

ARMS AND  
THE MAN

A TWENTY-FIVE SHOT, PERISCOPE TRENCH  
SPRINGFIELD

THE CARTRIDGE, FROM PAPER TO BRASS

OVERSEAS ORGANIZATION OUTLINED

"TAKE CARE OF THE LAST INCH"

EFFECT OF EYESIGHT UPON SHOOTING ABILITY

WITH THE SMALL-BORE LEAGUE

EDITORIALS and

LATEST NEWS OF RIFLE, REVOLVER AND

SHOTGUN, THE ARMY, THE NAVY AND

THE NATIONAL GUARD

VOL. LXIII, NO. 2



OCTOBER 6, 1917

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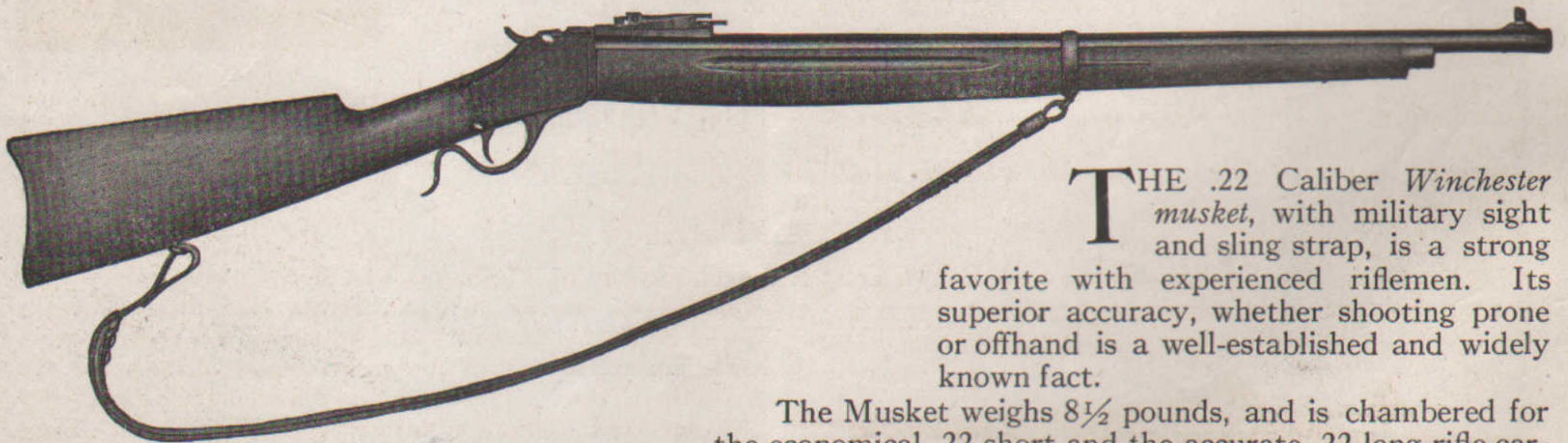
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**New Haven, Conn.**

# ARMS AND



# THE MAN

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## A Twenty-Five Shot, Periscope Trench Springfield

By STEPHEN TRASK

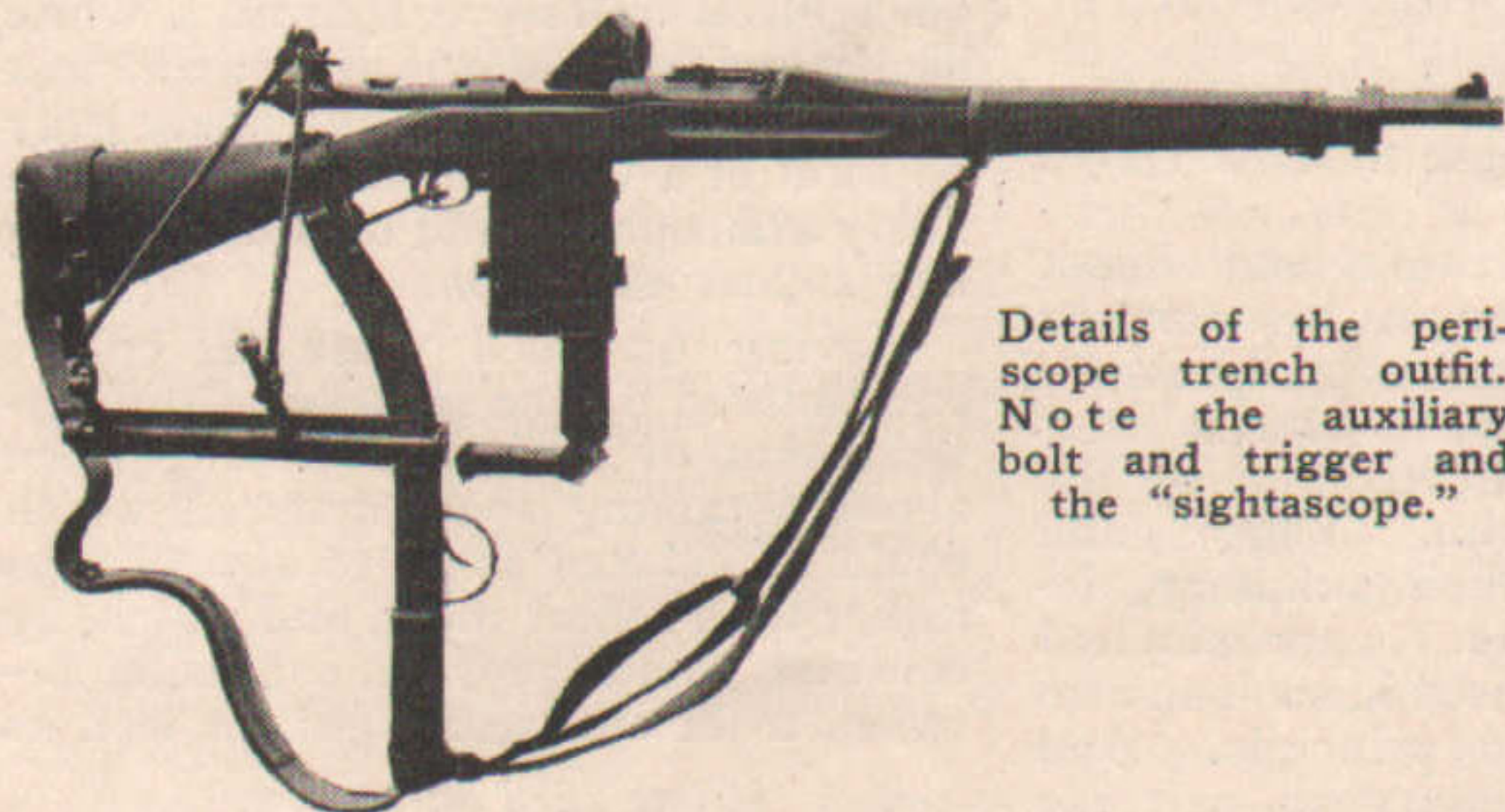
**A**ROUND the time-tried Springfield, Model 1903, has been constructed an excellent twenty-five shot periscope trench rifle. With it, accurately aimed shots can be fired while the soldier is thoroughly protected by an overhanging trench parapet. The sighting equipment is practically telescopic as well as periscopic, permits of micrometer windage and elevation adjustments and is equipped with "intensifying screens" which bring clear definitions to hazy targets.

In brief, these refinements have been accomplished by an auxiliary magazine and a new form of periscope, both of which have been adjusted to the Springfield, as issued, while the rifle itself is mounted upon a framework fitted with an extension trigger and bolt action acting in sympathy with the trigger and bolt action of the rifle. By many who have examined the rifle each of the improvements apparent in the new trench outfit is declared to be a successful attempt to meet shooting conditions as they exist along the Western front.

As the first perfected models stand, the entire outfit adds about 6 pounds to the normal weight of the Springfield. It is, however, easily mobile, and since designed for trench work only, the increase in weight is not regarded as a fatal defect. It is probable that in later models a marked reduction in weight will be apparent.

The outfit has been thoroughly tested, and has now been submitted to the United States Ordnance Department. It has proved practical in previous tests and evidences a high degree of accuracy, with a marked reduction in the usual recoil which follows the heavy service charge. It is also possible, with the outfit to "stay on the target" for long strings without stopping to readjust sights.

Scores of inventors, spurred by the coming of war, have during the past few months been at work upon improvements and refinements for the Springfield. Many of these



Details of the periscope trench outfit. Note the auxiliary bolt and trigger and the "sightscope."



The Periscope, Twenty-five Shot Trench Springfield in use, showing how the auxiliary trigger and the periscope permits the rifleman to take advantage of protection.

proposed innovations, which range all the way from new forms of receiver sights, to auxiliary battle sights, will prove utterly impracticable. Others, while practical, will no doubt be disapproved by the War Department, since any change which involves the manufacture of special parts is frowned upon at this time; a fact which most likely explains why the Nash Receiver Sight, operating with perfect success during the Navy tryout, has not been finally passed upon by the army, since to mount this sight requires retooling of the receiver and a remodeling of the stock.

When James L. Cameron and Lawrence E. Yaggi both of Cleveland, Ohio, and enthusiastic riflemen—Mr. Yaggi being a member of the N. R. A.—undertook to perfect certain devices for the Springfield, they bore in mind the necessity of adopting their accessories without radically changing the service arm, and accomplished their improvements on this principle.

The Yaggi-Cameron periscope Springfield made its appearance on the Winthrop, Md., rifle range about three months ago. Yaggi was demonstrating its possibilities. Among the interested spectators was Col. C. B. Winder, whose name has long been associated with those of the men who consistently enter long range matches. Colonel

Winder incidentally had just installed at Winthrop a new target marker as well as a unique form of range desk.

Colonel Winder saw Yaggi slip the heel of the rifle into a boot, which surmounted a light iron framework of peculiar design and then fasten the rifle to another part of the frame by a band which fitted around the small of the stock. He saw Yaggi unsnap the magazine floor-plate, substitute the 25-cartridge magazine, and adjust the extension which "lets off" the rifle trigger. But more than that he had seen a peculiar, goose-necked tube which ran down beside the frame work from beside the rear sight. The goose-necked tube appeared to carry a lens. That in itself was quite enough to win the interest of Colonel Winder who is perhaps the greatest telescopic sight enthusiast extant.

The Colonel well knows the kick of the service rifle. He began resisting the "pound" of a military charge in the days of the Forty-five Seventy. He learned more about it with the Krag and completed his education with a score of Springfields. About the first thing that the peculiar framework suggested to the Colonel was KICK.

But when Yaggi fired the rifle he seemed to experience no inconvenience. Colonel Winder, however, wanted to see for himself. Therefore he obtained permission to try the rifle.

Afterwards, describing the effect of the heavy service charge on the weapon held in the light framework, he said: "There was a lot less kick to it than the rifle ordinarily gives. The whole framework, rifle and all, just seemed to rock back a little."

Cameron and Yaggi perfected their periscope attachment near Cleveland, after it had been tried out abroad under service conditions, Yaggi having himself taken it to the battlefields of Europe where the Tommies and the *Poilus* disgusted with the box-periscopes which had been issued to them were throwing away that part of their equipment, since the continental forms of periscope betray the hidden sniper by reflection from the lenses, as well as make it impossible for the riflemen to cuddle under the overhanging parapet of a trench and there be safe from shrapnel fire.

Yaggi's periscope does not reflect light. In addition it gives a "cross hair aim" and the lenses give a magnification of about 4-power. When the rifle "lets off" instead of the eye-piece of the periscope jamming back into the rifleman's eye, as so many of the earlier forms were wont to do, the eye piece, by the rocking motion imparted to the frame is carried away from the eye. The intensifying lens which has been developed for use in connection with the periscope, shades out many of the light rays which tend to make distant targets indistinct, and

adds about 100 per cent of visibility to a misty foe.

While the "sightascope" as the periscope is called by Yaggi, and the framework are adaptable to both the Springfield and the Enfield rifle, it can also be successfully attached to the lighter forms of machine guns, such as the Lewis.

As to the accuracy obtainable with this device, with sights set for 200 yards, and using a parapet rest, during one of the tests to which the outfit was



The Periscope Springfield is easily portable.

subjected, 10 shots were fired. The point of impact of these 10 shots varied only 1.3 inches.

While the United States and almost every other government has for the past decade, been endeavoring to develop a machine rifle, in even a truer sense than is the Lewis gun or the light Vickers-Maxim, Yaggi and Cameron have, in their auxiliary, detachable magazine approximated everything to be desired in such an arm save the automatic principle. And although it is necessary to pull the

trigger for each shot, it is possible to fire 25 aimed shots from the magazine in less than half a minute.

The Yaggi-Cameron magazine, which gives the Springfield an appearance not unlike that of the old 10-shot Short Enfield, with protruding magazine, is extremely simple. It consists of nothing more than a metal casing, open top and bottom. Inside of it is an ordinary Springfield magazine feeder, resting upon two Springfield magazine springs which have been joined. The top of the casing is constructed so that it will snap into the fastenings which ordinarily hold the magazine floor plate. The bottom of the casing is made to receive the rifle magazine floor-plate and spring which have been detached. The double spring and feeder, in the casing, and the original floor-plate, spring and feeder work in perfect harmony in feeding the 25 cartridges into the receiver.

Yaggi has not entirely confined his efforts to producing the periscope Springfield. He is a great believer in the protective coloration idea in uniforms—also that rifle sights should be constructed to give the greatest visibility possible to misty targets. This latter theory led him to the production of something else absolutely new in sighting equipment. In short, he has devised a front sight of red Bakelite and a rear sight slide of green Bakelite—a substance quite as durable as steel for this particular purpose—which produces a far clearer definition of an obscure target than do the ordinary sights.

While on the battlefields of Europe, Yaggi conceived the idea which has developed into his "colored sights." As a matter of fact the idea, in practice is not quite so absurd as it may sound. There are very good scientific reasons to be presented for such a course, according to Yaggi and other riflemen who have experienced the eye-strain attendant upon iron sights set far from the eye.

The inventor of the colored sight system points out that to pick up a human target garbed with consideration for protective coloration, is a very different matter from lining up sights on a black bull's-eye against a white background. And it is often an almost impossible task to spot the misty gray uniform of a German sniper through a misty atmosphere, and obtain anything like a clear definition.

Having observed these difficulties encountered by the snipers on the battle fronts of France, Mr. Yaggi set about obtaining some material which could be colored so as to absorb rays rather than reflect them, and which, by contrast would prevent confusion between front and rear sight, as well as

(Concluded on page 30)

# The Cartridge, From Paper to Brass

By LT. COL. JOHN S. BARROWS

WHEN the several geniuses who through many years had been working on the production of a fulminate for the purpose of quick ignition of the charge in a gun, and the adaptation of it to a cartridge had achieved their object, it was little thought that the development of the cap and the cartridge would revolutionize the operation of small-arms and heavy ordnance more than almost any change that had been made since gunpowder was discovered. Yet such was the case, and while the invention of the metallic cartridge has done much in the efficiency of armies, it has also been a boon to humanity in sporting arms, and arms for protection. In many ways the metallic cartridge has settled more situations than any other influence.

In Kipling's tales of "Soldiers Three" he puts into the mouth of Stanley Ortheris this philosophical remark, as the immortal three lay in the edge of the forest waiting for Ortheris to "pot" a deserter: "'Ere's my chaplain," he said as he jerked the cartridge out of his rifle, into the palm of his hand, "'E's goin' to teach a man all about which is which, an' wot's true, after all." At a distance of six-hundred yards, the cartridge in the Martini accomplished what Ortheris declared it would do.

Marvelous changes and developments have taken place since 1569, when the Spanish musketeers first wrapped their powder and ball in one parcel, and the clean-cut hard-headed "chaplain" of Private Ortheris is quite a different individual, as different as the weapons in which the two types of cartridge were used.

The cartridge obtained its name from the Latin word, "charta," meaning "paper," and for a long time paper was the container for the combination of powder and ball. The musketeer of the XV century had a number of little wooden boxes, each holding the proper measure of powder for a charge, suspended from the bandolier which he wore over his shoulder; the bullets he carried in a "bullet-bag." His efficiency was limited, but as it required a long time to load the piece he had ammunition enough for a good day's engagement. The other appurtenances of the musketeer were: a priming-horn, containing the fine powder for priming the touch-hole of the piece; the bag of bullets; matches and match-case, the match being a coil of slow-burning fuse, with which his musket was fired. Today all the energy of this conglomeration of material is contained in one metallic cartridge.

The development of the metallic

cartridge shows how the original and the improved article exist side by side, the original type even being used after the improved type has been established; but such was the case, for while the cartridge began with a paper package of powder and ball in 1569, in 1861 a similar combination was the established type; and such a cartridge was used throughout the American Civil War, even though the metallic case had been invented in 1812, by Pauly, a Parisian locksmith and gunsmith.

Pauly evolved in 1812, a gas-tight, flanged, central-fire, metal cartridge case for breech-loading small-arms; but as far back as 1537 thimbles of metal had been used as containers for the powder in the breech of ordnance. Pauly developed this idea, adapting it to improved ordnance. He also made use of Rev. Alexander John Forsyth's fulminating powder and percussion system, introducing it into his cartridge shell.

About the same time Joshua Shaw, at Bordentown, N. J., was working on a metal cap for the nipple of a gun-lock and containing fulminating powder; the combination to do away with the flint-lock and pan, which was as liable to flare back as to go the right way, as the priming-hole became worn from usage.

In 1817 Shaw's copper percussion caps were tested on the Hall breech-loading musket; and in 1822 he was granted a patent for the cap and percussion lock.

In spite of this fact, the Mexican War of 1846-47 was fought with flint-lock muskets, and the percussion system was considered too new for such a hard trial. From 1861 to 1865 the percussion system was tried most thoroughly, and a rifle so equipped could be fired at least twice a minute; though it required nine movements to load and fire.

In 1856-57 George W. Morse, of Lowell, Mass., developed the percussion cap to the extent that it became a practical cartridge case, and though he offered it to the British Army, the authorities rejected it because they considered it dangerous. In 1866 the British Army's Enfield-Snyder rifles were made more efficient by being converted to breech-loaders, using Col. Boxer's coiled metal, built-up cartridge-case, which was Morse's principle adapted by a different form of construction.

During the American Civil War several breech-loading arms were in use, and copper cartridges, containing fulminate, and fired by a hammer blow on the rim were in use, and their

efficiency was demonstrated to such a degree that in 1866 the U. S. Government Armory at Springfield began the manufacture of breech-loading rifles using metallic cartridges.

In the hands of the United States Army on the prairie frontier during the '70's, the breech-loading rifle and carbine using .45 calibre ammunition did service in winning the West to civilization and since then the necessities of the service have produced the bolt-action, multi-fire, magazine rifle of small-bore and using smokeless powder in brass cases, behind a sharp-nosed bullet, coated with cupro-nickel steel. The cartridge has come a long distance from the paper combination of the XV century, but it has kept along with the demands of civilization, at times has even been ahead; and it has been a powerful agent in developing and civilizing the world.

Today the riflemen, instead of tearing his way into his ammunition with his teeth, takes in his fingers a beautifully finished and complete cartridge, containing tremendous energy. It is not necessary for him to place a half-ounce round lead ball in the palm of his hand and pour thereon gunpowder from a powder-horn, until it is completely concealed, as Davy Crockett used to do, and then load his rifle. Instead, he inserts this trim cartridge, in the best type of rifle in the world, and is ready for business at any range.

## MARINES EXPLAIN SALUTE

The military salute had a curious origin, if the tradition brought to light by U. S. Marine Corps officers at their headquarters here may be believed. The Navy soldiers say that the salute originated in the days of the tournament, at which a queen of beauty was chosen to preside. The knights and their esquires and all who took part in the tourney, on presenting themselves before the queen, lifted each one a hand level with the brows as though dazzled by the light of her presence.

Although its significance has been forgotten that same salute is now used by military men in recognition of a superior rank, the Marine officers say.

Not all the weapons used in the present war are of modern invention. The use of hand grenades, for instance, had been in abeyance for nearly one hundred years. The last employment of these most effective weapons was at the capture of Bhurtpore, India, by the British forces, in 1826. On this occasion, the hand grenades used were not loaded, the officer in command, Gen. Jasper Nicolls, being of the opinion that "a hand grenade with burning fuse has the same moral effect that a loaded one would have, while the soldier carrying it runs no risk from a premature explosion."

## Overseas Organization Outlined

OUTLINES of the organization of units designed for overseas service, including infantry, machine gun, and artillery contingents, together with the equipment, both of small arms and heavier ordnance which will be used, have been made public by the War Department.

At maximum strength an Infantry regiment will comprise 103 officers and 3,652 men. It will be made up as follows:

	Officers and men.
1 headquarters and headquarters company.....	303
3 battalions of 4 rifle companies each.....	3,078
1 supply company.....	140
1 machine-gun company.....	178
1 medical detachment.....	56
	<hr/>
	3,755

Each rifle company has a strength of 250 men and 6 officers. It is composed of a company headquarters (2 officers and 18 men) and four platoons. Each platoon includes:

	Officers and men.
1 headquarters.....	2
1 section bombers and rifle grenadiers.....	22
2 sections riflemen, 12 each.....	24
1 section auto riflemen (4 guns).....	11
	<hr/>
	59

The machine-gun company has 6 officers and 172 men. It consists of the headquarters (3 officers and 21 men), 3 platoons (each with 1 officer and 46 men), and a train (13 men). Its armament is 12 machine guns of heavy type and 4 spare guns.

The transportation equipment of the regiment is:

- 22 Combat wagons.
- 16 Rolling kitchens.
- 22 baggage and ration wagons.
- 16 ration carts.
- 15 water carts.
- 3 Medical carts.
- 24 Machine-gun carts.
- 59 Riding horses.
- 8 Riding mules.
- 332 Draft Mules.
- 2 Motor cycles with side cars.
- 1 Motor car.
- 42 Bicycles.

New fighting equipment for each regiment, in addition to the usual rifles, bayonets, pistols, etc., includes 480 trench knives (40 to each company), 192 automatic rifles (16 to each company), and 3 one-pound cannon manned by the one-pounder cannon platoon of the regiment headquarters company.

Each regimental headquarters company is made up of 7 officers and 294 men, as follows:

One headquarters platoon (93 officers and men) including 1 staff section (36 officers and men), 1 orderlies section (29 men), 1 band section (28 men).

One signal platoon (77 officers and men) including 1 telephone section (51 men), 1 section with headquarters

(10 men), 1 section with 3 battalions (16 officers and men).

One sappers' and bombers' platoon (43 officers and men) including 1 section sappers (9 men) for digging and special work, 1 section bombers (34 officers and men).

One pioneer platoon (55 officers and men) for engineer work.

One 1-pounder cannon platoon (33 officers and men).

To put into effect this new organization for over-seas service considerable rearrangement of units formed on the old plan is, of course, necessary. As soon as possible a statement will be made outlining the new organization units in the National Guard.

The organization of Infantry divisions made public by the Committee on Public Information on August 7, has since that date undergone important changes. The following summary of the organization of an Infantry division completes the general outline of organization of the United States Army for service in Europe. The figures are the total of officers and men for each entry. Each Infantry division comprises:

1 division headquarters.....	164
1 machine-gun battalion of 4 companies.....	768
2 Infantry brigades, each composed of 2 Infantry regiments and 1 machine-gun battalion of 3 companies.....	16,420
1 Field Artillery brigade composed of 3 Field Artillery regiments and 1 trench-mortar battery.....	5,068
1 field signal battalion.....	262
1 regiment of engineers.....	1,666
1 train headquarters and military police.....	337
1 ammunition train.....	962
1 supply train.....	472
1 engineer train.....	84
1 sanitary train composed of 4 field hospital companies and 4 ambulance companies.....	949
	<hr/>
	27,152

The new organization increases the ratio of Artillery and machine-gun strength to Infantry. In place of the old division of three brigades with three Infantry regiments in each are two brigades with two Infantry regiments in each. But in the new, as in the old organization, there are three regiments of Field Artillery in each division, making the ratio of Artillery to Infantry regiments three to four, in place of three to nine. A trench mortar battery, added to the Artillery brigade, and a 1-pounder platoon, attached to each Infantry regiment headquarters company, adds to the gun strength of the division.

A division now includes a total of 14 machine-gun companies. Each of the four Infantry regiments has one; each of the two brigades has a machine-gun battalion of three companies; and the division has a machine-gun battalion of four companies. This gives each division a mobile machine-gun strength of 10 companies, which can be used as special needs require, while each regiment still has its own machine-gun equipment in one of its component companies. And, in addi-

tion, there are 48 sections of auto-riflemen, each section carrying four light machine guns (automatic rifles), one section in each of the four platoons making up each rifle company.

### "TOMMY" DESCRIBES BAYONET FIGHTING

The "niceties" of bayonet fighting was described by a young British Sergeant-Major for the benefit of some of the American Expeditionary Force recently, according to a foreign correspondent of the Army and Navy Register.

"The neck is a very convenient point for jabbing a bayonet into a Teuton," said the sergeant-major, illustrating the method with a real weapon so vigorously that a marine, a silent participant in the demonstration, stood on the tips of his toes to save himself from being impaled on the sharp point. In cool matter-of-fact tones the teacher described the vicious fighting that is necessary in a bayonet melee, thus bringing home to the men the "fight or die" lesson.

"It is only necessary to penetrate the body three inches to make the thrust effective," he continued. "However, we train our men to practice lunging with all their strength. You would be surprised sir," he added, turning to a marine officer, "to learn how much strength it takes to jab a bayonet into a man's body. Jerking one out is even harder, especially if it has gone through a bone. Then you have to blow it out by firing a cartridge from the rifle. Always carry the magazine of the rifle loaded when making a bayonet charge.

"If a German gets too close to be bayoneted swing the rifle and catch him on the chin with the stock of the gun in this way," again illustrating with the help of the marine. "If he jerks his head back reverse the rifle, suddenly catching the other side of the chin. If that fails you have the bayonet point under the chin in the most convenient place."

### WOODEN SOLES FOR SOLDIERS' SHOES

Consul Frank W. Mahin, in Amsterdam, has reported that the commander-in-chief of the Dutch army has notified the corps commanders that an experiment is to be made with wooden soles for shoes, in consequence of the increasing advance in the price of leather.

For the experiment, 5,000 pairs of shoes will be made; 2,000 are now ready. The wooden soles will be on new shoes, each pair having an extra set to replace worn-out soles.

The wooden soles are first soaked in water, to increase their flexibility.

When a definite judgment of the experiment can be formed, and it is found feasible, it will be extended on a large scale.

## "Take Care of the Last Inch"

Being Some of the Conclusions of "Akeriman," Musketry Officer, as Set Forth in "The Rifleman" of London, and Which Should Have Particular Interest for Members of Civilian Rifle Clubs Who Are Taking Up Qualification Work With the Small-Bore Rifle.

WHAT is the difference between cleaning a Service Rifle and a Miniature? Well—very little—but there *are* points of difference. In the old days, there was a general idea that although the "full charge" rifle had to be scrupulously cleaned, the miniature, or "aiming tube" which then took its place in this country, would be satisfied with an occasional rub through with a filthy bristle brush dipped in oil. To this day, the sole apparatus issued in the Service for the .22 is a rod and brush.

Now as a matter of fact, neither the .22 nor any other fire-arm will shoot accurately unless the original surface of the bore is maintained undamaged. And the fouling from the .22 cartridge is just as capable of eating away the steel as is that from the .303. In fact, with most .22 ammunitions, more so—for this reason.

The "detonator" or cap, of the .303 cartridge is in the center of the base. It contains fulminate of mercury, which explodes on being struck, and the flash from this small explosion fires the main cordite charge within. In the case of the .22, the mercury fulminate is all round the *rim* of the cartridge; hence the name "rim-fire," whereas the .303 is "centre-fire."

Now this fulminate is most deadly stuff for corroding rifle barrels—far worse than cordite, or black or smokeless powder. And in the the little .22, the proportion of fulminate to the total charge is necessarily greater than in the case of the centre-fire cartridge. In the latter, the fouling from the cap is, as it were, swallowed up in the much greater volume of fouling from the cordite; but in the .22, it is a considerable item, and shows its sense of importance by rapidly corroding the bore just in front of the chamber if it is given the chance.

Here, then, is the difference. The .22 must be very carefully cleaned just in front of the chamber—at the "lead," to give it the technical name of that part. This is more important than in the case of the bigger bore, bigger charge rifle, though it is an important point in all rifles.

A mechanical difficulty crops up at once in this connection. The Service Rifle is easily cleaned at the lead, for the bolt is taken out and the pull-through dropped through from that end. But most .22 rifles are of the Martini or block action type, and generally cleaned from the muzzle

with a rod—the result being that the unwary "miniature man" is very apt to neglect that last inch of the barrel which is by far the most important part to keep clean. So general is this tendency, that the writer always inculcates the maxim, in cleaning a Martini, "take care of the last inch, and the rest will take care of itself." And in proof of this, it will be found that if a number of old .22 rifles be carefully inspected, 90 per cent of them will have rust pits or roughness near the chamber, while the remainder of the bore may be bright.

The nature of the fouling from the main charge is very similar in all cartridges. Black powder is perhaps the least harmful, though it is bad enough. Cordite and other smokeless and semi-smokeless powders are very similar in their effects on the bore, but the *intensity* of the fouling depends to some degree on the size of the charge and the pressure set up in the barrel by the explosion. In the .303, with its 38 grains of tubular cordite, the pressure is about 20 tons to the square inch at the moment of detonation, and the heat greater, for a moment, than the fusing point of steel. The result of this is that the amount of fouling forced into the pores of the steel is considerable; but in the case of the .22, where the pressure and heat are much less, the amount of "internal fouling" is also less.

The use of boiling water for removing internal fouling is always good, but a good cleaning fluid may quite safely be used instead, especially with the .22. There are several excellent brands on the market, of which the writer has found Young's ".303" and Price's "Antifoul" as good as any. Oils which profess to do several things besides cleaning are hardly to be trusted.

These "Cleaners" contain some alkaline solution which acts on and neutralises the acid residue in the fouling. They should be used by soaking a flannelette patch in the cleaner, and working it vigorously up and down the bore (especially that last inch!)—by means of a rod and *loop*. Do not be put off with plugs, jags, brushes, etc. There is no tool to equal a brass loop, for any rifle of small bore. When the fouling is thoroughly loosened and neutralised, it may be wiped out by repeated applications of clean patches, alternated with others soaked in the cleaner. A dozen tight-fitting patches is not too many to use for one cleaning, and it

takes ten or fifteen minutes of time. (Take care of that last inch!)

Now, however good the cleaning, some internal fouling will remain in the pores, and this will gradually ooze out, or "sweat," as it is called. It must be neutralized *while it sweats out*—and to do this, a film of the cleaner may be left in the bore. But even better than the liquid cleaner is the really wonderful preparation of the B. S. A. Co., called "Saftipaste." If the bore is coated with this after cleaning, it will effectually "take up" the sweating—and probably the barrel really would be "safe;" but the writer never takes any chances, and strongly recommends that the barrel be wiped out again and regreased 24 hours after the first cleaning. Then it really is safe, and may be left for months if necessary without danger. But be careful that last inch has its full share of the paste!

One decided difference between the .303 and the .22 is in the nature of the metallic fouling. In the former rifle this is "nickelling," when it occurs at all—but in the case of the .22 it is "leading"—for the .22 bullet is of lead without any hard nickel envelope.

This leading *always* occurs, though more in some barrels than others. It should be removed occasionally—say every hundred rounds or so—by means of some mercury solvent. There are pastes on the market which will do this, and also liquid process. The writer has never used anything but "Leadene," and found it perfectly satisfactory. It is a paste used exactly like a "Cleaner," but may be left in for an hour or two with advantage before being wiped out of the bore; when it will come out quite black with the dissolved lead. It does *not* attack the steel.

The main thing in cleaning all rifles is to do it *immediately* after firing—while the barrel is still hot, if possible. If left in for an hour or two, the acid fouling takes its toll of the steel, and the polish of the bore is dimmed a little—to go worse and worse on subsequent occasions, for steel once corroded *can never be replaced*.

Have nothing to do with wire scourers, except for a barrel that has been allowed to get badly corroded. In such a case, a wire scourer will tear out the lead which accumulates with frightful rapidity, and improve the shooting for a few shots—but the best remedy when it comes to such a case as this is a new barrel—and more careful and scientific cleaning thereafter.

# ARMS AND THE MAN

1110 WOODWARD BUILDING, WASHINGTON, D. C.

EVERY SATURDAY

Editor

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

## THE ANNUAL CANADIAN COMPETITIONS

CANADA is just at this time rectifying a mistake which she made during the first two years of the war. Simultaneously the United States is committing an error similar to the one which the officials across the border are wiping out.

Announcement has come that the annual field day of the Dominion Rifle Association which is comparable to our National Matches, will be held this fall. This comes on the heels of the announcement that the National Matches of 1917 in the United States for which appropriations were provided will be omitted.

If the War Department is to gain nothing of value from the National Matches, their omission in time of war can be easily understood. The War Department could, however, if it would, gain much from these annual competitions. Let us consider the case of Canada, as bearing upon the point.

When the Dominion found itself enmeshed in the world conflict three years ago, the military authorities jumped to the conclusion that to hold the annual field day would be a waste of ammunition, a waste of time and an unjustifiable amount of trouble.

Incidentally the reasons generally assigned for omitting the National Matches in the United States this year are very similar, the idea seeming to prevail in certain quarters that the intrusion of a marksmanship competition at a time the nation is preparing for war would be, to say the least, inappropriate. But to get back to Canada—

The omission of the annual field day in the Dominion club's program, which was partly caused by the fact that the Canadians made use of their rifle association shots as instructors, continued until this year, when apparently the Canadian officials decided that the annual competitions might be made to have some value after all.

Whereupon the announcement comes that the field day of the 43d Regiment Duke of Cornwall's Own Rifles will proceed as in the past, "looking forward to placing shots fairly"; that the Governor General's Foot Guards will "carry on"; that the Artillery Association will enter the compe-

titions, and that the Headquarters Staff and Militia Departments will be actively engaged, all shooting to be done under Dominion Rifle Association Rules.

This is quite a different story from that of the two years when the competitions were omitted, and it is quite a different story from the one told in the orders calling off the National Matches of 1917 in the United States. Yet there must be some good reason for the change of front. Canada surely would not burn up ammunition needed to vanquish the Hun overseas unless she expected to get some returns from the expenditure.

Here is the secret, as told by one of the principal gunnery instructors of the Canadian troops, an exponent, by the way, of the same system which well-founded report says the United States is about to adopt.

In re-establishing the annual field day, the Canadian military authorities believe that they can, in this way, get a better line upon the ability of their military shots than in any other manner and that from the results of the competition certain ratings as to marksmanship, can be made with greater accuracy than otherwise. At the same time, the authorities believe that by throwing the competitions open to all comers they can find out who among the civilians possess the qualifications desirable for military shots and military instructors, so that enlistment can be made attractive to men of this character.

And so at least from the Canadian standpoint, the annual rifle competitions, even in time of war, can be made worth while, and although it has taken them two years to discover it, our cousins across the northern border apparently do not believe that perpetuating a mistake is altogether worth while.

## THE WINTHROP RANGE PASSES

AN UNFORTUNATE phase of the necessity of adding 5,000 acres of land to the naval proving grounds at Indian Head, on the Potomac, is that, in order to provide this tract, the Winthrop, Md., rifle range has been dismantled.

For a long time the Winthrop Range has stood for the most progressive type of schooling in marksmanship, as it was there that "The Winthrop Fashion" of training small arms coaches had its inception and its development. In short the activities of the Winthrop Range during the past few years has done more than any other one thing to establish the wisdom and the practicability of admitting civilians to government reservations for instruction in marksmanship, and in developing expert shots from the enlisted personnel of the sea services.

The Winthrop rifle range was built by the Marines practically out of nothing, made practically self-sustaining, and became of great value to the Navy through the establishment there of the naval school for small arms coaches. Time and time again, however, opponents of the policies in force at Winthrop urged the abandonment of the post. But those who believed in a broad policy of marksmanship, always managed to defeat such efforts. Now the natural and necessary expansion of the naval proving grounds has accomplished what the opponents of the Winthrop Fashion failed to do.



While the passing of any rifle range as splendidly equipped and as sanely operated as was Winthrop is to be regretted, the big firing line down the river from the National Capital was not put out of business until the policies fostered there had taken root in many widely scattered localities.

So the passing of Winthrop fortunately, will not mean that the "Winthrop Fashion" will pass. The same men who built Winthrop were instrumental in building the range at the Great Lakes Naval Training Station. They were also instrumental in opening up Wakefield under naval auspices, and Sea Girt, and in building other new ranges along the Atlantic coast. At all of these ranges the Winthrop policy of welcoming civilians and of turning out finished service shots with as little regard to red tape as possible is the rule.

It is a good rule. It should prevail on all service ranges.

### KEEP THE TRAINING CAMPS GOING

**E**NCOURAGEMENT should be given the announced policy of the War Department to continue the Plattsburg type of civilian training camps, but instead of drawing attendance from the ranks of citizens to draw it from enlisted men in active service who have demonstrated that

they possess the qualifications desirable in commissioned officers.

For this purpose an appropriation of \$1,240,000 is carried in the urgent deficiency bill. This item should receive the support of Congress.

By the draft and through the usual enlistment channels many men of broad education and good standing have been taken into the rank and file of the army. A large percentage of these men can be expected to develop, after intensive training, into commissioned officer possibilities.

Under active service conditions, it may, however, be difficult for them to acquire through study at odd times the specialized training which would equip them to take examinations for commissions.

On the other hand, if these training camps are kept going, and if the army adopts some such constructive policy as allotting two or three places in a training camp to each company, to be filled by the men showing the greatest promise, an impetus which will work for efficiency and the betterment of the service will have been provided. A plan of this general character, also, might open an avenue through which vacancies in the Commissioned Officer list might be filled with men who not only possess the necessary military requisites, but who have been adequately grounded in collateral education before entering the army.

## Effect of Eyesight Upon Shooting Ability

**I**T IS almost unnecessary to say that eyesight plays a very important part in shooting. To hit any given object with the rifle, shotgun or revolver it is obviously necessary to know the exact location of the object, and this can only be done accurately—when the object is too far away to touch—by seeing.

Sights are placed on a rifle to permit the use of the sense of vision in lining up the barrel so that it will throw the bullet to the mark. If they accomplish that result they are good sights; if not they are poor sights, at least for the shooter who is using them, regardless of how expensively or how finely they are made. To determine a line, two points are necessary, and that is why two sights are needed on a firearm, because the line of sight must be determined and must occupy a definite position with regard to the axis of the bore of the barrel.

There are three types of sight in ordinary use. They are: open sights, peep sights and telescope sights. The open sight, by far the commonest, is simply a bar of metal with a notch cut in the top of it. This notch may be V-shaped or in the form of a U, or in some cases square. The open sight is placed on the barrel at a point where it will give the clearest possible definition without loss of accuracy. The peep sight gives best results when placed very close to the eye and, as its name implies, consists of a piece of metal with a hole in it. The telescope sight is essentially a telescope

rigidly fastened to the barrel and fitted with a cross hair at the point where the objective lens produces the image. The possible accuracy obtainable with the three styles of sights mentioned ranges from the lowest to the highest in the order given; that is, the open sight is least accurate and the telescope is the most accurate.

The line of sight is an imaginary straight line which includes target, front sight and rear sight. If the line is not straight the bullet will not hit the target unless the sights are also improperly set and the two errors offset each other.

The eye is really a tiny camera and those who have experimented with photography know that a camera cannot take a sharp picture of three objects at the same time if the objects are at different distances from the camera. Similarly the human eye cannot see sharply objects near and far from it at the same time. In other words, if you see the bull's-eye sharply you cannot possibly see the front sight and rear sight sharply if you are using open sights, and conversely if the eye sends a sharp picture of the rear sight to the brain, the front sight and the bull's-eye will be fuzzy.

Eyes are defective just as cameras are defective sometimes, and the results have a certain effect on the shooter's ability to clearly see the bull's-eye, front sight or rear sight, or sometimes all three. A far-sighted person is one who can see clearly objects at a distance but cannot

see things close to him. Such a man should wear glasses when open sights are used, because otherwise he will not see the sights clearly enough to use them properly. Near-sightedness makes one unable to see things at a distance. A man having this defect can see the sights very clearly, but the bull's-eye is fuzzy. If the near-sightedness is severe glasses giving correction should be used, but it is best not to have full correction in this case for open sights.

Astigmatism is a defect in the eye which consists in irregular curving in the lens. In other words, the lens is more curved one way than another. Such a defect makes it impossible for the person so afflicted to see sharp lines in certain directions clearly, no matter at what distance they are from him. Astigmatism should be corrected for all kinds of shooting, regardless of what sights are used.

The peep sight, like the small stop in the camera lens, tends to make things sharp at all distances from the camera and consequently is a help toward sharp definition, whether the shooter is near- or far-sighted.

The user of a telescope sight should have correction for any astigmatism that may exist, but the telescope itself may be adjusted to take care of near- or far-sightedness.

To sum up the matters, defects in the eyesight, when they consist of errors of refraction, should not hinder a man from becoming an expert shot, because they can be corrected by glasses. Organic

diseases or some disturbances of the nerves governing the eyes may render shooting difficult, but the next time you hear a near-sighted or far-sighted man say he cannot shoot because he is that way, rest assured that his bad shooting is not the cause of eye trouble and that he is simply handing out one of the thousand and one excuses which are always on tap when the scorer chalks up a poor total.

## Commandant Explains Use of Sulphur Primer

COL. GEORGE MONTGOMERY, commandant of Frankford Arsenal, following his appearance before the congressional committee investigating the cause of defective primers in a portion of the 1917 ammunition output, has addressed a letter to various periodicals in which his testimony was interpreted as having placed the responsibility for the continued use of this primer upon the officials of the Ordnance Department. Colonel Montgomery's letter reads:

"An article in the New York Sun headed 'Bad Primers Up to Chiefs of Ordnance' has been brought to my attention. In my hearing before a committee of Congress I stated that when it came to my knowledge that a large quantity of primers were rejected I did not take drastic action to procure a new primer because of the opposition of 'our people' to such change. When I referred to 'our people' I referred to the heads of the departments engaged in the manufacture of small-arms ammunition at this arsenal. I did not take drastic action until the supply of accepted primers had become exhausted, which occurred about a week or ten days later, when obviously no other course was open.

"Even after purchasing 25,000,000 of primers I was obliged to let our people conduct experiments in manufacturing limited lots of the sulphur primer in order that they might demonstrate to my satisfaction that they could make it in quantity to meet all inspection requirements. They failed to do so. When it was decided to use the new formula the foreman of the mixing shop resigned and the young women employed in the primer shop also declined to use the new mixture because it was not as safe to handle as the former mixture. I also noticed that after purchasing the first advanced lot of the new mixture one or more misfires with it were promptly brought to my attention.

"It must not be overlooked that the sulphur primer has, with the exception of sporadic cases of souring, given general satisfaction. It was developed and manufactured at this arsenal, and naturally our people believed in it. While I have not believed in a sulphur primer for some time, I am neverthe-

less not an expert in the manufacture of small-arms ammunition. The executive head of an establishment employing 5,000 hands and having on its books at the close of the fiscal year over thirty millions of business can not be an expert on any line of manufacture conducted at such an establishment.

"That the sulphur primer is far from being discredited and that it has many friends today is borne out by the fact that one of the leading manufacturers of small-arms ammunition manufactured for one of the allied governments 320,000,000 rounds of rifle ammunition, using the sulphur primer, and reports that it has given general satisfaction.

"Those who are engaged in the manufacturing business can not realize that, that a violent change can not be made in manufacture without securing the cooperation of the employes engaged in that line of work. When the change was made from the manufacture of wrought iron to steel in England it was really necessary to lay off the old and experienced hands and to train new ones before steel could be manufactured successfully.

"I would like you, therefore, to give this letter the same prominence as you gave the communication from your Washington correspondent, which was evidently misleading in its interpretation of my hearing before the committee."

### FIRST CASUALTIES ANNOUNCED

The first announcement of army two members of the Eleventh Railway casualties aside from those suffered by hospital units as the result of the participation of the United States in the War came from the War Department a few days ago with the information that Engineers had been wounded by shell fragments while on duty. The men are Sergeant M. G. Calderwood and Private W. F. Brannigan, both of F Company.

"Ahoy there, skipper! Here's a hundred weight o' peas that's billed to yer!"

"All right; chuck 'em up here, one at a time, so I'll be sure there's no explosives mixed in wit' 'em!"

## A TWENTY-FIVE SHOT SPRINGFIELD

(Concluded from page 24)

permit easier lining up on the target—also by contrast.

Those who have been long at the rifle game know that to avoid all reflection with metal sights is an almost impossible task, in spite of sight blacking and sight covers. Therefore, in seeking some colored substance, Mr. Yaggi turned to Bakelite, a material discovered by Dr. Baekland who is a member of the Naval Consulting Board.

For the front sight he chose translucent red Bakelite, which will contrast with any other color of the spectrum, no matter how delicate. It was because of its contrast with delicate shades that the inventor chose this particular color. For the rear sight, a slide of green or blue Bakelite, with an aperture is provided. The slide is transparent, thus giving a such larger field and enabling the shooter to pick up the target quickly, and then move the aperture over to cover it.

The idea of transparent and translucent sights of contrasting colors has not yet been thoroughly tried out. A number of sets are being manufactured under Mr. Yaggi's direction and will soon be distributed among the best shots of the Navy for a tryout and report. These sights are standardized to be interchangeable with the present Springfield sight.

### CALLING HIS SHOTS

One of the best stories told about Sir John French, while Field Marshal of the British forces, is how, one night at dinner, some officers were discussing rifle shooting. The General was listening, as was his wont, without making any remark, until at length he chipped in with:

"Say, I'll bet any one here," in his calm, quiet, deliberate way, "that I can fire ten shots at 150 yards and call each correctly without waiting for the marker. I'll stake a box of cigars on it."

The Major present accepted the offer, and the next morning the whole mess was at the shooting range to see the trial.

Sir John fired. "Miss!" he announced. He fired again. "Miss!" he repeated. A third shot. "Miss!"

"Hold on there!" protested the Major. "What are you doing? You are not shooting at the target at all."

But French finished his task. "Miss!" "Miss!" "Miss!"

"Of course I wasn't shooting at the target," he said. "I was shooting for those cigars."—Marine Corps Gazette.

# 5 GREAT RIFLE VICTORIES

Were won in the 1917 Indoor Matches, conducted under the auspices of the National Rifle Association, by users of

## Peters .22 Cal. Semi-Smokeless Cartridges

- CIVILIAN CLUB COMPETITION
- COLLEGE COMPETITION - - -
- HIGH SCHOOL COMPETITION -
- HIGHEST INDIVIDUAL RECORD
- ASTOR CUP CHAMPIONSHIP -

- Championship won by Peters R. & R. Club Team of King's Mills, Ohio, 9,925 out of a possible 10,000
- Championship won by Michigan Agricultural College Team, 9,638 out of a possible 10,000
- Championship won by Iowa City, Iowa, High School Team, 9,517 out of a possible 10,000
- Made by T. K. Lee, of Birmingham Athletic Club Team, 1,999 out of a possible 2,000
- Won by Iowa City, Iowa, High School Team, 980 out of a possible 1,000

These decisive wins, with the World's Record of 4,599 out of 4,600 points, made in 1915 and still held by T. K. Lee, clearly indicate that even in the hands of expert marksmen  Ammunition will make higher scores than any other kind.

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## Range Extention in the Shot Gun

By HENRY SHARP

*In the Shooting Times and British Sportsman*

THE whole history of shot-gunnery is considerably swollen with matter recording various attempts made to extend the ranging power of the shot-gun; and herein is conveyed forcible evidence of the importance which has ever attached to this problem.

Well, indeed, may it be termed a "problem"; no proposition set out in Euclid is more difficult of demonstration, for the whole study of shot-gun ballistics is rendered intricate and indeterminate solely by reason of the singularly mutable conditions encountered. This inconsistency arises from the ever-changing form, size, and weight of the missiles the ballisticians has to deal with in this special branch of kinetical research.

The science of ballistics dealing with rifled firearms and single projectiles is a diversion for children compared with the difficult study of the complexities revealed by the disconnected flight of

scores of hundreds of small shot pellets, among which scarcely two may be precisely similar in the all-important matters of size, shape and weight. Many people appear to hold a fixed idea that, because powder-maker, gunmaker, ammunition manufacturer, and all those having to arrange the preliminaries requisite for the killing of game attach so much importance to loading into the gun only shot pellets that are absolutely spherical and even in size and weight, that such pellets must, of course, retain that beautiful pristine condition on emerging from the gun. But how fallacious is such supposition, for the shot pellets are so violently buffeted and scrubbed within the gun-barrel that upon expulsion they are a medley of weights and shapes in strong contrast to their original rotundity and precise uniformity. In such case, how far will ingenious instruments like the chronograph assist

in determining the principles of flight of a set of projectiles so variable? The risk with tachometers of that sort is that all these incongruous elements are assessed at equal value, and so each and all are assumed to run a dead heat in the race.

As, however, it is impossible to set aside or to ignore the undoubted fact of the remarkable deformation and abrasion of shot pellets within the gun-barrel, there remain two courses open to those endeavoring to extend the killing power of the shot-gun at shorter or longer ranges. These two courses, obviously, are: (1) To make the best of the prevailing conditions, or (2) to prevent abrasion and deformation and thereby automatically improve the shooting of the shot-gun. Some twenty years or so ago I contributed to the *Field* newspaper a lengthy article on the question of the deformation of shot pellets during their passage through the gun-barrel, and innumerable experiments undertaken with the object of overcoming that enormous wastage of pellet energy at length convinced me that this drawback might be overcome by some efficient fortification

of these missiles. As I think I have remarked before, this is now the subject matter of a patent shortly due for sealing, and as to which more, I trust, will be presently revealed.

On sitting down to pen these few rough notes it was not in my mind to approach the latter subject. What was immediately in my mind was to convey some brief indication of two methods for increasing the killing power of the shot-gun which have been in use now for several years. These two methods display certain dissimilarities as regards both conception and application; in the main one seeks to attain the object in view by means of low shot velocity, whilst the other invokes a higher speed to attain its purpose. Briefly described, the first named is the low-velocity shot-gun without chamber cones; the second is a high-velocity shot-gun with special boring. The first has been termed a chamberless gun, which, of course, is a complete misnomer, for in a breech-loading sporting arm there must be a chamber to receive the cartridge. Whether or not I am chief sinner in originating this glaring mistle I cannot say, but, certainly, I did write on the subject of "chamberless" guns many years ago, possibly at the time of writing the article just mentioned on the deformation of shot pellets, for I have always regarded the chamber-cone as a great offender in that respect. Again, in *The Gun, Afield and Afloat*, the question of dispensing with chambers altogether is considered, and this, of course, is a faulty phrase which was only partly atoned for by my reference to "these coneless guns" in the concluding remarks under that particular heading. At all events, there remains the consolation that these slips have been made in good company, for possibly the only man amongst us to give practical display to his convictions by making continuous and successful use of these guns throughout many years still elects to term them chamberless.

Several years ago I recollect calling upon that really practical gunsmith, Mr. F. T. Baker, whose place of business was then, I believe, at the lower end of Fleet Street. Of high skill in his profession, Mr. Baker was an adept in carrying out new ideas, and on this occasion he showed me a gun, or guns, that he was building to the order of a keen wildfowler, Dr. Chas. J. Heath, the barrels of which were to be devoid of chamber cones—that is to say, the bore of these guns was to be continuous, *i. e.*, of practically even diameter from the breech end up to the choke. Thus, although having a chamber for the reception of the cartridge, these guns were without that objectionable barrage the chamber cone, which is objectionable because of its tendency to increase powder pressures and recoil, as well as to inflict injury upon the shot. If my recollection is not at fault, these guns were

designed for use with thin brass French cases having a slightly different form of rim to our more familiar Kynoch "Perfect" thin brass case. It has interested me exceedingly to gather from some recently published remarks of Dr. Heath's that these guns have admirably served the purpose for which he designed them. Dr. Heath is an admirable mentor, for he has been shooting wildfowl for 45 years now, and a recent letter from him displayed anxiety lest pressure of work and war worries should prevent his getting away again this winter for his favorite sport. He has had half a dozen of these guns built—five of them doubles to take the No. 12 thin brass cases, and one a double taking the No. 4 thin brass cases. The 12's have 30-inch barrels and weigh 8 pounds, and, as length of cartridge is not a matter of concern, 3-inch cases are used for the heaviest work at grey geese, and from these charges comprising 2 ounces by measure of BB shot are commonly employed. As to the killing power displayed by these guns there can be no doubt, for a great number of grey geese have been killed outright by Dr. Heath with his "chamberless" 12's at distances between 75 and 95 yards. Geese were killed with these light guns both on the ground and when flying, and they were not merely wounded and afterwards captured, as so many geese are when shot at long ranges, for the BB shot pellets were found to have sufficient penetrative power to pass right through the bodies of these remarkably tough birds at the lengthy ranges mentioned. Now, how many 8-bores throwing 2 ounces of shot are to be found capable of displaying pellet energy sufficient to pierce the bodies of grey geese at 95 yards? It would be interesting to compare the shooting of a paper-case 8-bore with that produced by these coneless No. 12 guns.

(To be continued)

#### TABLES SHOW ARMED STRENGTH

Tables showing the armed strength of the United States on September 6, 1917 have been officially compiled by government agencies.

According to this official information, upon that date there were in the Regular Army National Guard and Reserve Corps of the Army a total of 819,881, of which number 741,053 were enlisted men.

In the Navy there were 141,867 enlisted men, 41,473 naval reserves, and 14,500 naval militia in the federal service. There were 5,000 men in the Coast Guard and 6,500 in the hospital corps; a total of 209,340. On this date the enlisted strength of the Marine Corps was 29,971; reserves in this service, 1,070; national naval volunteers, 704; retired men on active duty, 14. There were approximately 12,000 officers in the Navy and 1,166 in the Marine Corps.

In other words, on this date the Army had, including officers and enlisted men, 819,881 and the Navy 254,265, a total armed strength on that date of 1,074,146 men, all of whom are volunteers. Prior to this time there was not a drafted soldier in a single training camp. The draft law was approved on the 18th day of May, 1917.

On September 6 the Regular Army was composed of 308,145 enlisted men and 7,022 officers; the National Guard of 377,421 enlisted men and 12,250 officers; the reserve corps of 55,487 enlisted men and 32,215 officers. There were also 27,341 officers turned out of the training camps.

Since war was declared 1,300,000 men have volunteered their services in one form or another for the defense of the country. Since April 6, 207,882 men have enlisted in the Regular Army and 214,419 in the National Guard; 77,187 men have enlisted in the Regular Navy, 16,705 in the Marine Corps, and 31,473 in the naval reserve.

The following table, showing the strength of the Navy and the Army, authenticated by the committee on public information, will, it is believed, be interesting:

Navy			
	Strength on Apr. 6	Strength on Sept. 6	Increase Since Apr. 6
Regular Navy ...	64,680	141,867	77,187
Marine Corps (enlisted).....	13,266	29,971	16,705
Marine Corps (officers).....	426	1,166	740
Naval reserve....	10,000	41,473	31,473
National naval volunteers.....	10,000	14,500	4,500
Hospital .....	2,000	6,500	4,500
Coast Guard ....	.....	5,000	1,400
Reserves in service.....	.....	1,070	.....
National naval volunteers.....	.....	704	.....
Retired men on active duty.....	.....	14	14
Officers in Navy..	.....	12,000	.....
Army			
	Strength on Apr. 6	Strength on Sept. 6	Increase Since Apr. 6
Regular Army (enlisted).....	100,263	308,145	207,882
Regular Army (officers).....	7,022	7,022	.....
National Guard (enlisted).....	163,002	377,421	214,419
National Guard (officers).....	12,250	12,250	.....
Reserve corps (enlisted).....	.....	55,487	.....
Reserve corps (officers).....	.....	32,215	.....
Reserve corps (from training camps).....	.....	27,341	27,341

Our troops pick up French rapidly. "I think he said to give 'em hell," said a trooper, translating President Poincaré's speech.—*New York World*.

"Fix bayonets," bawled the captain. "Bayonets seem to be always out of order," commented the fair spectator. "I hear that command every day I come out."—*Louisville Courier-Journal*.

Scotch canniness and thrift were illustrated recently by an incident which occurred "somewhere in France." Sandy had been out on a foraging expedition and had returned with a good fat hen under his arm. He was about to decapitate it for roasting when another Scotchman interfered.

"Will ye no bide a wee, Sandy?" he suggested cautiously. "Leave that bit bird till the morning. She might lay an egg."—*Exchange*.

## With the Small-Bore Outdoor League

**T**HIRTY members of the different rifle teams competing in the outdoor small-bore match of the N. R. A. program, which has just been completed, qualified for 90 per cent medals. Three of these men made a weekly average of 95 per cent. Special 95 per cent medals will be awarded these men.

At the beginning of the matches, the N. R. A. announced the award of 90 per cent medals as an innovation—a plan by which it was thought every man shooting through the ten matches of the series would be given a chance to win a decoration, regardless of what his fellow team mates accomplished toward putting the team in the running. To win one of these medals it was necessary for each man to make an average of 180 points, or better, through the ten matches.

Allowing a minimum of ten men to a team, with an average of thirty teams shooting each week, this means that only about one man out of every ten was able to put good scores across with sufficiently consistent regularity to win one of the decorations, although several came within a fraction of a point of making the necessary rating.

The three men who made 95 per cent records were T. K. Lee, of the Birmingham, Alabama, Rifle and Revolver Club, whose average for each match was 196.6; W. E. Kessler, of the Kiowa Shooting Club, whose average was 193.1, and G. L. Wotkyns, of the Los Angeles, California, outfit, whose average was 190.9. This, of course, gives Lee the high individual aggregate for the series. Incidentally, Wotkyns, Neff and Felsenthal, of Los Angeles, entered the series as a team of three with but one object in view—90 per cent medals—and every one of them made the rating.

There were a few of the boys who mighty nearly broke into the 95 per cent class. Among them were:

L. McAleer, Massachusetts Rifle Association, 189.1; H. W. Mansfield, Milwaukee Rifle and Pistol Club, 189; C. H. Kessler, Kiowa Shooting Club, 189; while Emil Tech, Milwaukee Rifle and Pistol Club; C. L. Butler, Denver City Rifle Club; L. J. Miller, Brooklyn Rifle Club; E. J. Fines, Kiowa Shooting Club, all made averages of more than 188.

The winners of the 90 per cent medals by clubs are:

*Massachusetts Rifle Association, Boston:*

L. McAleer, 189.1; H. Marshall, 184.6; A. Niedner, 184.6; H. H. Bennett, 181.6.

*Milwaukee, Wisconsin, R. & P. Club:*

H. W. Mansfield, 189; Emil Tech, 188.8; N. E. Dahm, 187.5.

*Los Angeles, California, R. & P. Club:*

G. L. Wotkyns, 190.9; E. D. Neff, 186.7; L. Felsenthal, 186.3.

*Denver City, Colorado, Rifle Club:*

C. L. Butler, 188.2.

*Toledo, Ohio, R. & P. Club:*

H. G. Affleck, 181.8; Bruce C. Wilson, 180.2.

*Ashburnham, Massachusetts, Rifle Club:*

G. S. Hollingsworth, 185.5.

*Manhattan R. & R. Club, New York City:*

H. M. Pope, 185.9; David J. Gould, Jr., 185.8; A. H. Seeley, 185.5.

*Brooklyn, New York, Rifle Club:*

L. J. Miller, 188.3; D. J. Corsa, 187.7; Paul T. Lahm, 186.1; H. Otto, 183.8.

*Kiowa Shooting Club, Des Moines, Iowa:*

W. E. Kessler, 183.1; C. H. Kessler, 189.6; E. J. Fines, 188.8; Rey Berry, 183.4.

*Washington, D. C., Rifle Club:*

W. R. Stokes, 187.1; J. H. Robertson, 185.7; C. F. Himmler, 185.2.

*Birmingham, Alabama, Athletic R. & R. Assn.:*

T. K. Lee, 196.6; A. F. DeFuniak, 181.2.

## RICOCHETS

Scoring 990 points to the opposing team's 924, the University Rifle Club, of Reading, Pa., defeated the Pottsville Rifle Club in a five-men-team target match on the former's range on Dietrich farm near Black Bear, Sept. 9.

The Allentown and Harrisburg Rifle Clubs were also scheduled to participate in the match, but failed to appear on account of the threatening weather. Fully 50 people witnessed the shooting which was featured by high scores by the representatives of both clubs.

The University boys won matches from 200, 300 and 500 yards shooting, showing their best form at the 200-yard distance. Essick starred for the University Club with a total of 211 points, the highest individual score. Wellington led in the scoring for the visitors with 197 points. The scores follow:

**POTTSVILLE RIFLE CLUB**

	200 yds.	300 yds.	500 yds.
Beecher .....	68	56	61
Wellington .....	69	63	65
Dolan .....	51	55	47
Eddinger .....	66	61	61
Braun .....	69	62	64
<b>Totals .....</b>	<b>329</b>	<b>297</b>	<b>298</b>

**UNIVERSITY RIFLE CLUB**

	200 yds.	300 yds.	500 yds.
Barr .....	72	61	65
Eck .....	66	63	61
Essick .....	71	71	69
Perin .....	66	62	67
Miller .....	68	66	62
<b>Totals .....</b>	<b>343</b>	<b>323</b>	<b>324</b>

The executive officer in charge of the shoot was Captain Richards, of the Winchester Arms Co., New Haven, Conn. The range officer was Mr. Kahrs, of the Remington Arms Co., New York. After the dual match, the above officers gave exhibition shooting. Luncheon was served on the grounds.

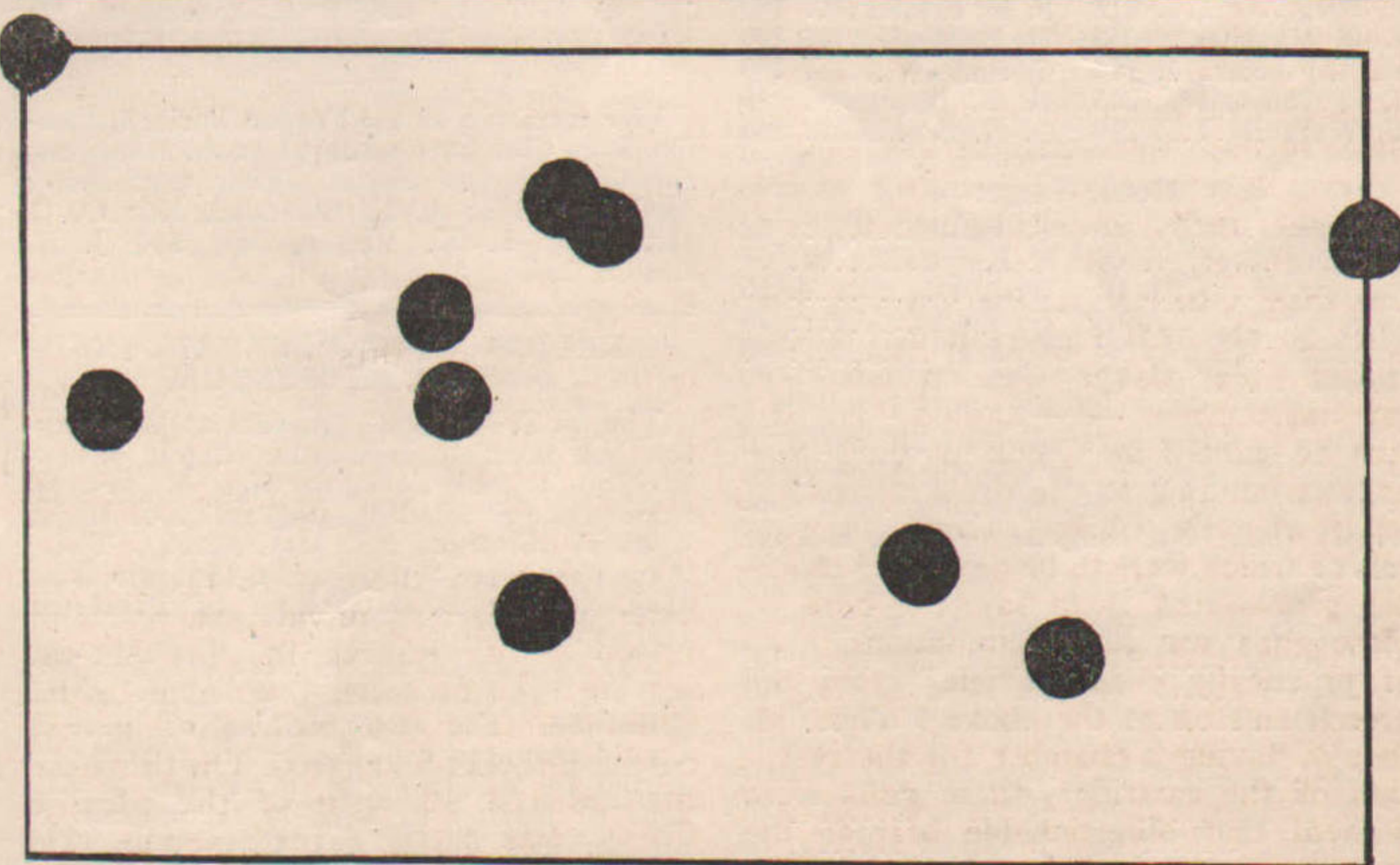
In the first of a series of three matches the Harrisburg, Pennsylvania, Rifle Club yesterday won over the Keystone Rifle Club of the Pennsylvania Railroad, scores 1267 to 1156 out of a possible 1500. The shoot was held at the Conewago range, September 10. The second match will be held October 12.

High score was made by Appleton, of the Keystone Rifle Club, who made 139 out of 150. He was awarded a .22 caliber Winchester musket. To take this prize a member of either club must make a better score than 139 in the next two matches.

The Harrisburg Rifle Club was awarded a large silver loving cup under similar conditions. Both prizes were offered by Alex. Kassner, of the Cohen sporting goods store. Mr. Kassner is an enthusiastic sportsman and has offered prizes to a number of local clubs. The scores follow:

Harrisburg Rifle Club—Mattern, 134; Denniston, 127; Fisher, 137; Unger, 137; Landis, 108; Senseman, 123; Enterline, 134; Murray, 124; Schwartz, 122; Thompson, captain, 121. Total, 1267.

Keystone Rifle Club—Watson, captain, 122; Appleton, 139; Espenshade, 134; King and Hobart, 103; Mehring, 86; McGowan, 110; Feigler, 81; Soulliard, 120; Flowers, 126; Greiner, 135. Total, 1156.



Here is a freak group of unusual interest. Ten shots were fired from a Springfield rifle, at 300 yards by T. K. Lee at the annual qualification shoot of the Jefferson Rifle Club of Birmingham, Ala. The group was three or four inches from center at 10 o'clock. The time taken in shooting was 75 seconds. The rifle had been fired 52 times without cleaning when this group was made. The cut is actual size, 3 inches by 5 inches.

Although he had never previously shot a high power rifle, Vernon Guinn won the Members' Match, shot by the East Liverpool Military Rifle Club, Ohio, on Labor Day, with a score of 130. John F. Springer, Secretary of the Club, at the same shoot, although not contesting for the medal, qualified as a sharpshooter with a score of 197.

The Davenport, Iowa, Sharpshooter held a King Shoot September 21, at Lyons' shooting park. C. F. Denkman, making high score, won thereby a gold medal. Good scores were made by all the seventeen shooters present. The scores:

Man Target—Possible 60			
Denkman .....	59	Scofield .....	54
Goesch .....	58	H. L. Frazier.....	54
C. Jansen.....	58	W. S. Wilson.....	54
Fuhlendorf .....	58	Jameyson .....	53
Hayungs .....	58	Nabstedt .....	53
E. C. Jansen.....	58	Ranzow .....	53
Berg .....	57	Rutenbeck .....	52
Watkins .....	57	F. M. Frazier.....	52
Wade .....	56		

Special Honor Target			
Berg .....	69	E. C. Jensen.....	63
Nabstedt .....	69	Hayungs .....	61
H. L. Frazier.....	67	Scofield .....	58
C. Jansen.....	66	Ranzow .....	54
Watkins .....	66	F. M. Frazier.....	38
Denkman .....	65		

Lyons Target—One Shot			
Nabstedt .....	25	E. Z. Jensen.....	19
Scofield .....	23	H. L. Frazier.....	19
Wilson .....	23	C. Jansen .....	15
F. M. Frazier.....	22	Denkman .....	14

People's Target—Possible 75			
Nabstedt .....	73	E. C. Jansen.....	69
H. L. Frazier.....	73	Fuhlendorf .....	68
Wade .....	72	Hayungs .....	68
Watkins .....	71	Wilson .....	68
C. Jansen.....	71	Rutenbeck .....	66
Berg .....	70	Jameyson .....	65
Denkman .....	70	Scofield .....	65
Goesch .....	70	F. M. Frazier.....	63

Ten-Shot—Possible 250			
C. Jansen.....	221	E. C. Jansen.....	205
C. Denkman.....	219	W. S. Wilson.....	200
J. Fuhlendorf....	217	W. Goesch .....	199
E. Berg.....	217	F. M. Frazier....	190
J. B. Hayungs....	216	H. E. Wade.....	189
H. L. Frazier....	214	C. Ranzow .....	188
J. F. Nabstedt...	213	H. E. Jameyson...	185
F. Watkins .....	210	G. H. Scofield...	166

Honor Target			
Denkman .....	69	C. Jansen.....	62
Watkins .....	68	E. Berg.....	57
Ranzow .....	66	Wade .....	56
Jameyson .....	66	Hayungs .....	53
Nabstedt .....	64	Scofield .....	46
Goesch .....	62		

When he hung up a score of 116 out of a possible 125, Peter Kratz won the King shoot of the Peru, Illinois, Sharpshooters, held September 16th. The complete program and the results are:

King targets; 5 shots; possible 125—			
P. J. Kratz.....	116	W. Phillips .....	102
B. Mattes .....	105	M. Danz .....	101
Geo. Halm .....	104	Charles Wolf ...	96

Union target; 3 shots; possible 75—			
P. J. Kratz.....	70	G. Halm .....	61
B. Mattes .....	62	J. Mertel .....	60
R. Dingler .....	62		

People's target; 3 shots; possible 75—			
P. J. Kratz.....	71	B. Mattes .....	68
Chas. Wolf .....	70	J. Mertel .....	67
R. Dingler .....	69		



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Man target; 3 shots; possible 60—			
Chas. Wolf .....	57	H. Phillips .....	56
B. Mattes .....	57	R. Unzicher .....	55
P. Kratz .....	56		

Peru target; 1 shot; possible 50—			
P. Kratz .....	49	B. Mattes .....	47

The Members' Match of the Rochester, New York, Rifle Club was shot on Saturday, September 22d, J. N. Wernz carrying off the medal with good consistent shooting to a score of 133 out of a possible 150. Spraker ran close with 131, having gotten a poor start on his rapid fire, but finishing with a straight string of 12 bulls at 500 yards for the only possible made by the club this season.

The higher scores of those competing included: Wernz, 133; Spraker, 131; Warder, 129; Rogers, 116; and Bradbury, 118.

At a recent qualification shoot of the Ventura, California, Rifle Club, prizes consisting of ammunition were hung up to stimulate interest. As a result, at the close of the shoot W. T. Kemper, who qualified as an expert rifleman, received 100 rounds; J. E. Reynolds, sharpshooter, 75 rounds; Howard Davis, sharpshooter, 50 rounds; Ivan Bliss, sharpshooter, 35 rounds, and George Likens, marksman, 50 rounds.

Three expert riflemen, 1 sharpshooter and 6 marksmen have been qualified by the Cleveland, Ohio, Rifle and Revolver Club, shooting the old course. They are:

- Experts—C. H. Burgess, 221; L. W. Wickham, 221, and A. P. B. Einig, 213.
- Sharpshooter—J. M. Roth, 191.
- Marksmen—A. Herkner, 189; F. K. Rand, 188; C. A. Tunks, 183; F. R. Beaumont, 182; N. S. Rathburn, 180, and C. Miller, 177.

Five members of the Tarpon Springs, Florida, Rifle Club have qualified as sharpshooters, shooting the new course. They are: Harry McCreary, 172; A. E. Allemand, 166; O. C. Hill, 163; L. K. Vinson, 161, and J. R. Crellin, 154.

**RELICS OF M'CLELLAN IN NATIONAL MUSEUM**

The U. S. National Museum at Washington has recently received and put on exhibition a notable collection of swords, uniforms, and miscellaneous relics of Major General George B. McClellan. These mementos were a gift to the Museum from Hon. George B. McClellan of Princeton University.

The swords, of which there are nine, are perhaps the most interesting feature of the collection. The most striking of these is a gold mounted sword set with pearls presented to McClellan by a number of citizens of Boston in 1863, in recognition of his services during the Civil War. The scabbard is inscribed, "To Major General George B. McClellan from many citizens of Boston, February 5, 1863. Pro rege saepe, pro patria semper." Two swords in the collection were carried by McClellan in the Civil War, a dress sword and a service

saber. The other swords in the collection commemorate his Mexican War service, one dress sword having been presented to him "by a number of gentlemen as a testimonial of their high admiration for his gallantry during the war with Mexico. First at the siege of Vera Cruz; second, the Battle of Cerro Gordo; third, the Battle of Contreras; fourth, Battle of Churubusco; fifth, Chapultepec; sixth, capture of the City of Mexico." Another of the swords carried in the Mexican War is a service saber with a small piece of the hilt broken away. The donor of the collection writes, "A piece of the hilt of this sword was carried away by a bullet which slightly wounded General McClellan in the hand."

Among the other relics of this great American general are several uniforms, spurs, field-glasses, revolvers, powder flasks, and a number of more personal relics.

**GENERAL BELL'S "FIGHTING CHOIR"**

When the New York division of the new National Army gets "somewhere in France" there is one thing that it will not have to learn. Not even the Kolnische Saengerbund, the Kaiser's picked warbling chorus, will be able to beat it singing. General J. Franklin Bell has announced his plans for putting into practice his theory that a singing man is a fighting man, and the plan calls for starting the biggest singing class at Camp Upton, Yaphank, L. I., that the country ever knew.

Forty-four thousand huskies will have their voices trained while they are learning how to get the most cubic yards of earth excavated from the trench in the least time. Every spade will work to the melody of the land and every practice march will be taken to the lilt of music that has been officially branded as passed by the censor.

Mayor Mitchel has been asked by General Bell to appoint a committee to take charge of raising funds for the work as well as for the recreation-center development at the camp, and the Mayor will serve as chairman of the committee.

In his formal appeal to the people of the city, General Bell says:

"I am anxious that this camp become well known as one of the 'singing camps of the army,' not only because singing men are fighting men, but because I have personally witnessed the fine spiritual effect of mass singing upon the soldiers. Nothing will so aid in unifying them in mind and in spirit."—*New York Sun.*

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- Bronze, 14 cents lots of 25
- Bronze, 13 cents lots of 50
- Bronze, 12 cents lots of 100
- Gold, \$2.50 each

These buttons, together with membership cards, make attractive credentials for Rifle Club Members. FOR SALE BY

**ARMS AND THE MAN**

# Off Hand From the Clubs

## Riflemen Ready to Serve At Army Musketry Schools

SHOULD the War Department, in the light of the experience of Canada and England, decide to take advantage of the wide field of potential small-arms coaches presented by the civilian riflemen of the nation, there will be no dearth of volunteer material.

Since the suggestion made in ARMS AND THE MAN that a corps of men from civilian ranks be organized and intensively trained in the art of firing-line coaching from the standpoint of trench fighting by the French and British officers now in this country, scores of letters have been received which indicate that such a move would meet with enthusiastic support.

The idea is advanced that the time has come for a census of such rifle-club members as would volunteer for such work, to the end that a list might be compiled and be ready for submittal to the War Department whenever the army officials come, as they appear to be bound to come, to the conclusion that in overlooking the rifle-club members they are passing up a valuable resource.

From some of the members of rifle clubs interesting comment has come.

W. E. Kessler, Secretary of the Kiowa Shooting Club, of Des Moines, is the author of the suggestion that an "eligible list" be compiled at this time, to show in actual numbers the men upon whom the War Department could rely to volunteer for this work. He says:

"Your editorial of September 22d, 'Ally Officers to Train U. S. Riflemen,' will doubtless stir up some comment from N. R. A. members who have been members long enough and had the advantage of expert instruction in the manipulation and firing of military rifles. While no doubt there are officers among the allied armies competent to instruct the enlisted men of the draft army, I maintain that we have an abundance of competent instructors scattered among our civilian clubs; a great many have seen military service, and have demonstrated their expert knowledge in national matches. While it is true that some of the most expert shots are poor instructors, and that some of the poorer shots are well versed in what the shooter should do and have the theoretical part of shooting down pat, and are thus good instructors, a selection of men for this most important part of the new soldier's instruction should not be based on shooting ability alone or on theoretical education alone. Of course, the ideal instructors would be men who had military service, theoretical education and shooting ability, and we have many such among our membership today who would be willing to sacrifice their business interests and devote the best there is in them for the good of the National Army.

"Is it possible that all the efforts of the National Rifle Association and its supporters for years past is to go for nothing in this crisis? Years ago we were told that 'in case of war members of the N. R. A. who were rated on the War Department books as Expert Riflemen and Sharpshooters would be given the preference.' Has the War Department lost these records? Or has it merely changed its mind? I have repeated this message to many who have joined my club during the past six years and acquired knowledge of the shooting game. Many of these men have since enlisted in the various branches of regular service, and no importance was attached

to the fact of their membership in the N. R. A. or the fact that they were qualified riflemen.

"In conclusion I would suggest that an eligible list be made up of members who are willing to act as instructors, and that all club secretaries be forwarded blanks for this purpose. In this way we will know and be able to furnish the War Department something tangible to work on should they decide that we can be of service. Afterward details of examination to ascertain the fitness of volunteers could be arranged. But no time should be lost in the preliminary work."

T. K. Lee, of Birmingham, Ala., has this to say:

"I was particularly interested in your timely editorial anent 'Ally' officers having been imported to train U. S. riflemen. Your reasoning is sound, and it does seem that the facts as stated should wake up the proper officials of the War Department to a realization of the importance of utilizing the hundreds of expert riflemen's services as instructors in small-arms practice, for the benefit of the hordes of soldiers now going into training.

"The N. R. A. was organized many, many years ago, for the express purpose of encouraging and teaching citizens how to hit what they shot at; it has accomplished much in those years. The good it has done, however, has evidently been entirely overlooked by the War Department. Enough real experts (I don't refer merely to a man who has qualified as 'expert' on the range, but who has mastered the science of shooting) could be secured from the N. R. A. ranks to furnish a corps for each cantonment, or each range, either now open or to be opened.

"Who will gainsay the inadvisability of taking a green man from the ranks of the 'conscripts' and spending much time teaching him the ways and means of a competent instructor, just because it *can* be done, when hundreds of others are already as expert as said new man would be months hence, possibly years hence? The War Department doubtless is, and should be, interested in securing the results it desires in the *shortest possible time*. Then why not utilize this extremely important material already present in the form of N. R. A. civilian riflemen?"

"A call would bring hundreds on short notice, ready and willing to lend their aid and give the advice they are so competent to give, after years of first-hand experience in perfecting themselves in the art not alone of shooting, but hitting what they shoot at. The United States prides itself upon the expertness of its riflemen, and its pride is amply justified, yet foreign riflemen are imported to 'teach' us how to shoot! A couple of weeks' intensive training of our own expert riflemen by the Ally officers in the intricacies of trench rifle code would give us a corps of instructors capable of training our soldiers how to shoot in the shortest possible time.

"It is astonishing that no evident thought has been given to the matter by those responsible for the efficiency of our soldiers, soon to face a foreign foe. And when he faces them, if he is an expert in the use of his rifle, his chances and the chances of his fellows are multiplied many fold."

Major S. J. Fort, of Catonsville, Md., approaches the question from an angle slightly different from Lee or Kessler. He says:

"Editor ARMS AND THE MAN,  
Washington, D. C.

"Your editorial page a few weeks ago states that a number of officers of the Allied forces have been brought to this country for the purpose of establishing schools of musketry, principally, I should judge, in the manner of rifle and machine-gun firing as used in trench warfare.

"There may be other readers of ARMS AND THE MAN who, like the writer, have served a number of years in the National Guard, and during that time have thought the time given and experience gained in small-arms practice would warrant them consideration in this great emergency, only to be disappointed and apparently lost in the shuffle.

"So far as National Guard ordnance officers attached to State organizations less than a division are concerned, while I was personally informed that such officers would be considered in the formation of National Guard divisions, it has appeared that very few if any have been so considered and appointed.

"Applying for a commission in the Ordnance Reserve Corps disclosed the fact that no National Guard ordnance officer had a chance for a commission unless a trained manufacturer of ordnance material, or competent to supervise the manufacture of such material.

"The higher officers met in this vain effort to connect with active service expressed their opinion that a well-trained instructor of small-arms practice, such as National Guard ordnance officers are, should be recognized and employed in that capacity; but this, while pleasant to hear, had no weight with the real powers that be.

"Now, it is very likely that keen French, English and especially Canadian expert rifle shots having experience in the trenches can give any of us without that training something more than mere points along this line; but there have been officers sent to Fort Sill, for intensive training in the school of musketry, who never were expert rifle shots and in some cases I personally know, never qualified better than Marksman.

"I have thought, and still think, this a mistake, and it is not only a mistake but a serious reflection upon the ability of many men who have helped make rifle shooting a science, and through their experience helped American teams to win against all comers when it came to competitive shooting.

"Rifle shooting is rifle shooting, whether it be that the target is 1,000 yards distant or only fifty yards, and I do not believe that the statement can be refuted that we have enough American officers competent to train the men in all our various armies, except possibly in the 'refinements' of trench firing.

"Surely we are worth a commission for this work. The Government has spent considerable money in giving us an opportunity to learn how to shoot and how to train others in the same military duty. We have given gladly of our time and in many instances of our substance, believing that we would thus fit ourselves for real work, and I repeat that many of us are physically, mentally as well as morally fit to do our duty and far better prepared to learn through a post-graduate course than men who are not expert shots and have never taken an interest in rifle shooting further than to qualify as many men as possible in their companies or battalions or regiments, yet are now honored by being made instructors without knowing even the rudiments of the game.

"I do not agree that we should accept civilian appointments for this work, when we have

acquired a State commission and been duly recognized as officers in State companies. We may not be worth a commission as Major, which most of us hold, but surely we are worth a captain's commission, and I think most of us would be perfectly willing to accept demotion if given the opportunity.

"There seems no good reason why a sub-department either of the Quartermaster or Ordnance Department could not be made, to be known as Inspectors of Small Arms Practice, and National Guard officers with military experience commissioned therein, leaving the civilian appointments to those who are competent rifle shots, without experience as officers.

"When we think that American skill with the rifle has won over the best shots of our allies so many times, and that expert shots trained in the National Guard have done their share in developing the American rifle and ammunition, to say nothing of rifle practice itself, it seems a pity and a distinct injustice that so many of these men should be disregarded."

This comes from J. Hardin Ward, secretary of the Iroquois Rifle Club, of Louisville, Ky.:

"Your editorial in ARMS AND THE MAN relative to musketry instruction of the National Army seems particularly timely to me. Early in this war I made some effort to put myself at the disposal of the Government, to be used as an instructor in rifle practice, with or without pay, with or without commission. To use a slang expression, it seems to me the Government is 'overlooking a good bet' in not using National Rifle Association members to help in this time of stress. Almost any of us would be willing to go into the thing, to help in any capacity.

"I suggest that you write the secretaries of the different clubs, asking them to forward you a list of their members who would be willing to go into Government service as rifle instructors, together with their qualifications for such positions.

"It seems to me with such a list you could go before 'the powers that be' with something definite. I of course realize that, as you suggest, we would have to take lessons from the English and French riflemen who have been sent here. But I am sure that we could grasp the situation and learn very quickly. Our past experience would enable us to do this, I am sure. The Government, through the National Rifle Association, has spent a lot of time and money drilling us in the use of the military rifle, now only to set us aside without getting any returns from their investment."

## Sighting Shots

"We gave the new .22 outdoor course a fair trial last Sunday," writes the Secretary of the Shoshoni Rifle Club, Edward L. Crabb. "While the R. F. at 50 yards is rather easy, the other ranges are hard enough to make it interesting for any one trying to qualify for the expert course. As far as we are concerned, we are satisfied that the course is O. K. and certainly approve it."

In order to make conditions as nearly realistic as possible, the members of the Neopit, Wis., Rifle Club are specializing in rapid fire at 100, 200 and 300 yards from trenches. This organization has already graduated 37 men to the service in addition to having given instruction to more than a 100 men from nearby towns, members of the Guard as yet without equipment.

The range of the Rocky Mountain Rifle Club has been thrown open to the State Troops and all men of the new drafted army, writes the

Secretary of the Club, R. E. Tisdale, and club members are using every effort to familiarize them with the handling of the service rifle. A large percentage of the Rocky Mountain Rifle Club has joined the colors, while several more will soon go.

The Commodore John Barry Rifle Club has been consolidated with the New York Police Rifle and Revolver Club, an arrangement, which according to Harry C. Phibbs, is working out very well. Already the men are making preparations to fire a course over the Peckskill range with the New York Police R. and R. Club.

The Stratford, Wisconsin, Rifle and Revolver Club has reorganized as a Home Guard unit. It has re-affiliated with the National Rifle Association, having temporarily severed its connection a few months ago.

The Middletown, Ohio, Rifle Club, having exhausted its supply of Krag ammunition, is preparing to reload its empty shells. Pending the time when this can be accomplished, the organization will hold the interest of its members by small-bore shooting, both indoor and outdoor.

## 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. Is there any way for revolver-club members, in a community which stringently regulates the carrying of weapons, to carry target revolvers to and from the range without getting into trouble? In the community in mind, the law says that any one not in service or not an officer regularly elected or appointed, shall advertise in the paper ten days, go before the circuit court and petition to be permitted to carry a revolver, pay \$10 a year license and give a bond of \$3,500.

A. There is no way to get around local laws such as this one, except to make peace with the authorities. It is suggested that, first of all, a ruling is obtained as to whether the law applies to the simple transportation of weapons or only to the carrying of concealed weapons. In most communities even where such laws exist it is perfectly permissible to place a pistol and ammunition in a handbag and take it wherever desired. If this does not work, it might be possible to obtain a special dispensation from the authorities.

Q. Is it feasible to organize military companies under the plan for the organization of rifle clubs, and would the Government favor such extension of the original objects of the rifle clubs?

A. It is possible to organize military companies as rifle clubs. If this is done, however, the idea of target practice should not be permitted to be absorbed in the idea of military drill.

Q. The idea has been advanced that the urgent need of organizing rifle clubs passed with the passage of the National Defense Act and the Selective Draft law. Is this correct?

A. The passage of the laws referred to in no way detracted from the necessity of organizing rifle clubs and keeping them going at top speed. It is more necessary than ever before for young men to learn the art of handling firearms.

Q. During the season of 1916 I qualified as Marksman and received the N. R. A. decoration therefor. Since the National Guard was called into service I wish to know whether I

am entitled, as a member of the Guard, to wear the plain bar pin with the word "Marksman," by virtue of the N. R. A. qualification?

A. The N. R. A. qualification, being different in some essentials from the course shot by the National Guard, would not entitle the holder of an N. R. A. marksman button to wear the National Guard marksman decoration. Before the National Guard bar can be worn it is necessary to qualify under conditions prescribed by that branch of the service.

Q. Who was the naval gunner who broke the world's record in gunnery? How many hits out of possible tries, and what was the range in miles?

A. There is no world's record in naval gunnery. To establish such a record it would be necessary to get gun crews of every nation and let each shoot from the same kind of gun. This, of course, has never been done. As to the records in the United States Navy, the Government at this time does not care to give out gunnery details.

Q. Please tell me if there is a cartridge for the .38 S. & W. Special in reduced load for target practice at 50 yards that will shoot accurately at that distance?

A. The .38 Mid Range cartridge is what you want. This is especially intended for 50-yard shooting practice and is very accurate.

Q. What will take the lead out of the barrel of my .22 repeater?

A. A good wire or brass bristle brush and a cleaning rod vigorously applied on the inside of the barrel, coated with leadine, which has an affinity for lead, will usually do the work. Leading is caused by rough spots in the barrel, probably the result of rust and neglect. Keep plenty of oil on your guns.

## These Clubs Were Admitted to N. R. A. Membership During the Past Week:

### CIVILIAN

#### Connecticut

The Waterbury Pistol and Rifle Club—Henry Littlejohn, secretary; Charles A. Templeton, president; D. F. Buckley, vice-president; Frederick W. Chesson, treasurer; John J. O'Neill, executive officer. Membership, 16.

#### Oklahoma

Henryetta Rifle Club—G. W. Burroughs, secretary; N. C. Fellows, president; Ira E. Guymon, vice-president; E. J. Kersting, treasurer; Don R. Stormont, executive officer. Membership, 54.

#### Pennsylvania

Smethport Rifle Club—Webb B. Hopper, secretary; Paul S. Crossman, president; Scott F. Redfield, vice-president; P. Burke Jacobs, vice-president; Frank Potter, executive officer. Membership, 37.

#### Wisconsin

Shawano Rifle Club—Louis C. Tonne, secretary; Albert S. Larson, president; Wm. E. Stoppenbach, vice-president; B. R. Reiss, treasurer; Harry E. Collins, executive officer. Membership, 37.

### BOYS' CLUB

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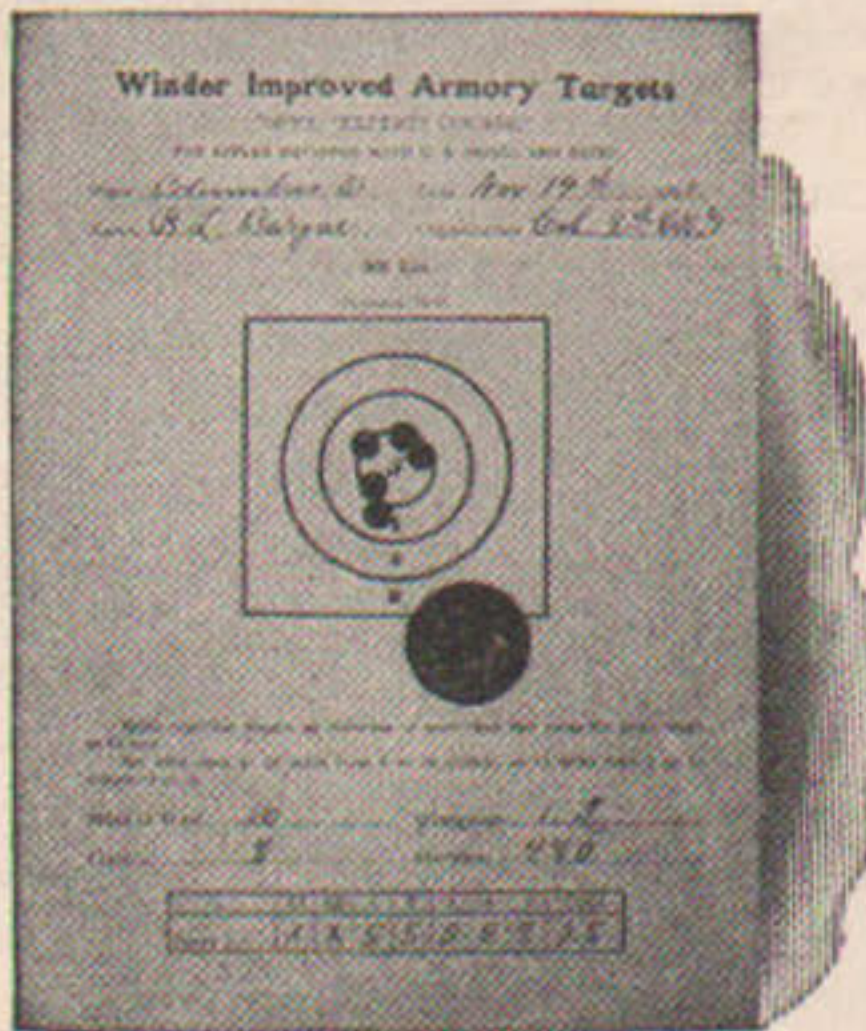


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### Duck Hunting Is Great Sport

BY PETER P. CARNEY

**D**UCK hunting is a severe test; likewise fascinating.

The right kind of duck weather is the wrong kind for any other hunting or out-door activity. Pick a stormy day during the flight of the birds and you will find them on the move.

In hunting on lakes or shores where there is plenty of wild grass, bullrush or cattails, the problem of material for a blind is solved. If not practical to build a blind on shore, one may be made to cover the water side of a boat by placing sticks in the mud around the end and one side of the boat, then using the rushes and grass to cover the stick framework.

Be in the blind at dawn.

If shooting over decoys either natural or artificial, place them about 20 yards from the blind, in a straight row or semicircle.

Shoot as the birds alight in the decoy if you desire to wait for a flock to alight.

The next best time is when they arise. In either case the heavy, hard feathers will be missed.

If shooting from a blind without decoys, lead your bird. The distance of the lead comes from experience. Ducks travel from 60 to 90 miles an hour. If you miss the first shot, the duck's speed is only a conjecture.

Use nothing smaller than a 12-gauge shotgun. Load to at least three and a quarter drams of smokeless powder. Size of shot, fours to sixes. Thirty-inch barrel will do, but 32 is better.

There is a fascination about the sport of wild fowl shooting that, at best, can be but feebly portrayed with either pencil, brush or camera.

If the gunner possesses, in addition to his love for the pursuit of game, a pair of quick eyes, and will cultivate his power of observation, he will find an hitherto undiscovered charm to complete his delight when indulging in his favorite sport.

The wild duck is the embodiment of nervous energy. Built for speed, and inheriting from long generations of ancestors a suspicious nature and active brain,

he is at once a most striking example of the "survival of the fittest" among the feathered kind.

When closely observed one will find a purpose in every action. The gunner, hidden in the blind among the rustling sedge, can tell the moment his eye catches sight of a flock in the air just to what species they belong.

And as they whizz along on rapidly beating wings, their subsequent actions tell him whether they will swing to his decoys and permit of a shot or continue on their unruffled way.

"An Investigating Committee," composed of mallards (*Anas boschas*) have come up to look over the bunch of decoys that float so innocently on the still water near the tule line. If a novice were in the blind he would most likely be tempted to fire at the birds before the proper moment, but our old head says, "Wait!"

You see by their actions that they are not at all alarmed, and you may rely upon it that after going off a short distance they will swing back again. Then just as they bunch up over the decoys preparatory to settling, let them have it, and unless badly rattled, you will secure three or four to your shot, as with fluttering wings they endeavor to alight.

It is intensely exciting to lie perfectly still in your blind and have them come right up to you, and until one learns by experience the temptation to fire at such a moment is well nigh irresistible.

P. P. C.

### Concerning Gun-Shy Dogs

In breaking a gun-shy dog do not attempt much work, and, under no circumstances, apply force. The thing to do is to take the dog hunting every day without a gun. If there is a dog in the kennel that hunts well, he may be allowed to go afield with such a dog now and again. In all probability, he will walk to heel while the other dog hunts.

In the course of a few days he will begin to take an interest in starting out, either with or without the other dog. Eventually the dog will go out, and once he gets a taste of game, he will put more spirit in his work.

In the end, he may hunt well, point birds and, possibly, chase them. For chasing he may be restrained mildly, but otherwise he should be permitted to have his own way. He may even be worked with a steady old dog and taught to back. If he will search for birds and point them, the breaker can make an attempt at getting him accustomed to the report of a gun. At first he is to snap caps while the dog is far away, taking care that the dog does not see the pistol. Then he will try the effect of light charges of powder.

Should the breaking of caps or the discharge of powder frighten the dog, the breaker is to treat the matter with absolute indifference. If the dog choose to come to heel, let him have his own way. When he gets ready he will go to work again.

When the dog gets so that he will pay no attention to the cracking of a cap at a distance, he may be accustomed to the noise at closer range. Before the gun is discharged it should be carried afield for a few days. The dog may not like the looks of it at first, but his suspicions will wear off.

### Quail Easily Saved

If any sportsman wants to save quail in winter here is a practical way to do it, according to the Biological Survey:

Build low hutches with roofs that will keep out snow or make wigwam-like stacks of grain sheaves with openings below. Keep the entrances free from snow and scatter within cracked corn or small grains or seeds.

Putting out food on a bare spot or ground is an easier method, but not so useful.

## Hints for Hunters

**H**APPILY the action of the nitro powder is confined to the polished interior of the barrels and they may be kept in perfect shape, if, after use, the following method is followed:

1. Brush out the bore with a bristle brush.

2. Wipe out with a rag.

3. If streaks of lead appear—and they are quite apt to in the 20-gauge tubes—remove them with a Tomlinson cleaner (brass gauze covered wood forms laid on springs).

4. A second rag will remove the lead loosened by the cleaner.

5. A third rag usually comes out white.

6. The bore should now be well smeared with a nitro solvent. There are several of them on the market, and one which has recently made its appearance seems to be giving great satisfaction. It is the J.L.N. Gunoyle, which has proved to be an efficacious solvent for nitro powder. Then there is Hoop's No. 9, and the Black Diamond Gun Grease. The use of such a preparation as these have proved to be will cause a black precipitate to form in the

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bore, which may be wiped out in a day or two when another application of the solvent should be made, inasmuch as the nitro-powder residue will not relinquish its hold with a single cleaning.

The locks of the gun will not need attention for periods of several years, unless they get a wetting, when they should be taken down, wiped, and lubricated with a thin oil.

To many sportsmen nothing delights the eye more than an oil-finished stock. If your purse will not allow of an oil-finished stock at the time of purchase and you are having a gun made at a factory, they will be glad to soak the stock with oil and, although it comes to you as dull and lacking in grain as a piece of brown chalk, you may bring out all the grain and obtain a fine finish by rubbing it down yourself.

It is more to be desired than the usual finish on the stock of the low-priced gun, and not only can you make the stock more beautiful, but also scratches may be healed by a little rubbing. If your gun has a finished stock, it may be kept in perfect condition and its beauty augmented by the application of raw linseed oil.

The stock should be slushed with this oil and allowed to remain over night. If it is left longer it may gum. In the morning the stock should be wiped and rubbed down either with a woolen rag or the palm of the hand. Artificial heat may be used as an aid, but the natural heat caused by the friction in wiping is best suited to drive the oil into the wood.

Although a dull finish is desirable, a polish may be obtained by occasional applications of oil rubbed down at once.

### "SAMMIES" NOT USED IN FRANCE

The use of the term "Sammies" to describe our troops is almost unknown in France, according to despatches received from the United States Marines in the oversea expedition of the "first to fight." How the term came into use is explained in this wise: When the "first to fight" contingent steamed into port the people on the wharf shouted "Vivent les amis!"—pronounced "Veev lays ahmeel!" What this means is "long live the (our) friends," but "les amis" may sound a good deal like "les Sammies," and the newspaper men so interpreted it. Immediately the folks "back home" began calling our troops "Sammies," but the French have yet to acquire the habit.

First Tommy (after consulting German dictionary)—Well, Bill, if he ain't lyin' he's one of them shock troops, according to this.

Second Tommy—Lor' love-a-duck, you're right. You've only got to look at the blighter's face to see that!—*Passing Show.*

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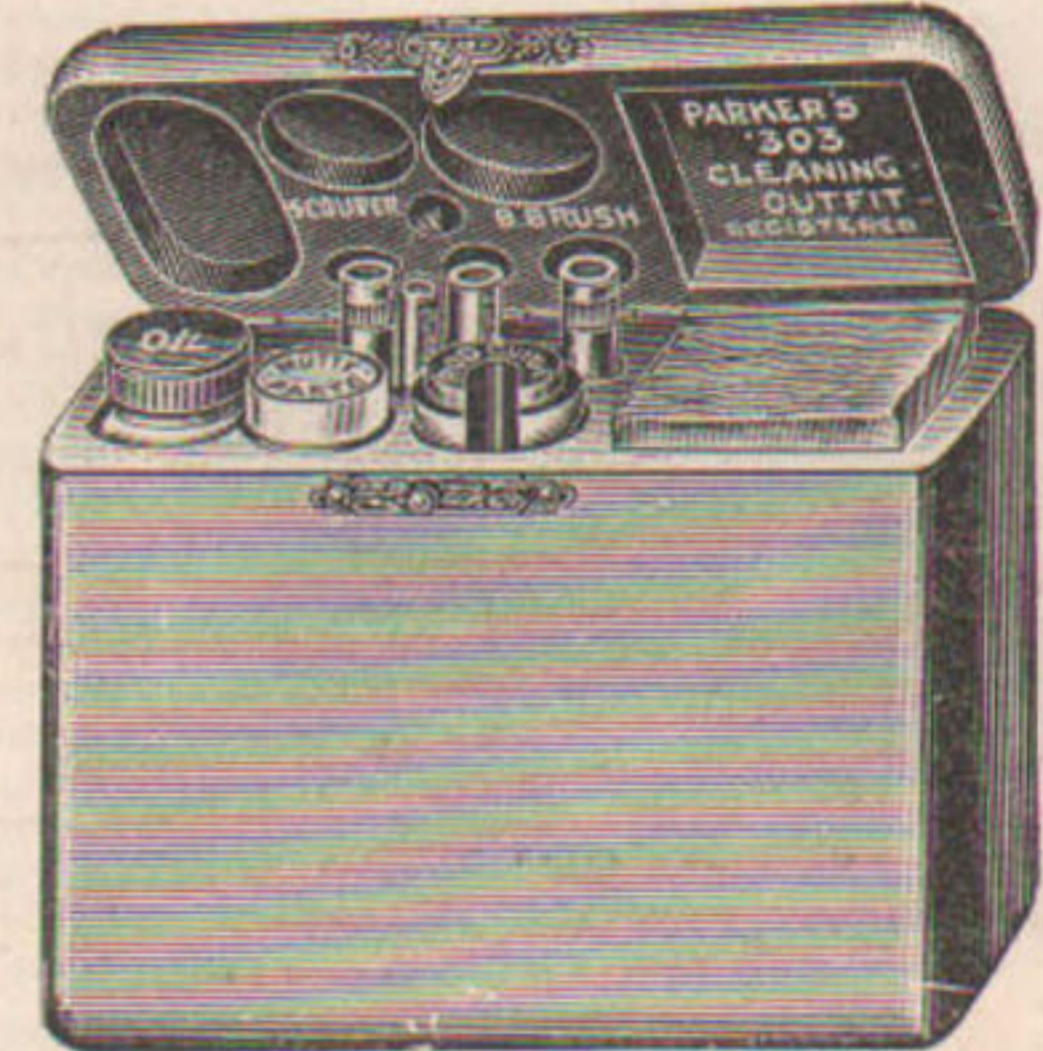
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FIREARMS AND ANTIQUES—Buy, sell, exchange old time and modern firearms. Antiques wanted. Stephen Van Rensselaer, 805 Madison avenue, New York City.

FOR SALE—Schoyen Ballard Scheutzen Rifle. .22 caliber, fancy walnut stock and forearm checked. No. 4 barrel, full octagon, 28-in. long. Palm rest, sole leather case, target sights. Gun is in first-class condition inside and out. Price, \$35.00. A. H. Anson, Box 61, Le Veta, Colo.

FOR SALE—4,000 rounds of ammunition for the Springfield Rifle, Model 1903. Good by test. Sell at actual cost; viz.: \$56.00 per 1,000. F. O. B. Roslyn, L. I., N. Y.

WANTED—25 Model 1898 Krag Rifles in good serviceable order, with slings and bayonets. Also a number of .45 service Colts and holsters. Give complete description of condition, and lowest price. Address Sergeant Keith Rogers, Park Rapids, Minn.

WANTED—Smith and Wesson mould for .38 caliber S. & W. Special 158 grain military bullet, also .22 long rifle S. & W. Target Pistols. State condition and price. C. L. Cammann, Jr., 29 Broadway, New York City, N. Y.

FOR SALE—First draft for \$10.00 takes Stevens Armory Model, chambered for shorts, excellent condition, regular sight equipment. H. D. Grose, 113 1/2 South Center St., Joliet, Ill.

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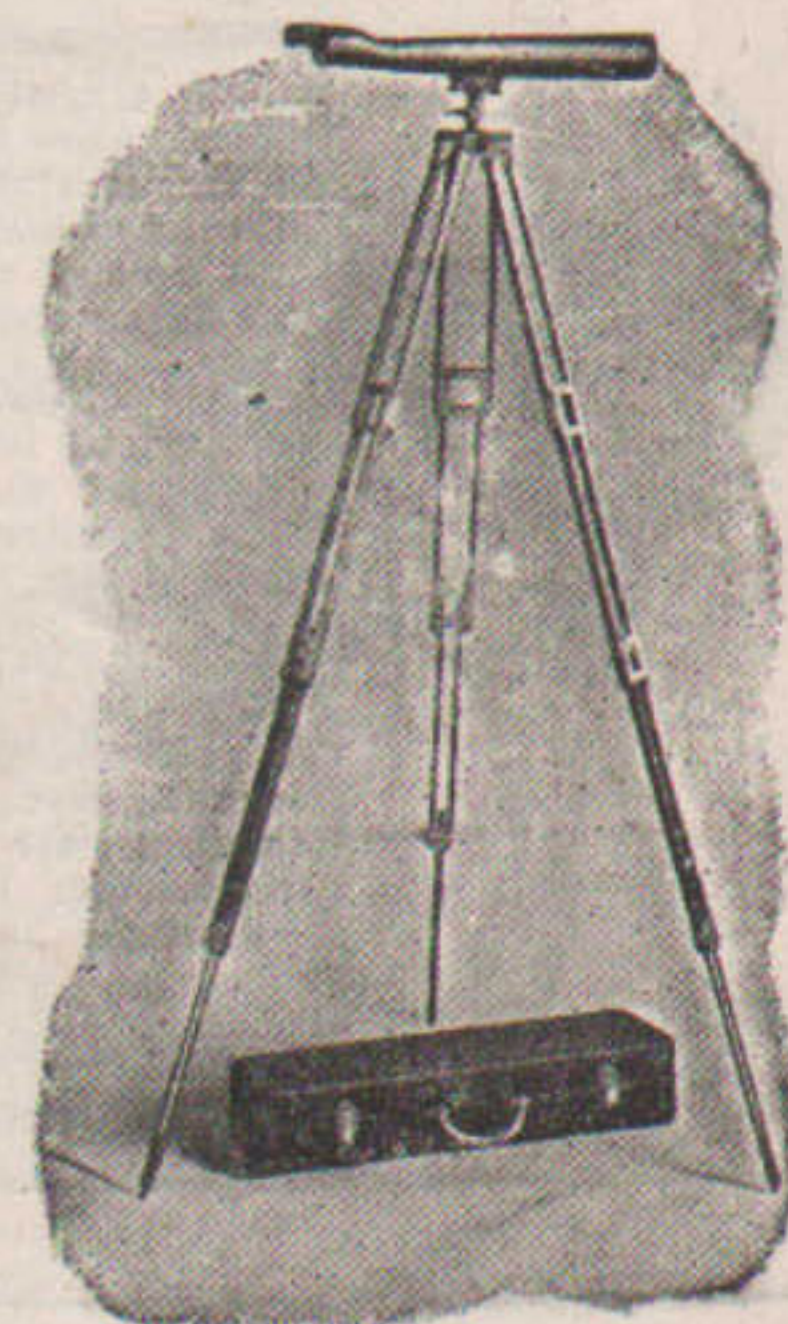
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