphasizes the necessity for good team work, as the Birmingham Rifle Club, of which he was a shooting team member, in spite of Lee's all but perfect record, stood 18th in the aggregate at the finish; and this notwithstanding the fact that during the individual matches other shooting members sporadically made good scores.

The final standing of the clubs shows:

Club	Class	Grand Total
1. Peters Rifle and Rev. Club, King's Mills, Ohio.....	(A)	9925
2. The Park Club, Bridgeport, Conn.....	(A)	9912
3. Quinnipiac Rifle and Rev. Club, New Haven, Conn....	(A)	9903
4. Marion, Ohio, Rifle Club.....	(A)	9902
5. Washington, D. C., Rifle Club	(E)	9889

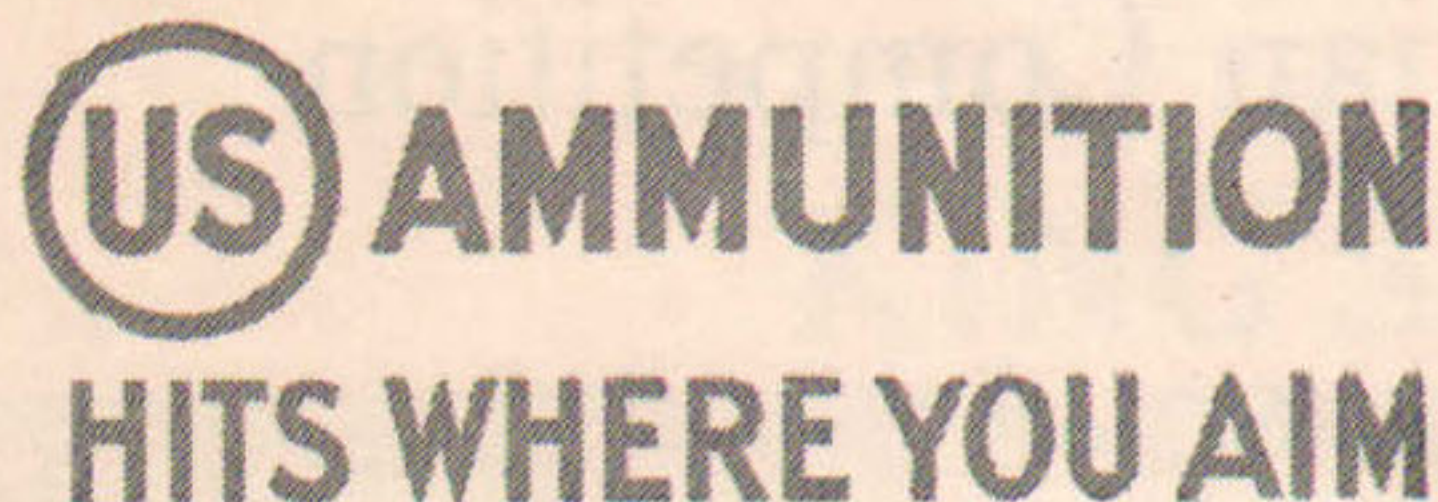


T. K. Lee, of Birmingham, Who Made the High Individual Score of 1999 x 2,000

6. Bucyrus, Ohio, Rifle Association.....	(A)	9874
7. Pierre, S. D., Rifle and Rev. Club.....	(B)	9864
8. Bangor, Maine, Rifle Association.....	(A)	9857
9. Boston, Mass., Rifle and Rev. Club.....	(C)	9856
10. Watertown, S. D., Rifle Club.	(A)	9851
11. Glendale Rifle Club, Bedford, Ohio.....	(B)	9844
12. Auburn, N. Y., Rifle Club....	(A)	9839
13. Lynn, Mass., Rifle and Revolver Club	(B)	9838
14. Salt Lake City, Utah, Rifle and Rev. Club.....	(A)	9805
15. Hopkins, Minn., Rifle Club....	(A)	9776
16. Chicago, Ill., Rifle Club.....	(D)	9766
17. Kiowa Shooting Club, Des Moines, Iowa	(B)	9720
18. Birmingham, Ala., Athletic Club Rifle and Rev. Assn..	(D)	9720
19. Newport, R. I., Rifle Club....	(E)	9714
20. Jacksonville, Fla., Rifle Club.	(E)	9703
21. Sidney, Ohio, Rifle Club.....	(E)	9689
22. Mound City Rifle Club, St. Louis, Mo.	(E)	9682
23. Stanton, Nebr., Government Rifle Club	(B)	9668
24. Fort Harrison Rifle Club, Terre Haute, Ind.....	(C)	9667
25. Manchester, N. H., Rifle and Pistol Club	(A)	9658
26. Manhattan, N. Y., Rifle and Rev. Association	(D)	9652
27. Buffalo, N. Y., Rifle Club....	(A)	9644
28. Corinna, Maine, Rifle Club...	(B)	9636
29. Springfield, Mass., Rifle Club.	(D)	9626
30. Guthrie Center, Iowa, Rifle Club.....	(C)	9613
31. Corvallis, Mont., Rifle Club..	(E)	9606

“**HIT 'EM WHERE THEY AIN'T**”

is an excellent way to win a baseball game. But when you are at the business end of a gun you must hit 'em where they are.



CHARACTER

CAN be expressed in printing, as in a portrait, by a master.

Our printing—magazines, de luxe volumes, monographs, brochures, catalogs, booklets and every creation of the art of Cadmus—possesses *character*.

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Thomsen-Bryan-Ellis Company

WASHINGTON

BALTIMORE

NEW YORK
Woolworth Building

PHILADELPHIA
Widener Building

32. Milwaukee, Wis., Rifle and Pistol Club	(B)	9594
33. Hoosier Rifle Club, Indianapolis, Ind.	(B)	9577
34. Helena, Mont., Rifle Club	(D)	9571
35. Greenwich, Conn., Rifle Club	(E)	9560
36. Rifle and Revolver Club of New York	(C)	9559
37. Olympic Rifle and Revolver Club, Cal.	(B)	9558
38. Atlanta, Ga., Rifle Club	(G)	9551
39. Bureau of Engraving and Printing Club, District of Columbia	(E)	9549
40. Detroit, Mich., Y. M. C. A. Rifle and Pistol Club	(B)	9547
41. St. Augustine, Fla., Rifle Club	(C)	9545
42. Brooklyn, N. Y., Rifle Club	(B)	9539
43. Citizens Rifle and Revolver Club, Rochester, N. Y.	(C)	9534
44. Gunnison, Colo., Rifle Club	(F)	9530
45. Paterson, N. J., Rifle Club	(F)	9510
46. Portland, Ore., Rifle Club	(C)	9509
47. Fitchburg, Mass., Sportsman Club Rifle Club	(E)	9505
48. Detroit, Mich., Rifle and Revolver Club	(B)	9483
49. Shawnee Rifle and Rev. Club, Lima, Ohio	(C)	9473
50. Middletown, N. Y., Rifle Club	(D)	9454
51. Ridgeville Rifle Club, Evanston, Ill.	(E)	9451
52. Altoona, Pa., Rifle Club	(E)	9449
53. Albion, Ind., Rifle Club	(C)	9446
54. Toledo, Ohio, Rifle and Pistol Association	(C)	9436
55. Dayton, Ohio, Civilian Rifle Club	(F)	9431
56. East Orange, N. J., Rifle Club	(F)	9416
57. Hydraulic Rifle Club, Cleveland, Ohio	(C)	9412
58. Tacoma, Wash., Rifle and Rev. Club	(D)	9392
59. The Gisholt Club, Madison, Wis.	(D)	9370
60. Minneapolis, Minn., Rifle Club	(F)	9355
61. Washington Marine Draftsman Rifle Club, District of Columbia	(F)	9337
62. Covington, Ky., Rifle and Pistol Club	(D)	9322
63. Main Line Rifle Club, Berwyn, Pa.	(G)	9318
64. Towanda, Pa., Rifle Club	(G)	9311
65. Princeton, N. J., Athletic Club Rifle Association	(F)	9287
66. Fort Wayne, Ind., Rifle and Rev. Club	(D)	9271
67. Ridgewood, N. J., Rifle Club	(G)	9216
68. Cazenovia, N. Y., Rifle Club	(F)	9215
69. White Motor Rifle Club, Cleveland, Ohio	(G)	9179
70. Pacific Service Rifle Club, San Francisco, Cal.	(G)	9165

71. Scott, Ark., Rifle Club	(F)	9158
72. Franklin, Pa., Rifle Club	(F)	9127
73. Newport, Ky., Rifle and Pistol Club	(F)	9092
74. Niskayuna Rifle Club, Schenectady, N. Y.	(H)	9037
75. Salmon, Idaho, Rifle Club	(G)	9034
76. Lakewood, N. J., Rifle Club	(G)	8987
77. Salem, Ore., Rifle Club	(H)	8909
78. Bureau of Chemistry Rifle Club, District of Columbia	(G)	8904
79. Saginaw, Mich., Rifle Club	(H)	8904
80. Danbury, Conn., Rifle Club	(G)	8860
81. Grand Forks, N. D., Rifle Club	(H)	8805
82. Premo Industrial Rifle and Rev. Club, Rochester, N. Y.	(H)	8792
83. Duluth, Minn., Spanish War Rifle Club	(G)	8777
84. Middleboro, Mass., Rifle Club	(H)	8712
85. Reo National Rifle Club, Lansing, Mich.	(H)	8702
86. Louisville, Ky., National Rifle Club	(D)	8634
87. Durham, N. C., Rifle Club	(H)	8592
88. Davy Crockett Rifle Club, San Antonio, Texas	(H)	8493
89. Santa Fe, New Mexico, Rifle Club	(H)	8468
90. Ashburnham, Mass., Rifle Club	(C)	8232
91. Highland, Cal., Rifle Club	(I)	8082
92. Second Team, Joliet, Ill., Rifle Club	(I)	7887
93. Lamar, Colo., Rifle Club	(I)	7776
94. Bedford, N. Y., Rifle Club	(I)	7681
95. First Team, Joliet, Ill., Rifle Club	(I)	7648
96. Varnum Continentals Rifle Club, East Greenwich, R.I.	(I)	7638
97. Torrington, Conn., Rifle Club	(I)	7617
98. Litchfield, Conn., Rifle Club	(I)	7497

Wotkyns Misses Trophy.

Nobody ever saw a movie actor who could shoot. That's the explanation for the failure of Grovus L. Wotkyns to win the E. C. Price trophy for the third time at the Los Angeles Rifle Club Range, and so clamp down permanently on the target pistol hung up by the estimable Mr. Price. They recorded for posterity and an admiring present the doings of the club in a movie film for a well-known news weekly the morning of the shoot, and from the later scores, a lot of them couldn't get this Mary Pickford stuff out of their systems and get down to sober rifle shooting again. That's the explanation for a scrub secretary winning legs on all the trophies up. Mr. Wotkyns had the gang worried pink with his fine Newton barrel and his telescope sight, with two wins of the Price trophy up to Sunday, and only three wins necessary to land permanent and happy possession thereof.

Not that the barrel shot any better than the Springfield or that others didn't have telescope sights, but it made a fine alibi for the gents Mr. Wotkyns licked by the combination of his good shooting and a few refinements that others could have if they were ambitious enough.

Wherefore the Price trophy is still open for any able-bodied citizen's attentions, and Mr. Wotkyns will have to cut out this F. Q. Bush-boy stuff at the next shoot.

E. D. Neff tied for the leg on the I. O. Gardiner trophy at Monkey Drill—otherwise changing position fire—with eighty-seven, shot with a telescope sight on his Springfield, a feat most of the gang thought impossible. The said changing position fire gives the shooter about three seconds a shot in which to fire, and not much more time—say four seconds—in which to change position between shots and reload and get "set" for the next bob-up of the target. To catch the target through a five-power telescope is no easy job, and it took the nervy Mr. Neff to pull the stunt. That he lost on the shootoff is merely the chances of the game.

Down at the thousand-yard range there ran a rivulet of tears. It seemed that a perfectly good shooter would be running along a perfectly good string of bulls, when a stray zephyr would pop out of its concealment in the nearby gully and blow the next bullet clear off the landscape. Mr. Wotkyns and the secretary, with a clean miss each in the string, proved the least worst with 42 each, and the sporty Mr. Wotkyns suggested shooting off the tie instead of the "creedmoore" count, which means the string with the fewest bad shots at the end wins the tie. Eventually Mr. Wotkyns' jinx proved to be on the job after an exhibition of missing on both sides, and the other fellow won.

The scores:

I. O. Gardiner trophy, twenty shots monkey drill: E. C. Crossman, 87 (won on shootoff); E. D. Neff, 87; D. R. Dickey, 83; G. L. Wotkyns, 82; W. R. Jackson, 82; A. L. Thomson, 81; John Siefert, 80; B. Lembke, 77; Laughlin, 73; Walter Potter, 70; C. B. Hubbs, 64; E. C. Price, 61; Engelke, 60, and Huey, 16.

E. C. Price trophy, ten shots at 600 yards: E. C. Crossman, 49; W. R. Jackson, 48; G. L. Wotkyns, 47; E. D. Neff, 47; A. L. Thomson, 45; C. B. Hubbs, 45; D. R. Dickey, 44; Walter Potter, 42; B. Lembke, 42; Laughlin, 44; Owen Council, 41, and Ed Elliott, 33.

T. F. Cooke trophy, ten shots at 1,000 yards: E. C. Crossman, 42; G. L. Wotkyns, 42; Laughlin, 39; Dr. Felsenthal, 39; John Siefert, 37; W. R. Jackson, 36; C. B. Hubbs, 32; A. L. Thomson, 24, and Walter Potter, 19.

E. C. C.

Off Hand From the Clubs

A Four-Leaf Target For Skirmish Work

By ROY S. TINNEY

I HAVE always contended that the skirmish run is the most practical course of instruction yet devised for riflemen and has never received the proper attention or given the prominence it deserves. Just imagine the effectiveness of a charge by a division of expert skirmishers, commanded by officers specially trained to handle such troops. Even machine guns would fail to stop such a body, because the attackers would silence each mitrailleur the moment an attempt was made to bring it into action.

The next logical step is to arm the best shot in every second squad with a light Lewis machine gun specially designed to fire semi-automatically. Such a weapon could be constructed so it would weigh about fifteen pounds and when placed in the hands of a veteran rifleman, it would deliver lead just as rapidly as needed, and very few shots would be wasted. At present our machine guns shoot so fast no man can control them to the best advantage, and they are too heavy to be of value when making a charge.

Under the present rules for skirmish practice a man only knows his total score, he has no way of telling at what ranges he did his best work and just when and where he "fell down". To overcome this difficulty, I would suggest building a four-leaf skirmish target; a multi-carrier handling four targets set close together. At the first string target No. 1 appears and receives the five shots fired from the 500 yard line, target No. 2 comes up for the five from 400, and so on down. When the run is over the shooter is given a score that is automatically digested and analyzed; he knows exactly what happened at each firing point. I urge this system because nothing produces expert shots so quickly and thoroughly as exact, detailed information regarding the results of the firing.

Another point to be gained by this method is that there will be only five shots on each target. This will render scoring more accurate and avoid a lot of confusion. Also should anyone get on the wrong target, the Executive Officer will know when and where the error occurred.

Before long I am going to build such a carrier and test out this plan thoroughly, and in the meantime I would like to know how the suggestion strikes my brother gun bugs who read this family journal.

Sighting Shots

Dr. Reginald H. Sayre, who is one of the most enthusiastic members of the U. S. R. A. and who is well known as an expert with the short gun, is contemplating the formation of a rifle club whose members shall be identified with the New York City contingent of the Officers' Reserve Corps. Co-operating with Dr. Sayre are a number of former non-commissioned officers of Squadron A, New York National Guard.

Dr. Sayre also has been in communication with other former members of the squadron,

who, while incapacitated for active field duty, are thoroughly qualified to act as instructors of marksmanship.

A series of matches between riflemen armed with the service rifle and others who will shoot the sporting "Thirty-Thirties" has been arranged by the Red Bluff, California, Rifle Club. H. S. Gans, secretary, in a recent letter said:

"Red Bluff Rifle Club held its annual meeting on the 18th instant, with an enthusiastic membership present. The present officers were re-elected for 1917.

"The prospects are very bright for some fine records this year. Last year the absence of the militia caused a great many vacancies in our ranks, but this year they are all back and more enthusiastic than ever.

"This club is very fortunate as to its range. This is located about one mile out of town on the dairy farm of G. H. Geer, who has permitted the members full use of the range without cost. Also we have the use of the militia company's range, which is finely fitted up, but about 4 miles from town.

"The club is proposing to have several matches with nearby clubs this year. But one matter which must be settled is the constant dispute between the club members, who swear by the Springfield, and the sports of the neighborhood, who swear with equal force by their old 30-30's, etc. There is but one way to settle this, and so a match will be held between a picked team from the club and a team of outsiders who have had so much to say about the matter. E. E. Sutherland, the crack shot of the club, will command the club team.

"There is considerable interest rising as to revolver and pistol shooting. We have a pistol target up, and will have a bobbing target also."

Eben S. S. Keith has offered a trophy cup for competition among the members of the Sagamore, Massachusetts, Rifle Club.

The death of William Finger, president of the Milwaukee Sharpshooters' Society, is a sad blow to the society, as well as to the Central Sharpshooters' Association, of which he was one of the most active and enthusiastic members. Mr. Finger died at 8 p. m. on March 28. The range of the Milwaukee Sharpshooters was closed on April 1 in honor of its deceased president.

Mr. Finger is the fourth member that the Central Sharpshooters' Association has lost within the last few months.

The Sons of Veterans Reserve Rifle Club, of Endicott, N. Y., is expecting to be called for guard duty. They are endeavoring to obtain a supply of rifles and equipment.

The New Canaan, Connecticut, Home Guard, is another organization which has realized the benefits which can come from rifle practice. The guard was formed following the declaration of war with Germany, and immediately undertook the formation of a rifle contingent.

The Canandaigua, New York, Defense Contingent, with a membership of approximately 500, is considering affiliation with the N. R. A., and the formation of a rifle club.

A reorganization of the El Paso, Texas, Border Rifle Club has been affected through the efforts of a Booster Committee. The club is arranging record shoots, and have obtained the use of the government range at Ft. Bliss.

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. Why did the N. R. A. permit the use of telescopic sights in the gallery matches this year?

A. This permission was granted because many clubs requested that their use be allowed.

Q. Has the telescope sight an advantage over the iron sights? If so, how much?

A. Telescopic versus iron sights has formed the basis of innumerable arguments among rifle cranks. In the end, the rifleman pays his money for both kinds, tries them out and takes his choice.

Q. Do the rules of the National Rifle Association permit the use of the Lyman Micrometer Windgauge Receiver sight on the Springfield rifle when used in qualification shooting?

A. If the course shot is the new N. R. A. course, any sight is permitted. If the course is the Militia Course, the service rifle with service sights is obligatory.

PATRIOTISM WITH PROFIT THE FARROW ARMS CO., Washington, D. C.

Wants a thousand patriotic people to subscribe for one or more shares of stock, at \$10 a share par value to assist in enlarging the plant to make munitions on a larger scale. THE FARROW ARMS COMPANY have been located in Washington for seventeen years and have now a remunerative business paying good profits; but the demand for war munitions must be met, and every available plant must do its part to help our President in every way to do his best, that the United States may be equal to this emergency now thrust upon us.

WE NEED YOUR ASSISTANCE. Come in with us. Making munitions is profitable work. Make check or P. O. money orders to Farrow Arms Co., Washington, D. C., and certificate will be sent by return mail.

Those not knowing the persons behind this enterprise are referred to the article in ARMS AND THE MAN, page 65, issue of April 21st.

Q. White target pasters appear no longer to be used. What kind are generally used at present?

A. Target pasters now used by the Government are made of manilla paper instead of the old white paper.

Q. Is the boiling-water treatment a sure way to prevent rust?

A. The boiling-water treatment properly carried out is a very effective way to prevent rust, provided, of course, that the barrel is properly oiled afterwards. It will not prevent corrosion in high-power rifle barrels, however, because it does not always remove all traces of fouling.

Q. Is soap good to clean a rifle barrel?

A. Soap is excellent for the purpose, but, of course, you should not use any kind of soap containing an abrasive, such as sand or pumice.

Q. What is the definition of a pocket revolver?

A. Opinions as to what constitutes a pocket revolver vary from that of the man who believes that the .25 automatic pistol or the baby hammerless revolver is the proper weapon to the one who saws off the barrel of a .45 six shooter for his pocket piece. According to the rules of the United States Revolver Association, a pocket revolver is a weapon of not less than .32 calibre, weighing not over two pounds, with a trigger pull of not less than four pounds and open sights, so made that the weapon can be easily drawn from the pocket.

Q. For all-around hunting, which would you prefer, the sporting rifle with 26-inch barrel or the carbine with a 20-inch barrel?

A. The tendency at present seems to be toward the shorter barrel not only because it is lighter, but also because it makes for a quicker handling rifle. If you knew beforehand that all of your chances at big game would be standing shots, with plenty of time to sight, the long barrel might be preferable, but most chances at big game afford but very little time to swing up the rifle and take aim.

Clubs Admitted to N. R. A. Membership During the Past Week Include CIVILIAN

Arkansas.

Pulaski Heights Rifle Club—Robert E. Lee, secretary; A. W. Stahel, president; E. T. Reaves, vice-president; Z. B. Curtis, treasurer; C. G. Price, executive officer. Membership 56.

Colorado.

Ordway Rifle Club—E. G. Smith, secretary; F. A. Townsend, president; J. A. Mast, vice-president; George E. Beaver, treasurer; E. W. Downey, executive officer. Membership 32.

Delaware.

Delaware Rifle Club (Wilmington)—Ira McCarns, secretary; W. W. Dutcher, president; Lee Knight, vice-president; Harry Kane, treasurer; Wm. R. Kilpatrick, executive officer. Membership 45.

District of Columbia.

American Camouflage Rifle Club—Frank Crozier, secretary; Paul W. Bartlett, president; Felix Mahoney, vice-president; Michel Jacobs, treasurer; A. G. Schmidt, executive officer. Membership 16.

Florida.

The Shriners Rifle Club of Jacksonville, Florida—John D. Grether, secretary; John W. Sackett, president; B. Frank McGraw, vice-president; George A. Kirk, Jr., treasurer; Cecil E. Shine, executive officer. Membership 128.

Georgia.

Columbus Rifle Club—Leland J. Henderson, secretary; George C. Palmer, president; John S. Bleecker, vice-president; R. M. Harding, treasurer; Fred H. Schomberg, executive officer. Membership 47.

Idaho.

Malad Rifle Club—M. C. Lawson, secretary; W. S. Hall, president; Vance Bigler, vice-president; T. E. Ray, treasurer; D. L. Evans, Jr., executive officer. Membership 20.

Maine.

Biddeford Rifle Club—Frank R. Fowles, secretary; Clarence Goldthwaite, president; George Emery, vice-president; John J. Dunn, treasurer; Oscar N. Garand, executive officer. Membership 11.

Massachusetts.

Hyannis Rifle Club—Charles H. Nye, secretary; A. G. Guyer, president; Winthrop D. Bassett, vice-president; Edward L. Chase, treasurer; Everett O. Bond, executive officer. Membership 18.

Mississippi.

Jackson Rifle Club—Wiley P. Harris, secretary; Robert B. Ricketts, president; J. Y. Downing, vice-president; M. S. Craft, treasurer; L. R. Featherstone, executive officer. Membership 90.

Montana.

Columbus Rifle Club—R. A. Lathom, secretary; Frank M. Nelson, president; Valdemar Jessen, vice-president; M. P. Diamond, treasurer; James T. Annin, executive officer. Membership 30.

New Jersey.

Cedar Grove Rifle Club—Arthur M. Cowie, secretary; Henry G. Smith, president; Lewis G. Bowden, vice-president; Robert Bolton, treasurer; George F. Rutter, executive officer. Membership 93.

Garwood Rifle Club—Ernest N. Roselle, secretary; Otis Wright, president; W. S. McManus, vice-president; E. R. Browne, treasurer; H. B. Venn, Jr., executive officer. Membership 65.

Madison Rifle Club—J. M. Clark, secretary; James H. Baker, president; A. R. Palmer, vice-president; F. I. Morrow, treasurer; Wm. A. Robbins, executive officer. Membership 195.

Orange Rifle Club—Hugh B. Reed, secretary; Charles B. Storrs, president; Herbert Lighthipe, vice-president; M. V. B. Brinckenhof, treasurer; Heman Dowd, executive officer. Membership 35.

Passaic City Rifle Club—Warren R. Fiske, secretary; Bird W. Spencer, president; George L. Leonhard, vice-president; R. Irving Outwater, treasurer; Irving Speer, executive officer. Membership 121.

Whitehouse Rifle Club—Russell D. Van Fleet, secretary; William Shofer, president; Edward Keating, vice-president; G. Malcolm Ryman, treasurer; Marcus Apgar, executive officer. Membership 19.

New York.

Campbell Hall Rifle Club—Harry Bull, secretary and treasurer; Henry V. Clark, president; Robert W. Campbell, Jr., vice-president; Alfred Booth, executive officer. Membership 23.

Cincinnati Rifle Club—F. Luther Hayes, secretary; Otis L. Waters, president; H. R. Weeks, vice-president; J. G. Ingersoll, treasurer; R. L. Taylor, executive officer. Membership 43.

Farmingdale Rifle Club—Jesse F. Merritt, secretary; Clarence C. Dowd, president; G. P. Sullivan, vice-president; Herbert A. Cobb, treasurer; Henry Dumper, executive officer. Membership 38.

Great Neck Rifle Club—Waldo Grose, sec-

retary; John R. Hoyt, president; H. H. Shannon, vice-president; George V. Bullen, treasurer; Frederic M. Stewart, executive officer. Membership 10.

Hartsdale Rifle Club—W. H. Van Dorn, secretary; Frank G. Whitney, president; D. Bertram Metcalf, vice-president; Henry J. Kaufman, treasurer; George A. C. Christiancy, executive officer. Membership 58.

Lyons Falls Rifle Club—Earnest Bruce, secretary; C. H. Fairchilds, president; Fred Sheldon, vice-president; Earnest Curtis, treasurer; Noah Whittlesey, executive officer. Membership 30.

Mutual Life Pistol and Rifle Club (New York City)—George C. Keefer, secretary; William Frederick Dix, president; Clarence Crocker, vice-president; Edward L. Hedenberg, Jr., treasurer; R. D. Raymond, executive officer. Membership 178.

North Yonkers Rifle Club (New York City)—Raymond U. Bunker, secretary; Karl R. Miner, president; Ernest P. Hoes, vice-president; Anson Baldwin, treasurer; E. A. Fitch, executive officer. Membership 111.

Pearl River Rifle Club—Frank S. Cooper, secretary; Harold B. Foster, president; E. R. Lyman, vice-president; J. F. Bargfrede, treasurer; Richard L. Evans, executive officer. Membership 130.

Pelham Defense and Rifle Club—John M. Byers, secretary; W. Van R. Whittall, president; A. C. Field, vice-president; Arthur B. Hunn, treasurer; James L. Gerry, executive officer. Membership 92.

Quogue Rifle Club—Edgar L. Fursman, secretary; Clarence M. Carman, president; A. Arthur Tuthill, vice-president; Albert Olsen, treasurer; Sidney H. Phillips, executive officer. Membership 50.

Ramapo Valley Rifle Club (Suffern)—C. R. Peddle, secretary; C. T. Sproul, president; C. G. Parker, vice-president; G. G. Hooper, treasurer; E. W. Bronson, executive officer. Membership 74.

Scarsdale Rifle Club—Avent Childress, secretary and treasurer; F. H. Bethel, president; A. F. Hebard, vice-president. Membership 159.

Twenty-third Maccabee Rifle Club (Johnson City)—Chas. A. Moore, secretary; Wm. L. Kocher, president; Harry McFall, vice-president; W. E. Darrow, treasurer; James Spaulding, executive officer. Membership 22.

Twenty-fourth Maccabee Rifle Club (St. Johnsville)—S. A. Peck, secretary; George W. Hart, president; Ray Sanger, vice-president; John Dockerty, treasurer; Walter Congdon, executive officer. Membership 24.

Twenty-fifth Maccabee Rifle Club (Ballston Spa)—Chas. Van Buren, secretary; H. B. Van Steenburgh, president; Duane Fuller, vice-president; John B. Van Buren, treasurer; Burton Coons, executive officer. Membership 30.

Utica Press Rifle Club—Charles W. Harper, secretary; D. Vaughan Ely, president; Avery E. Lord, vice-president; Charles A. Miller, treasurer; T. R. Hutton, executive officer. Membership 10.

Ohio.

London Military Rifle Club—Kyle M. Vance, secretary; Peyton R. Emory, president; Harry V. Christopher, vice-president; O. E. Jones, treasurer; W. E. Prindle, executive officer. Membership 35.

Oklahoma.

Maysville Rifle Club—Ira C. Bryant, secretary; J. L. Aldredge, president; C. E. Ham, vice-president; S. L. Thompson, treasurer; W. K. Butts, executive officer. Membership 36.

Pennsylvania.

Army and Navy Rifle Club of Pittsburgh—Albert Jay Cook, secretary; B. L. Adler, president; Edward F. Duffy, vice-president; W.

(Concluded on page 138)



REVOLVER AND PISTOL

New Cavalry Course For Army Automatic

(Conclusion)

By "HAIR TRIGGER"

IN undertaking the tests of the army automatic, and in later basing upon these tests certain recommendations, the officials in charge of the demonstrations laid great stress upon the fact that "as the utility of the pistol for mounted use by cavalry has never been firmly established, the assembly of five regiments of cavalry in the field presented a rare opportunity to give this weapon a thorough tryout."

It is apparent from the details, both of the manual and course of fire which resulted from the tests, that the demonstration was unusually thorough and comprehensive; and this in the face of the firing regulations of the Army, which have, in the main, sought to discourage as dangerous any attempt to use the automatic in close order "to the front" charging.

Because the officers of the Pershing column agreed that the prime essential to insure the development of any valuable system must be to train the men to handle the pistol without endangering their own lives or the lives of their fellows, the manual was drafted and the men thoroughly drilled according to its provisions—first instruction being given on foot—before actual shooting was commenced.

That part of the general orders outlining the new manual of the pistol, as reported in the *Cavalry Journal*, reads in part:

"The following manual for the automatic pistol, Cal. .45, will be used by all cavalry of the Punitive Expedition in lieu of the manual of the pistol as given in the Cavalry Service Regulations (paragraphs 125-132) and of any regulations in the Small Arms Firing Manual which may conflict with it.

The pistol being in the holster:

"I. Raise. II. PISTOL.

"At the command Raise, unbutton the flap of the holster with the right hand and grasp the stock, back of hand outward.

"At the command PISTOL, draw the pistol from the holster, reverse it, muzzle up, the hand holding the stock with the thumb and last three fingers; forefinger outside of the guard; barrel to the rear, and inclined to the front at an angle of about thirty degrees; hand as high as the neck and six inches in front of the point of the right shoulder. This is the position of Raise Pistol, and it may be similarly taken from any position.

"When dismounted, with intervals, carry the right foot about twenty-four inches to the

right and place the left hand in the position of the bridle hand.

"I. Lower. II. PISTOL.

"At the command PISTOL, lower the pistol without changing the grasp and rest the hand and pistol on the right thigh, back of hand up, muzzle in front of right knee.

"When dismounted, lower the pistol without changing the grasp of the hand; arm by the side and nearly extended, back of hand to the right; barrel inclined to the front and downward. This position will not be used in close order mounted.

To withdraw magazine, pistol in any position:

"I. Withdraw. II. MAGAZINE.

"At the command MAGAZINE, turn back of left (rein) hand down; place pistol, barrel down, in left hand on reins and clasp barrel in full grip of left hand, thumb clasped over barrel in front of trigger guard, butt of pistol up, barrel pointing to the left front and slightly downward. With tip of right forefinger press stud releasing magazine and then place tip of same finger under projection at front of magazine base. Raise magazine about an inch, then close thumb and second finger on sides of magazine, giving a secure grasp with which it can be withdrawn from socket, placed inside bolt (in pocket of shirt or otherwise disposed of without throwing it away). Right hand then grasps stock, back of hand to the left.

To open chamber, the pistol in any position:

"I. Open. II. CHAMBER.

"Carry the pistol to the left hand (if not already there) barrel to the left, front end of slide grasped between thumb and forefinger of left hand; right hand grasping stock, back of hand up; right thumb under slide stop. Hold left hand steady and push forward with right hand till slide reaches end of stroke; engage slide stop, and come to Raise Pistol. Should the pistol be cocked and locked, it will be unlocked so that the slide can move.

To close chamber, being at Raise Pistol, chamber open:

"I. Close. II. CHAMBER.

"At the command CHAMBER, release slide stop with right thumb and let hammer down gently. To let hammer down, pull downward with point of right thumb till hammer presses against grip safety and forces it home; then while continuing this pressure on hammer, pull trigger; and while continuing pull on trigger, let the hammer down. While letting hammer down, grasp stock firmly between the palm and last three fingers to prevent pistol rotating in hand.

To insert magazine, pistol being in any position, no magazine in socket:

"I. Insert. II. MAGAZINE.

"Lower pistol into left hand as in *withdraw magazine*, grasp magazine with tip of right forefinger on projection at base of magazine, withdraw from pocket and insert in pistol. To make sure that magazine is home, strike base of magazine with palm of right hand. Bring the pistol to the position of *Raise Pistol*.

To return pistol, being at Raise Pistol:

"I. Return. II. PISTOL.

"Lower the pistol and raise the flap of the holster with the right thumb; insert the pistol in the holster and push it down; button the flap with the right hand. If the pistol be loaded and cocked, the command I. Lock, II. PISTOL must precede the command 'Return.'

To load, having loaded magazine in pistol, pistol in any position, chamber empty:

"I. Load. II. PISTOL.

"Place pistol in left hand, barrel down, butt of pistol up, barrel pointing to left front and downward, slide grasped between thumb and

forefinger. Push forward with right hand until the slide is fully open, then release slide allowing it to move forward and load cartridge into chamber. Come to Raise Pistol. If the last shot in the magazine has been fired, to reload; same command, but execute *Withdraw Magazine, Insert Magazine, Close Chamber*. As soon as the pistol is loaded, it will be immediately locked by the commands, I. Lock, II. PISTOL. Should the command for locking pistol be inadvertently omitted it will be locked without command.

To unload pistol, being in any position, loaded:

"Execute by the commands, *Withdraw Magazine, Open Chamber, Close Chamber, Insert Magazine*.

To inspect pistol, it being in the holster:

"I. Inspection. II. PISTOL.

"Execute, Raise Pistol.

"To inspect the pistol more minutely, add III. Withdraw, IV. MAGAZINE, V. Open, VI. CHAMBER.

"To avoid accidents, individual men out of ranks, in barracks or camp will first *Withdraw Magazine*, then *Open Chamber* whenever the pistol is removed from the holster for cleaning, for examination, or for any other purpose. Accidental discharges will not occur if the above rule is always observed, and failure to observe it must be considered a military offense, whether or not accident results.

"The pistol with cartridge in chamber is habitually carried *cocked and locked*, whether in the hand or in the holster. The hammer will not be lowered while a cartridge is in the chamber.

"In campaign, the pistol should habitually be carried with a magazine in the socket, loaded with seven ball cartridges, chamber empty, hammer down. The extra magazines should also be loaded with seven ball cartridges each.

"When action seems imminent, the pistol should be loaded by command. It may then be returned by command to the holster till the time for its use arrives.

"Recruits are first taught the motions of loading and firing without using cartridges. However, the automatic action and the effect of ball cartridges in operating the slide can not be taught without firing ball cartridges. Practice without cartridges is very necessary to acquire *facility* in the exact movements of the manual, and in aiming, holding, and trigger squeeze.

"To execute the movements without cartridges, first *withdraw magazine, open chambers*, and *examine both pistols and magazines* to assure that none contain ball cartridges.

"The automatic pistol must at all times be assumed to be loaded with ball cartridges until an inspection has disclosed that it is not so loaded.

"All the movements in loading pistol should be practiced without looking at it, in order that the trooper mounted may execute them in action, while moving at any gait, and be free at all times to look to the front and control the movements of his horse. In order to do this successfully it is necessary to know exactly where the magazines are carried, so the hand may find them without fumbling. Also, since the projection at the front of the magazine base is on the same side as the bullets, and the magazine must be inserted in the socket with these to the front, the magazine should be carried in the pocket with the projection to the left, and should be withdrawn from the pocket with the same grasp as is prescribed for *Withdraw Magazine*.

"The Manual of the pistol and the firings will be frequently practiced, by the specified commands, at all gaits."

In providing the tentative course of fire, a series of exercises, calculated to develop special strength in wrist and forearm, were prescribed. They are:

First.—I. Arms sideward, palms up. II. RAISE. III. Finger Exercise. IV. CLOSE. V. OPEN. Close and open the fingers vigorously, separating the fingers when open. Resume the position of a soldier at the command HALT. Vary the exercise by turning the palms to the front, down, and to the rear.

Second.—I. Arms sideward, palms up. II. RAISE. III. Wrist Exercise. IV. UP. V. DOWN or IV. FRONT. VI. REAR. Bend the wrist according to the command, keeping the fingers extended and joined. Resume the position of a soldier at the command HALT. Vary the exercise as in *First*.

Third.—I. Right arm forward. II. RAISE. III. Forefinger exercise. IV. CLOSE. V. OPEN. Close and open the forefinger vigorously without moving the other fingers, which are held tightly closed as in gripping the pistol. Resume the position of a soldier at the command HALT.

Fourth.—Being at the Raise Pistol, chamber and magazine empty. I. Quick Fire Exercise. II. ONE. Lower the forearm until the pistol is pointed at the target. III. TWO. Thrust the pistol forward to the position of aim, snapping the pistol just before the arm reaches its full extension. IV. THREE. Return to Raise Pistol, and cock the pistol.

In the range practice, slow fire was the same as that described in the Small Arms Firing Manual, Target A.

Quick fire was described as "Being at the 'Raise Pistol,' pistols locked, at the command 'Commence Firing,' fire and return to 'Raise Pistol' after each shot, following the principles of the Quick Fire Exercise. Position is the same as that prescribed for 'Raise Pistol,' with intervals. Target E, 5 yards apart, one for each man firing."

"Automatic Fire" was defined as: being at "Raise Pistol," pistols locked, at the command "Commence Firing," empty the magazine in seven seconds, keeping the arm extended. Position is the same as for Slow Fire.

Upon Trench Fire the order says: "Trench Fire.—Target, two lines of E targets ten yards apart; the first line is composed of one figure for each man firing, five yards apart; the second line is composed of two figures for each man firing, placed immediately in rear of the figure in the first line, one yard between centers. Advance at the double time from 100 yards to the first line, firing one shot at the first line at about 10 yards from it, continuing the double time; halt at the first line and fire 6 shots, automatic fire, at the targets in the second line."

Seven shots were counted as a score and targets were marked after each man completed a score.

The dismounted course provided:

- (1) Slow Fire, 10 yards, minimum of 1, maximum of 3 scores.
- (2) Slow Fire, 25 yards, minimum of 1, maximum of 3 scores.
- (3) Quick Fire, 10 yards, minimum of 1, maximum of 3 scores.
- (4) Quick Fire, 25 yards, minimum of 1, maximum of 3 scores.
- (5) Automatic Fire, 10 yards, minimum of 1, maximum of 3 scores.
- (6) Automatic Fire, 25 yards, minimum of 1, maximum of 3 scores.
- (7) Trench Fire, 1 run of 7 shots, about 8 men at a time.

"A record of this practice will be kept in the organization showing the percentage of hits for each kind of fire."

"In the mounted practice," says the report, "firing to the front was conducted as a 'charge' from at least 150 yards from the target, gradually increasing the gait to full speed of the slower horses and regulating on a designated guide. At the command 'Charge,'



as the result of experience, cannot recommend too highly. * * * It is really astonishing what results can be obtained from a persevering and painstaking use of the Hollifield Rod which possesses a certain 'human interest' that dispels entirely the monotony and irksomeness of aimless snapping. * * * The latest Hollifield rod is equipped with an excellent dummy cartridge feature, which enables practice in the mechanism of rapid fire, and instruction should be had with it in rapid fire as well as slow fire."

The Hits Count The Hollifield Dotter Makes Aiming Interesting.

Adopted by the Army, Navy, Naval Militia and Canada. Gives the same practice as at the range, makes no noise and costs nothing to use.

In his book, "How to Shoot," Major J. A. Moss, U. S. A. says:

"The best instruction practice that can possibly be had in aiming and in squeezing the trigger is to be obtained with the Hollifield Target Practice Rod, a device which the author, adopted by the Army, Navy, Naval Militia and Canada. Gives the same practice as at the range, makes no noise and costs nothing to use."

The Biggest Little Work Saver Ever

It is the Handy Oil Can filled with 3-in-One Oil and it costs but 25c.

3-in-One has a hundred uses round the home and the Handy Oil Can is the cleverest and most unique container you ever saw. Get one.

FREE—Sample bottle of 3-in-One and list of uses.

3-in-one Oil Co. 165AKH. E. 7th St., N. Y.

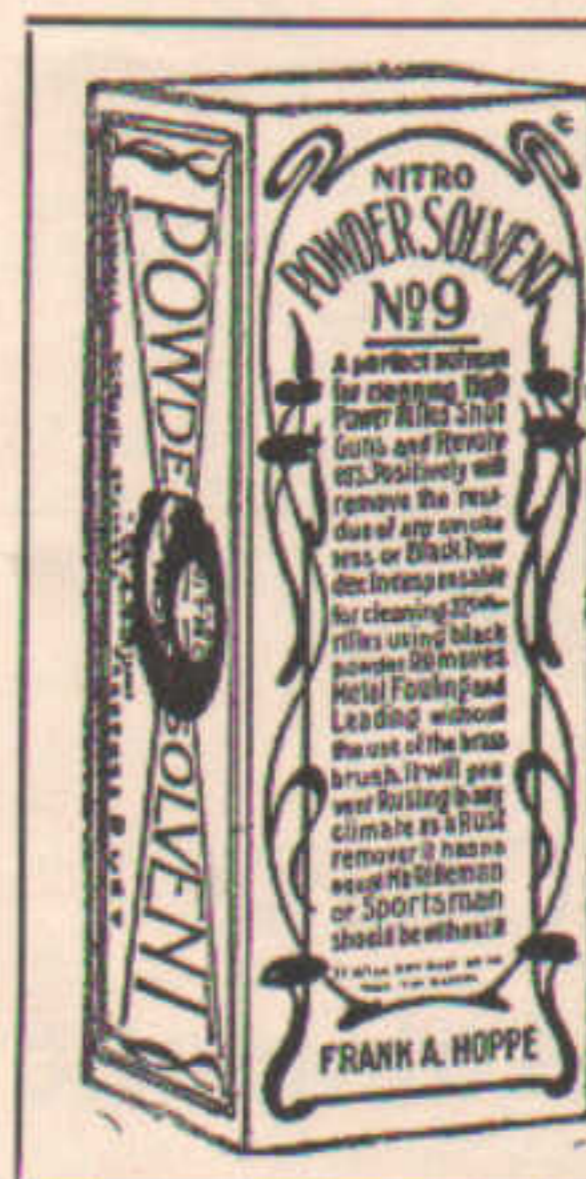


given at about fifty yards from the target, the troopers leaned forward, resting the weight of the body on the left forearm placed on the upper half of the horse's neck, the right hand with pistol being carried as far to the front as possible, over and between the horse's ears without touching him, and the pistol kept pointed at the target during the firing. In leaning forward, care was taken to derange the 'seat' as little as possible, the lower legs being held close to the horse at the girth and not carried to the rear. The men firing passed under the targets before decreasing the speed.

"Target.—For Exercises 1 to 12 inclusive, 12 E targets, numbered, were suspended from a rope or wire stretched between two poles about thirty yards apart. The figures were one yard between centers, and the lower edge about the height of a man's head sitting erect on his horse. These exercises constituted one kind of fire."

The mounted course provided:

- (1) To the front, four men as foragers, gallop—1 shot.
- (2) To the front, four men as foragers, gallop—2 shots.
- (3) To the front, four men as foragers, gallop—4 shots.
- (4) To the front, four men as foragers, gallop—4 shots.
- (5) To the front, four men in close order, gallop—1 shot.
- (6) To the front, four men in close order, gallop—2 shots.
- (7) To the front, four men in close order, gallop—4 shots.
- (8) To the front, four men in close order, gallop—4 shots.
- (9) To the front, by sections of 12 men, in close order, gallop—1 shot.
- (10) To the front, by sections of 12 men, in close order, gallop—2 shots.
- (11) To the front, by sections of 12 men, in close order, gallop—4 shots.
- (12) To the front, by sections of 12 men, in close order, gallop—4 shots.
- (13) Target.—Four E paper targets pasted on A targets arranged in line ten yards apart, ten yards from and facing the track. Two scores of seven shots each to the right and



HOPPE'S
NITRO
POWDER SOLVENT
No. 9

For cleaning rifles, shotguns and revolvers where high power powders are used. Indispensable for cleaning .22 caliber Schuetzen rifles using black powder.

Sold by all dealers, and at post exchanges. No rifleman or military organization can afford to be without it.

FRANK A. HOPPE
1741 North Darien Street
Philadelphia, Pa.



THIS is a new, one-piece, rifle cleaner with a brass cloth-carrying head on a coppered Bessemer rod, mounted free for rotation. It is especially adapted to the use of absorbent cotton. Will clean Krag from the breech.

A special price is made to rifle clubs affiliated with the N. R. A. when rods are ordered in quantities of 10 or more.

The rod is made in three sizes. Be sure to state caliber of gun when ordering. By mail, 50 cents.

C. H. YOST, Distributor
53 Sherwood Place, Greenwich, Conn.

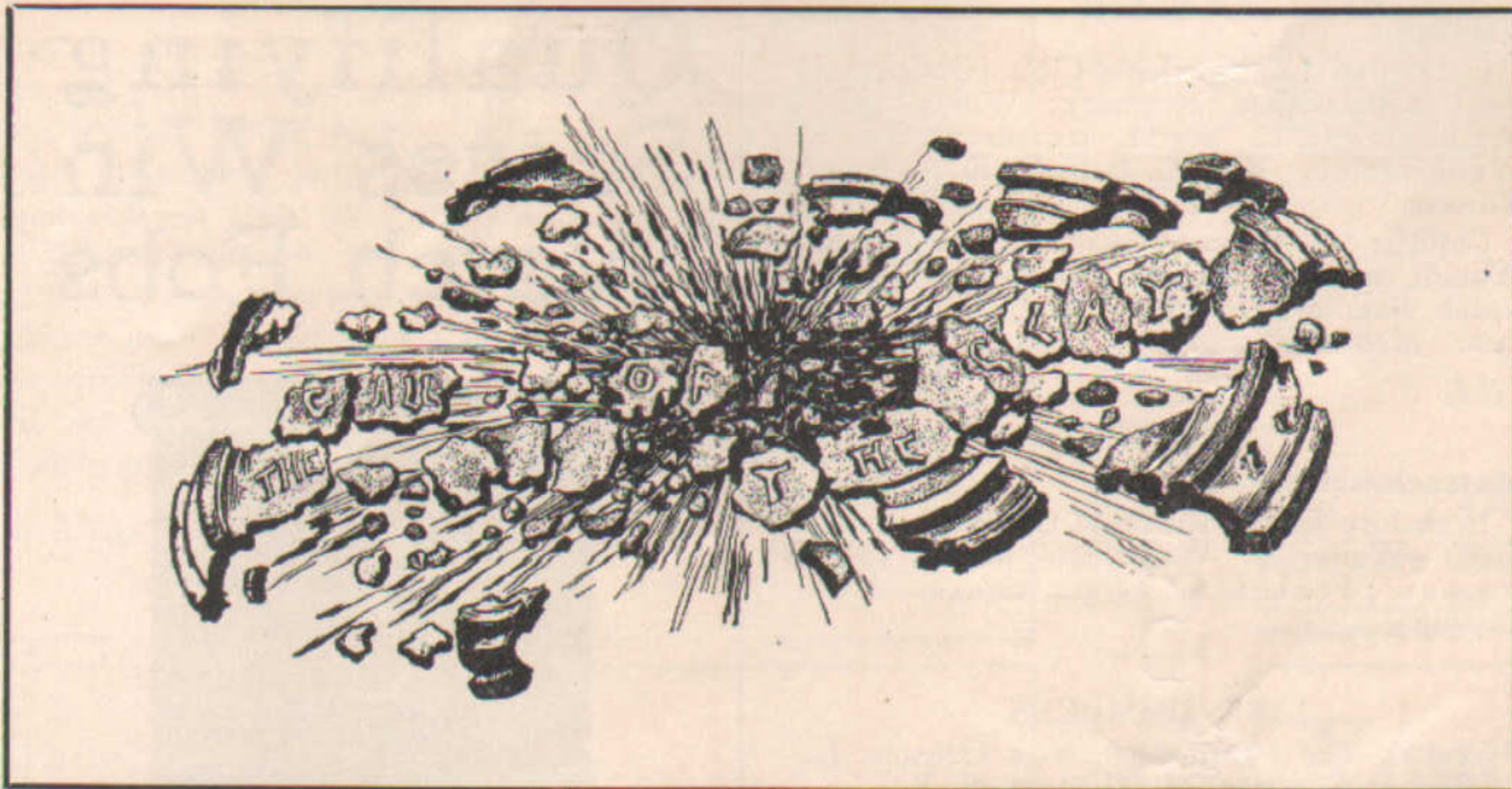
two to the left. Mark after each score. Fire one shot at least at each target, otherwise distribute the shots at will. Conduct the practice as prescribed for similar exercises in Small Arms Firing Manual, except that four men will run at a time, only the man on the target flank firing.

"(14) Time Test: Loading the pistol at a gallop."

"Target.—Three E targets placed 100 yards apart, five yards from and facing the track."

In these tests, each trooper at the starting point (one magazine in the pistol and two magazines in the pocket, one cartridge in each magazine) loaded from the magazine, entered the track at the gallop about twenty yards from the first target, fired at the first target when opposite it; changed magazines and loaded (keeping a gait of at least twelve miles an hour, on the track); fired at the second target when opposite it; and repeated the operation for the third target. The time between the first and third shots was limited to thirty-four seconds.

The object of this exercise was to test the trooper's skill in loading at the gallop, keeping control of his horse, and arranging before starting, so as to quickly dispose of empty magazines and procure loaded ones.



The Clay Pigeon is a Most Deceptive Bird

Pulverizing the Targets Looks Like a Simple Task, But One Trial Will Convince You That it Isn't.

By "TRAPSHOOTER"

CLAY pigeon—or target—shooting looks easy. In fact, there are people who taboo the sport because it is too easy, or as they say "like taking candy from a baby."

But did you ever swing a gun to your shoulder—take a slant down the barrel—and try to pulverize that same clay target? If you have, then you'll know something about the slipperiness of said target. If you haven't—well, as they say in correct parlor English, "you've got another guess coming."

It's a funny thing how the fellow looking on can almost invariably show the "doer" how it ought to be done, and trapshooting is no exception to this rule. But—well, there's only one answer: get out and "bust" a few yourself.

Standing near the score, with the trap box only 16 yards away, a target looks as big as a balloon when it starts its flight. Incidentally it sails away so gracefully that it leads one to wonder how under the sun it can escape the perfect hail of shot that is sent after it. Frankly it seems as though any one with sense enough to shoot somewhere in its neighborhood ought to smash it. This, of course, is the viewpoint of the spectator. From the standpoint of the shooter, however, the case is different. To the beginner it is extremely different—yes, sir!

They supply you with a gun at the clubhouse. They give you twenty-five shells—loaded, of course. Then some sympathetic and helpful veteran leads you to the firing line. He tells you how to stand—the proper position in which to adjust yourself and how to hold and sight the gun. Perhaps you may have held a gun, and even shot one many times before, and, of course, to your own mind, all this is superfluous. Your humble opinion of your own ability tells you so, and you mentally resolve to show the folks a thing or two.

Finally, after you are all set and ready—after you have swallowed the lump in your throat—and settled the final speculation as to whether the gun will kick or not—you give the common "pull." Bing! The clay bird springs into the air. Bang! goes your gun and what should be a mass of fragments scattered about in the atmosphere is in reality a perfectly good clay pigeon sailing away unscathed in the distance.

It's tantalizing, to be sure, but it's exhilarating, too. The kick of the gun turns out to be mostly imagination. The bugbear of a sore shoulder is a thing of the past, and, having been initiated into the sport, you tackle each succeeding shot with greater ambition and anticipation.

Now here is the surprising thing: from the mere spectator's viewpoint those targets looked as big as the house. When you view them down the gun barrel they seem to shrink to the size of a dime. Furthermore, the path that they take through the air is as devious as that of a one-legged man walking up a corkscrew.

It's all in the game, however, and the first shot is a baptism to a sport that holds you closer than a brother. To get only three targets out of a possible 25 or perhaps to achieve 25 goose eggs is really a decided rebuff to your pride. You may walk back to the clubhouse with an humble opinion of yourself, and the sympathetic, "you-did-pretty-good-old-man. I-only-got-one-out-of-my-first-25" holds little consolation.

But the hurt is soon lost in the firm intention to go back at them and make good. And it's this self-same desire to "make good" that constantly lures you again and again. That's why trap-shooting is appropriately called "The Sport Alluring."

That's why it holds the interest and the unflagging enthusiasm and love of its ardent devotees year after year.

Incidentally that's why its popularity is ever increasing.

Team Shoots Arranged

The offer of trophies by the Interstate Association for the Encouragement of Trapshooting to gun clubs desirous of engaging in team competition has met with the approval of the trapshooting clubs of the country. Thirty-two clubs got in touch with the Interstate office in Pittsburgh within a week after the offer was published and arranged for interclub competition. The idea of the Interstate Association was to suggest something that would stimulate interest in team competition, and it couldn't have done better than the trophy offer.

Trophies will gladly be given to all teams who wish to engage in such competition and the conditions are liberal.

Contesting clubs are asked to compete once each month for the trophy, to alternate on the ground and traps, and to shoot at fifty targets a man. The competition continues until one club has won the trophy three times. When this occurs the trophy is then placed in competition for the club members who shot on the victorious teams. With each scheduled shoot of the club a special event of twenty-five targets, to be called the "Interstate Association Team Championship Event," will be conducted, and in this the individuals will

shoot for the trophy. The shooter with the low score drops out after each match and the event continues until there is only one shooter remaining. He takes the trophy.

In the team competition where there are from five to ten shooting, the scores of the high five will count. If there are from ten to twenty shooting the scores of the high ten will count. If there are more than twenty shooting on each team, the scores of the high fifteen will count. The number of shooters will be governed entirely by the number of visiting trapshots. The visitors must be matched by an equal number of scattergun artists of the home club. The visitors, however, cannot bring more shooters than the membership of the home club. Above all things, every shooter must be a bona fide member of the club he represents.

Here is a list of the team matches that have been arranged for the Interstate trophies to this time:

Shelton Gun Club, Shelton, Neb., and Grand Island Gun Club, Grand Island, Neb.

Berryville Gun Club, Berryville, Va., and Front Royal Gun Club, Front Royal, Va.

Dallas Amateur Gun Club, Dallas, Texas, and Fort Worth Gun Club, Fort Worth, Texas.

Omaha Gun Club, Omaha, Neb., and New Columbus Gun Club, Columbus, Neb.

Evanston Gun Club, Evanston, Ill., and Lincoln Park Gun Club, Chicago, Ill.

Providence Gun Club, Providence, R. I., and South County Rod and Gun Club, West-erly, R. I.

Junction City Gun Club, Junction City, Kan-sas, and Chapman Gun Club, Chapman, Kansas.

Starved Rock Gun Club, La Salle, Ill., and Streator Trap and Rifle Club, Streator, Ill.

St. Cloud Gun Club, St. Cloud, Florida, and Kissimmee Gun Club, Kissimmee, Florida.

Chicago Gun Club, Chicago, Ill., and South Shore Country Club, Chicago, Ill.

Topeka Gun Club, Topeka, Kansas, and Lawrence Gun Club, Lawrence, Kansas.

Denton Gun Club, Denton, Md., and Ridgley Gun Club, Ridgley, Md.

Park Gun Club, Kansas City, Mo., and Auto-mobile Gun Club, Kansas City, Mo.

Osage Gun Club, Chamois, Mo., and Morris-son Gun Club, Morrison, Mo.

Milan Gun Club, Milan, Mo., and Newtown Gun Club, Newtown, Mo.

Providence Gun Club, Providence, R. I., and Green End Gun Club, Newport, R. I.

Will Shoot for Stock.

Shares of stock in reputable oil companies will be the chief prizes in the State champion-ship shoot of the Oklahoma State Sportsman's Association over the traps of the Tulsa Coun-try and Gun Club on May 22, 23 and 24—and for this reason the Oklahoma shoot will be the most important in the Southwest this year.

The Tulsa Club hopes to give the biggest State shoot in the country. Besides the oil stock—which amounts to a lot of money—they will give \$2,100 in cash and trophies. The oil stock was purchased one year ago, and is pay-ing 6 per cent interest. The winners of the stock get the interest also.

There will be four registered events at 100 targets on the second and third days of the shoot. The first event is the Harry Sinclair special; the second, the Frank Gillespie spe-cial; the third, the J. S. Cosden special, and the fourth—which will also decide the State championship—the Oil Field special.

The Harry Sinclair mentioned is the former president of the Federal Baseball League. He is very much interested in the shoot, as are the other wealthy oil producers of Tulsa, and every one of the companies will send squads to the traps in the State tournaments. One hundred and twenty shares of stock will be given in the four events, based on 15 shares to the winner, 10 shares to the second high gun, and five shares to the third high man. Well-paying oil stock, as additional prizes, should be the means of bringing out hundreds of trapshooters.

Scattering Shot

William B. Severn, of the Whites, by breaking 419 out of 450 targets won high average honors in the Philadelphia Trapshooters' League. He was the winner, too, in 1914.

Birds and animals protected by the laws of Arizona cannot be sold in that State.

Since the first question about southpaw trapshooters came up we are hearing from them every little while. The Milan, Missouri, Club boasts of two port siders at the traps—Grover Chapman and J. L. Reed. Reed does everything else but shoot with his right hand.

The deer season in Colorado in 1918 will be of five days' duration—October 1 to 5.

The A. A. T. A. awards medals to shooters who average 50 per cent or better—and every one shoots his own race. Progressive medals are given to those who average 50, 60 and 75. 1,054 medals were given to shooters who averaged 75 or better last year as follows: 75 per cent, 520; 80, 293; 85, 158; 90, 72; 95, 11.

Sixty thousand of the 1,100,000 acres of Pennsylvania forest reserves have been turned over to the State Game Commission for game preserves.

The E. I. duPont de Nemours Co. is offering a sterling silver watch charm to clubs for competition among its amateur members. This company, too, is offering trophies to clubs who have five or more women shooters who want to participate in matches among themselves.

A bounty of ten cents each has been placed on the heads of crows by the State of Indiana.

Soldiers and sailors are exempt from taking out hunting licenses in Kansas.

Ohio is paying a bounty of \$1 each for hawks.

Clubs Admitted to N. R. A. Membership (Concluded from page 134)

H. Hamilton, treasurer; Edward B. Riddle, executive officer. Membership 125.

Connellsville Rifle Club—D. K. Dilworth, secretary; Harry Cook, president; D. A. Ripley, vice-president; J. B. Kurtz, treasurer; Robert S. Cooper, executive officer. Membership 35.

Ingersoll-Rand Rifle Club (Easton)—Frank Bishop, secretary; Ward Raymond, president; Wm. C. Merwarth, vice-president; Henry Bauer, treasurer; Thomas Woods, executive officer. Membership 130.

Minisink Rifle and Revolver Club (East Stroudsburg)—Anson E. Laufer, secretary; Wm. Hardin, president; George Van Campen, vice-president; C. L. Wallace, treasurer; Walter L. Bronner, executive officer. Membership 10.

Texas.

San Antonio Post Office Rifle Club—G. C. Ridgeway, secretary; Kit Carson, president; C. C. Barnesburg, vice-president; J. L. Myers, treasurer; H. W. St. John, executive officer. Membership 71.

West Virginia.

Plattsburg Association and Rifle Club of Wheeling—George A. Feeney, secretary; J. C. McKinley, president; A. C. Stifel, vice-president; F. C. Roderus, treasurer; J. S. Jones, executive officer. Membership 113.

COLLEGE

California.

Occidental College Rifle Club (Occidental)—E. E. Chandler, secretary; Wm. G. Bell, president; J. C. Shedd, treasurer; W. D. Ward, captain; Wm. G. Bell, N. R. A. Judge. Kansas.

College of Emporia Rifle Club—Maurice Waugh, secretary; Davis Bovaird, president; Ralph Smalley, treasurer; Ed. Chilcott, captain. Membership 67.

SCHOOL

Massachusetts.

Berkshire School Rifle and Gun Club (Sheffield)—Walter P. Walbridge, secretary and treasurer; Frederic M. Seeger, captain. Membership 32.

LIFE MEMBERS

Walter Van Benthuyzen, New Orleans, La.
Allen W. Corwin, Middletown, N. Y.

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. Motter 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.

FOR SALE—Easy finding real killing power. Useful tables for rifle hunters and revolver or pistol shooters, \$6.00 the hundred. L. Ramirez Casablanca, Box 57, Bayamon, Porto Rico.

FOR SALE—Marlin Model 1897, .22 calibre, brand new. Write for description. P. R. Westover, Frugality, Pa.

WANTED—Mould to cast 32-40 bullet about 125 grains. Ronald Lindsay, Box 230, Quebec, Canada.

WANTED—Springfield rifle in good condition. Give price and full particulars. G. Nichols, Room 400, Newton Bldg., St. Paul, Minn.

WANTED—33 Power Bardou telescope in good condition. New or second hand. Chas. H. Pool, 1425 Iowa Ave., Hollywood, California.

FOR SALE—Winchester Musket, 22 L. R. Take Down. Lyman pin head and aperture front sight, Lyman micrometer rear sight; sling strap. Shot less than 200 rounds. Perfect condition. O. G. Schmidt, 405 South Fifth Avenue, Mount Vernon, N. Y.

FOR SALE—414 Stevens Rifle, 22 Cal. absolutely first class condition. \$10.00. W. B. Riley, 2220 South 10th St., Omaha, Nebr.

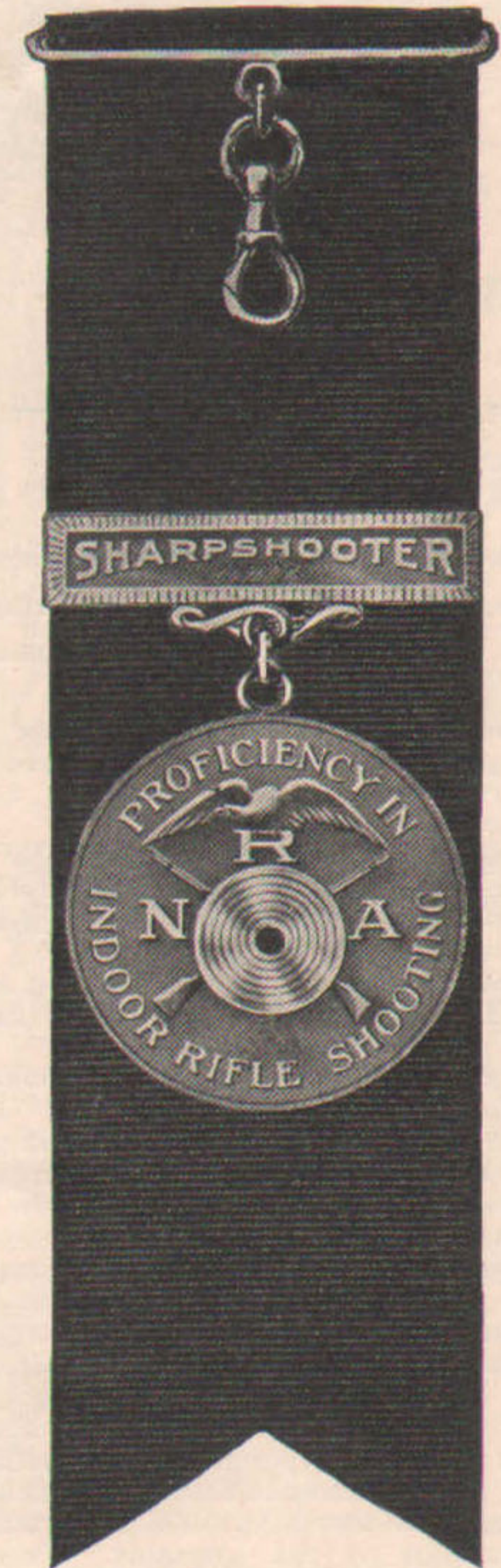
FOR SALE—Springfield Cartridges 30-60, 150 gr. Bullet, in clips U. S. Cartridge Co. Want Colt 45 auto Krag file and carbine. O. C. Adams, North Canton, Conn.

FOR SALE—Stevens .32/35 & .303/25 rifle, Favorite .22 Pope barrel, .28/30. Picture projector with lights, 4x5 Kodak Outfit. Lot of Grooved and Patch molds—.25, .30, .32, .38, .40, .46. Loading tools, lubricators, Dippers, Shells, Patches, Cartridges, files of Rod & Gun and Forest and Stream, all in finest condition. Sight discs and peep-cups made to order. Send 10c in stamps and state what you want. T. Martin, 8 Drummond St., G. H. Station, Boston, Mass.

FOR SALE—Lord Bury Telescope, power 25 to 45, Tan body. Used very little. Price \$30.00. M. O. Nielsen, 545 Elmwood Ave., Buffalo, N. Y.

WANTED—Fine Prism Binocular, 6x or 8x. Give full description. Must be A-No. 1 condition and cheap. C. F. Allen, P. O. Box 1504, Providence, R.I.

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

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

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

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

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The Secretary of the
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of America

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—Based on Experience

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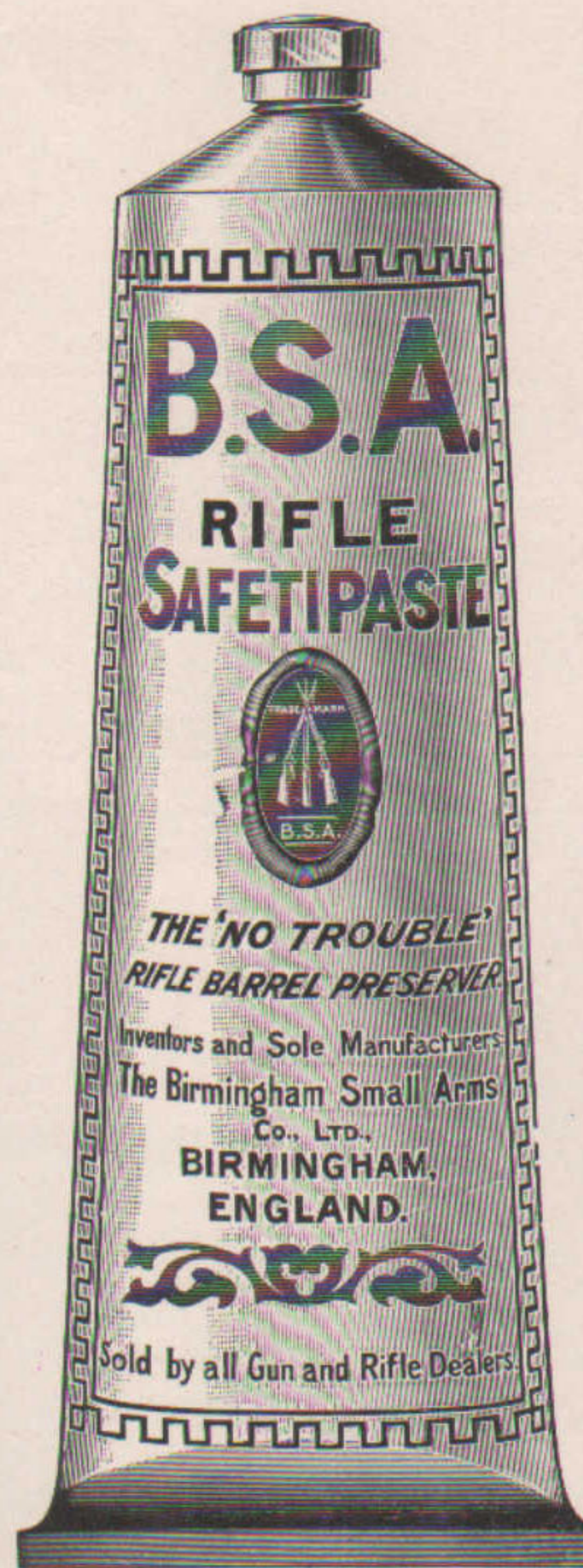
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ARMS AND THE MAN

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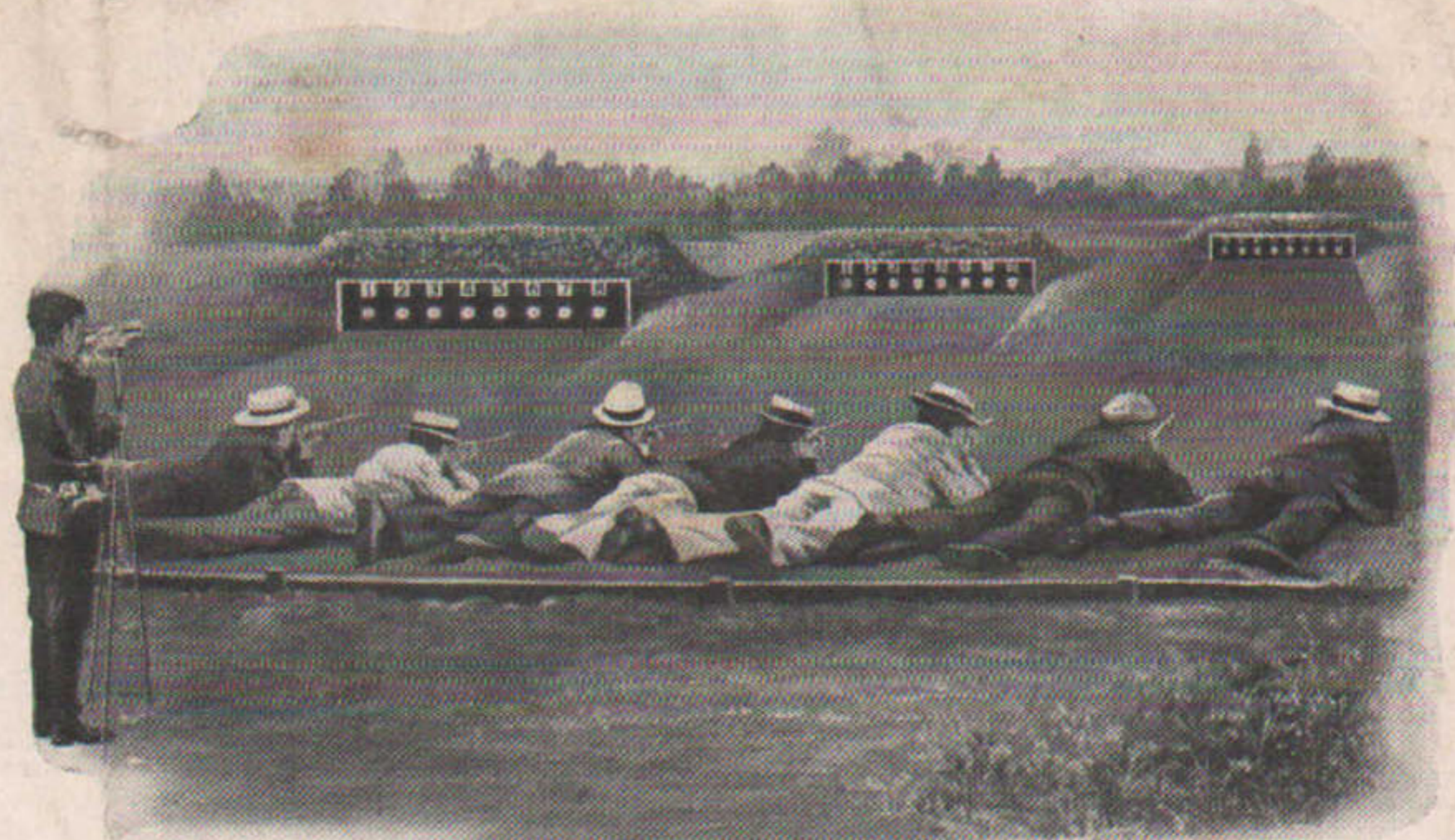
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