

ARMS AND
THE MAN
RIFLE
AND
THE
AMERICAN

A MARBLE-LYMAN SIGHT
CHARACTERISTICS OF MACHINE GUNS
THIRTY YEARS AGO WITH THE HAND GUN
Some Contemporary Shots
OUTDOOR SMALL-BORE MATCHES BEGIN
EDITORIALS AND
LATEST NEWS OF RIFLE, REVOLVER AND
SHOTGUN, THE ARMY, THE NAVY AND
THE NATIONAL GUARD

VOL. LXII, NO. 17



JULY 21, 1917

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 -	Championship won by Peters R. & R. Club Team, of King's Mills, Ohio, 9,925 out of a possible 10,000
COLLEGE COMPETITION - - -	Championship won by Michigan Agricultural College Team, 9,638 out of a possible 10,000
HIGH SCHOOL COMPETITION -	Championship won by Iowa City, Iowa, High School Team, 9,517 out of a possible 10,000
HIGHEST INDIVIDUAL RECORD -	Made by T. K. Lee, of Birmingham Athletic Club Team, 1,999 out of a possible 2,000
ASTOR CUP CHAMPIONSHIP - -	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 (P) Ammunition will make higher scores than any other kind.

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At the important Maplewood, N. H. shoot

WINCHESTER Shotguns and Shells

more than held their own. The Maplewood Preliminary Handicap was won by Mr. H. S. Sindle shooting from 20 yards with a score of 98 x 100. Mr. H. Winchester in this event won high professional at 20 yards with 97 x 100. In the Maplewood 16 Yard Amateur Championship Match Mr. Sindle kept up the good work by breaking 97 out of 100. *Both shooters used Winchester shells and Mr. Sindle a Winchester gun.*

Mrs. Topperwein was there with her old time punch. She tied with Mr. F. Huseman for High Average including handicaps, *200 of her targets being shot at from 21 yards*, and broke 669 out of 700. In the shoot-off this remarkable woman won out with a score of 24 x 25. Here are some more of her accomplishments. Tied Mr. H. Winchester on second High Average for 500 registered targets at 16 yards. Made a straight run of 157. Won the High Professional score with 99 x 100 in the "Maplewood 100" match. *Mrs. Topperwein shot as she always does a Winchester Repeating Shot Gun and Winchester Factory Loaded Shells.*



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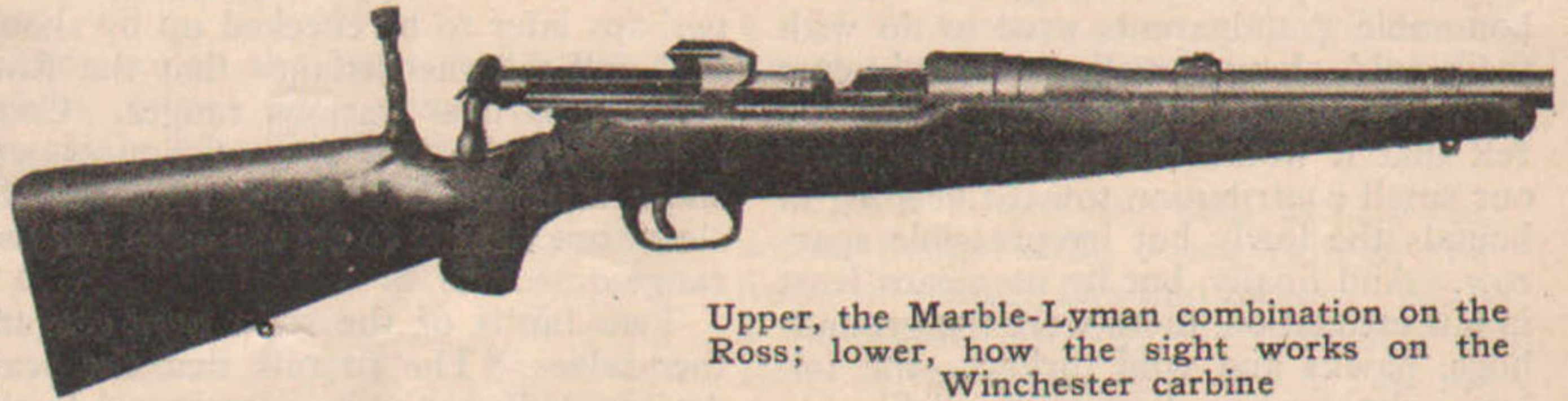
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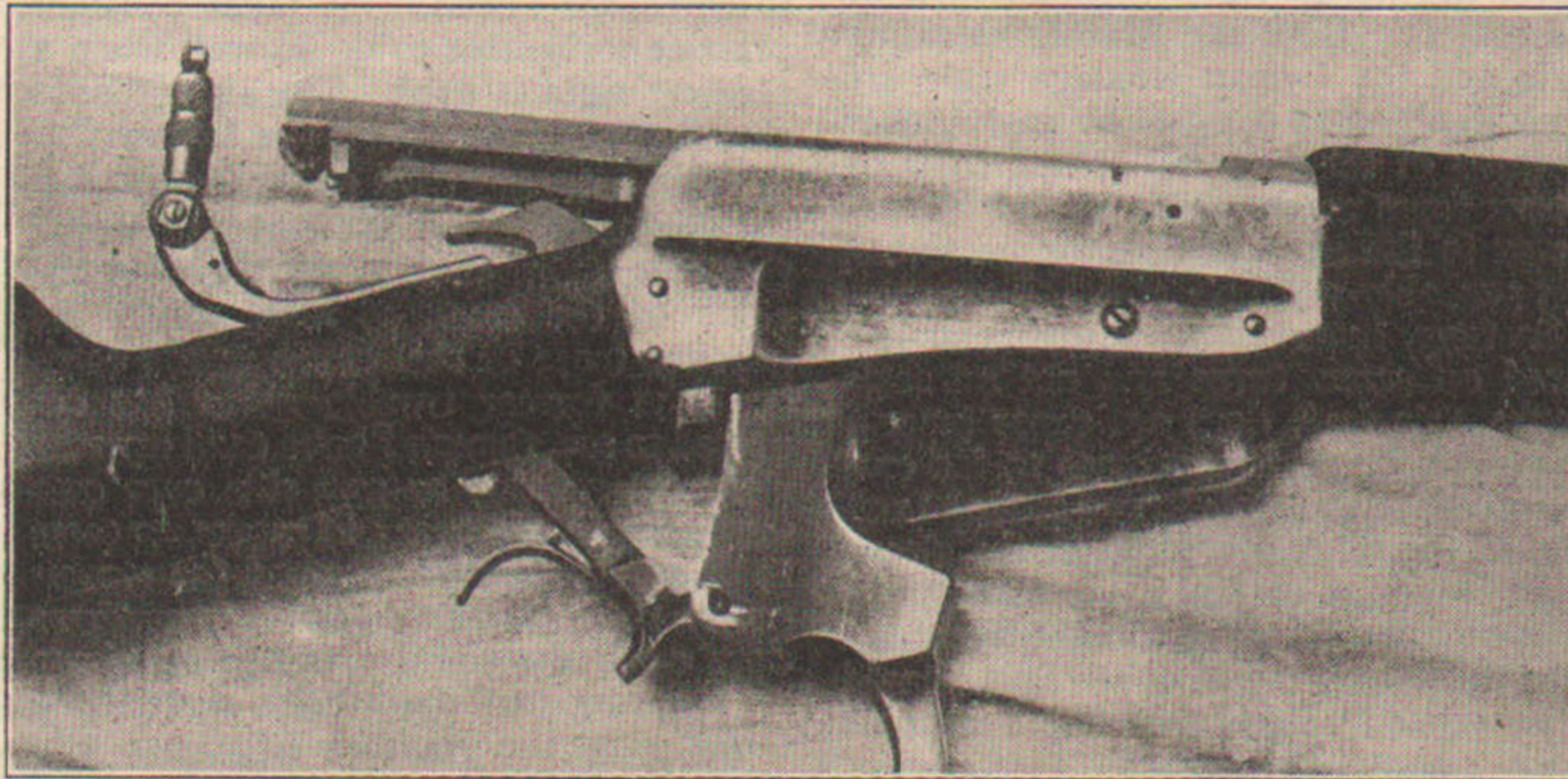
A Marble-Lyman Sight

By J. R. MATTERN

IT'S a tang peep sight for the Ross rifle or the Winchester carbine—perhaps it could be adapted to other guns with little trouble. It fits back of the Ross bolt and the Winchester lever action. It has micrometer windage and elevation adjustment, and is a practical, successful sight for the use of the majority of men in the woods and on the range. Its special features, aside from quick and precise adjustments, are its accuracy, the "visibility"



Upper, the Marble-Lyman combination on the Ross; lower, how the sight works on the Winchester carbine



stock at a point which will place the upright sleeve just back beyond the reach of the bolt or lever breech block in its rearmost position. Those who are familiar with the advertisements of the ordinary Marble flexible sight will recollect that one of its claimed advantages is that it can be used "on rifles with long firing bolts, . . . which knock the stem down each time; the flexible, spring-controlled joint always returning the aperture to correct position." Whatever the practicability of that idea, the Marble company soon provided a better arrangement in this extension or special base. It carries the joint and the stem of the sight at the extreme rear end of the base, instead of at the middle, as do all the regular models of tang sights.

it insures in poor light, and exceeding quickness in lineup.

The sight is not made by any one firm, as the heading of this article indicates. Some special work is needed to complete the construction of the parts that are bought, as well as in fitting the finished sight to the rifle. The Marble factory will do the construction work without extra charge. The Lyman factory, I presume, would do it, if requested to. The mounting can be done by any one, as it is only a job of a few minutes with the proper tools.

A regular Marble extension or special base aperture sight is used, with the Lyman No. 47 wind-gauge aperture head substituted for the Marble aperture. It is necessary to use the Marble stem, because its threads differ from those on the Lyman stem; and to do this requires that both stems be cut off close up to the heads and the Lyman head then brazed to the Marble stem. Square cuts and the brazing together of the two square ends seem to make a strong union, but perhaps a V-shaped union, or a tongued one, would be even better. In getting my first sight I bought the Lyman head and sent it to the Marble people, who did the cutting and brazing. Later I simply ordered what I wanted, letting the factory do the necessary buying of the parts they did not make.

The base of the sight is screwed to the grip or tang of the

The two screw-holes are located about $1\frac{1}{4}$ and $2\frac{1}{4}$ inches, respectively, in front of the upright stem, which places the stem very well back on the stock indeed.

The construction of the sight came about through a keen realization of the need for screw windage adjustment of sights on the Ross rifle; though, as it turned out, this item was by no means the only advantage gained. I was using my Ross for many other purposes besides straight big-game hunting, and under varying conditions. For instance, I had three different lots of factory ammunition: standard copper-tube bullet cartridges, 180-grain match-bullet cartridges, and hollow-point, steel-jacket game-bullet cartridges. Each lot required a little different adjustment of the sights for fine work, and on occasion some shells of each kind were used all on the same day. It obviously was impossible to keep making the windage adjustments by the usual hammer-and-half-dollar method. I wanted to record each adjustment, and then to be able to return to it easily and quickly and positively.

But more important than this, I was using reduced loads for ordinary squibbing around. Everybody who wants to get real service out of a rifle does, nowadays. The light loads with cast, gas-check bullets are safer than full-power loads for use in settled communities, hence limit one less in his shooting; they

save expense, save wear on the highly polished barrel of the Ross, do not tear small game in invisible shreds, and, when loaded for the purpose, they really are silent in the silencer. But they do strike lower and off to the left of where full-power bullets strike. It is impossible to guess the correct hold for them without changing the sights with any degree of success or satisfaction.

We were doing considerable target shooting, too. I wanted a sight which could be set to land the bullets in the black at any range and in a wind. Much of the joy of rifle shooting and from the outdoors comes, in these over-civilized later days, from a target bout on the range or at an old stump across a meadow, or from trials for group. Then there was squirrel shooting, such as our honorable grandparents used to do with their old long-barrelled straight-cuts from the tops of big hickories; and we felt that it would not be right to avoid our small contribution toward keeping in bounds the lowly but irrepressible sparrow. And finally, but by no means least in our estimation, there were the groundhogs, hawks and wild turkeys—the fellows who gave us long-range, deliberate shots, with all the time any one could want for adjusting sights to suit the distances. As I write this—the date is well toward spring—I can see through the window five wild turkeys (all gobblers, by the way, as the glass shows) feeding at a box placed for them near the woods about 500 yards from the house. In open season they come out of the woods at many such places, and it is some satisfaction to be able to adjust the sights near enough right to hit one at a range like that.

Shots at deer and bear at 400 and 500 yards frequently present themselves in recent years throughout the East, owing to open hillsides and excessive wildness of game, but to hit under such conditions requires that the rifle and its sights must be absolutely true. It is correct that the uninformed man, to use a mild term for him, sometimes will hit a large animal at long range or a small bird close up, by "holding a little coarse, or fine," as the case may be, but such shooting is little more than gambling.

The carefully calculated shot at long range, however quick it may be, and the snap-shot in brush are at opposite extremes. The former calls for a finely built rifle and cool, skillful shooting; the latter is more often practiced with some such an outfit as a round ball in a \$5 shotgun, and by men or boys wildly excited.

It is not necessary to discuss here the question of the aperture as against the open sight. For the last named I have no use, but that is another story. The Marble-Lyman combination gave me screw adjustment of both elevation and windage, and micrometer measurement of these adjustments. How? some one

will ask, not knowing that the ordinary Marble and Lyman sight can be transformed into a micrometer sight by the filing of a notch or two.

The method is to keep track of the turns of the sleeve or screw, instead of counting notches and parts of notches on the scales. One complete turn of the knurled elevating screw, or of the knurled head of the windage screw, moves the aperture approximately one division on the scale marked on the stem or top of the sight—and moves the bullet a certain number of inches at the target. By measuring the length of the sighting plane (distance between sights) and calculating on a hundred-yard basis, this number of inches is determined readily. Reference to reliable trajectory tables for the .280 Ross, plus a little calculation, perhaps later to be checked up by shooting, will tell the distance that the Ross bullet falls over various ranges. Comparison of the two sets of figures will show instantly how many turns of the sleeve are needed to set the sight for any range.

Two faults of the sight here obtrude themselves. The first is that the scale markings do not quite correspond to the travel of the aperture for one turn of the screws. Both the Marble elevating scale and the Lyman windage scale are overrun about 10 per cent by any number of turns of their screws on the basis of a turn for a mark. This should be corrected in the manufacture of the sights, and probably will be.

So long, however, as adjustments are based on screw turns and not on scale marks, this fault does not cause inaccuracy, and the scale continues to indicate the correction roughly. The second fault is that the fit of the stem in the sleeve is so loose as to make observation or determination of the notches difficult before tightening the sleeve. This should be remedied by closer design and machine work.

With the micrometer adjustments under my fingers I am enabled to place groups wherever desired on the targets, to hustle the groundhogs on their way at any range fairly estimated, and to scrape the hair off the back of a deer at 500 yards. My brother's eyes differ from mine to the extent of shooting an inch higher and half an inch to the right at 25 yards, which is a difference we correct in an instant. When using cartridges loaded with No. 15 du Pont powder, which in spite of higher velocity require higher elevation of sights for point-blank range, on account of different barrel flip, the necessary correction can be arranged by shooting no more than two or three shots. The four points of elevation and the half point or more of right windage required by the average reduced load can be secured in a few seconds.

The extraordinary long sighting plane of 39 inches on this rifle, which is fully double that of many hunting rifles, is a

direct aid to accuracy. With this sight it is not difficult to make groups that measure an inch in diameter at 50 yards. Standard 8-inch bull's-eyes at 200 yards are "pie." Of course the excellent rifle and a steady rest must be given due credit.

Speed of aim is even greater than I had hoped to secure. The sight is so close to the eye and the face of the plate surrounding the aperture so well proportioned that there is no looking anywhere but through the hole. For quick shots at running game, from rabbits to bear, there is little more to be desired. Our own big-game hunting crew has tacitly agreed to regard a 10-inch circle at 100 yards as the largest scattering of bullets permitted to any one who calls himself a hunter—offhand and rapid shooting, of course. With this Marble-Lyman sight it is possible to put 5 shots in such a circle in 7 or 8 seconds. One shot can be put in, starting at the signal with rifle at hip or trail, in 1 or 1¼ seconds. These speeds may be attained with a little practice by any ordinarily good shot. The limiting factor is the handling of the rifle and the working of the action, and not time consumed in aiming, or in attempts to catch the "bead." It takes constant practice to be able to do so well when a receiver sight is used. The sight that is close to the eye always is the fastest.

Those who are used to the more compact sights on barrel or receiver may fear that this sight, sticking up there on the comb of the stock so high, might get knocked loose or that brush would catch it. The former trouble never has occurred to me, though I have used my rifle about as roughly as any rifle ever gets used fairly. The base and mounting seem to be strong enough to stand the strains put on them. Brush, however, sometimes does catch the sight. Its turning down on a spring materially helps matters by minimizing the number of times you must disengage the interfering brush by a special twist or hand movement. The sight folds down backward on top of the comb and locks in that position, or may be secured by a heavy rubber band, which is surer, when it is in a safe position for carrying in case or openly in car or buggy. When it is fastened down the bolt can be withdrawn from the rifle and the barrel cleaned from the breach.

A serious limitation of the sight for the Ross rifle is that it punches some men in the face or eye when full-power loads are fired. One correspondent of mine who fitted his Ross with the sight had to abandon it immediately on this account. Owing to his build and his habitual shooting position it was dangerous to him. He describes himself as tall and lanky. My sight never has hit me but once, as I recollect it, during several years of use. That time I was crawling through some rhododendron and fired while in a semi-

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Characteristics of Machine Guns

By CAPT. JOHN J. DOOLEY

Marine Corps Reserve

EDITOR'S NOTE: Captain Dooley's article, reprinted below, appeared in *The Marine Corps Gazette*. It is republished because it is a contribution to a subject of interest to most riflemen from the pen of a man thoroughly familiar with machine guns and their operation.

Captain Dooley needs no introduction to any of the older rifle shots of the country. For many years he has been a familiar figure on the big rifle ranges, where he has helped make shooting history.

In recent years, Captain Dooley, who before being commissioned in the Marine Corps Reserve was a retired Colonel of the National Guard, turned his attention to machine guns, specializing on the Lewis.

What he has to say on the question of machine guns can be considered as coming from an expert.

IN the use of machine guns two features stand out: (1) the task to allot them; (2) the assistance to expect from them.

Machine guns began to come into their own in the Boer War, their use before having been mainly confined to the British in their small wars in Egypt, India and Africa.

Following the Boer War Germany took them up seriously, especially with the idea of using them as assistance to cavalry. The Boer War had brought out the necessity of training mounted troops to combine fire action with shock tactics, and it was also plain that the power of mounted troops, whether infantry or cavalry, for independent action, would be greatly increased if they had a self-contained fire power besides the pistol, the rifle or the carbine.

While Germany was organizing her machine guns, the Manchurian War broke out between Russia and Japan. At that time the Germans had four batteries of Hotchkiss guns, six guns to a battery, one with each cavalry brigade, but none with their infantry.

The Russians had one company, of eight guns, intended for use in support of infantry, all of them on carriage mountings. It is plain that neither of the armies placed much dependence on this arm when the conflict began, but as the war went on its value was too evident to be ignored, and both belligerents trained large numbers of machine gunners and bought various types of machine guns.

When peace came the Russians had 38 guns and the Japanese 320, a great proportion of which had undoubtedly been captured from the Russians. Barbed wire and machine guns stood out in that war as the greatest obstacles in the attack. The war had proved beyond doubt their great possibilities.

Roughly speaking, the Germans, when the present war began, had over 50,000 machine guns, and it is believed that since then the number has been increased to 200,000, while the Allies

have greatly increased the inferior number they owned when the war began.

There are in the main two types of machine guns: The recoil operated, such as the Maxim; the gas operated, such as the Lewis or Maxim.

All military powers are agreed on one thing, basing their tactical employment of machine guns on their characteristics, that they should be used to support closely the arm to which they are attached. Their methods of organization and equipment differ widely.

Going back to the Franco-Prussian War, it will be recalled that the French entered into that war with great expectations of their mitrailleuse, which had either 25 or 37 barrels, according to type. They used it, however, as an artillery weapon, manned by gunners, not by infantry or cavalry, as a result of which it was used only for long-range fire. At this time the German rifles were sighted up to only 700 yards, while the mitrailleuse and the French needle rifle had twice the range. Had the French glimpsed its possibilities as an infantry weapon it would undoubtedly have justified their expectations more than it did.

When we speak of the characteristics of any weapon we mean the peculiarities it possesses, and, no matter how well trained a machine gun section may be in its mechanical working, we will fail in action unless we handle it correctly in a tactical sense. To do this it is vital to understand clearly the tactical application of a machine gun's characteristics.

Some of the characteristics of the machine gun are shared to a certain extent by both the rifle and the field-piece of the artillery. Like a rifle it may have the same range, same caliber and use the same ammunition. Like artillery it has its rest or carriage. Some of its peculiar characteristics might be considered as handicaps, but the others are of a value that far outweigh the defects.

Let us take up first the characteristic of the rest of the machine gun. A field

mount or tripod, not fixed, vibrates while fire is going on. Here we have a distinct advantage over the rifleman, for the gun does not have to be held by hand and when a rifleman is fatigued his aim is poor.

With a mount one man can do the actual firing while every rifle in the firing line multiplies that factor. With a mount of any sort the grouping of shots is far superior to the fire of infantry. If the first shot can be spotted, then every succeeding shot counts heavily. The personal factor is thus largely wiped out. It is one man, one gun, one hold as against many barrels and many holds, all of which vary and a large proportion of which are bringing no results and a scattered group. With this close grouping comes the power to concentrate fire which is invaluable in a crisis of the fight when surprise fire is the game. The fortunes that ebb and flow in the fight, and the nervous tension that grows as the crisis develops, communicate themselves to the rifleman, but the tripod or other rest is a nerveless thing.

It is easy to realize that observation of fire is easier and more reliable, while the watching of rifle shots that show when they strike may lead to errors in estimating ranges.

When the crisis of the fight does come the post of the machine gun must be close up, ready to deliver a surprise fire or a heavy fire at any point on the front. When a machine gun hits it hits hard and its moral effect is greater than any rifle fire of the same volume could be.

Another characteristic is its superiority in night firing. If the gun can be laid by day then its mount ensures an accurate fire at night, whether on outpost work or in the trenches.

Its volume of fire and the ease with which this volume can be started and maintained at full speed is another characteristic. The squeeze of the trigger is all that is necessary, and then the insertion of clip or belt as the gun empties takes but a second. It has

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MAYO REPORTS ON TARGET PRACTICE

ADMIRAL HENRY T. MAYO, Commander-in-Chief of the Atlantic Fleet, in a report to Secretary of the Navy Daniels reports gratifying progress in the marksmanship of the fleet. He says:

"Practically all the reports of gunnery exercises held during the spring, 1917, have been received and considered. Notwithstanding the many interruptions in the schedule and the conditions under which the exercises were necessarily held, the reports indicate steady progress in the ability and confidence of the personnel to prepare for, maintain, and control the fire of the different batteries under varying conditions, and it is believed that the final analysis of the scores will show a marked increase in the rapidity of fire and a reasonably satisfactory increase in accuracy.

"Steady progress can be maintained and a more rapid improvement made by a strict adherence to the prescribed methods of training. In this connection and in view of the existing conditions with regard to an expanding personnel and material, careful attention is invited to chapters I and II of the Gunnery Instructions, 1913, re 'Handling Men' and 'General Principles of Training,' particularly Articles 10, 11 and 23.

"The following extracts from the reports are very gratifying to the commander-in-chief, in that they show an understanding and appreciation of the efforts which have been and are being made to improve the battle efficiency of the fleet:

"More seems to have been accomplished during the past gunnery year than ever before with less effort, which stands to prove that present methods, while not complete or perfect, are fundamentally sound.

"The ship during the past year has passed through the usual experiences and conditions of a gunnery year, although, on the whole, it must be said that conditions affecting gunnery training have materially improved.

"It is impossible to allow uninterrupted periods of training for target practice at a time when vessels may be ready for an instant's call to go into action, and if a vessel is kept in training with a full realization of such conditions she will be ready to go into target practice at any time without fear of poor performance. Excellent training can be had while en route from port to port and when passing lights, buoys, or vessels at sea.

"The training that torpedo officers have derived from the work on the *Montana* is being strongly felt in the flotilla, and the time has now arrived when destroyers have become dangerous factors to the enemy fleet in day as well as night engagements.

"In the opinion of the umpires, the practice was conducted in a highly creditable manner, considering the small number of officers available, and the duty performed by the ship as a repair and base ship, which necessarily limits the time for gunnery training.

"The first aim of short-range practice is to train officers; the second, gun captains and turret captains; the third, pointers; the fourth, the crews; and the fifth, to perfect the material. All but the third can be done in smooth water.

"Day individual practice is merely an exercise of battle procedure, in which ammunition is limited and the ship hedged short with certain other restrictions, none of which, however, interfere in the slightest with ordinary battle procedure.

"Day-action procedure is well standardized now, and it is a pleasure to visit another ship during a major-caliber fire-control drill and be able to tell what she is doing without asking countless questions.

"The check telescope makes training more interesting, due to the final merits obtainable on rehearsals. It is also instructive, as the officers get familiar the returns and computations during training periods.

"Cruising pointing is done on a target on another ship, and the force and division commanders make it a point to give every ship opportunity for pointing.

"The gun captains were utilized to a marked degree in training the other units of their crews, and their work was very efficient."

"The commander-in-chief has watched with great pleasure the steady growth in the efficiency of the fleet, and he takes

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NOT ALL RED TAPE

In one of those out-of-the-way army posts where the outside world seems all too remote, word that General Pershing was to lead an expedition to France set the post buzzing with gossip and speculation.

"Now that's something like," said one officer. "I'd give anything to go with Pershing."

"Why not write and tell him so?" suggested a young lieutenant.

"What! me?" came the reply. "Why, I'm only a paymaster."

"And a d—d good paymaster," insisted the other.

And so a letter was duly forwarded to General Pershing by the paymaster who wanted to serve under him in France. Two days later a telegram arrived at the post for the paymaster. It read:

"You're it.—Pershing."

It's not all red tape in the army.—*New York Evening Post*.

BRITISH RESTRICT MUNITIONS SALES

SOMETHING of the restrictions which have been placed about the manufacture and sale of arms and ammunition in Great Britain as a result of the war may be realized from this summary, compiled by A. H. Gale, of Westley Richards & Company, Ltd., London:

Standing Licenses

1. Gunmakers must not manufacture arms unless they obtain a standing license.

2. They must not trade in arms and ammunition until they first obtain the necessary license from the competent military authority.

After Obtaining the Above Licenses

3. They must not sell, or offer to sell, arms or ammunition to alien enemies.

4. They must not sell, or offer to sell, arms or ammunition, including double-barrel shot guns and air guns, or air rifles, and parts thereof (except shot cartridges), to any one unless a license is obtained by or on behalf of the purchaser.

5. They must not make for or sell to any trader who does not possess a standing or provisional license.

6. They must not buy or sell military or sporting rifles of any kind capable of firing the Service .303 cartridge, or ammunition for same.

7. They must not buy or sell .45 or .455 auto pistols or Service revolvers, or ammunition for same.

8. They must not buy or sell any soft, hollow-pointed or flat-nosed ammunition.

9. They must not buy or sell any single-barrel shot guns.

10. They must not sell revolvers or pistols of any kind to any private person, whether he possesses a gun license or not.

11. They must not supply ball cartridges to any one without first obtaining permission.

12. They must not omit to retain the permits granted to purchasers.

13. They must not export abroad any ammunition of any kind except by permission of the War Trade Department.

14. They must not open negotiations to supply arms, ammunition, and parts thereof outside the United Kingdom without first obtaining a permit from the Secretary of the War Office (M. I. 6D.).

15. They must not import any arms or ammunition into the United Kingdom.

16. They must not sell any gun or rifle for export to Ireland until they have obtained the usual license to sell, and in addition the written permission of the General Officer Commanding in Ireland to import.

17. The gunmaker must keep sales and stock books, recording the name,

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Thirty Years Ago With the Hand-Gun

PART 7—SOME CONTEMPORARY AMERICAN SHOTS

NO review of the rise of standardized pistol shooting in the United States, however brief and incomplete—and of necessity it must be incomplete—can ignore the developments in the hand-gun game between 1883 and 1890.

That was the really important formative period. It was during those years that a few believers in the accuracy of the hand-gun, encouraged by the success of perhaps half a dozen pioneers, laid the foundations for what has now become a country-wide sport.

One unfortunately cannot turn to indisputable records and find therein the names of these men. The U. S. R. A., in the form in which it exists today, had not been thought of, and as a matter of fact did not become a very potent factor in pistol shooting until its annual competitions were instituted more than ten years later.

Therefore he who does not know from personal experience those who figured in the early standardized pistol matches, must turn to the pages of contemporary sporting papers and therein find such names as Howard Simpson and E. J. Darlington of the Wilmington, Del., Pistol Club; Sergeant W. C. Johnson of the Massachusetts Volunteer Militia; B. J. Robertson of Covington, Ky.; Dr. R. S. Dinsmore of Troy, Kan.; C. T. Rolf of Newark, N. J.; George Bird of the Kildare and Currituck Club; and Fred O. Young of San Francisco. Or he can search the records of such rendezvous as Conlin's Gallery in New York and run across targets made by E. Wasserman, Maj. W. R. Pryor, or W. E. Carlin. Carlin hung up several records of 59 out of 60 at 12 yards with the .44 calibre revolver, Wasserman, 58 out of 60 and Pryor 57 out of 60. A. L. A. Himmelwright, who has done so much for the pistol and revolver game, George R. Russell, A. L. Brackett, Henry S. Harris and J. B. Fellows, judge in the Paine-Bennett match, of the New England contingent, as well as E. C. Mohrstadt of the St. Louis Pistol Club, were others whose names frequently appeared credited with high scores.

There is little question that these men and others who boosted the pistol game during the dim days of the long ago, were largely responsible for planting the seeds of standardized pistol shooting. The work of the Bennett Brothers, as amateurs, and of Chevalier Paine with a few of the other pioneers,

had been completed at the time these men became known in the game, for by 1890 the Bennetts had entered vaudeville as professionals, appearing in France at the *Casino de Paris*, and Paine had died suddenly in Europe.

Yet the work of the men who immediately followed the Bennetts and Paine, had at least developed the hand-gun game to the point where the possibilities of systematized shooting were recognized and as early as 1891 Walter Winans, the American shot residing in England, offered for championship competition "The Winans Trophy" over the acceptance of which, so far as the shooting conditions were concerned arose a considerable controversy.

Also by 1890 much had been done toward developing target weapons, and instead of a choice of two and perhaps three arms, the shots 25 years ago had a choice of the Diamond, Gould, Corbin, and Lord models of the Stevens pistol, the Wurfflein pistol, and many makes of revolvers.

But the real significance of the work done by the earlier pioneers did not lie in that they had demonstrated that long runs of bull's eyes and high 100-shot scores were possible. It did lie, however, in the fact that within a short time after the Bennetts and Paine had made their wonderful records, many of the men who were to carry on the work, because convinced that accuracy with the hand-gun was not necessarily a divine gift fortuitously bestowed, and that practice and perseverance could accomplish much.

The prevalent, early idea that pistol shots were born and not made perhaps had its origin in remarkable trick- and snap-shooting, as typified by the work of several marksmen who either preceded or were contemporary with the Bennetts and Paine.

A word concerning some of these snap-shots and the feats credited to them is not amiss, although the very nature of their shooting precluded any records of their work on a standardized basis.

Perhaps the oldest of these exhibition shots was Captain Travis, who was well known to the shooting fraternity in 1857 when, it is said he sent a pistol ball through the hat of M. Blondin while that celebrated worthy was crossing Niagara Falls on a tight rope. At the time, it is said, Travis was 360 feet away from Blondin and fired from the deck of the *Maid of the Mist*. Many other seemingly im-

possible feats were credited to Travis' skill. Travis, in addition to being a celebrated shot, conducted shooting galleries through the West and South.

"Left Handed Charley" Damon, the Michigan Expert, was touring with Broncho John's shows about the time the pistol shooting game began to take standardized form. He was a man of considerable education, and uncanny skill with the pistol. He is said to have been able to shoot in more than 50 different positions, hitting coins flipped into the air, shooting while juggling with pistols, and performing other unusual feats. He was one of the first men to use a .22 calibre Colts swung in a .44 calibre frame.

Dr. J. W. Hamilton, of Jefferson, Texas, was renowned as a pistol shot, as well as an expert with the rifle, and after enjoying a local reputation for a long time, he undertook a tour of the United States in the late Eighties. No particular records were kept of his skill, but accounts of his shooting from authentic sources, published at the time, credited him with having broken 24 out of 25 brickbats thrown into the air during an exhibition he gave at Vernon, Texas, in August, 1884, with a .38 calibre revolver, and with having broken 4 out of 5 glass balls, also thrown into the air, at Jefferson, Texas, on February 4, 1885.

Whatever may have been the contributing factors, by the year 1890, standardized shooting centers had developed in Boston and Springfield, Mass., Newark and Wilmington, N. J., New York City, St. Louis and San Francisco, as well as in other cities, including the nation's capital.

In Washington, D. C., however, although pistol clubs were being formed by the Capital City Gun Club and the old Columbia Athletic Club, the shooting was mainly confined to members of the diplomatic corps.

In an old range very near to the Capitol building such shots as Baron Sternberg of the German Embassy, Louis Bagger, the Danish vice-consul, John Anton Wolf Grip, the minister from Sweden, and Count Crenville of the Austrian Legation were the leaders in weekly practice. It might have been supposed that these men would have selected European weapons. On the contrary, they used Stevens pistols and S&W revolvers.

Editor's Note: This installment of the series, "Thirty Years Ago with the Hand-gun," will be concluded next week.

ARMS AND THE MAN

1110 WOODWARD BUILDING, WASHINGTON, D. C.

EVERY SATURDAY

Editor

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

Associate Editor

KENDRICK SCOFIELD

Entered as second-class matter, April 1, 1905, at the post office at Washington, D. C., under the Act of Congress of March 3, 1879.

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

AMERICAN INVENTIONS AND THE WAR

RECENTLY a metropolitan newspaper published a cartoon which emphasized the fact that Great Britain had secured control of the seas through the Twentieth Century development of the old "ironclad," an American invention; that Germany controls the ocean deeps through another American invention, the submarine, and urged that the United States control the air through a third American invention, the aeroplane.

Undoubtedly the development of a new monster heavier-than-air fighting machine will result from the entrance of the United States in the world conflict. Beyond question this machine, upon which experts are even now working, will exert no small influence upon the outcome of the war.

But if present indications do not belie themselves, the monster aeroplane for the development of which the belligerent allies are looking to America will not be the only contribution of this nation, so far as science goes, toward ending the Kaiser's Campaign of Frightfulness.

Among the many contributions to the science of war which will come from American inventive genius will probably be small arms of undreamed-of possibilities. Already there are indications that the military rifle and equipment with which United States troops will be armed a year from now will be the most advanced and serviceable of any that the world has ever seen. This does not mean that the Springfield will be abandoned. It is being made the basis of many improvements, at least a large percentage of which will be found practical.

Although little can be publicly announced, the development in machine guns in the United States is also worthy of note in this connection. While many attempts were made to invent rapid firers, the world owes not only the discovery which resulted in the Gatling gun to an American, but also the underlying principles of operation by recoil and by gas. Now it is reliably asserted that the latest models of automatic rifles with which the overseas forces of the United States will be equipped, shooting the ballistically perfect United States service ammunition, will be, in accuracy and certainty of function, far and away beyond those of the European contingents.

Incidentally, it is interesting in this same connection to look into the genesis of the Enfield rifle, the model 1914 of which

has been taken as the basis for the development of the new emergency rifle of the United States.

The Enfield of 1914 is, of course, a modified Mauser, but it was developed from the Lee-Enfield, which in turn was an offspring from an American rifle, the Lee. The Lee rifle, adopted by England in 1888, was the last of three like products of American invention to be adopted by Great Britain. The other two were the Martini, adopted in 1869, and the Snider, in 1866. The Lee action, coupled with the Metford system of barrel rifling, was used in the navy of the United States, and known as the Lee-Metford.

It is difficult to find very many instances where the development of modern small arms has not either originated or been improved in the United States. Therefore it will not be strange if the inventive genius of this nation, spurred by national necessity, does not produce or perfect some engine of war which will vitally influence the tide of battle on the shell-swept fields of the future.

The appointment of a board to foster inventions would go a long way toward preventing a repetition of instances where the products of American genius have been ignored by the United States, to be later taken up and developed by some foreign power.

Legislation to this end is now pending. The law calling for the designation of a board for the encouragement of American inventions should receive the support of every member of Congress.

THE COST OF ARMY UNIFORMS

CONGRESS will shortly be asked to inquire into the conditions which have resulted in the almost prohibitive cost of army officers' equipments.

When a man enlists, he does so with the knowledge that his uniforms will be furnished from his clothing allowance, and recently regulations have been put into effect which do away with a fixed allowance and permit a man to draw what he needs when he needs it. This, under field conditions, is as it should be.

It is regrettable that some such arrangement has not been perfected for the relief of the commissioned officer. To issue to each officer an entire equipment without charge is naturally out of the question. Yet garments of Government manufacture could be supplied him at a slight increase over cost, and a very real hardship eliminated.

Those familiar with the outlay necessary to equip a newly commissioned officer declare that the bare essentials of an outfit at existing prices amount nearly to \$300.

The *Army and Navy Journal*, in commenting recently upon "the high cost of being an officer," says:

"The recent additions to the lists of army officers has had an immediate reflection in the prices of equipment, and unless some Government aid is volunteered the officers now in training may be hard put to it to equip themselves.

"It is the students at the training camps whose cases deserve immediate consideration. Some 1,800 of these are being designated to take the July examination for appointment in the Regular Army. If these students have saved every penny of their pay for the term of their training, they will have on hand exactly \$300 when discharged from camp. A well-known outfitter to army officers quotes the following as the very lowest prices on uniforms: Overcoat and raincoat, \$100; service hat, \$4; olive drab shirt, \$8.50; service coat, \$18.50;

service breeches, \$9; shoes (two pairs), \$11; leggins, \$9; revolver, \$20; saber, \$12; belt, \$5; insignia, \$3.50; dispatch case, \$9; incidentals and extra articles, \$50. In the case of mounted officers, add: Saddle and spurs, \$45; halter and bridle, \$10; saddle and cloth, \$28; riding gloves, \$7; mount accessories, \$10. Prices vary somewhat, but these give an idea of the cost of some items of an outfit.

"Cadets at the Military Academy are taken care of by the wise plan of deducting \$8 per month from their pay, the total

being turned over at graduation. No such foresight has been shown in the cases of Reserve officers, or in the cases of the thousands to be appointed from the Regular Army, National Guard and civil life. All of these are required to purchase their own equipment."

Should inquiry develop that this state of affairs actually exists, a great burden could be lifted from the thousands of young men who have left every-day callings to officer the National Army, and who literally cannot afford such an outlay.

GOVERNMENT TESTS EIGHTEEN GUNS

Eighteen types of machine guns were submitted in the recent Government tests, according to a statement concerning automatic rifles made public by the War Department. Of these, eight survived the tests, while the others went out of action at different stages.

Machine guns, according to the statement, can be divided into classes along several different lines. They may be classified as air-cooled guns and water-cooled guns. For keeping the barrel as cool as possible under rapid fire, some systems surround the barrel with a water jacket, while others depend upon circulation of air about the barrel, either natural or forced. They may also be classified as recoil-operated guns or gas-operated guns. In the recoil-operated guns a certain movement is permitted to the barrel and this sets in motion the mechanism for operating the gun; in gas-operated guns this mechanism is actuated by pressure of gas obtained from the barrel by tapping it at a point some distance down towards the muzzle. The most recent classification of machine guns is into heavy type and light type. The heavy guns, of greatest reliability and capacity for continuous action, are used where these qualities are so necessary as to more than overcome the disadvantage of increased weight, or where weight is not material. The light type may be easily carried by a man in a forward movement, and for the sake of lightness the capacity for continuous fire is to a certain extent sacrificed. The light type has been refined by recent invention until some guns now weigh not more than fourteen pounds, can be carried by one man, and shot from the hip while advancing. These are sometimes called automatic rifles, but this is through paucity of vocabulary, since all modern machine guns are automatic rifles. Machine guns form the essential armament of fighting aeroplanes, a particularly good opportunity for the air-cooled type, since long-continued firing is not necessary, and the rapid motion through the air assists in cooling the barrel.

"The machine-gun board," the statement concludes, "as a result of its labors, found itself able to recommend satisfactory types of guns, of both kinds, and it is now up to the manufacturing talent of the country to produce them in the large

numbers in which they will be required. It is not deemed wise to disclose the program of manufacture, nor to render prominent by publication the places where manufacture is likely to be carried

THE SONG OF THE TWENTY-TWO

I'M a sort of firearms flivver, I'm a little tin-can gun;
I'm a plaything, I'm a popgun, I'm a jest.
I'm all right for breakin' bottles when you're shootin' just for fun;
I'm a handy piece o' hardware at my best.

I'm not a two-mile terror, and my speed is pretty low;
I haven't got a very powerful kick;
But I've punched a half a dollar at a hundred yards or so,
When an army rifle couldn't turn the trick.

I'm the pet of Annie Oakley, I won fame for Pawnee Bill;
I'm the marvel of the youngsters at the fair;
With just a pinch o' powder and a tiny leaden pill,
I can catch a scaling nickel in the air.

I'm a puny rimfire devil, but I'm vicious to the core,
Though I don't make noise enough to scare a flea;
I'm a little baby brother of the dreaded forty-four,
And you'd better not take liberties with me.

The soaring hawk respects me, the woodchuck knows me well;
I'm the horror of the sparrow and the rat.
For broadcast execution I'm a little piece o' hell;
You just ought to see me swat the neighbor's cat.

I'm a window-smashin' nuisance, I'm not a man's size gun;
I'm a measley little songbird-slayin' brute;
But with all my crimes and failin's, when all is said and done,
I have taught a nation's boyhood how to shoot.

—EDWIN O. PERRIN
in *The Outer's Book*.

on; but it will be gratifying to the country to know that in the tests and conclusions of the machine-gun board it was abundantly shown that American invention has not been asleep."

OIL FINISHING A GUN STOCK

After a stock is finished down to size and shape and smoothed up, the real work is just begun. The stock should be thoroughly rubbed with No. 1 and then with No. 00 sandpaper until it is hard and smooth, then it should be dusted with a soft brush.

Next dampen a piece of clean waste with water and rub all over the stock. This will raise the grain. Now, when the stock is perfectly dry, say two or three hours later, it should be again rubbed down with No. 00 sandpaper. This operation should be repeated until the dampening fails to raise the grain. An extremely hard piece of walnut will require about four rubbings, but our native Iowa walnut sometimes has to have as many as ten applications of elbow grease. The dust should be brushed off before each dampening. Care should be taken to rub the stock lengthwise of the grain.

Now comes the oil finishing. If the walnut is very light and I want to darken it a little, I dissolve a small handful of alcanet roots in a half-pint of wood alcohol and give the stock one or two applications, smoothing up a little with sandpaper afterward, then apply best quality of linseed oil with a woolen cloth. Let the oil absorb into the wood, and repeat, rubbing briskly and thoroughly with woolen cloth before each succeeding application of oil.

Now don't get discouraged. It will only take twenty-five or thirty applications and about a week or ten days until you can get no more oil into the stock. Then go after it with a dry woolen cloth. I generally rub until my arm aches. Now take some pumice on a piece of felt, such as is used for polishing wheels. The felt should be moistened a very little with linseed oil. This will bring the surface down "level." Wipe off thoroughly with a dry cloth and apply one or two more applications of linseed oil, rubbing thoroughly each time. The finishing is done by rubbing with the palm of the hand until the silky finish results.

This finish is tedious, but is very pleasing to the eye. Furthermore, it will not show white spots from water, and if accidentally scratched will not look as badly as a varnished stock.—A. W., in *Field and Stream*.

A MARBLE-LYMAN SIGHT

(Continued from page 324)

prone position. In normal off-hand positions the aperture comes more than two inches from my eye, but I have a short neck, weigh about 160 pounds, and stand about 67 or 68 inches tall. A friend who weighs 180 and is about 66½ inches tall never has experienced any trouble, but another friend who has long arms and neck and who weighs 170, but is 71 inches tall, once got a small cut over the eye. One good thing is that the spring joint gives under slight pressure. Any one hit by the top of the sight is likely to be more surprised than hurt.

I could wish, however, that the sight stood a couple of inches farther forward, for it cannot be used in the prone position at all. It does not interfere in the kneeling position, the sitting position, or in any ordinary artificial rest holding.

The shape and dimensions of the stock have a good deal to do with the matter. My rifle has a 14-inch stock, with 2¾ inches of drop, which is not enough drop. Stocks less than 13½ inches long are bound to develop bad jabs from the sight. Too little drop requires that the head tilt forward in aiming, which movement loses two inches in length for each inch the eye is lowered. In my opinion hunting rifles should be stocked so that when thrown to the face the sights will come to the eye without the neck being bent at all. When there is game in sight in the woods a man gets his head up, not crooked forward. If he can do his sighting in this same position it means accurate "firing on the draw," so to speak, besides freedom from recoil injury. But clothes make a difference in the length of stock that is desirable. A stock that is short enough for quickest aiming when a mackinaw is worn may be too short with the light coat of summer; or, if long enough to keep the sight away from the eye during summer, may be slow in handling in the winter. The winter evil can be borne, however; the summer one cannot.

Those interested in these sights will find the Lyman aperture head listed as "The New Lyman Stem and Disc, with Windage Adjustment, No. 47 (Without Base)." In specifying the Marble sight, ask for Special Extension Base Flexible sight for Ross rifle; give height of the sleeve or stem arms, from top of joint circumference to top of sleeve arms, as 1⅞ inches, which height brings the arms nicely up under the bottom of the head and leaves no "dead" notches on the scale on the stem. As noted elsewhere, the desired cutting, assembling and brazing must be specified in detail.

The sight is attached to the Ross rifle with wood screws. Those usually sent are too short and too slim. They should be ¾-inch screws about 3/16 inch thick. As considerable sighting likely will be desirable in locating the new rear sight

properly, it is well to clamp the rifle in a vise at a convenient height, pointing it so you can aim out a window or against a white background. Use the open factory sights as a guide. The aperture of the new sight should stand at about the same height as the old line of sight. A little higher does no other harm than to require a higher front sight, and may have the effect of giving more stock drop; a lower position, however, will make the high Ross bridge interfere with the line of vision.

The height can be regulated before the screw holes are made in the wood by moving the base back and forward. In addition to the height of aperture there are three other fits to secure. The stem must stand so that it almost touches the fully withdrawn bolt. The top of the joint, when stem is turned down backward, must be below the bolt travel when the bolt is taken out of the rifle. (At first I got mine too high.) The curved base of the sight should fit the curve of the grip and comb of the stock with as little cutting as is practicable. Frequently mounting can be done without any cutting at all, though it usually is better to sink the edges of the rear end of the base in the wood slightly, making a nice fit. To fasten the base temporarily while manipulating the stem to learn the best position, some heavy rubber bands or tire tape is desirable.

One must not forget that the soft iron base can be bent almost as much as required. I have yet to see the base that will fit a stock without some bending. A large amount of cutting of the stock would be needed to make one fit without it. The pitch of the stem forward and backward depends on adjustment of the joint only, but no one outside the factory seems to be able to set the nuts. If the stem does not stand correctly when the sight comes, you may have to hold it against the spring to keep it perpendicular while getting the all-around fit described, then have to send it back to Marble for permanent readjustment. To show them where to set the stem, get the base bent properly and seated in the stock snugly, and measure the correct distance from the forward toe of the base to the top of the Lyman aperture block.

The rounded upper ends of the stem arms, inside the revolving sleeve, elsewhere referred to as 1 7/16 inches high, should be filed flat on top. The resulting square surface and square edge will enable you to see much more distinctly which scale mark on the stem you are "at." The Marble company should do this flattening themselves on all their sights, and should provide closer fitting arms and stems, on account of the difficulty of registering the elevation by scale marks, if for no other reason. The windage scale on top requires a knife-cut in the stationary or front checking piece to make it ready for use. It is best to make this cut at the zero point for

standard ammunition and opposite the middle mark of the scale. Use a point or corner of a fairly sharp knife to make it, and go about the job carefully.

Both Marble and Lyman ought to provide figures on their scales. It is not enough simply to supply marks. They must all be counted each time. Small numerals could be stamped into the metal easily and cheaply before the sights are hardened and finished.

With the elevating sleeve locked where the top of the arms registered (after filing them flat) with one of the first marks on the stem, I cut a deep little notch in its beveled upper edge at a point directly to the rear. On the opposite side of the bevel I cut a much smaller notch to mark the half division. The windage screw head was treated in about the same way. With the top scale centered or zeroed, I cut one notch in its upper edge, the halfway notch not being necessary because the entire head is fully in sight.

After that it was easy to measure the distance between the front and rear sights, which I found to be 39 inches on my 26-inch-barrel Ross, and to calculate the amount of correction given at the target for each turn of the screw, as has been mentioned before. Knowing that quick results often would be more important than absolute accuracy, I dropped the decimals and used round figures—thus:

On elevation scale, 1 turn of screw—4 inches per 100 yards.

On windage scale, 1 turn of screw—2 inches per 100 yards.

In abbreviated form this data was engraved neatly and unobtrusively on the stock a few inches back of the sight, being made permanent and legible by rubbing into the letters and figures india ink with the point of a hard indelible pencil. A small silver plate properly engraved and let into the wood ought to be a better device.

Below the tabulation described was engraved also these mystic figures:

2—3—4—5
3—8—20—45

which, after interpretation, stand for the amount of fall of the regular Ross hunting bullet at 200, 300, 400 and 500 yards. They, too, are approximate, and I think err on the too-much side somewhat, but they enable me to know at a glance about how many turns of the elevating screw are necessary to carry the bullet to the distance desired. For load with higher trajectory, I rely on estimates of the amount of fall, or determine it by firing. Half or quarter revolutions of the screws give finer adjustments.

The extension base is thin, and does not enlarge the grip much, nor does the upright stem interfere with a full-hand grasp of the grip. But those who object to the exposed metal on top of the grip will find that surgeons' rubber adhesive tape wound round the stock at this point

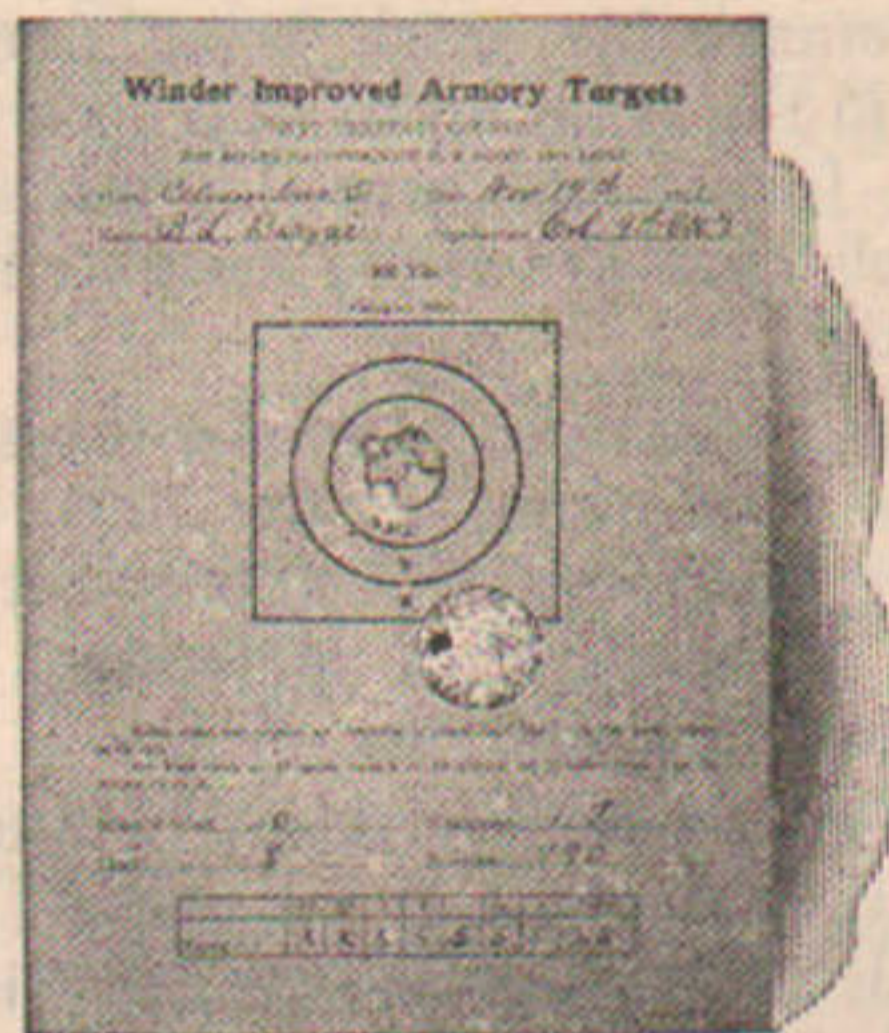
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for two or three inches will cover it in a satisfactory manner, will make everything neutral in color, and will never get slippery, even when wet. But it must be admitted that this covering, after accumulating a little of the polish and dirt of use in the field, looks distinctly business-like rather than conforms in appearance to the standard of the parlor, the showcase and the unsoiled kid glove.

It is said that Watson eye-cups are made with thread that will fit the Lyman aperture; perhaps Marble cups are as well. The standard Lyman cups are entirely too large for field use. The Watson and Marble cups are made in different sizes, some of them excellent. Any one who fears that the Marble-Lyman sight may get bumped out of alignment can use the open sight on the barrel or a receiver sight to check it up as often as required. The later Ross rifles have a small aperture sight on the bridge plate, which turns down into a cavity cut out for it. It is without adjustment, but it serves as an excellent check for the real sight.

The long-necked man has numerous sighting resources even if he cannot

make use of this one. There are, for instance, eight other aperture sights for the Ross rifle that are more or less practicable, as follows: The Lyman No. 48 Springfield sight with special base, the Watson bridge sight, the B. S. A. bridge sight, the Ross bridge sight of military design, the Nash-Springfield military sight, the Lyman, Newton and Ross bolt-head sights, each a little different from the others.

The Marble-Lyman sight can be used on other rifles as well as the Ross, and on some of them it is even more at home. For instance, on the model 1895 Winchester it is ideal. The bolt of that excellent rifle travels back fully two inches less than the Ross bolt; hence the sight can be set two inches farther forward, which prevents all striking of the eye. The sight fits all Winchester, Marlin, Stevens and Remington rifles. On the Springfield it stands a little too far back, the bolt traveling backward farther, apparently, than the Ross. The Newton rifle also has a very long bolt that makes the use of this sight almost impracticable. Savage rifles can be fitted, but require considerable cutting of wood. The cor-

rect height of stem must be secured in each case, but otherwise the sights all are the same.

The importance and necessity of both windage and elevation adjustments on modern hunting rifles cannot be overestimated. Too many hunters shoot year after year without ever having their rifles really zeroed, let alone corrected nicely as to elevation, and then wonder why hits are so few. Different lots of ammunition vary high and low, and sometimes sideways, enough to miss game at 100 yards, and still most sights in use are as non-adjustable as a stake-and-rider fence in zero weather. A man seldom learns to shoot a rifle right until he has convenient micrometer sight adjustments, both ways.

Uncle Ezra—"I hear your boy has joined the Aviation Corps."

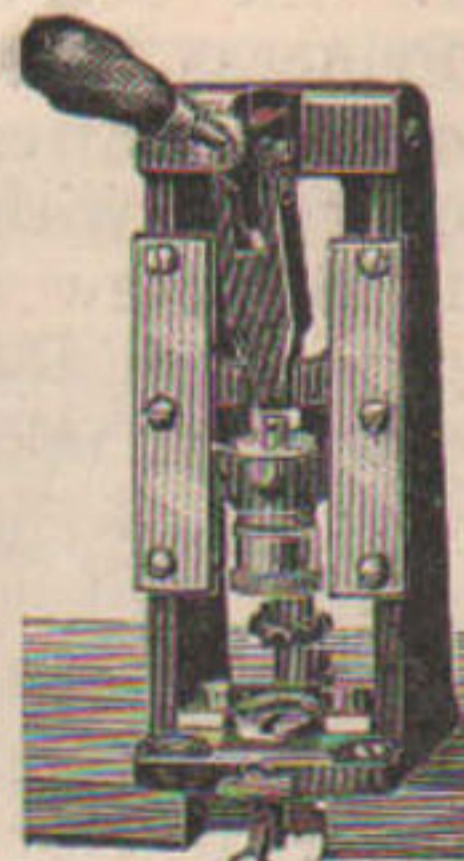
Uncle Eben—"Yes, and I'm afraid he won't make good."

Uncle Ezra—"What makes you think so?"

Uncle Eben—"He's so darn forgetful that he's liable to take the machine up and come down without it."—*Puck*.

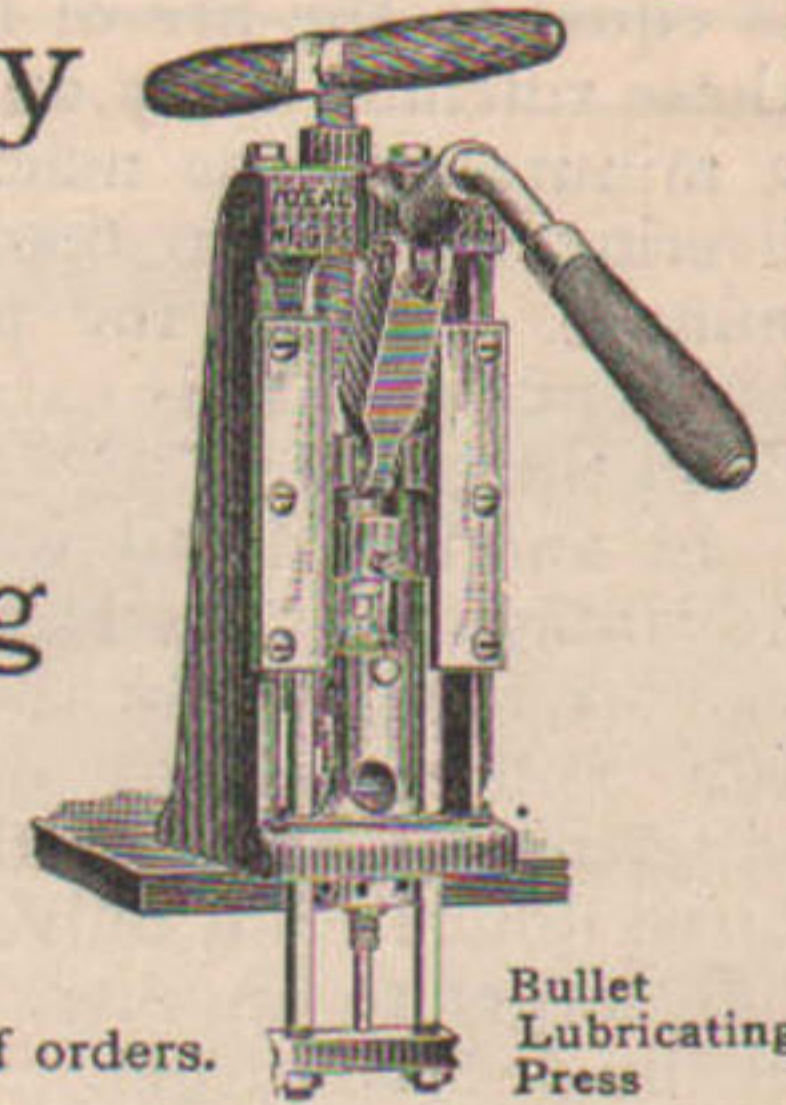
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CHARACTERISTICS OF THE MACHINE GUN

(Continued from page 325)

been estimated that one machine gun is equal to the fire of fifty rifles when these riflemen carry on rapid firing for a minute and the machine gun is delivering its 400 to 600 rounds in that minute, relaying the piece after each burst of fire that is carried in the clips or in the belts.

In another detail we also have the advantage that the captain of the gun can lay the piece for the first shot himself if there is any doubt as to the objective of fire. With infantry it is often difficult not only to change from one target to another, but to fire first at the desired target. It simplifies fire control. Besides this an outpost with a machine gun, or a stretch of trench manned with one, or in pairs, allows more men to relax and there is always the value of surprise fire, which has become such a factor at the front.

Another characteristic is the narrow front and the shallow depth from which a large volume of fire can be delivered. Where but two riflemen can find room to handle their pieces a machine gun and its crew can handle its larger volume of fire. Take your machine gun from such a site firing its 500 rounds per minute and it is safe to say that in that time the two riflemen will do well to get off twenty rounds between them. Five shots in twenty seconds with magazine fire is all that an expert can deliver, and with reloading it would be impossible for him to keep up that rate and get off his fifteen shots. So here is a good illustration of the superiority of the machine gun on a crowded front and in close country. Take the streets of a town, a road or trail, a defile and then flank defenses, firing from the windows of a house, and the range of usefulness in this characteristic is a wide one.

The use of the machine gun in the all-round traverse is another true characteristic. With a fixed tripod, for instance, well set up, fire can be delivered in any direction, the men conforming to that movement. The change of direction of rifle fire is a vexatious matter, but with the machine gun it is simple. Sudden attacks from the flank lose their power to a great extent. The all-round traverse when taking up a position for defense, and also when making cover or entrenchments, should be borne in mind. It may be necessary even to sacrifice better cover for this field of fire.

Another characteristic is the smaller target, for a machine gun in position is harder to locate, easy to conceal, and hard to hit when compared with the position required by infantry of equal fire action. It is also difficult to put

out of action. We have all read of engagements on the west front in France where machine guns have been literally buried and then dug out and used to hold a vital point in the line. In the second battle at Ypres the Princess Pats dug their machine guns out time after time and held their bit of trench with their fire. When a man in the crew is put out of action the gun is not, for the men in the crew are trained to take the place.

It is, of course, advisable to mount a gun with the view of concealment whenever possible. Whatever the type of gun the minimum amount of cover necessary for gun and men should be studied, and the lowest position will, of course, simplify that matter. As few men with the gun as possible is another rule that can be well followed when concealment is desired. Men needed to replace casualties are held in reserve sections by our infantry where the work of machine guns has been developed. Some regiments have as high as three reserve sections.

The machine gun section or crew should be well trained in moving across country with its gun to make the best use of cover, and this can be carried out on almost any terrain, varying the character of the terrain whenever possible. Simulating the movements of infantry may be of advantage, for the enemy will be on the alert all the more if you betray by your movements or formation that you are with the machine guns.

(To be concluded)

BRITISH RESTRICT MUNITIONS SALES

(Concluded from page 326)

nationality, address, and occupation of each supplier and purchaser, with details of sale or purchase, and produce same for inspection when required.

These regulations mainly apply to gun-makers and ammunition manufacturers, but they also exercise a marked effect on sportsmen generally, preventing the gun-makers from carrying out customers' wishes.

Since the compilation of the above there have been orders prohibiting repairs to firearms after June 1, and the sale of cartridges except under special licenses after May 10.

"Say, Bill," said one Tommy to another, "orders are out that there mustn't be no cheerin' in the first line of trenches when peace is declared."

"What's the idea?" asked the other. "Why, you blinkin' fool, some idiot would be sure to get excited and fire a foo de joy an' start the bloomin' war all over again."—*Boston Transcript*.

MAYO REPORTS ON TARGET PRACTICE

(Concluded from page 326)

this opportunity of extending to the officers and men of the fleet his appreciation of their loyal support and assistance, and he is confident that the entire fleet will be ready in the near future to render valuable service on the scene of active operations in the same spirit as those units of the fleet which have already responded quickly and effectively to the sudden call for active service against the enemy."

Secretary Daniels, in a letter to Admiral Mayo, warmly commends the fleet for its work in training gun crews and engineer forces for armed guards on merchant vessels and for the vessels sent to European waters. His letter follows:

"The Department learns with pleasure of the remarkable work being done by the fleet in the training of gun crews and engineer forces for armed guards and for vessels that are being sent to European waters.

"It is most gratifying to see the splendid spirit that animates the fleet, since it is doing this most important work with reduced commissioned personnel and under adverse conditions.

"The Department wishes to commend you and the officers and the men of your command for this additional evidence of the high state of efficiency of the fleet. The work done by your force along these lines is invaluable."

RIFLE VS. AIRPLANE

Probably for the first time in the history of war aviation an aeroplane has been brought down by shots from a single army rifle, according to a dispatch from Paris. The story says:

"Gobain, a Moroccan soldier, guarding a bridge not far from the front, was the hero. A German biplane appeared in the moonlight and dropped several bombs near Gobain's post. The dark-skinned poilu did not lose his head. He took good aim and fired. The German machine came hurtling down to earth like a wounded bird. The gasoline tank exploded killing not only the German aviators but two employees of a nearby railway station who hurried up to investigate.

"The poilu has been rewarded for his marksmanship and cool-headedness."

Excavating in the vicinity of the battered remnants of the Hindenburg line, British soldiers struck a strange object which proved to be the tooth of a mammoth.—*News Dispatch*.

The original dog of war?—*Army and Navy Journal*.

Off Hand From the Clubs

Entries Complete For Small-Bore Series

By "PARALLAX"

FIFTY-ONE rifle-club teams last week began shooting the small-bore outdoor-league match of the National Rifle Association.

Indications are that this year's competition will be one of the most successful ever held, and that the winning score will be a high one.

The success of the match, it is thought, will rest largely on the fact that percentage medals will be given to individual team members whose shooting reaches a certain standard of excellence. In former years, the competition medals were awarded according to class winners. The percentage-medal arrangement, in effect this year for the first time, will, however, give every man on each of the fifty-one teams a chance to obtain a decoration, regardless of where his team finishes. The prospects for a high score rest on the fact that many rifle clubs, among whose members are shots of admitted excellence, have entered the competition.

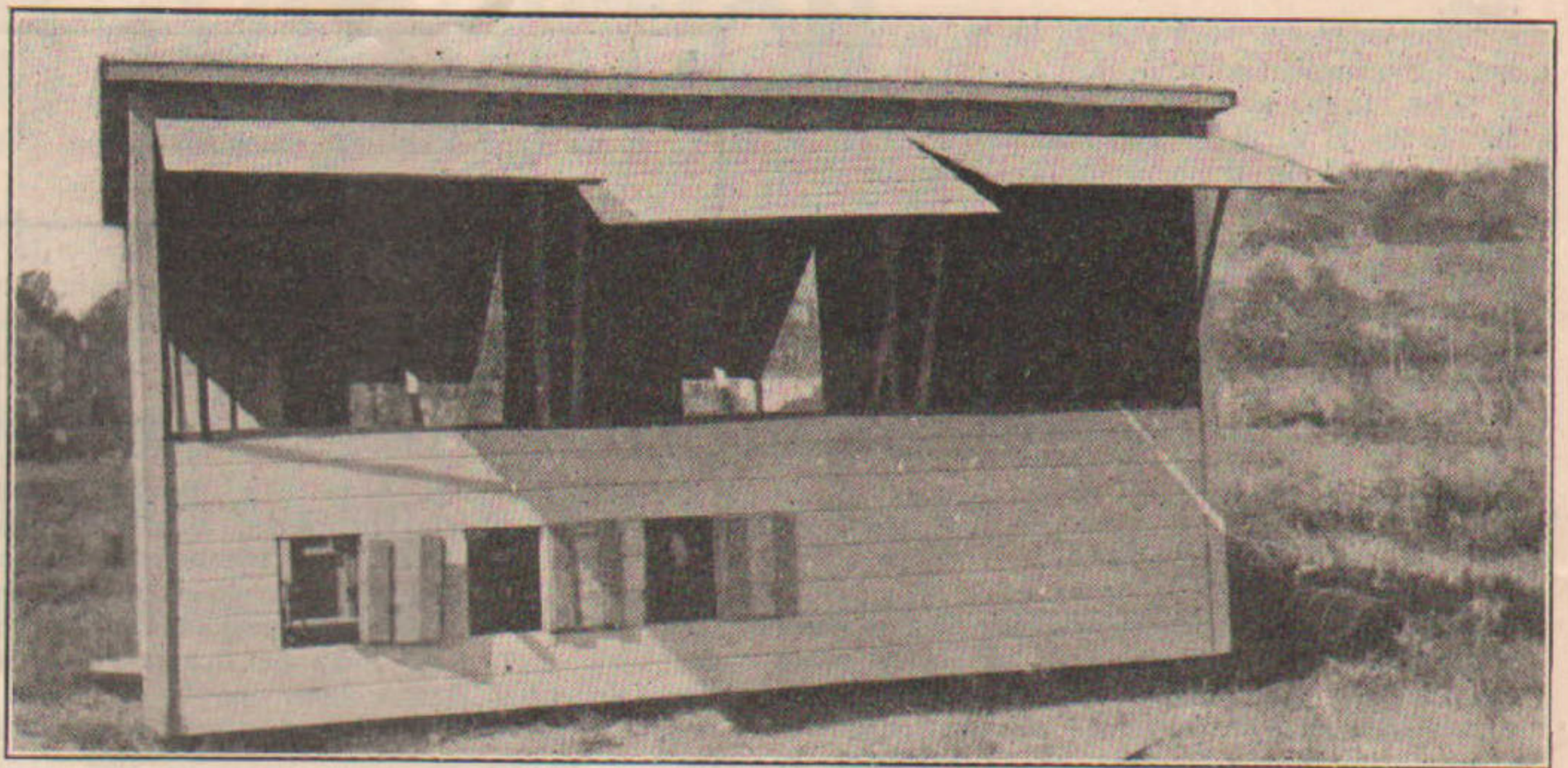
The Manhattan Rifle and Revolver Club, of New York City, is doing its shooting from the shade of a range house. The range, however, is entirely out of doors, and the match officials have ruled that this practice is permissible.

The California Railroad Commission Rifle and Pistol Club are shooting the match under obstacles. Many of the best team shots in that organization have already been ordered on active duty with some one or other of the service branches and two more are expected to leave within a month. Incidentally, the California Railroad Commission Club suffered an unintentional injustice at the time the result of the Individual Championship match was announced, the club's entry, R. M. Vaughan, having been listed as having made a total of only 181 out of the possible 500 points. This occurred through a clerical error in compiling the lists. Vaughan's total was 481 points, which places him 50th in the list instead of 130th.

The Toledo, Ohio, Rifle and Pistol Club team is also shooting under difficulties, since the city is dredging a lagoon and dumping the mud therefrom on the club range.

The entries in the small-bore league to date include:

St. Louis Colonial Revolver Club, St. Louis, Missouri.
Denver City Rifle Club, Denver, Colorado.
Brooklyn Rifle Club, Brooklyn, New York.
Canton Rifle and Pistol Club, Canton, Ohio.
Kenosha Rifle Club, Kenosha, Wisconsin.
Canyon City Rifle Club, Canyon City, Oregon.
Milwaukee Rifle and Pistol Club, Milwaukee, Wisconsin.
Los Angeles Rifle and Revolver Club, Los Angeles, California.
Patchogue, New York, Rifle Club.
Joliet Rifle Club, Joliet, Illinois.
New Bedford Rifle Club, New Bedford, Massachusetts.
Penwater Rifle Club, Penwater, Michigan.
Hoosier Rifle Club, Indianapolis, Indiana.
Wilsall Rifle Club, Wilsall, Montana.
Franklin Rifle Club, Franklin, Pennsylvania.
Scott Rifle Club, Scott, Arkansas.
Manhattan Rifle and Revolver Club, New York City.
Washington Rifle Club, District of Columbia.
Community Rifle Club, Sherrill, New York.



The Range House of the Manhattan Club

Rochester Rifle Club, Rochester, Minnesota.
California Railroad Commission Rifle and Pistol Club, San Francisco, California.

Warren Rifle and Revolver Club, Warren, Pennsylvania.

Toledo Rifle and Pistol Club, Toledo, Ohio.
Highland Rifle Club, Highland, California.
Jacksonville, Florida, Rifle Club, Jacksonville, Florida.

Olig Rifle Club, Reward, California.
Cazanovia, New York, Rifle Club.
Long Beach, California, Rifle Club.
Holbrook, Arizona, Rifle Club.
Akron Rifle Association, Akron, Arizona.
Hopkins, Minnesota, Rifle Club—32.
Ontario Rifle Club, Ontario, California.

Birmingham Athletic Club Rifle and Revolver Association, Birmingham, Alabama.

National Rifle Club of Newark, Newark, New Jersey—35.

General Phil Kearney Rifle Club, Kearney, New Jersey.

Saranac Lake Rifle Club, Saranac Lake, New York.

Mt. Olive Rifle Club, Reedley, California.
Litchfield Rifle Club, Litchfield, Connecticut.
Chicago Rifle Club, Chicago, Illinois.
Antioch Rifle Club, Antioch, Illinois.
The Greater Omaha Rifle and Revolver Club, Omaha, Nebraska.

Malta Rifle Club, Malta, Montana.
Niskayuna Rifle Club, Schenectady, New York.

Massachusetts Rifle Association, Boston, Massachusetts.

Citizens Rifle and Revolver Club, Rochester, New York.

St. Johnsbury Rifle Club, St. Johnsbury, Vermont.

Middleboro Rifle Club, Middleboro, Massachusetts.

Kiowa Shooting Club, Des Moines, Iowa.
Norwalk Rifle Club, South Norwalk, Connecticut.

Ashburnham Rifle Club, Ashburnham, Massachusetts.

Hydraulic Rifle Club, E. Cleveland, Ohio.

had reason to believe had joined merely to obtain possession of a weapon.

The agreement which is signed by all club members on receipt of Government property vests the title of all arms in the club until qualification as a sharpshooter or expert rifle-

man, and binds the members, even after such qualification, to remain a member of the club for a year subsequent to the date of qualification and the transfer of title to the rifle. The agreements are drawn in legal form and witnessed.

A similar form is being used by the Globe, Arizona, Rifle Club.

Awards Medals for Possibles

The Manhattan Rifle and Revolver Association, in order to encourage careful shooting and bring out more members, has announced that the club will award a medal to every member who makes a ten-shot "possible" at fifty yards with a .22-caliber rifle, N. R. A. ruling, and a similar medal for a five-shot "possible" with revolver or pistol at twenty or fifty yards, U. S. R. A. rules to apply.

For subsequent "possibles" with either rifle or revolver, a bar will be issued to attach to the medal, thus maintaining the interest stimulated by winning the original decoration.

The Association has recently adopted an official club emblem, composed of a standard target on a coin-edge button, surrounded by the name of the organization.

Team Shoot for Fort Wayne

A plan to keep the members of the Fort Wayne, Indiana, Rifle and Revolver Club interested in practice during the summer has been developed by the officials of that organization. In brief the scheme embodies a team competition for prizes offered by Fred Zollers, who has been interested in the development of the club. An announcement made concerning the match says:

"Teams will be selected composed of the captain, who must be some member of the Rifle Club who has already qualified in the N. R. A. as marksman, sharpshooter or expert. Team numbers will be five in number and selected from club members who have not qualified at any time in the N. R. A. outdoor ranges. The assignment of the different members of the team to the different captains will be by picking names at random, the names to

be written on a piece of paper and placed in a hat or receptacle.

"The names of all those who will participate in the competition should be reported not later than July 15, 1917.

"Two months shall be allowed for the team captains to drill and train the members of their team.

"The weapons used should be military rifles and Government ammunition.

"The ranges will be 300 yards A target, and 500 yards B target. Ten shots to be fired at each range. In the competition, four or five of the men selected by the captain will do the firing. In the event of more than five teams participating, a second prize will be offered for the team securing the second aggregate score. In the event of a tie, this will be decided in accordance with N. R. A. rules."

A Word of Praise

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

DEAR SIR: The series of articles dealing with rifle and pistol shooters of thirty years ago deserve more than passing attention from those who are interested. Written as they are by some one who has taken the trouble to dig up the facts and present them in most attractive form, the series represents the most valuable contribution to the history of American rifle and pistol shooters since Gould's book on "The American Revolver and Pistol."

Would it not be possible to put these articles into book form? It seems to me that they might well be extended so as to combine the history of American hand-guns and rifles as well as those who have made them famous, concluding with a compilation of all known and authenticated records up to date, thus

making a volume which would stand for many years as an authoritative treatise upon this very interesting subject.

Very respectfully,

S. J. FORT, M. D.

Sighting Shots

How the National Defense Organization Rifle Club of Summit, N. J., is giving practical aid in preparing young men who are subject to the draft for military service is told by Walter G. Libby, secretary. He says:

"ARMS AND THE MAN of June 30th contained an editorial headed 'The Rifle Club and Selective Draft' in reference to the duty and opportunity now confronting the Rifle Clubs to use all their facilities for teaching men who may be drafted for the new National Army, how to shoot. Being much interested in this editorial, I read it to the executive committee of our Rifle Club. It was received with hearty approval.

"As we have already gone one point further in this work, it was thought best that I should submit to you, one suggestion which, if approved by you and given publicity in your editorial column, might be productive of good results.

"In Summit, we have, as you know, been maintaining for a year an active and now well-drilled and well equipped Infantry Company. A great many other Rifle Clubs

all over the country are doing the same thing. We have now made an appeal to all men registered and liable to draft, to come forward and accept all the instructions which our Company can give them in the Manual of Arms, drilling, etc., during the next few months. A large number have already availed themselves of this opportunity, and are now drilling. We have also made a complete canvass of all men registered, urging them to accept this opportunity which is offered purely for their advantage. We hope to have a large number of men drilling regularly until the new National Army is called to the colors.

"We shall also devote all the facilities of our six target indoor range, to teach these men the use of the Springfield rifle and give them all the help we possibly can before they are called out.

"We believe that many other Rifle Clubs maintaining military companies, if they have not already seized the opportunity of doing this work, will be very glad to do it, and urge that your Editorial Column make such suggestion."

Taking the qualification scores of club members as a basis for fixing handicaps, the Lexington, Missouri, Rifle Club is preparing for a National Sportsman Event to be held September 3.

The club started its preparations for the shoot a month or so ago. By July 4, twelve members of the club had listed qualification scores with the handicappers. The other members of the club were given until July 15 to shoot the regular courses and establish a record upon which a standard of their skill with the rifle could be fixed.



On Every Firing Line Where DYED-IN-THE-WOOL RIFLEMEN Congregate

THE BULL'S-EYE SCORE BOOK

IS pretty likely to be conspicuous among the contents of every shooting bag.

The beginner on the open range finds it an excellent instructor, for it especially deals with the United States Rifle, Model 1906.

When the amateur graduates into the ranks of the veterans, he continues its use, because he has learned that the Bull's-Eye is the best kind of record for his scores.

It has great pictures that show the shooting positions in the clearest way.

It has score sheets which are wonders of simplicity and helpfulness.

It is approved, adopted and issued by the Ordnance Department on requisition for the Army or National Guard, or it can be bought of ARMS AND THE MAN, loose leaf 50 cents, fixed leaf 25 cents, single copies. Reduction on quantities.

Here for a small cost is at last

THE PERFECT SCORE BOOK

SMALL-BORE OUTDOOR WORK

US AMMUNITION

Outdoor rifle shooting with .22 calibre rifles and ammunition is rapidly gaining favor.

You can get particularly good results by using U. S. .22 Long Rifle Cartridges.

With the handicaps provided, the club members will shoot for two cups on September 3. The event is attracting considerable attention throughout the home locality of the club.

A new range house has been built by the Gardner, Massachusetts, Rifle Club. Range Officer Charles N. Edgell drew the plans and superintended the construction. The house is 10 feet by 16 feet, and will be used for the storing of supplies. It is surrounded by a wide piazza.

These men have been selected to shoot on the Malta, Montana, Rifle Club Team in the outdoor smallbore league: J. R. Piper, C. M. Piper, W. E. Orrison, A. F. Winkler, W. J. Tressler, R. H. Frank, H. C. Plott, E. P. Seigert, J. L. Patton and J. R. Crabb.

The personnel of the team to represent the St. Johnsbury, Vermont, Rifle Club in the outdoor matches includes: Bert Shepard, C. E. Merrill, C. W. Bradley, W. W. Barrett, A. H. Densmore, John Tann, O. C. Clark, Ed Trombley, Harold French, and E. C. Stanley.

The California Railroad Commission Rifle and Pistol Club of San Francisco has selected these men as members of the smallbore team: Paul Thelan, F. A. Daugherty, R. C. Ashworth, H. Schmidt, R. M. Vaughan, J. F. Beaman, J. S. P. Dean, L. R. Kessing, J. E. P. Daugherty and F. J. Farrell.

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. What is the exact language of the N. R. A. by-laws which states that one not a citizen of the United States may not be a member of a civilian rifle club affiliated with the N. R. A.?

A. The prohibition against men who are not citizens is inferential, but none the less plain. The paragraph which operates to prevent aliens from being rifle club members reads: "Any citizen of the United States over sixteen years of age may become a member of the organization," etc.

Q. Where can russet leather belts with McKeever cartridge boxes be obtained?

A. The russet leather belt and the McKeever cartridge box are no longer sold by the government. Perhaps some dealer in army goods could supply them.

Q. The sights on the Krag rifle do not seem to be nearly as satisfactory as those on the Springfield. Would it be possible to have Springfield sights fitted to a Krag?

A. The 1901 and 1902 sights, designed for the Krag, and the 1905 sight of the Springfield are not interchangeable. The Springfield sight would not prove satisfactory on the Krag chiefly because of the difference of the ballistics of the two arms.

Q. What opportunities are there for service to the government from a man who is an expert rifleman, capable of training others in marksmanship, yet who is situated through responsibilities, so that he cannot provide for his family if he enlists in the regular army?

A. As yet no provision has been made for the employment of men of such qualifications. No doubt the government will sooner or later realize that such men can be of inestimable service.

Q. I should like some information as to sighting the Krag rifle for long range shooting. I find great difficulty in hitting the target at 500 and 600 yards, with the government ammunition, and have been unable to do anything even with factory loaded ammunition at 1,000 yards. I am considered an average marksman. A state militiaman informed me recently that the Krag shoots high and if the sights were adjusted for 600 yards, would shoot above the target at that distance.

A. Hardly any rifle shoots accurately on the reading of the sights. We suggest that you try shooting with the rifle set at the proper range. If a miss is made, lower the sight 100 yards. If it misses again, raise it 200 yards. Follow this practice as long as you continue to miss, and until you get on the target. Try this when practically no wind is blowing and in this way you can get the correct elevation for 600 yards and estimate for other elevations accordingly.

Q. Does snapping a revolver have a tendency to break the hammer?

A. It does unless you put a piece of rubber underneath the hammer. A section cut from an old automobile inner tube is excellent.

The Following Civilian Clubs Have Been Admitted to N. R. A. Membership:

Arkansas

Hamburg Rifle Club—D. D. Gardner, secretary; Dr. George M. Easter, president; George T. Gardner, vice-president; Congo Knight, treasurer; C. D. Oslin, executive officer. Membership, 73.

Illinois

LeRoy Rifle Club—J. Keenan, secretary; Chas. E. Crumbaugh, president; L. R. Wartena, vice-president; L. C. Keenan, treasurer; Claude E. Davis, executive officer. Membership, 12.

Maryland

Baltimore Rifle Club—George Brown, Jr., secretary; T. Edward Hambleton, president; William Keyser, Jr., vice-president; George A. Colston, treasurer; Dudley Shoemaker, executive officer. Membership, 41.

Massachusetts

Newton Center Rifle Club—Frank B. Perry, secretary; E. B. Bishop, president; A. L. Bacon, vice-president; A. W. Rayner, treasurer; R. W. McCabe, executive officer. Membership, 55.

New York

Junior Patriots of America Rifle Club, Farmingdale—Ercole Le Roy Wilson, secretary; Walter Ferdon, president; George A. McPherson, vice-president; W. C. Talley, treasurer; William Osborne, executive officer. Membership, 25.

Pennsylvania

St. Francis de Sales Rifle Club, Philadelphia—Luke M. Lawless, secretary; Howard Barrett, president; Harry Matsinger, vice-president; John W. Speckman, treasurer; Thomas P. Murphy, executive officer. Membership, 33.

Wisconsin

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

Life Members

Charles A. Patterson, Wilmington, Del.
Newton I. Steers, Wilmington, Del.

ALONG THE FIRING LINE

The Jefferson Rifle Club, of Birmingham, Ala., held its first qualification shoot recently and some good scores were hung up. Fifteen men shot through the course. All of them qualified, six making the expert rating, four the sharpshooter and five the marksman.

T. K. Lee, who is practically a newcomer in the military rifle-shooting game, made the high score of the day, going out with a 46 at 600 yards for a total of 235. He shot a possible at 300 yards, rapid fire, thus securing one of the club's gold "possible" medals. He was handicapped by a badly infected hand. Lucien C. Brown, one of the club's best shots, but who has not been on the range for about a year, gave Lee a hot race, going out with a total of 230. He made 48 at 200 and 300 yards, rapid fire, and 47 at 600 yards. M. F. Jones made a total of 222, which is mighty good work. It will be remembered that Jones won the Members Match last year. Frank Flynn averaged practically 43 at each range, making 214. W. R. Mabry and Percy Reid totaled 212 and 211 respectively. De Funiak, the secretary, who usually shoots first or second, was laboring under difficulties, as he had entire charge of the shoot and only left the scoring desk long enough to run to the firing line, fire his string and get back on the job. Besides, he was shooting a brand-new rifle that was so unnormal that it was almost immoral, his total being only 197, which is about 25 points under his average.

One of the surprises of the days was the shooting of Spencer, a new member, who has shot only three or four times. He made a total of 191.

The weather was fine, plenty of sunshine with just enough breeze blowing to keep the mirage moving. A squad of men from Company M, Second Regiment, were in charge of the pits and the service was very fine.

Following are the totals made by the fifteen men who shot the course: Lee, 235; Brown, 230; Jones, 222; Flynn, 214; Mabry, 212; Reid, 211; Tinder, 202; Perry, 201; de Funiak, 197; Spencer, 191; Glenny, 185; Rothpletz, 182; Toombs, 182; Pendleton, 177; Lenhart, 165.

SECRETARY.

A. I. Gerhman, of the Eastern Detroit Gun Club, recently made a skirmish-run score which is worthy of notice. In shooting during the run, according to Secretary G. C. Brown, he made 12 bull's-eyes and 8 fours, a total score of 92, which, considering the physical effort required in the run, is a very good record.

The Goldsmith, Indiana, Rifle Club has reported five marksman qualifications under the new course. They are:

Herbert Mahoffey, 161; Clyde Hinkle, 171; F. E. Watson, 167; Ben Barr, 158; Frank Lindley, 154.

The Charlotte, North Carolina, Rifle Club has reported six sharpshooter qualifications under the new course. They are:

C. E. Bradshaw, 158; J. D. Pickard, 156; H. P. Barret, 155; T. C. Barrier, 159; C. E. Thorpe, 158; T. L. Kirkpatrick, 151.

Seven marksman qualifications have been reported by the Bridgewood, New Jersey, Rifle Club under the new course. They are:

H. S. Willard, 193; G. E. Coffin, 149; A. P. Coburn, 151; P. Meigs, Jr., 167; L. P. Wood, 154; E. M. Butler, 175; J. E. Sowter, 155.

The Westfield, New Jersey, Rifle Club has reported 39 qualifications under the new course. They are:

Sharpshooters—W. C. Hart, 187; K. R. Hare, 174; H. D. Goodwin, 174; H. F. Cornwall, 173; J. W. Rickard, 170; P. W. Saitta, 166; W. M. Hoag, 164; G. E. Hayes, 160; J. B. Matthews, 160; W. Post, 160; W. L. Lloyd, 159; L. L. Coudert, Jr., 159; G. R. Cook, 158; H. M. Hale, 152.

Marksman—C. A. Bishop, 186; Dr. L. L. Lloyd, 184; G. C. Lucas, 182; C. V. Steinhart, 174; H. R. Forster, 172; Capt. J. J. Thomas, 171; O. H. Jahn, 170; F. S. Frambach, 168; G. A. Blindenhofer, 167; Wm. Heinecke, 165; D. C. MacDougall, 164; C. H. Hoit, 161; P. D. Collins, 161; G. V. Gilmore, 160; M. D. Littlefield, 159; R. Snevilly, 159; G. H. Leggett, 158; Roy Connell, 157; W. M. Sampson, 157; C. H. F. Smith, 155; R. D. Green, 154; J. B. Simpson, 154; P. W. Jones, 151; J. R. Blackwell, 151; G. H. Whitney, 151.

Geo. L. Schenck, an annual member of the N. R. A., has qualified as an expert with a score of 214.

The Aguadilla Pistol and Rifle Club, of Porto Rico, has reported the qualification of Alfredo Font as a marksman with a score of 152.

The Tucson, Arizona, Rifle Club has reported 62 qualifications under the old course. They are:

Experts—A. G. Schnabel, 237; A. H. Isbell, 236; Oscar Monthan, 230; Chas. Shue, 228; H. R. Batterton, 225; M. S. Robertson, 225; Guy Monthan, 223; Sam Cordis, 221; Carl Monthan, 219; Jack Whitwell, 219; H. W. Worcester, 218; Eric Monthan, 214; E. M. Darnell, 215; Frank Toohey, 214; R. B. Savage, 213; N. C. Bernard, 212; John Masten, 212; Geo. Marsteller, 210; W. E. Johnson, 210.

Sharpshooters—D. E. Wilson, 208; J. R. Dunseath, 206; W. C. Lefebore, 207; W. F. Norton, 206; L. E. Smith, 205; L. B. Hart, 204; D. I. Sheaffer, 202; G. L. Wolfkin, 202; L. G. Moore, 202; W. E. Packard, 200; J. B. Norvell, 199; Curtis Tobey, 199; G. L. Merritt, 197; L. F. Rice, 193; L. J. Wachs, 192; J. W. Mathews, 191; F. T. Bailey, 191.

Marksman—F. E. Vassar, 188; W. E. Bledsoe, 186; R. L. Drave, 181; John Lotz, 178; W. H. Winters, 177; R. J. Monahan, 174; J. A. Partridge, 169; C. S. Yarbrough, 168; W. F. Kuhnley, 166; L. S. Learning, 166; W. T. Reed, 163; Wm. Ellis, 162; C. L. Yates, 162; Sam Mansfield, 161; M. H. Starkweather, 160; C. W. Meadar, 168; C. E. Clarkson, 187; E. B. Stewart, 176; Kirk Moore, 173; J. H. Shumaker, 173; H. Reynolds, 170; Ovey Anderson, 164; H. A. Spoehr, 164; W. H. Reynolds, 163; P. H. Barry, 160; L. H. Franke, 160.

The Needles Rifle and Revolver Club of California has reported 15 qualifications under the new course. They are:

Experts—G. H. Giles, 161; O. E. Searson, 152.

Sharpshooters—V. F. Shafer, 159; E. L. Forsythe, 173; R. L. Woodling, 151; J. C. Long, 151; J. H. McGinnis, 157.

Marksman—H. F. Warner, 153; D. K. Youtz, 151; Ray Barnett, 163; F. J. Ball, 167; A. V. O'Neal, 153; Geo. Muize, 162; J. B. Claypool, 174; Roy Cain, 152.

The Batavia, New York, Rifle Club has reported two qualifications under the old course. They are:

Expert—Wm. J. Susat, 220.
Marksman—Harley Bort, 176.



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THIS SPEAKS FOR ITSELF

EDITOR ARMS AND THE MAN:

Los Angeles, Cal., June 24.

I note in the June 16th issue of your nobull paper an elongated but somewhat incorrect communication from my erstwhile fellow sufferer, C. W. Linder, now infesting the regions of San Francisco. Inasmuch as this communication insists upon dragging perfectly innocent by-standers into a dornick heaving contest between Mr. Linder and Mr. Thomson, and inasmuch as I am one of said innocent by-standers, I am compelled to heave in return a couple of hand-picked dornicks myself.

Firstly, I am not the Mick that threw the brick. I didn't say in public that Bro. Linder didn't make the scandalous number of consecutive bulls on the A target at 300 as he claims to have done. In fact I believe he did. Quite occasionally a mentally defective person bobs up who is a wonderful shot.

Andy Thomson is the man who hollered "Three cheers for the A P A," at the Irish picnic. Me, I can select enough trouble of my own without picking fights on the grounds of the scores of the other fellow, and I object strenuously to be hauled into a fight between two fellow-team mates, because no matter which side I take, the other one will have something on me from past association.

One of my woes is that this Linder person alleges untruthfully and scandalously that I was the guy who started the row about the 300 yard turkey shooting. I am in the habit of signing my communications to the public prints, particularly when they deal with controversy, and the only communication I ever penned on the subject was merely a note setting forth the results of some trials we made on our own range after the row had gotten well under way, the said trials not proving much either way, except that it was of course a hard game.

Bro. Linder quotes me correctly as to my private note to him re his 300 work. However, I don't know of anybody more likely to turn the trick than the same Bro. Linder, and hereby rise in meetin' to confess that he's some holder from Holderville, and that few men on any team at Jax, with his limited experience in wind doping,

put up his slow fire scores. If he says on sober second thought—heavy accent on the word "sober," that he made his thirty or forty straight bulls at 300 yards on the A target, firing five shots a day for as many days as five will divide into thirty or forty, then I'm satisfied—he did. Also I can't do it, which is added as an admission that I'm jealous.

I only wish that Bro. Linder would move east or a certain chap in the indoor game would move west so the public could get in and view two marvelous rifle shots for the one admission. The other man is the chap who a newspaper clipping alleges made 500 ex 500 in the national gallery championship with a 4½ lb. Remington rifle with factory sights in the time of 14 minutes from first to last shot. The only sad thought about bringing the twain together is that the other marvel would so completely outshine Mr. Linder—even if he couldn't out-talk him, and the latter is not to be expected.

Inasmuch as I didn't start this argument, as before stated, I now withdraw and climb up on the fence and wait with bated breath and eager anticipation for the real fuss between Bros. Thomson and Linder. Trot 'em out, Mr. Referee.

Also I have read with mixed feelings the quotation in your June 23rd issue of glad tidings of salvation, from the speech of that most illustrious Mormon senator, Smoot on the subject of the standardization of ammunition for the British rifle and for our own.


For long I have noted with awe the high technical and general knowledge of the breed of critter known as a Congressman. As part of my business as a magazine writer I waded through the proceedings of the military and naval committees of the House and Senate, and am becoming impressed with the fact that a committee on anything in the world excepting raising their own salaries, from our illustrious Congress, is merely a primer class for ignorant solons. The chief proceedings of such committees, as easily demonstrated by a reading of the proceedings is getting some high expert such as Captain Sims before them, and then badgering the expert with asinine questions that a schoolboy ought to be ashamed to ask. When said expert is reduced to stage of tears or violent profanity, they dismiss him, and go into grave and highly informed session.

It was in such a committee that some yap from the tall and uncut, but still a member of that illustrious body, the American Congress, propounded the fair question as to why they didn't put the women and children on the sinking Titanic into the water-tight compartments on the ship!!! This was gravely read into the records—and is still there.

Senator Smoot proceeds to throw violent spasms because the Remington-Enfield or Enfield M 1914, to be turned out for our army, is to be chambered for our own 1916 rimless and modern cartridge instead of for that misfit, archaic rim cartridge, the British .303, which the British had abandoned when war broke out in favor of a modification of the .280, and which they hurriedly had to re-adopt when trouble broke out.

This, our highly informed senator, says is criminal because the Yankee soldier, running out of ammunition, can't run over to the hors de combat Britisher and fill his belt from the British bando. Along the same brilliant line of reasoning this expert then desires to send half of our troops over with rifles chambered for the .303 British, and the other half with the present Springfield, 60,000 of which in the hands of the first and second contingents are now on

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French soil. Clever? Sure! This same senatorial authority proceeds to point out that the British soldier can now go to the first wounded Frenchman he finds and help himself to French ammunition and proceed happily on his way, seeking the German he desires for a trophy for his den.

He can, if also he takes the Frenchman's rifle—not otherwise. Needless to say to the intelligent readers of ARMS AND THE MAN, the French and the British cartridge are not alike and the poor Britisher who tried to fire a French cartridge in a British rifle would either have to take to the bayonet or climb a tree.

Naturally the French and British avoid complication in ammunition by playing their hands out on their own tables, just as American troops will do, just as the Belgians have done since war broke out. As the line is now held by the troops of three nations with three distinct rifles and ammunition, and as there may be Italian troops on the West front with still another sort, I opine that the introduction of a fourth army need worry nobody. Certainly it won't worry our authorities as would the very mixing of ammunition that our well informed senator deplores—rifles and machine guns for the 1906 being already on the west front.

The .303 British is, of course, a makeshift, a rim shell with the poor handling

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through magazine that is given by a rim shell, and with powder space inadequate to modern ballistics. Making a few million shells for this relic would be truly a characteristic act of a Congressional Committee.

Cutting off our ammunition supply need worry nobody. Ammunition for small arms is very compact and a lot of it can be carried in one ship. If things get to that fix, then our poor soldiers will be shy a lot of things they need still worse, and will have to go over and join Hans and Fritz.

EDWARD C. CROSSMAN.

Trapshooting Is An Ancient Sport

AS far back as 1793 the *Sporting Magazine*, of London, England, mentioned pigeon-shooting, which was the forerunner of modern trapshooting, and it was in England that trapshooting first became a recognized sport. However, considerable difference exists between the sport in its infant stages and the present.

Englishmen wanted to get in form for a contest with the team from across the channel, so they started trapshooting. At that time live birds were used—the blue-rock pigeon—and not our river silt and tar “pigeon.”

Likewise the trap of those days was quite different from the ones Henderson, German, Clark, Newcomb and others are in the habit of facing. It consisted of a box 8x12 inches, sunk level with the ground, having a sliding lid, which was pulled off the box by means of a string running back of the trapper.

Of course the perriwigg’d gentlemen of that early day, with their flintlocks, couldn’t do much with our “humdingers,” but nevertheless we have them to thank for actually starting this great sport.

The first attempt at trapshooting in this country took place in Cincinnati in 1831. Wild pigeons served as targets until the 90 and 95 per cent class became so large they were forced to substitute quail. You “gun bugs” of today, think of shooting at quail with a muzzle-loader!

It is impossible to determine just when inanimate targets came into use. The earliest account on record is that of shooting at glass balls down at Boston, in 1866. The trap used was an imported affair from England and far from satisfactory, so an American got busy and made a trap that would send these glass orbs through space in a more Yankee-like manner. Thereafter, for twenty years, the glass industry was overwhelmed and “barefoot Johnny” steered clear of trapshooting grounds.

Improvements of balls and traps were produced in considerable numbers until 1880, when it came due for Cincinnati to again figure in the formative stages of “The Sport Alluring.”

This time to serve as the home of George Ligowsky, who invented real clay pigeons and a trap to spring them, of which our modern “saucers” and traps are lineal descendants.

The subsequent history of this fascinating sport, with its hundreds of thousands of devotees all over our own land and in foreign countries (though in the latter, alas, they are reverting to primitive targets), is being recorded in the columns of the sporting pages of the press.—P. P. C.

Scattering Shot

A law of sports as immutable as “the laws of the Medes and the Persians” is: “They never come back.”

Trapshooting shows no exceptions to this rule, but the reason why a trapshooter never comes back is simple—he never goes back.

To settle any question in the matter, all that is necessary will be to attend the Grand American Handicap, at the South Shore Country, Chicago, Ill., August 20, 21, 22, 23, 24, where on the firing line will be found many of the old guard of the grand army of clay bird busters.

Among the veterans who will attend the big shootfest are Tom Marshall, Ed. Banks, W. R. Crosby, Fred Gilbert and Rolo Heikes, mem-

bers of the All-American team that invaded the British Isles in 1901 and vanquished the Britishers despite the fact that the Englishmen fired “both barrels” in successive attempts to bring down each clay target while the Americans pulverized the saucers in much greater numbers, shooting with “one barrel.”

Trapshooting has caused shooters to experiment with straighter and straighter stocks till they have now lifted them to the altitude of comb and heel that a few years ago would have been looked on as extreme.

Moreover, this straightening of the stock for trapshooting has been found to be of such advantage for pointing at flying targets it has by its influence straightened the stock of the field gun and many are now using the same or a very slightly modified stock on upland birds.

And now we are beginning to see the comb and heel of equal measurements, with numerous instances of the heel higher than the comb. Lester German, a shooter in the very first row, advocates equal measurements for comb and heel. He shoots a gun having an inch and one-quarter drop at both comb and heel, thereby giving to the stock no pitch whatever.

Some may say that this is all well enough in a trap gun. But Mr. German will take this same gun and snuff out the wildest targets that can be thrown with a hand trap, targets that have an “english” on them to such an extent that they can be lifted away from the earth like the horn of the new moon.

There is this much about it, a stock without pitch, in your measurement, will not hook onto your cheek bone when it drives straight back at the moment of firing.

WANTS AND FOR SALE

Each subscriber of **ARMS AND THE MAN** is entitled when his subscription is paid up for one year, to one free insertion of a half-inch want ad in this column. All he needs to do is to send in the advertisement for insertion at the same time calling attention to the date when his subscription was paid.

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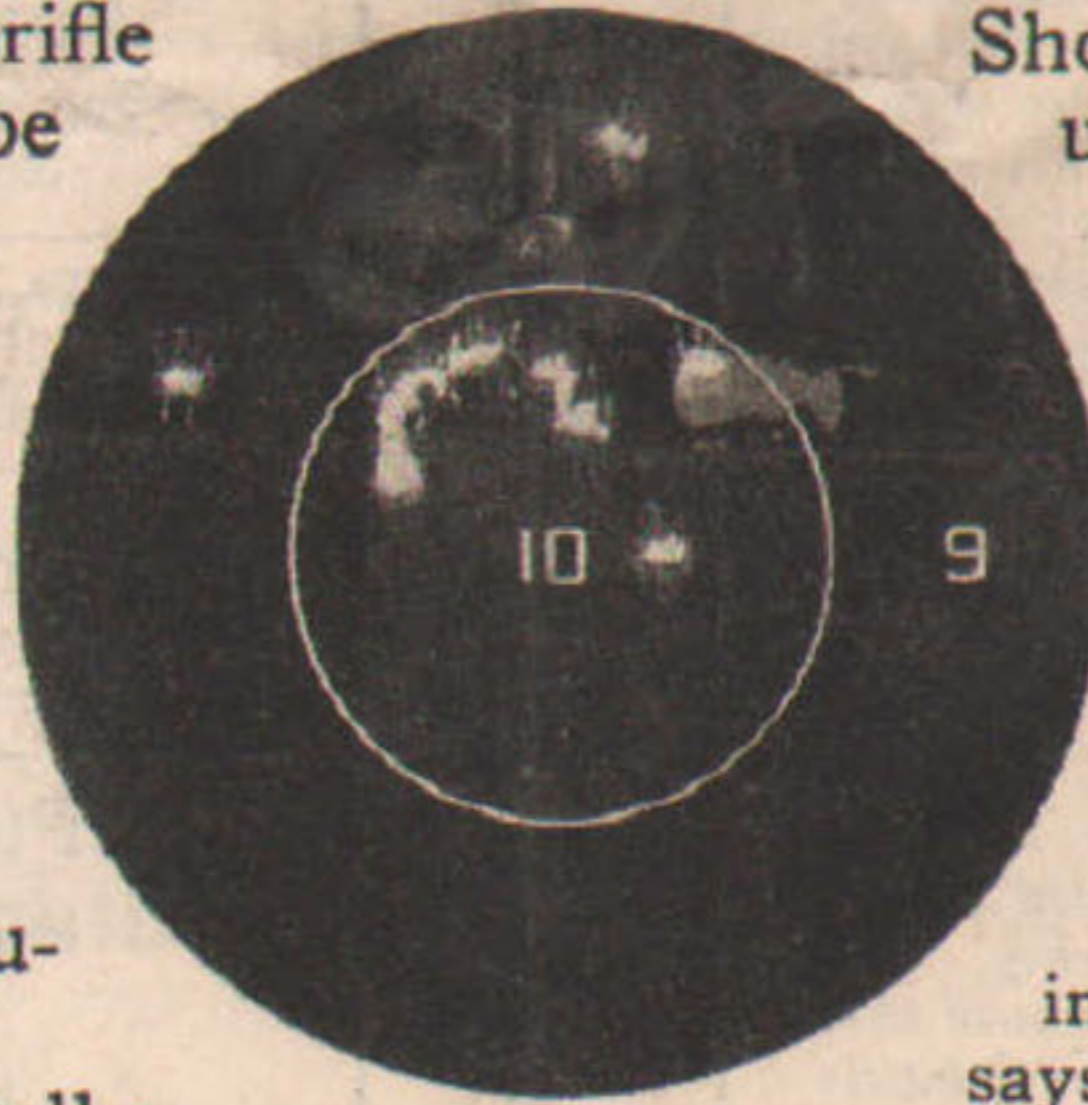
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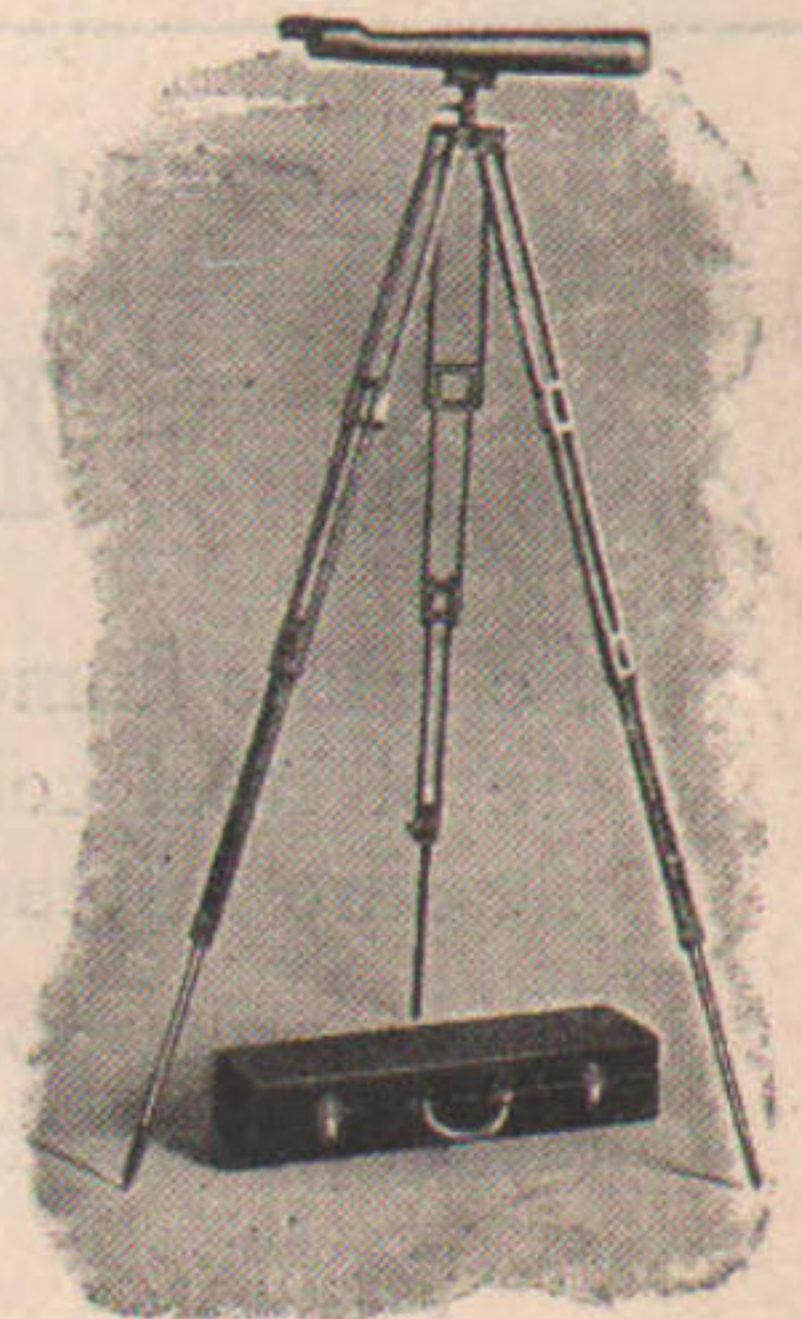
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