

ARMS AND
THE MAN

NATIONAL RIFLE ASSOCIATION OF AMERICA

"SEVEN-TENTHS OF A SOLDIER'S BUSINESS"
A VERNIER FOR THE SPRINGFIELD WINDGAUGE
WARSHIPS WHILE YOU WAIT
MAKING TARGETS FOR THE OUTDOOR SMALL-
BORE QUALIFICATION COURSE
INTRODUCING "THE U. S. MODEL 1917"
WITH THE SMALL-BORE LEAGUE
EDITORIALS and
LATEST NEWS OF RIFLE, REVOLVER AND
SHOTGUN, THE ARMY, THE NAVY AND
THE NATIONAL GUARD

VOL. LXII, NO. 22



AUGUST 25, 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.

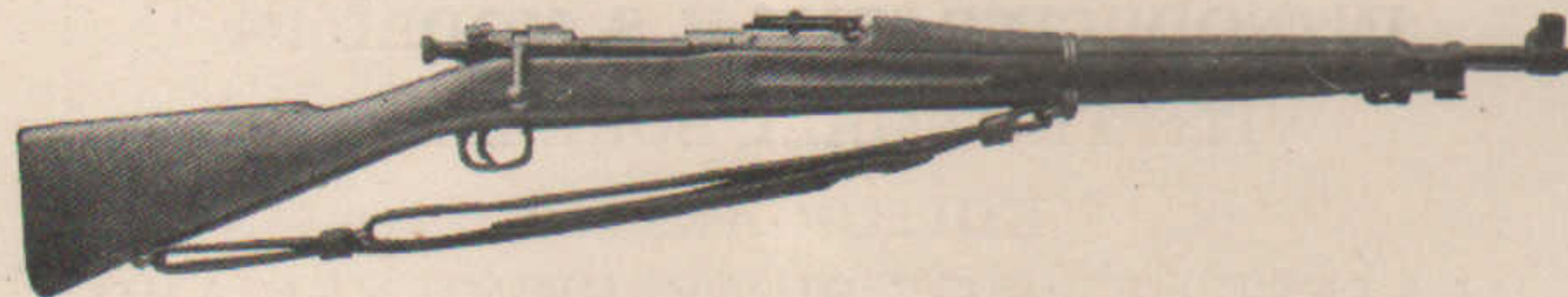
THE PETERS CARTRIDGE COMPANY, Cincinnati, O.

BRANCHES—NEW YORK: 60-62 Warren Street

NEW ORLEANS: 321 Magazine Street

SAN FRANCISCO: 585-587 Howard Street

A Rifleman's Instructor— The Marine Corps Score Book



For use in Army, Navy, Marine Corps, National Guard, Naval Militia, Schools and Civilian Clubs. For beginners, advanced riflemen and rifle teams. For self-instruction and for use in instructing others.

It is the boil-down of the shooting game. Its contents are the digest of range practice and experience. Everything in it is practical, easy to learn and easy to teach. It is the last word in accuracy of the art of shooting, instructing and range service.

Supply it to your Company, Club or Team. It

will save you labor. Your men will then instruct themselves. Your subordinates can teach it. It will produce results for you with the minimum of work.

Adopted by the War Department and issued by the Ordnance Department to organizations of the Army, and to the Organized Militia

Remittance should accompany order. Stamps accepted for orders less than \$1.00. 20% discount on lots of 50 or more, freight paid by purchaser.

Price, 20 Cents, Post Paid

ARMS AND THE MAN

WASHINGTON, D. C.

ARMS AND



THE MAN

The Official Organ of the National Rifle Association of America

Volume LXII, No. 22

WASHINGTON, D. C., AUGUST 25, 1917

\$3 a year. 10 cents a copy

"Seven-Tenths of a Soldier's Business"

By "SNIPER"

It was Lord Roberts, who at the close of the Boer War prophesied: "The battles of the future will be won by snap shooting at short distances," adding that marksmanship is "*seven-tenths of a soldier's business.*"

It was Lord Kitchener, who, while organizing the first levy which England sent to the battle-shambles of France, issued his now famous order: "Never mind how they drill or whether they know the right foot from the left. *Teach them to shoot and do it quickly.*"

How well these veterans of actual warfare summed up the needs of a new army has been told by the future of which Lord Roberts prophesied and the levy which Lord Kitchener trained.

The United States in the unbelievably short period of four months following the declaration of that war which pacifists and anti-preparedness advocates deemed beyond all human possibilities, has nearly a million men—943,141, to be exact—under arms.

What the government will do toward training these men in the use of arms before France is sighted by the transports, is now a matter merely of conjecture, although it is known that the experts of the Army are endeavoring to devise a system to this end. They are, however, encountering difficulties. It is said that a system based upon an extreme range of 1,000 inches, similar to the plan followed in training operators of machine guns, was tried and abandoned. Word from France indicates that the training which the troops are undergoing there is based on an extreme range of 30 yards.

England, upon her entrance into the war, was faced with a similar problem. She found the answer, as everyone who keeps up with rifle shooting knows, in the establishment of miniature rifle ranges and practice with the .22 calibre rifle.

And that solution is undoubtedly the one to which the Army of the United States will come before the war is many months older.

Miniature ranges must be established and established quickly throughout the United States for the use not only of soldiery but of civilians, unless the Government wishes to send the youth of America into battle without a practical working knowledge of the arm he bears.

But let an expert speak. Out of a retirement broken only by his connection with the rifle work of the New York Public Schools Athletic League, General George W. Wingate, who introduced rifle practice as part of the National Guard's activities, has been aroused by the need of giving every American soldier, and every American citizen, that "seven-tenths" so necessary to valuable national service; and it is right and fitting that General Wingate's should be the voice to send the message "Build the ranges!" out over a nation where the importance of such work has apparently been overlooked. He says:

"Looking from the windows of one of our New York skyscrapers one can see squads of men undergoing military drill upon the roofs of the adjoining buildings. These belong to some of the many organizations of employes of different business concerns who are endeavoring to learn something of the duties of a soldier. In every newspaper one reads of many organizations, formed for local defense, that are doing the same thing.

"But only a few of these are being taught the most important part of a soldier's duty and one that can largely be acquired within the limitations to which they are subjected, and that is 'to learn to shoot straight and rapidly.' Neither do any facilities exist by which it can be done.

"The great struggle in which we are now engaged, and the dangers which threaten us, impossible to overstate, should lead our people in this particular, at least, to follow the example of Great Britain. At the close of the Boer War Lord Roberts was greatly impressed by the fact that a handful of untrained and undisciplined Boers—because they were wonderful riflemen—had been able to withstand a greatly superior number of British troops. He was also convinced that it was certain that England would be engaged in a European war in the immediate future, and he devoted all his energies to secure the adoption of universal service, and in the meantime to promote a knowledge of rifle shooting, both in the Army and among the people of Great Britain. To the Army he issued an order which, after specifying an elaborate course of rifle firing, stated 'that the battles of the future would be won by snap shooting of short distances'—an assertion which has been more than borne out by the experiences of the present war.

"To induce the people to become marksmen he exerted all his great influence toward the formation throughout Great Britain of what are called 'miniature rifle clubs,' and the creation of rifle ranges. In this he received the powerful backing of the Premier, press, and other leaders of the people. The result was that within a few years thousands of rifle clubs were formed. As many as could do so shot on the regular rifle ranges. But the great mass practiced at short ranges constructed on the roofs and in the basements of buildings and at all other available places where a distance of from 50 feet to 250 yards could be obtained, the space for which was freely granted by many property owners. These clubs were grouped in several large rifle associations, and shooting competitions established on an enormous scale.

"Great Britain failed to heed the warning of Lord Roberts as to the necessity of universal military service, and regarded him as a 'crazy old man' for advocating it, an attitude for which she has since repented with blood and tears.

"But when the war he prophesied did break out, and the

nation was compelled to raise 5,000,000 men, she found a most valuable asset in the hundreds of thousands who had been trained to shoot accurately in the rifle clubs which he had caused to be established.

"I wish to urge upon the American people with all the power I can command the burning necessity for us to do as the British did, *and do it now*.

"One of the greatest illusions that exists in this country is that we are a nation of marksmen. Today, the ordinary young American, unless he has served in the National Guard or the Army, or is a rifle club member, knows nothing about a rifle and never had an Army Springfield in his hands. In the cities there is no opportunity for practice, and in the country there is little desire. In the latter there are many who have shotguns, but rifles are rare. When I was in a small place in Florida, a year or two ago, I wished to borrow a rifle to shoot an alligator. I found that while every man had a shotgun, there was not a rifle in the village.

"We are now calling out over a million men, and may have to call more than double that number. We can within a few months uniform and equip these and teach them considerable drill and some discipline. But to teach them to shoot will take a lot of time which can ill be spared.

"It will be recalled that when Lord Kitchener was organizing the first levy of volunteers that England sent to the front, for which the need was most urgent but which required from six to nine months to equip and train, he issued an order stating 'Never mind how they drill or whether they know their right foot from their left—teach them to shoot, and do it quickly.' But it was a long job to do it.

"There is an idea prevailing among many that because of modern artillery and the introduction of machine guns, the rifle is becoming useless. This is the same kind of talk that prevailed some twenty years ago with regard to the bayonet, with the result that our Army ordnance authorities adopted a rod bayonet which was useless except for sentry duty, and which was very soon abandoned. Today, bayonet fencing is being taught with the greatest thoroughness in all armies. Moreover, this is not the style of bayonet 'fencing' in which our Army has been trained, but a system of bayonet 'fighting,' which has been developed in the fierce hand-to-hand combats which are constantly going on in the trench fighting abroad.

"I recently asked General Bridges of the British War Commission what the present war had taught in respect to the value of individual training in accurate rifle shooting carried on in the British and American Armies, as

against the German theory that this was a waste of time and money, as better results could be accomplished by soldiers shooting in the general direction of their enemy, (which would constitute a 'sheaf of fire' covering an extended area of ground), instead of trying to hit a definite object. He replied that he had asked this question of a wounded German officer who had asserted that the failure of the Germans to wipe out the British Army in their first rush into France, as they had expected to do through the weight of their superior numbers, was due to the deadly effect of the accuracy and rapidity of the fire of the British infantry, and that, in consequence, the Germans had decided that the English method of instruction in accurate rifle shooting was superior to their own.

"I earnestly hope that all who are interested in our national defense will take this experience to heart and aid in developing in America rifle ranges like those which were so successful in Great Britain. It is not a matter that requires any very great expenditure of money. It is a fallacy to suppose that it can be done only by organizing large rifle ranges, where practice can be had at long distances. On the contrary, the range of the modern rifle is so great that it is only occasionally that sufficiently large tracts of land can be obtained to make a safe range. In fact, the expensive New York State range at Blauvelt had to be abandoned because the men in skirmishing shot over the mountains into Nyack. Creedmoor was closed for the same reason. These tracts are costly and on account of their size must necessarily be located where they are difficult of access, so that they can be used by only a limited number.

"The foundation of all rifle shooting, however, is the ability to 'hold and pull.' In other words, to train a man so that he can align his sights on an object and pull the trigger of his rifle without diverting them, and do this in the different positions which are required in service. Above all, he must learn to shoot quickly, a matter which is altogether too much neglected. This can be done as well—and in fact better—at short distances as at long ones, and with a light charge instead of a heavy one.

Rifle ranges, therefore, should be constructed here as was done in Great Britain, where they are accessible, on the roofs of buildings, in lofts and basements, and other available places where fifty feet or more of distance can be obtained. These will permit of valuable practice being had with a rifle firing a light charge which does not require any particular protection, makes but little noise, and what is most important, costs but a trifle for ammunition. Ranges up to 300 yards

can be constructed with screens, which will make them safe, and therefore can be established in or near cities or villages.

"The experience of the Public Schools Athletic League in teaching the boys of the high schools of the City of New York to become marksmen is significant of what can be accomplished and what should be done. This league has installed in each of nineteen of these high schools one or more subtarget gun machines which enables instruction to be given and practice had in an ordinary room without ammunition.

"Through this system some 5,000 lads are being annually trained, aggregating from 30,000 to 40,000 young men now of military age who have been made effective shots with a military rifle, and who constitute no small addition to our military strength. It has been introduced in many other high and preparatory schools and colleges. It should, however, be extended throughout the country, so that all our people from 14 to 40 will become as skilled shots as the citizens of Switzerland, whose riflemen—while the tide of war has surged around her borders for the last three years—have preserved her from the fate of Belgium without ever pulling a trigger.

"To put this plan in operation it should be undertaken in the true American way—not by waiting for official action by any one, but by a few in each locality and organizations, who believe in the idea, starting it 'on their own hook' and forming a rifle club, no matter how small. The Amateur Rifle Club, (of which I had the honor then to be President), whose team won the championship of the world in the First International Rifle Match at Creedmoor, in 1873, and thereby caused rifle practice to be made a part of military instruction in this country, never had more than forty members.

"The simplest range for short distances is a good-sized room, one end covered with boiler iron and a box or other device to catch the bullets behind where the targets are placed. These are preferably of stiff paper, hung on a frame attached to a trolley wire running from the firing point and wound forward and backward by each shooter turning a small crank (which makes markers unnecessary.) Each firing point is arranged so that either the standing or prone position can be used.

"This method was used at the schoolboy rifle matches of the Public Schools Athletic League, at the Sportsmen's Show in New York, in February, 1915, when thirteen targets were in constant use from 3 to 10 o'clock P. M. for six days. In these, fifty teams competed, besides many in-

(Concluded on page 432)

A Vernier for the Springfield Windgauge

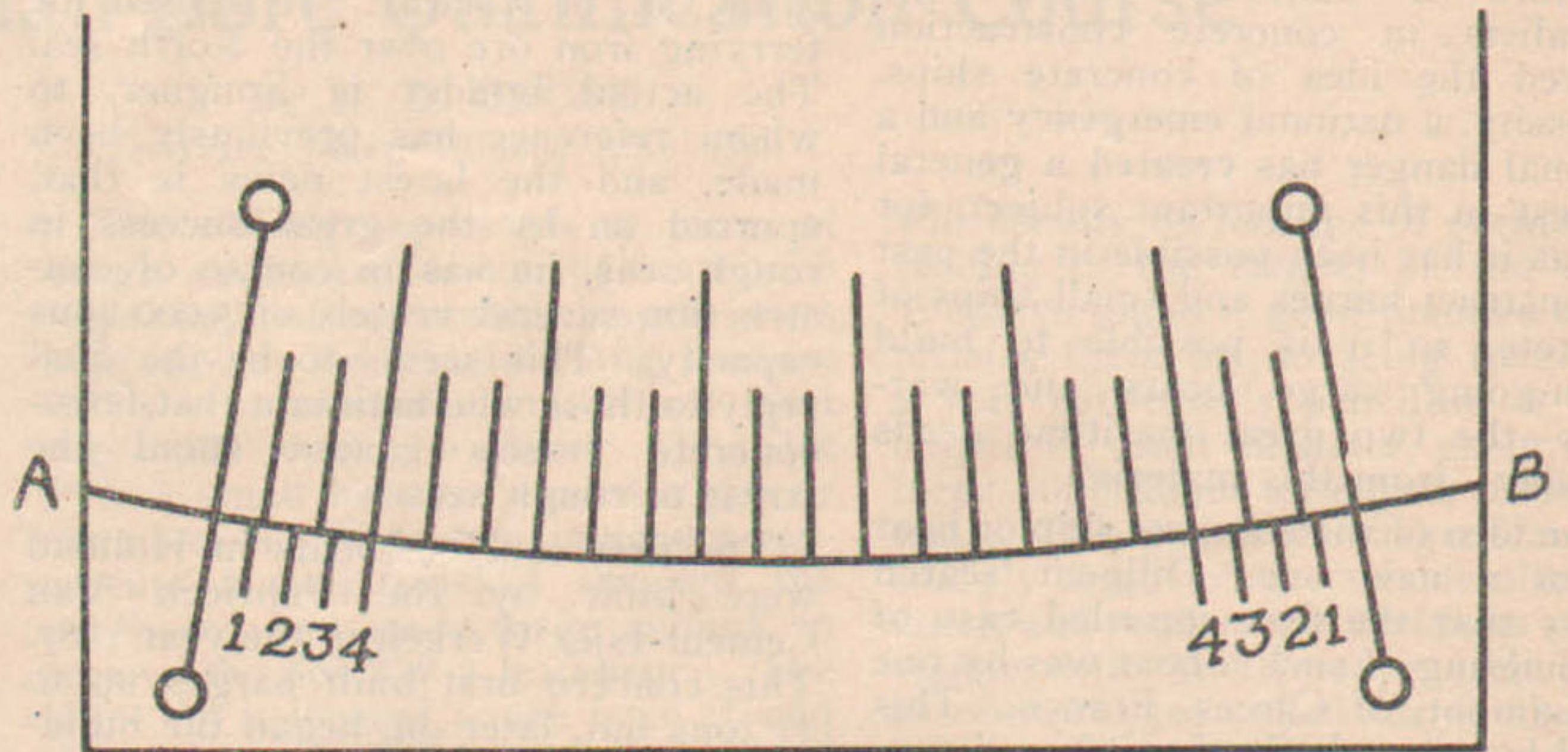
By DALE W. KAUFMAN

HERE is a suggestion for a vernier to be applied to the windgauge of the U. S. Rifle, Model 1903.

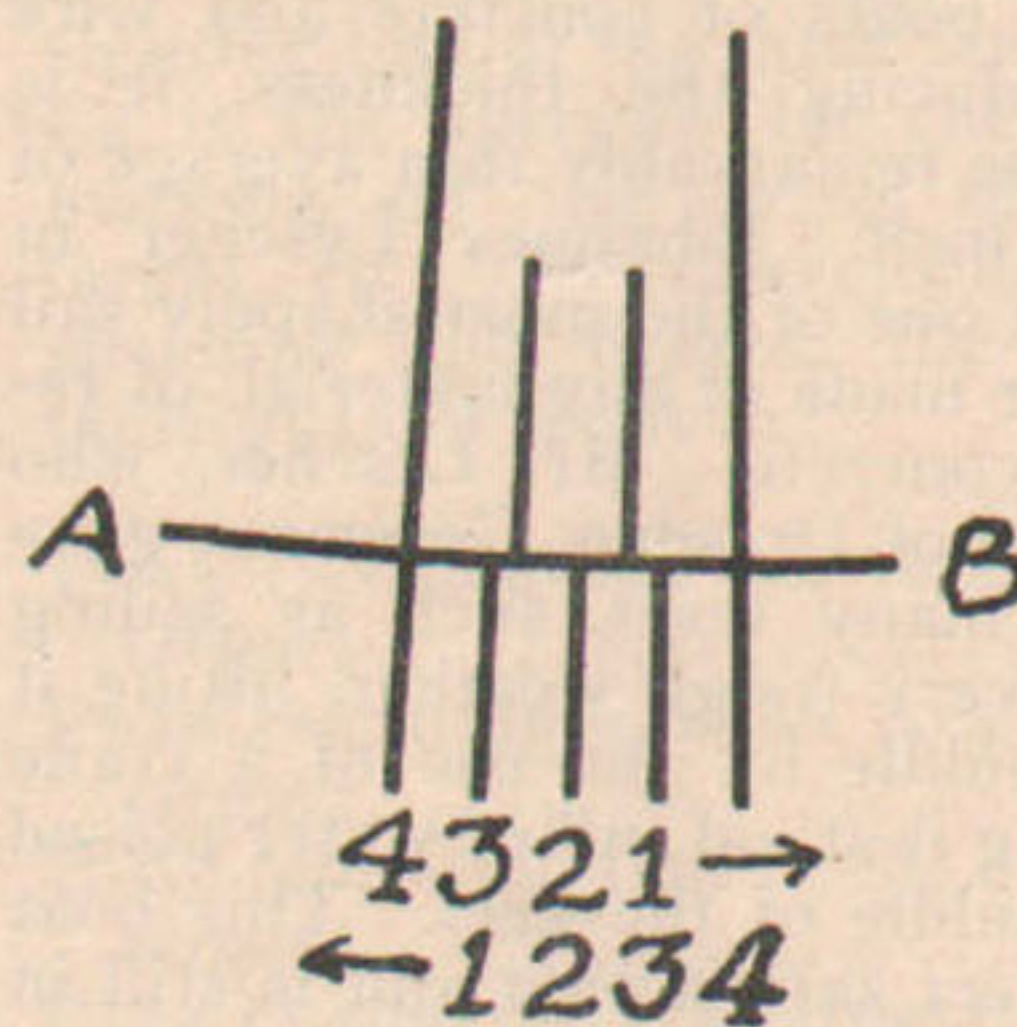
As manufactured, the windgauge scale consists of seven large divisions, each subdivided into three smaller ones. A shift through one of these smaller divisions, from the zero on either end of the scale, causes a shift of the bullet of four inches for each hundred yards of range. A change of one-quarter division makes an inch change, per hundred yards. It is to avoid the guessing of these "quarter points" that I suggest the following vernier:

Lay off a distance inside of each of the lower zero marks, equal to one of the seven large divisions of the scale, but divide it into four equal parts instead of three. Sketch No. 1 shows the scale with vernier complete, except that I have numbered the divisions for convenience in explaining. A-B is the line between the movable base and the fixed base.

The vernier is read the same as any vernier caliper. Suppose we want one-quarter point right windage. The right hand vernier is used. With the windage screw we are to shift the movable base to the right, one-quarter point, but instead of estimating one-quarter of the distance between the graduations on the scale, we turn the screw until the second mark from the right, on the upper scale, is directly over the line marked one on the vernier, which gives the required change. For one and three-quarters



No. 1.



No. 2.

points, we would shift one whole division and then instead of estimating the three-quarter, continue shifting to the right till the next line approaching

the three line of the vernier was directly over it.

Probably a poor explanation, and without touching on the principle, but gun cranks are too good mechanics to need a better one. To obviate two verniers, a single one may be used, under the middle one of the seven large divisions, as shown in sketch two. It must be remembered here though, that the numbering is different for right and for left windage, as shown by the arrows. I think that the two verniers are more convenient, being close beside the zero marks. One-half inch, or one-quarter inch per hundred yards of range may also be measured by making longer verniers, having eight or sixteen divisions on the vernier correspond with seven or fifteen divisions, respectively, on the windage scale. The simple engraving necessary could be done by a jeweler, or at home if proper tools were available.

UNIFORM SUGGESTED FOR HOME GUARD

IN RESPONSE to repeated inquiries as to suitable uniforms for Home Guard organizations the War Department has outlined an equipment the use of which is authorized by properly organized civilian bodies. The official ruling upon the matter says:

"Various communications have come from organizations throughout the country relative to a uniform which would not conflict with section 125 of the national-defense act approved June 3, 1916, with regard to the protection of the Federal uniform. While the War Department may make no official ruling on what constitutes an observance or a violation of that section of the law, the Secretary of War does, informally, suggest the following uni-

form, which may be used without variation, or with any changes which do not bring it into conflict with the above-cited section of the national-defense act."

A description of a uniform which, in the opinion of the Secretary of War, is considered suitable for wear by Home Guards and which would not be in conflict with section 125, act of Congress approved June 3, 1916.

Coat.—A single-breasted, straight-front, four-button sack coat, with lapels, having two outside hip bellows pockets and one outside breast bellows pocket. White-metal buttons with State coat of arms and shoulder loops.

Trousers.—Of same material as coat.

Cap.—Of same material as coat, vizor and chin strap to be black-enameled leather. Buttons of white metal with State coat of arms.

Cap ornament.—The letters "H. G." of white metal, of suitable height, inclosed in white-metal wreath in front.

Collar ornament.—The letters "H. G." of white metal, of suitable height in each side of collar of coat.

Rank insignia.—Same as illustrated in General Orders, No. 49, War Department, 1916, pages 43 and 44.

Chevrons.—To be placed on sleeves midway between shoulder and elbow. First sergeant, a shield with three white horizontal bars; sergeant, a circle with three white horizontal bars; corporal, a circle with two white horizontal bars.

Shirt and collar.—Of white material. Cravat.—A black four-in-hand.

Material.—For coat, trousers, and cap it is tentatively suggested that the material be part wool and part cotton, of suitable weight, of either forestry green or blue gray.

WARSHIPS WHILE YOU WAIT

By PIERRE N. BERINGER

THE eye of the nation must see before it believes. Long ago, specialists in concrete construction evolved the idea of concrete ships. Necessity, a national emergency and a national danger has created a general interest in this important subject, for just as it has been possible in the past to construct barges and small ships of concrete, so it is possible to build ocean-going cargo boats and warships—the two great maritime needs of today—from this material.

The idea of the concrete ship or boat is not a new one. Diligent search shows that the first recorded case of the building of such a boat was by one M. Lambot, of Carces, France. This small boat was built of reinforced concrete and was constructed in 1849. It is still afloat and has given a service of 68 years.

France gave the idea to mankind but it remained for the Norwegians to put it to practical use as to vessels of larger tonnage. Many successful concrete boats of their manufacture are now afloat.

On the Panama Canal, a similar type of pontoon has been in use on various sections and, recently, pontoons were built as landing stages for boats up to 65 feet in length. These pontoons are 125 feet long, beam 28 feet and have a depth of 8 feet.

Norway was the first to solve the problem of the ocean-going concrete carrier; as an evolution from the barge operated in comparatively still waters. It had been, and with some still is, a question whether a concrete vessel has the buoyancy and the resiliency to stand the battering of the waves of the ocean. The answer to this question is found in the Consular report of a Consul General of the United States at Christiania, Norway. He describes a plant at Moss, Norway, where three thousand ton displacement vessels are in course of construction.

The so-called inventor of this type of vessel is named Nicolai Fougner, an engineer, who claims to be able to construct any type of vessel, of any type and of any size. A ship, constructed by this company, arrived at Christiania, Norway, in June of this year, and it is said to resemble "a large barge, except that its ribs are of steel."

The Swedish Minister of Marine, Mr. M. Bronson, who was present with ship building experts, was so impressed with the performance of this vessel that he immediately placed an order for an ocean-going vessel of several thousand tons displacement. The same works now have two other large vessels on the ways and one 4,000-ton craft is just about completed.

Now, Norway comes forward again,

with a sort of triumph in concrete vessels, and turns out a 3,000-ton Diesel Engine Motor ship of ferro-concrete. This was built for the Sydvaranger Mine Co., of Norway. It is used for ferrying iron ore over the North sea. The actual builder is Fougner, to whom reference has previously been made, and the latest news is that, spurred on by the great success in rough seas, he has in course of construction several vessels of 5,000 tons capacity. This seems to be the final reply to those who maintain that ferro-concrete vessels cannot stand the stress of rough seas.

The first concrete boats in Holland were built by the Fabriek Van Cement-Isjer Werken in the year 1887. This concern first built barges up to 11 tons but, later on, began the building of boats of larger capacity.

Last & Co., also of Holland, triumphed over all others by giving beauty of shape to their vessels and built sail boats of concrete and wire mesh, reducing the thickness, it is said, to the remarkably thin average of one-half inch. Johannes Lescher in 1912 built one of the most shapely sail boats ever made of any material, of reinforced concrete. Mr. Lescher, who is a citizen of Dresden, Germany, gave his boat many tests, such as sailing about in very rough weather, lifting it by the middle by the use of a crane and letting it stand full of water poised on the middle of the keel. This boat gave perfect satisfaction and is still in use.

It is of the greatest importance to note that the barge "Pioneer," used on the Welland Canal since 1910, does not show a sign of leakage. Mr. Weller, the chief engineer, in a recent interview, pointed out a "bump" received and remarked "that was a bad one" but showed also that the vessel did not leak at this point or anywhere else. This vessel is of a uniform thickness of $2\frac{1}{2}$ inches, bottom, sides, walls and decks. It is always clean and wholesome and never needs pumping out.

The United States has not been backward in evolving splendid ideas for the building of such vessels, but there has been a lack of interest on the part of people and capital as far as building is concerned. The concrete ship is still a nine days' wonder!

E. Lee Heidenreich, of Kansas City, Mo., has designed a system of construction of a very practical ship, to be used as a transport. Carl Weber, of the Cement Gun Construction Co., has applied for a patent on a concrete ship. Lorenzo D'Adda has a patent for "concrete reinforcement of battle ships." O. F. Lackey, patents on "concrete vessels reinforced with angle irons and wire mesh." A. Holin is the inventor of a "floating body with re-

inforced concrete frame and hull." J. T. Gorsuch, "reinforced scows." H. E. Smith claims new ideas in a concrete ship. S. D. Hendricks has patent papers on "reinforced concrete unit construction for barges and ships."

There is now being built at Redwood Harbor, San Francisco Bay, a large concrete vessel; this will be 300 feet long and has a beam of 46 feet and a depth of 24 feet. It is being built under a secret process and the invention is that of Kenneth McDonald, Jr. Ten San Francisco business men have subscribed the necessary funds. The "secret process" is said to give concrete the elasticity of steel and its tensile strength.

Twelve years ago a Mr. Rittenhouse Moore, since deceased, was traveling through Italy and his attention was called not only to the Gabellini boats described in this article but to the method of construction, which he found to be very crude indeed. This was largely hand labor; the grout or mixed concrete being spread over the wire mesh by tedious labor of men crawling about on hands and knees and doing all of the work with the tools of the most primitive character. These men were building a concrete barge.

Mr. Moore was engaged in a very extensive contracting business on the Atlantic and Gulf coasts. He became interested at once and brought a gang of men and a foreman with him to this country. These he put to work and he soon had several of these barges on Government contracts along the Gulf coast and the lower Mississippi River.

These barges were found to be very buoyant and stable. As the labor was all done by hand, from mixing to spreading, the cost was excessive and this set Mr. Moore to thinking of how this might be done away with entirely or sufficiently so as to make the cost of labor less.

Engineers connected with the Ransome Concrete Machinery Co. were called into consultation and they decided the best method would be to build a hull from 300 to 400 feet in length and use a light steel frame and "shooting" the grout or aggregates into place by the use of pneumatic grout machines. The keel, stern post and bow, to be a light steel girder. At intervals, along the length of the hull, a light channel iron was to be used for ribs, bent to the proper shape. The ribs were to be connected with light reinforcing rods or by wire mesh or both. The concrete was to be 1-2-4 mixture, the aggregate being either gravel or crushed stone, to pass a $\frac{3}{4}$ -inch ring. A light steel form could be designed that would be standard and could be used for many boats. The thickness of the

(Concluded on page 432)

A Simple Device for the Construction of Targets for the New Small-Bore Qualification Course

By H. D. GROSE

Secretary Joilet, Illinois, Rifle Club

LIKE most of her sister organizations throughout the country, the Joilet Rifle Club hailed with delight the announcement of the new Small-Bore Qualification Course contained in ARMS AND THE MAN of July 7, 1917. The long distance to the club's range for high-power practice, together with the War Department's suspension for an indefinite period of further issue of ammunition, had seriously handicapped Joliet's work with the service rifle and threatened to play havoc with interest in the rifle game in the local field. Hence the new Small-Bore Course was accorded a most enthusiastic welcome in J. R. C. circles.

Like our fellow-fanatic Sheldon, of the Hopedale, Massachusetts, Rifle Club, who writes so interestingly of the work of his club with the new course in the "Ricochets" section of ARMS AND THE MAN for August 11, 1917, we had barely finished reading the announcement of July 7th before we "fell to" at making up a set of those "quarter-plate" targets as per the given specifications.

Some tough wrapping paper of suitable size was requisitioned from the stores of friend wife to serve as our "base-map," while we proceeded to put in our 5-ring and 4-ring "contours" by means of a small compass. But the limitation of said compass was somewhere between the 4-ring of the A target and the corresponding circle of the B paper, which was in no wise conducive to the completion of our targets nor to our likelihood of ultimate redemption. To lay off the larger outer circles we then restored to the familiar old school-boy trick of the pin-pencil-string circle-maker. But the pin wouldn't stay stuck and the string would everlastingly slip; our resultant "circles" would have made nifty patterns for Br'er Snail to follow in shaping his shuck. Hence still less completion of targets and very far less likelihood of our ultimate redemption. In fact, we needed a sky-pilot "something scandalous."

The oblong represents a piece of tough cardboard about half an inch wide and of agreeable length—ours happened to be 8 inches long because we absent-mindedly cut it off that way—7½ would be plenty. The dot P is a small hole to receive a pin or thumb-tack. Each remaining dot represents a hole pricked through the cardboard and made large enough to receive the point of a lead-pencil. The point A5 is located 1 inch from P, and the pencil inserted here and revolved about P as a center will describe the circumference of the counting-bull of the A/4 target; point As is the camp-site of the pencil while outlining the sighting-bull of the same target. Point C4 is the aperture for the pencil in marking off the 4-ring of the C/4 target, etc. For convenience in constructing the device, the following table of radii is given:

P-A5 (scoring-bull on A/4 target)	1 inch
P-As (sighting-bull on A/4 target)	1½ inches
P-B5 (counting-bull on B/4 target)	2½ inches
P-A4 (4-ring on A/4 target)	3¼ inches
P-C5 (Counting-bull on C/4 target)	4½ inches
P-B4 (4-ring on B/4 target)	4⅝ inches
P-A3 (3-ring on A/4 target)	5¾ inches
P-B3 (3-ring on B/4 target)	6⅝ inches
P-C4 (4-ring on C/4 target)	6¾ inches

The modus operandi is very simple. The paper to receive the target is first flattened on the table-top and secured with thumb-tacks. The rectangle for the desired target is then drawn and its center located by the customary diagonal method. A thumb-tack or pin is now inserted in aperture P of the cardboard radius-strip and pitched at the center of the proposed target. A circle is then described by inserting a pencil in the proper aperture, as A5, and rotating the radius-strip about the pivot P. The pencil should be firmly

will usually be too fine to permit easy reading of the targets on the range. We have found it good practice to emphasize them by retracing them with a soft carpenter's pencil or a black crayon of small diameter, using a flat-faced point about an eighth of an inch wide. This makes the target stand out sharply even at a considerable distance, and renders the divisions plainly visible with the telescope even at the extreme ranges called for in the new course. The crayon is also ideal for blacking in the sighting-bull. The small crayons sold for school use will be found excellent for the purpose.

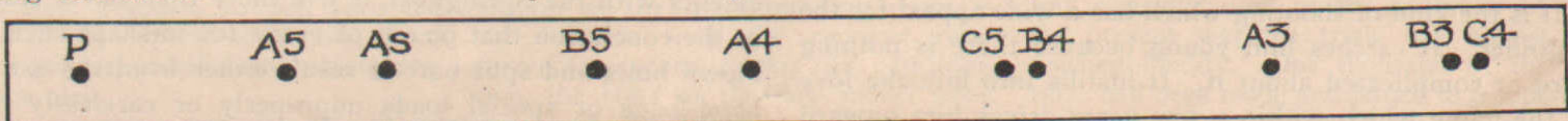
In emphasizing the counting rings as above described, care should be taken to prevent the crayon from slipping outside of the pencil-drawn circumferences, as this tends to make scoring difficult and inaccurate in the case of close line-shots. It is good practice, also, to outline the counting-bull of the A/4 target in yellow or some other color which will contrast sharply with the black body of this area and the surrounding sighting-ring. And while it is entirely foreign to the subject in hand, we would rise at this point to question the advisability of that extra half-inch of black around the counting bull; but we will refrain from discussing the matter here for the reason just given.

Now all this has been comparatively simple sailing so far. But when we come to that D/4 affair—well—as friends Potash and Perlmutter "frequent remarked," "that's something else again." But here's our recipe for that:

- Still cardboard 18" x 18" (3-ply manila or card-stock is fine) .. sheet 1
- Ruler or straight-edge
- Pencil (sharp)
- Sharp jack-knife
- Sketching ability

Compound as follows:

First outline on the cardboard the figures of the target, centering prop-



And he came—not in the flesh, however, but disguised as an idea. Here's his portrait. It will give you the idea quicker than reams of writing could get it to you, and will save the linoman some considerable tickling of the keys.

pressed during the rotation. Repeat the operation for each aperture in succession until the proper number of circles has been described.

A moderately soft pencil will be found to give the most satisfactory results. Lines thus drawn, however,

erly, as per specifications in ARMS AND THE MAN of July 7, 1917, being sure to finish with good clean lines about 1/16 inch wide. Here is where you use up that Q. S. of sketching ability. (If you have a good pantograph and one
(Concluded on page 432)

ARMS AND THE MAN



1110 WOODWARD BUILDING, WASHINGTON, D. C.

EVERY SATURDAY

Editor

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

Associate Editor

KENDRICK SCOFIELD

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

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

BUILD THE SMALL-BORE RANGES

IT is of course much too early to pass final judgment upon the merits of the small-bore qualification course. But there is this to be said: many of the clubs are trying out the .22 as, comparatively speaking, a long range gun, and the members seem to like it.

Considered in the light of the present service ammunition shortage, the difficulty in obtaining military rifles during the war period and the handicaps which have to be overcome every time a club attempts to establish a range at distances greater than 200 yards, this seems to be a particularly fortuitous circumstance.

There are a few clubs perhaps in the country that have established ranges, obtained title to a complement of Army rifles, and either learned the reloading game or laid in a sufficient stock of ball cartridges to see them through the shooting season. These organizations may not be attracted by the proposed small-bore course.

Yet the bulk of the clubs will either supplement their full-charge work with small bore practice or find that the scarcity of arms and ammunition will tend to throttle enthusiasm among many members.

There can be little question but what every male more than 16 years old should be trained to shoot with the service rifle. But even if a high powered weapon could be placed in the hands of every one of them, there would still remain that almost insuperable obstacle which has always existed—the location of a range.

Manifestly, with the small-bore, the establishment of a range is a simple matter, and the initial cost as well as the operating cost is very little.

It is the kind of shooting which has a wide appeal for the beginner. It catches him young because there is nothing hard or complicated about it. It instills into him the love of the game which within a few years drives him onward with a desire to handle the high-powered weapon. And when the time comes for him to make his debut on the 1,000-yard range he goes equipped with a thorough foundation in all that combines to make the expert rifleman.

The situation may well turn out to be productive of greater benefit to the shooting game than is at present

apparent. If it rouses an enthusiasm for marksmanship among men and boys hitherto prevented from indulging by the peculiar demands of full-charge military practice; if it gives these men a grounding in holding, sight setting, and trigger squeeze; if it leads them through developmental stages to where at last they will graduate into the ever increasing class of military shots, and above all, *if it furnishes a means whereby rifle ranges can be kept busy*, the forced, unusual activity on the indoor and outdoor small-bore ranges, will not have been in vain.

By all means let every rifleman who can obtain a gun and ammunition keep up his work with the full-charge weapon. While the small-bore has possibilities as yet undreamed of, there can be no gainsaying that proficiency with the service arm is the goal toward which every rifleman should strive.

But lacking the opportunity for full charge practice, the next best and the most practical thing, is the little .22.

There are several makes of .22 rifles which are standing the test of ranges longer than those on which the small-bore, in the past, has been customarily used, and it won't be long before some one of the big ammunition companies produces a military small-bore which will be worthy of the name.

BLOWN BLOTS AND SPLIT BARRELS

RECENTLY there have been reported from rifle clubs several cases where the barrels of Army rifles have burst and where bolts have blown out.

To those who are not familiar with the circumstances attending these accidents—none of which fortunately have cost human life—the mishaps have suggested that possibly the Springfield rifle is an unsafe arm, and that practice with it may be attended by fatalities.

The truth of the matter is that the Springfield is quite as safe as any high powered rifle, and possibly a much more reliable gun than one could expect from a weapon the charge of which exerts 50,000 pounds per square inch pressure in the chamber. The reason why one hears more of "blow-ups" in the Springfield is that more rifle club members use this arm than use any other one make of commercial weapon, and consequently, in point of numbers, although not necessarily in point of percentage, the accidents from the military type rifle may appear greater.

Emphatically the Springfield is not an unsafe gun. As it comes from the arsenal, it can be used year in and year out and so far as the likelihood of accidents is concerned, be as good as ever—but *always provided that it is properly handled and properly cared for.*

If one takes the trouble to inquire into the causes of accidents with the Springfield, it will more than likely result in the conclusion that 99 out of every 100 mishaps such as blown bolts and split barrels result either from the use of hand-loads or special loads improperly or carelessly put together in the making, greased chambers, or both.

In short, there's nothing the matter with the Springfield as long as it is used for the ammunition for which it was designed, except of course in the very small percentage of cases where a bolt has been overhardened or some similar mechanical defect has crept in during manufacture.

That is one reason why the government prefers to have every man who owns a Springfield outright, and who having acquired full title, has also the privilege of using it as he desires, be at least a sharpshooter and preferably an expert rifleman. Such a man is not likely to take unnecessary chances and if he wishes to use special loads, he will probably look into the ballistics and the pressure of the powder charge he desires to shoot before taking any chances with it. Properly reloaded shells are regarded as being perfectly safe but the same is not true of a shell into which a double charge has been slipped unconsciously.

The nub of the whole matter is that properly used the

Springfield is safe. If they were not, the government would not have issued them to its soldiers.

Incidentally, statistics show that nearly 1,000 lives were lost as the result of athletic contests during the 10 years from 1905 to 1915. Ordinarily if one were casually asked which was the most dangerous recreation, rifle shooting or athletics, marksmanship would receive the black eye. But the facts wouldn't bear it out.

To those who have become "gun shy" through the publication of reports of blown bolts and split barrels, all that we can say is:

"Keep on shooting. Treat your rifle right, and the percentage of accidents is all in your favor."

Introducing "The U. S. Model 1917"

By STEPHEN TRASK

ANOTHER wonderfully accurate rifle has been officially added to the already long list of splendid service rifles developed by the United States Army.

Tried and tested, it has been given the official designation, the U. S. Rifle, Model 1917. Yes, you have guessed it. It is the arm which has been so frequently referred to during the past three months as the "modified Enfield"; yet, as the rifle stands to-day, nothing could be more misleading than this designation.

It is true that when the War Department was in search of an arm which could be manufactured in large quantities, it fixed upon the British rifle of 1914 and sought to utilize the factories manufacturing this arm in the production of a rifle to parallel the Springfield as closely as possible. The ordnance experts expected their experiments to result in a thoroughly trustworthy, accurate weapon, but from the trials has emerged a rifle which far surpasses the most sanguine hopes. Upon it the expert, experienced shot, who has superintended the tryouts of the new weapon, has given this verdict:

"The U. S. Model of 1917 that I have been testing out is a wonderful shooting gun. A British rifle expert believes it to be the best military rifle in the world."

Concerning the rifle which has been given the designation "United States Rifle, Model 1917," there are no details of the tests available as yet, save the opinion of the experts conducting them and the general gratification among the ordnance men.

Perhaps it will not be long when these figures are available; an official description of the rifle is already under way. But never let one of the army men hear you refer to it as the "Modified Enfield." That designation, as indicated previously, has been relegated to the limbo of discarded things.

It was all very well, merely as a matter of distinguishing one arm from another, to refer, in the beginning, to this rifle as "Modified Enfield." In its present state of development, however, it can only be reiterated that the results which have been obtained with the Model 1917 rifle have been the product of Yankee genius in adapting the machinery in already equipped plants to the manufacture of a rifle that would be safe and that would take the United States service ammunition.

There are those who still refuse to believe that the adaptation of the U. S. ammunition to a rifle of British type has been accomplished with due regard to the safety of those who will use the rifles. Fortunately, the adaptation has now progressed to a point where a few absolute facts can be submitted in refutation of this misconception.

To begin with, the new rifle was planned to take the .30-calibre service ammunition which exerts 50,000 pounds chamber pressure to the square inch. Very well. As a starter the dimensions of metal in the model of 1917 follow closely those of the Springfield, as designed to withstand this pressure—*except where they are made even stronger.* This strengthening has been principally over the receiver and at the very butt of the barrel. The diameter of the barrel at this point in the Springfield is *1.14 inches.* In the Model 1917 arm, the diameter at the corresponding point is *1.32 inches, with the receiver reinforced to conform to this size.* In addition, the bolts of the new model rifles will be of nickel steel, and the receivers either of nickel or carbon steel.

Not only do the opinion of the expert who believes the new rifle to be the best military rifle in the world and the results of the tests made by him do much to allay all apprehension as to the trustworthiness of the new rifle, but facts

of considerable interest concerning the model 1917 and the arm from which it was adapted are gradually seeping out.

Here is a brief resume of the matter, which may add a few illuminating details to the facts already known. It is a statement from an officer who has given much time and study to the matter. He says:

"When the question of the desirability of obtaining a flatter trajectory with small arms was opened it was found that with the service .303 British Rifle, known as the short Lee-Enfield, it was not possible to obtain as flat a trajectory as desirable, but a compromise was made and the Mark VII. ammunition was introduced. This mark of ammunition differs from the Mark VI. in the bullet having a sharper point and weighing 174 grains instead of 215 grains, the ballistics obtained in the Short Lee-Enfield rifle being 2440 f/s. muzzle velocity with the cartridge heated to 60 degrees Fahrenheit for a maximum chamber pressure of 45,400 pounds per square inch. This ammunition gives a maximum height of trajectory of just under 9 feet for a range of 800 yards.

"It was obvious that the desired maximum height of trajectory of 5¼ feet for this range could not be obtained in the short Lee-Enfield rifle, and the question of the introduction of a new design of rifle was taken up. This led to the design of a rifle of .276 bore firing a rimless cartridge, and at the outbreak of the present war the trials had almost reached finality. One thousand of the rifles had been made and issued to troops for trial, and the design of the rifle was favorably reported on. The ballistics given by this rifle were 2800 f/s. muzzle velocity for a chamber pressure of 51,500 lbs. per square inch. The diameter of the base of the cartridge was .526 inch.

"When the war broke out, all question of re-arming had to be dropped. A large

number of rifles, however, were required and as no gauges for the short Lee-Enfield rifle were available, and as it was considered that the .276 rifle was of simpler design for manufacture and that re-arming would be taken up again at the conclusion of the war, some of the .276 rifles were sent to rifle manufacturers in this country to see if they could make rifles similar in design, but barreled to take the British .303 Mark VII. cartridge. This led to the introduction of the rifle magazine .303, Pattern 1914. This rifle only differs in design from the .276 rifle in the dimensions of the interior of the barrel, in the magazine arrangements, which had to be made suitable for a 'rimmed' cartridge, and the graduations of the sights.

"The diameter of the base of the Springfield cartridge being .473 inch against .526 inch, and the chamber pressure in the Springfield rifle with the cartridge of Model 1906 and in the .276 rifle being the same, it will be seen that the .276 rifle was designed to stand a greater thrust on the breech bolt and recoil surfaces than the Springfield rifle."

CAVALRY AND THE GREAT WAR

That the balance between victory and defeat in the great war may be exerted by a cavalry column sweeping over some future battlefield at a decisive moment is the belief of an American in the French service. Extracts from a letter printed by the *Army and Navy Journal* read:

"I was so interested to hear what you had to say about abandoning cavalry for aviation; if you attend flying school in France rather than in the United States—the climate in the south of France is more favorable to green flying than any weather we have—you will have ample time to learn French perfectly before you go to the front. Personally I have always held a stubborn little opinion of my own about the potential value of cavalry in this war, which I dare say would not meet with the esteem of professional soldiers. I know that in France cavalrymen have deserted to aviation in very large numbers. My opinion, however, is that it may be found in the last few terrible days, if they ever come after some gigantic artillery and infantry attack, that the commander who had an exceedingly large mass of good cavalry may win the day—and the war.

"French officers returning from Russia have said that the Germans used cavalry to great effect in their great advance after the Mackensen attack in Galicia—one movement effected by a very large body, the French estimated it at 130,000 sabres—having had a telling effect in the pushing of the retreat to such a distance that the Russians were unable to recover their ground, as we



LEADING MILITARY AND NAVAL JEWELERS OF AMERICA

Heraldists-Stationers and Designers
of Military and Naval Insignia of Rank
for the Uniform-Service and Dress

REGIMENTAL ARMS
REGULATION DEVICES

Stamped on Stationery Applied on Gifts

MAKERS OF PRESENTATION SWORDS
Civil - Spanish American
and Present World War

Photographs
and other information
upon request

BAILEY, BANKS & BIDDLE ©

Philadelphia

FOR SALE

A Well Established

Military Target Supplies and Printing Business

which will make thirty to forty per cent on investment

Complete manufacturing plant consisting of five printing presses, large assortment of new type, and manufacturing machinery and stock which will inventory between four and five thousand dollars. Sale will include right to manufacture and sell patented target devices one of which has been adopted and used by the War Department.

Ill health compels retirement from business and will sacrifice at about the inventory.

Present military situation makes this a great opportunity with almost unlimited possibilities.

Product known and used in every Army Post. Address No Competition, Care of ARMS AND THE MAN, Washington, D. C.

have seen now for so many months. In France, after the battle of the Marne, the French could not push the defeat which they had unquestionably inflicted upon the German armies, because the French cavalry had been worn out by riding all the way to Belgium and back again. The German retreat was only to the Aisne, which was insignificant, and since then the French have not been able to break them up and get them started in retreat again. I have heard French officers say also that if the German command had brought more of its best cavalry to the west instead of sending so much of it to Russia at the very outbreak of the war it could have spread out to the west of the general advancing line to such a distance that the first battle of the Yser, after the Marne, would have been made impossible, and that the cavalry force might have been able to again turn the French and English flank well to the west of Paris, which might have permitted of another German advance from the Aisne southward. I remember seeing the excellent officer, Colonel —, in Paris during and after the battle of the Marne, and he gave me the impression that either side might have made

the battle decisive with large bodies of cavalry.

"I feel strongly that cavalry will have its day again before the end, and I trust that our own excellent horsemen will have their part in it."

Nearly a million horses and more than a quarter of a million mules is the export record of the United States in the thirty-four months since the beginning of the war. A compilation by the National City Bank, of New York, made on receipt of the reports of the great mortality among American horses in the war zone, shows that the number of horses exported from the beginning of August, 1914, to the present time is in round numbers 920,000, and of mules 330,000. The stated value of the horses exported was \$194,000,000, and of the mules, \$66,000,000. The fact that this is "not a cavalry war," and that automobiles, motorcycles, flying machines and observation balloons are performing much of the service formerly required of the horse in war time, does not seem to have checked the demand for American saddle and draft animals. In the first year of the war the number of horses and mules sent out of the country was in round numbers 375,000, in the second year 470,000 and in the third year, that ended last month, will approximate 450,000. For the fiscal year ending with the month of June, 1915, which is nearly identical with the first war year, the number of horses exported was 289,340, in the next year 357,553, and in the nine months of the present fiscal year, for which official figures are available, 226,839, suggesting that the total for the fiscal year which ends with this month will approximate 300,000.

Whatever reduction is occurring in the number of horses being exported is, however, being made up by the increase in the number of mules sent abroad. They are steadily increasing year by year and up to the very last month for which a record is available. The number of mules exported in the fiscal year ending with June, 1915, was 65,788, in the next year 111,915, and in the year that ended during the current week will approximate 160,000. In the single month of March of the current year, the latest for which figures are available, the number of mules exported was 14,186 against 7,232 in the same month of last year, and for the nine months ending with March 122,664, against 88,289 in the same period of last year. Most of the horses sent to the war go direct to France, and this is also true as to the mules. The total number of horses sent to France since the beginning of the war is 447,000, to Great Britain 234,000; to Canada, which sent many of them to the war, 142,000, and to other countries in the same time 95,000.

250 Yards with a .22 Cartridge

WE have perfected a .22 calibre Long Rifle Lesmok cartridge that is accurate up to 250 yards.

This cartridge has been developed as a result of agitation in this country for outdoor small-bore qualification courses of from 50 yards to 250 yards, and to meet the demands of the British Army Training Camps. We are able to produce this cartridge at the same price as an ordinary .22 calibre Long Rifle Lesmok and our special N. R. A. discounts will apply.

For purposes of identification, this cartridge is being referred to as the "N. R. A. Outdoor .22 Long Rifle Lesmok." Prompt shipments can be secured thru any of the following general selling agents:

National Lead Co., Boston, Buffalo, Cleveland, Chicago, St. Louis, Cincinnati; National Lead & Oil Co., Pittsburgh; John T. Lewis & Bros. Co., Philadelphia, Baltimore; United Lead Co., New York; Selby Smelting & Lead Co., San Francisco.

US AMMUNITION

United States Cartridge Company
2201 Trinity Building
New York

The demands of the war do not seem to have caused any material advance in the prices at which the horses and mules have been exported. The average export valuation of the horses exported was in the first year of the war, \$221 per head, in the second year \$205, and in the third year \$214 per head. The average export price of the mules was in the first year \$193, in the second year \$205, and in the third year of the war \$206 per head. Nor does the exportation of a million horses seem to have had much effect upon prices at home, for the Department of Agriculture in its report on the number and value of farm animals shows the average value of all horses on farms on January 1, 1917, was \$103 per head against \$109 per head on January 1, 1914, a few months prior to the beginning of the war. The loss of a million of the best horses of the country, however, had a perceptible effect upon the total value of farm horses in the country since the Department of Agriculture estimates of the value of all farm horses in the country fell from \$2,292,000,000 in 1914 to \$2,175,000,000 in 1917. It is not surprising that the countries at war find it necessary to draw upon the United States for horses, since we have over one-fifth of the 100,000,000 horses of the world, and far more than any other single country except Russia, which has

about 30,000,000 against about 22,000,000 in the United States, though the Russian supply was by reason of war conditions wholly unavailable except for her own armies.

BILL PROVIDES SERVICE FLAG

A bill providing a service flag to be issued to every family having members in the service of the United States is pending in Congress.

The measure provides that the flag be 3 feet long by 2 feet wide, with a red border 5 inches wide around a white field. In the field it is proposed to place a blue star for each son or daughter of the family in service during the present war.

Before introducing Lieutenant de Tessan, aid to General Joffre, and Colonel Fabry, the "Blue Devil of France," Chairman Spencer, of the St. Louis entertainment committee, at the M.A.A. breakfast told this anecdote.

"In Washington, Lieutenant de Tessan was approached by a pretty American girl, who said:

"'And did you kill a German soldier?'

"'Yes,' he replied.

"'With what hand did you do it?' she inquired.

"'With this right hand,' he said.

"'And then the pretty American girl

seized his right hand and kissed it. Colonel Fabry stood near by. He strolled over and said to Lieutenant de Tessan:

"'Heavens, man, why didn't you tell her that you bit him to death.'"—Kansas City Star.

A tired Tommy, burdened with about five tons of equipment, climbed wearily into a bus outside a London railway terminus. There were no vacant seats and no one offered the weary man a seat. He was dead tired and so resolved to get a seat by strategy. He flashed from his haversack a small bomb.

"This is one of the things we use out there, you know," he remarked to the interested passengers. "See this pin here? When I pull it out like this it should explode fifteen seconds later. They're pretty deadly, too. If I put it back again the thing's harmless." Then, beginning to search frantically, "Gosh! Where on earth did I put that pin?"

The passengers rose in a body and scrambled for the door, tumbling over one another to get off. Tommy watched them go. Then, putting the bomb back in his haversack, he stretched himself full length on the cushioned seat. —Pittsburgh Chronicle-Telegraph.

SEVEN-TENTHS OF A SOLDIER'S BUSINESS

(Concluded from page 424)

dividuals, and 35,000 cartridges were expended; 314 boys qualified for the Junior Marksman's Badge by making 80 out of 100 points in firing ten shots standing and ten prone, at fifty feet, at a target having a half-inch ring counting 10, one inch 9, and one and a half inch 8. Roland Repart, the winner, of Morris High School, made 389 out of 400 in twenty shots standing and twenty prone, a score few riflemen can equal.

"The whole apparatus used in this match cost very little, except the steel plates behind the targets, which never wear out.

The question of rifles is a somewhat difficult one. Before war was threatened, the Ordnance Department loaned Krags and even Springfield service rifles to approved rifle clubs, which usually used them with reduced loads. But this, for obvious reasons, has been stopped. The best thing a new rifle club can do is to unite in procuring a few .22 calibre rifles of a make as much as possible like a service rifle. As their members become interested and skillful they will procure their own rifles.

It is important that all clubs should bear in mind that the shooting should be as practical as possible. Undoubtedly, accuracy can best be attained through the use of fine sights and by careful aiming. But as the great purpose is to train men to shoot as soldiers must do, fine sights should not be encouraged and rapid fire should be.

"A soldier is a hunter, and a hunter of the most dangerous game that exists, and he needs to be trained to shoot as a hunter does. This is with clearly defined sights and very quickly—a snap shot. It will consequently add to the value as well as to the interest of the practice if moving and disappearing targets are frequently used."

MAKING TARGETS FOR SMALL-BORE WORK

(Concluded from page 427)

of those dandy little Winder Improved 200-Yard Rapid Fire Targets handy, your troubles will be nix.) Next, with the sharp knife, cut along both sides of each of these lines, leaving an occasional un-cut portion about half-an-inch long to prevent the parts from entirely separating. On removing the narrow strips containing the lines, you have a perfectly lovely stencil of your D/4 target. And nobody has to be told how to use a stencil. If desired, the inner section, representing the prone soldier, may be removed entirely, thus somewhat simplifying the construction of the stencil and decreasing its weight.

A still easier way of making a stencil for the D/4 target is to cut out the various sections or figures as separate units. Each may then be placed on the receiving paper in turn and the outline drawn. But as the use of such separate units involves the plotting of each target before drawing in the figures, it will be found far less convenient than the stencil in running off a large number of prints, and the greater ease of construction of the separate units will be found more than compensated for by the trouble of plotting entailed.

With the radius-strip and the D/4 stencil prepared, the construction of targets for the new Small-Bore Qualification Course is simple, rapid, and very economical; like re-loading cartridges, if there isn't too much of it at one time, it is good fun. Any tough wrapping paper makes suitable target-timber, especially if the targets are to be mounted on muslin before going on the carrier-frame. One set of such targets for each carrier, eked out with a plentiful supply of stickers, will usually be found ample for an afternoon's shooting.

Excellent stickers for pasting over bullet-holes in these targets may be made from the gummed label-paper which can usually be obtained at reasonable rates at the local job-printery. A caliber .38 wad cutter produces ideal stickers for the purpose from such stock, two or three sheets of which will yield sufficient pasters to last a long time.

If the targets are used un-backed, it will be found good policy to paste the stickers on the reverse side (a good "hunch" for the indoor range when targets are scarce, also). This avoids covering "the black" with white pasters (assuming that your crew is good at "shooting the bull"), and keeps the target easy to read throughout the day's shooting. If, however, it is desired to paste the stickers on the face of the target, and no black gummed label-paper is obtainable, a package of black lantern slide binding-strips, to be secured from almost any dealer in photographic supplies, will yield all the stickers usually needed to spot out holes "in the black" for a blue moon or two.

WARSHIPS WHILE YOU WAIT

(Concluded from page 426)

concrete must depend on the length of the ship. When first thought of it was considered that water-proofing might be obtained by painting with tar or by the application of some other kind of paint. This, too, it was thought would prevent deterioration through salt water. We have no data giving us the material used by the Norwegian constructors to prevent deterioration

through salt water but the science of mixing or, as the mixer machine manufacturers prefer to call it, the "art" of mixing has advanced very materially in the last few years and especially as to mechanical or pneumatic mixing and as to the mixes and materials to be used in water-proofing. Hydrated lime, if properly used, makes concrete absolutely water-proof and, if hydrated lime were used in the mixing of concrete in ship building, the additional painting with salt-water-proof paint would effectively prevent the deterioration. Hydrated lime would also make the concrete more plastic and easier to handle.

In the emergency facing the world it would seem that the rapid construction possible; the fact that concrete ships are water-proof; that wood-boring worms cannot attack the hull; that concrete ships require practically no maintenance; that construction methods are economical and that cost is low; that concrete ships will not rust; caulking is unnecessary; materials for building may be obtained cheaply and anywhere; less labor and cheaper labor may be employed in construction; because there is practically no "skin friction"; because such vessels may be floated before completion; because they are lighter than those of wood of similar size and tonnage-carrying capacity; because barnacles and sea growths find conditions most unfavorable, the Shipping Board can scarcely avoid giving the most serious and painstaking attention to every claim made for the concrete ship.

It is a case of pouring ships while you wait, or by the pneumatic process blowing them into shape, quickly, cheaply and in great numbers. All that is needed is to fire the public imagination that we may have ships and plenty of them by overcoming government inertia.

Let it be a program of getting ships of wood, of steel, and of concrete. The concrete ship has come to stay and the Great War will give it the development it has waited for.

ARMY CIVILIANS TO BE UNIFORMED

A uniform has been provided for the so-called "army civilian." In this class are included chauffeurs and messengers, and certain other employes. The uniform will be sold at cost by the Quartermaster's Corps when these employes are ordered to accompany any of the expeditionary forces.

The uniform calls for: Campaign hats, without cord; woolen service uniform, with bronze button insignia, U. S., for both sides of collar; canvas leggins; and white brassards, to be sewed around the left arm on blouse and overcoat, halfway between the shoulder and the elbow.

Off Hand From the Clubs

Pennsylvania Enacts Law to Aid Clubs

LEGISLATION which makes it possible for the State to take advantage of the knowledge possessed by civilian rifle club members in teaching not only members of State military organizations but the Home Guard units how to shoot, has been enacted by the Pennsylvania legislature.

The law, in brief provides that the county commissioners of each county are authorized at any time when a state of war exists, to appropriate funds for civilian rifle clubs duly chartered by the National Rifle Association of America. These funds must however be used for the maintenance and rental of rifle ranges, the employment of competent instructors and necessary employees and for the equipment and uniforms for such of the rifle club members as volunteer for special military duty in their respective counties or answer the call of the governor of the commonwealth. The act also specifically provides that no moneys shall be thus appropriated unless the practice on such ranges by the members of the club shall be with the United States military rifle, revolver or pistol.

What Governor Brumbaugh has done is nothing more nor less than the establishment of a simple bit of State machinery whereby he can take advantage of the services of trained riflemen. In the organization and training of Home Guard and constabulary units such a machinery should be invaluable. It is a plan which should recommend itself to the governor of every State, and to the government of the United States as well.

This legislation also assures the upkeep of the ranges already established, as well as providing a means for establishing new ranges. In short, it spells State aid to the rifle clubs.

Under the impetus of this law, rifle club work is going well in the State of Pennsylvania, especially in the neighborhood of Harrisburg.

From the Harrisburg Rifle Club, already 35 members have entered the service of the United States, and more expect to enlist. Those who have not actually become identified with the fighting forces are engaged in training all male citizens over the age of 16, who desires the practice, to handle the service weapons which any of them may be called upon to use. The officers of the club are sacrificing the time necessary to carry on the work, the expense of which is defrayed by nominal range fees and by contributions from citizens.

Norton Killed in Service

G. Frederick Norton, a member of the Middletown, New York, Rifle Club, where he was prominently identified with the activities of that organization, was killed "somewhere in France" July 12, while on duty near the front lines with the American Ambulance Field Service. According to reports received by his relatives, his death was due to the explosion of an aeroplane bomb.

Mr. Norton was one of the most enthusiastic riflemen of the Middletown Club and did much in the way of offering trophies and arranging competitions to stimulate interest in the organization.

Mr. Morton's funeral was held at night, because of the proximity of German forces. He was buried at Ludes, a small town about 10 kilometres east of Rheims.

The Rifle In Missouri

In the early days Missouri was proud of her riflemen—and is yet, for that matter. From Daniel Boone, who led the way at the dawn of the nineteenth century, to W. H. Spencer, 1916 National Champion, this grand old state has held a place in the rifleman's sun.

Many years ago, when it was possible to sit on the porch of the conventional log cabin and bark enough squirrels for a mess, the old Kentucky rifle with its 36-inch barrel and set-trigger was always within easy reach of the hardy pioneer who blazed the way for the modern civilization we now enjoy. And that he was an expert shot has never been denied.

At the present time it would be hard to determine just what would constitute an all-round rifle, if such an arm were possible. Not so when our grandfathers settled in the show-me State. The squirrel rifle, as it was sometimes called, was also used to slay turkey and deer; and many a red man was made good through the agency of the old muzzle-loader, which we have been taught to believe developed sufficient accuracy to perform feats now considered impossible.

The oldest settler still relates tales of the marksmanship of Daniel Boone that seem uncanny, and it would be almost sacrilege to doubt the ability of this grand old man of early Missouri to perform stunts with the flint-lock that could never be duplicated by our most expert rifleman when armed with modern equipment of the most expensive type.

When Sam and Jake Hawken opened their gun shop at Main and Washington Avenue, St. Louis, about 1833, and let it be known that they were prepared to remodel regulation flint-lock rifles to take the newly invented percussion cap, they did not lack for business. "Hawken's" rifles soon became standard and many a settler journeyed to St. Louis to place his order with Hawken Bros. to make over a flint-lock or bore a new rifle, and waited until it was finished in order to "tote" it home with him.

While much has been written about the perfect marksmanship and wonderfully accurate guns of our forefathers, riflemen are just now probably more interested in present-day arms and their uses, and the writer will endeavor to tell briefly what is being done at this time by Missouri riflemen of the modern school.

Last year, for the first time in the history of the National Matches, as the annual matches of the National Board for Promotion of Rifle Practice are called, civilian teams and individuals were allowed to compete with the military organizations. A team from this State, composed of members of the Mound City Rifle Club, journeyed to Florida and spent nearly a month participating in the different matches in competition with officers and men of the regular service, militiamen and civilians from the different States.

While the National Rifle Association is nation-wide in scope, Government rifle clubs in Missouri affiliated with the National Association are quite a factor in military rifle shooting. With seventeen clubs whose membership range from 30 to

over 100 each scattered over the State, it is possible for anyone interested to join one of these clubs and participate in the advantages offered. Applications sent to any of the following organizations will bring prompt response from the secretary, with information regarding membership: Adrian Rifle Club, C. G. Blow, Secretary, Adrian, Mo.; Atlas Rifle Club, R. T. Butler, Secretary, Joplin, Mo.; Bowling Green Rifle Club, Guy M. Wood, Secretary, Bowling Green, Mo.; Brunswick Civilian Rifle Club, S. P. Soesenson, Secretary, Brunswick, Mo.; Campbell Rifle Club, A. T. Pollock, Secretary, Campbell, Mo.; Caruthersville Rifle Club, Wm. L. Limbough, President, Caruthersville, Mo.; 1st Mo. Infantry Rifle Club, Geo. A. Bilsbarrow, Secretary, St. Louis, Mo.; Jefferson Barracks Rifle Club, Lt. A. G. Strong, Secretary, Jefferson Barracks, Mo.; Jennings Rifle Club, Edward J. White, Secretary, Jennings, Mo.; Kansas City Rifle Club, F. A. Wenzel, Secretary, Kansas City, Mo.; Lexington Rifle Club, E. E. Shriver, Secretary, Lexington, Mo.; Mexico Rifle Club, Orlando Worrel, Secretary, Mexico, Mo.; Mound City Rifle Club, E. W. Mills, Secretary, Clayton, Mo.; St. Louis-Colonial Revolver Club, E. A. Kronld, Secretary, St. Louis Mo.; St. Joseph Rifle Club, W. C. Stewart, Secretary, St. Joseph, Mo.; Spanish War Veterans Rifle Club of Kansas City, E. A. MacBride, Secretary, Kansas City, Mo.; Webb City Rifle Club, O. S. Wilfley, Secretary, Webb City, Mo. If there is no club in your locality, call a meeting of those interested, and organize one. General Fred H. Phillips, Secretary National Rifle Association, Washington, D. C., will furnish application blanks and instructions for organizing. Some of the Missouri associations are doing much to promote interest in rifle shooting, and experts in this State have on several occasions made scores which have attracted country-wide attention.

The Missouri State Rifle Association has conducted annual tournaments which have drawn many entries from this section and some from distant States. This Association held the first tournament at which concurrent events were staged for rifle, revolver and shotgun.

At the National Matches held last year Missouri won the Civilian Team Championship match from a field of forty teams representing the cream of non-military organizations drawn from the entire country. On the following day Missouri won the open Pistol Team Championship match in which thirty-two teams were entered, including the crack militia organizations. In addition to these victories by the team, individual members won many prizes. A Missourian, W. H. Spencer, member of the Mound City team, won the National Individual match carrying with it title of Military Rifle Championship of the United States. In this event there were 932 competitors. Other members of the team won many prizes for excellent marksmanship, and the Missouri men probably won more honors than any other of the fifty-eight State teams competing.

In view of the facts shown above, we feel justified in reiterating that Missouri has good grounds for being proud of her riflemen, and we cannot refrain from expressing the wish that a more general interest will soon be aroused.—C. C. Crossman in Wild Life.

Sighting Shots

Editor ARMS AND THE MAN:

During these trying times I rather think a lengthy discussion of what has, might, or could be done to an 8-inch bull's-eye at 300 yards is more or less out of place and tiresome to say the least. However, before launching out on the matter I have in mind I would like to touch on the subject of the famous "Linder target"—rather a touchy matter and possibly justly so. When I mildly suggested that perhaps some error had been made, it was not my intention to question my good friend Linder's attainments in the grandest sport of all. I would like to go on record as a great admirer of his in more ways than one, a better fellow I have yet to meet. His demonstration of ability in the Grand Aggregate and the trying conditions under which he shot the 1,000-yard stage of the National team match are ample excuses for any one developing a feeling of satisfaction. With a little of the conceit which all riflemen, near-riflemen and the fellows that can "kill running game" but don't do so well at the targets, feel I point with pardonable pride and satisfaction to a fair record at Jax, i.e.—After slight reflection have decided not to enumerate principally because down in my heart I know that any number of men there could teach me considerable about the game luck, and conditions are an important factor, in fact my ignorance is responsible for offending my good friend Linder. We are all more or less prone to giving vent to our views and our views, when honestly given, are the expressions of ideas developed from experience; the more limited one's experience the less weight his views carry. I plead guilty to being young and experienced only in a shooting sense, particularly 300-yard shooting, to the happenings on our local range, the Los Angeles R. R. Club. During a period of eight years there has been recorded a total of 3 possibles on this range, one only being in competitions. In the light of recent developments and the records made on the "Ellis self-registering target" at Goat Island, and also "in the woods" I feel that my limited experience is responsible for an offence offered my old tent mate Linder, and for which I offer humble apology.

Now this other matter I have in mind might be brought up in the nature of a question, i.e. Has anything been done by the War Department along the line of organizing the N. R. A. experts? Probably a great number have volunteered and others will probably be drafted. How about the considerable number of old timers, married and with families who in my estimation would be of considerable value to the Government as instructors of rifle practice. This latter class is made up of men who can't see their way clear to enlist and in a measure desert their families until there is an absolute necessity; the pay of a private or non-com. would hardly suffice to keep a family during this period of H. C. L. Has the Government anything to offer this unfortunate class? If there was a grade or rating that could be offered this class without the necessity of attending an officers' school for three months, I feel certain that a great number of desirable and quite necessary men would volunteer for the work and as a result relieve a like number who are trained along broader lines in a military sense.

A. L. THOMSON,
Pasadena, Cal.

The range of the Rochester National Defence Contingent Rifle Club suffered considerable "weathering" last winter. The

frost pushed in the front and rear walls of the target pit, and the continuous rains of the Spring added to the damage so that before shooting this season it was necessary to rebuild the butts. This has been done, sliding targets have been installed, and the club is able to take care of many more shooters on the range than previously.

A Woman's Auxiliary has been organized by the Santa Fe, New Mexico, Rifle Club. At the outset the auxiliary numbered 16 members.

Members of the Iroquois Rifle Club of Louisville, Ky., are assisting in the establishment of a rifle range for training the members of the National Army who will receive instruction at the Louisville Cantonment. The officers of the Club tendered the services of the organization which were accepted.

About 50 residents of Frederick, Wisconsin, were recently called upon by the sheriff to form a posse and pursue a murderer. When the vigilance committee had gathered, it was found that hardly any two of them had guns of the same, or similar, pattern. Realizing that if called later for home duty, this would be a serious drawback, the men have set about the formation of a rifle club.

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. Can a life member, going into the service, sell his Springfield to the rifle club to which he belongs, or to an individual member of the club?

A. When a life member purchases an arm outright, it becomes his property to do with as he pleases. Under these conditions, the sale might be made either to the rifle club or to an individual member. It is desirable however that if the sale is made to an individual, he be a man who has qualified as a sharpshooter or an expert rifleman, since the War Department desires Springfields to fall only into the hands of experienced marksmen.

Q. Now that it is impossible for rifle clubs to obtain ammunition from the government, what course of fire will govern the annual N. R. A. Members' Match?

A. Whenever clubs are able to obtain full-charge ammunition and service rifles with which to shoot the annual member's match the usual conditions will govern. In cases where ammunition or rifles cannot be had, the match can be shot over the small-bore course.

Q. Is it necessary to give the N. R. A. any advance notice of the date on which a Members' Match is to be shot?

A. This is not necessary. Strict interpretation of the conditions which govern the match and the proper certification of the results is all that is required.

Q. As a matter of general information, would a man who qualified as Sharpshooter or expert over the .22 calibre course be able to obtain title to a Springfield, and will he be rated accordingly?

A. Qualification with the small bore rifle, at this time, is regarded as equivalent to qualification with the service rifle so far

as the ownership of arms and the rating of the shooter is concerned. Indications are that it will require quite as much skill to use the small-bore at the distances prescribed as the full power, at four times the distance.

Q. In qualifying would it be permissible for some of the members to shoot the .22 in competition with the Krag?

A. There is no reason why such members of a club as have Krag rifles and ammunition therefor should not use them in qualification shoots under either the old or the new full-charge course. Those not having Krags or Springfields however can shoot the tentative .22 calibre course as outlined recently by the N. R. A.

Q. In shooting my Krag carbine nearly 25 per cent of the shells split in the neck. Will these be suitable for reloading with low pressure powder?

A. To reload a shell which has begun to split, no matter how slightly, is a risky proposition.

Q. When I purchased my Krag carbine and ammunition, I signed an agreement to dispose of them neither directly or indirectly. I see quite a number offered for sale? How is this?

A. Advertisements of the kind you mention are usually inserted by life or annual members who are given absolute possession of the arms they purchase, or by members who have acquired full title through qualification. Such men undoubtedly have the right to offer their guns for sale, but they cannot dispose of them save to members of recognized rifle clubs.

Q. For the benefit of certain ambitious and experimental members of my club I would like to inquire whether a strap around the knees in the sitting position, rapid fire, is permitted by the N. R. A., the strap of course entirely separate from the rifle, and used to steady the knees? These gentlemen got the idea from women shooters with tight skirts that held the knees steady in this position and want to know why mere women enjoy such advantages?

A. The N. R. A. does not recognize the use of a strap in this position. However, there is no ruling upon skirts.

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

CIVILIAN

Alabama

Marengo Rifle Club, Demopolis—George Darms, secretary; B. F. Elmore, president; L. B. Braswell, vice-president; Robert Mayer, treasurer; T. C. Savage, executive officer. Membership, 57.

Pennsylvania

Washington Rifle Club—P. V. Blond, secretary; R. M. Cook, president; George C. Perry, vice-president; Frank M. Berthel, treasurer; J. R. Eriser, executive officer. Membership, 24.

Texas

Gallia Rifle Club, Sealy—E. L. Gallia, secretary; J. W. Waldrop, president; Steve Sodolak, vice-president; Jos. Sailer, treasurer; E. J. Gallia, executive officer. Membership, 60.

Loyalty Rifle Club, San Antonio—E. C. Threadgill, secretary; J. D. Lowery, president; R. D. Jones, vice-president; J. R. Morris, treasurer; Warren West, executive officer. Membership, 17.

With the Small-Bore Outdoor League

UPON the strength of the excellent score made by the Washington, D. C., Rifle Club in the fourth week's match of the N. R. A. outdoor small-bore series, this organization holds its place at the head of the list at the close of the fifth match.

The aggregate which kept the club in the lead two successive weeks is 4641 out of a possible 5000, which score gives the Washingtonians a lead of 5 points over their nearest rival, the Kiowa Shooting Club, of Des Moines, Ia. This difference is, however, just half of the lead which the shooters in the National Capital had at the end of the fourth week of shooting.

The weekly scores brought the Kiowa Shooting Club to the front on a total of 949, with the Milwaukee Rifle and Pistol Club second and the Brooklyn, New York, Rifle Club third, each on a score of 942.

The results of the fifth week's shooting are:

1. *Kiowa Shooting Club, Des Moines, Iowa:* W. E. Kessler, 195; C. H. Kessler, 193; J. E. Fines, 191; Berry, 186; B. G. Simms, 184. Club total, 949.

2. *Milwaukee, Wis., R. & P. Club:* G. E. Meisenheimer, 194; Emil Teich, 190; H. W. Mansfield, 190; N. E. Dahm, 184; Lawrence Teich, 184. Club total, 942.

3. *Brooklyn, N. Y., Rifle Club:* L. J. Miller, 193; P. F. Lahm, 191; L. J. Corse, 191; Henry J. Korb, 188; W. Coffin, 179. Club total, 942.

4. *Los Angeles, Cal., R. & R. Club:* L. Felsenthal, 189; E. D. Neff, 188; John W. Siefert, 187; G. L. Wotkyns, 186; E. C. Crossman, 184. Club total, 934.

5. *Massachusetts Rifle Association, Boston:* L. H. McAleer, 191; H. H. Bennett, 187; H. Marshall, 186; W. E. Fennell, 186; A. Neidner, 179. Club total, 929.

6. *Washington, D. C., Rifle Club:* O. M. Schriver, 187; A. Winter, 186; C. F. Himmeler, 185; J. C. Wheat, Jr., 183; W. R. Stokes, 183. Club total, 924.

7. *Jacksonville, Fla., Rifle Club:* Wm. McNamee, 185; J. H. Whitney, 184; D. B. Vincent, 182; A. R. Reynolds, 181; F. E. Brymer, 180. Club total, 912.

8. *Gen. Phil Kearney Rifle Club, Kearney, N. J.:* John Roche, 187; John Crook, 187; L. Marshall, 179; T. Blauvelt, 175; John Lang, 174. Club total, 902.

9. *Canton, Ohio, R. & P. Club:* A. N. Scott, 184; W. K. Perdue, 182; C. J. Foltz, 182; A. E. Hart, 175; E. B. Sunderhaus, 175. Club total, 898.

10. *Birmingham, Ala., A. C. R. & R. A.:* T. K. Lee, 194; A. F. DeFuniak, 187; Frank Flinn, 178; Malven Jones, 178; J. D. Beavin, 151. Club total, 888.

11. *Denver, Colo., City Rifle Club:* C. L. Butler, 192; Capt. A. H. Hardy, 180; L. G. Pridy, 175; Jes. I. Hamsen, 172; C. E. Younkman, 165. Club total 884.

12. *Toledo, Ohio, R. & P. Club:* H. G. Affleck, 183; Bruce Aironi, 178; Henry Yunker, 177; H. S. Crawford, 174; R. W. Roberts, 172. Club total, 884.

13. *Manhattan R. & R. Club, N. Y. C.:* Alfred M. Seeley, 185; David J. Gould, Jr., 184; H. M. Pope, 182; K. H. Fichtner, 173; C. B. Walker, 155. Club total, 879.

14. *Franklin, Pa., Rifle Club:* C. S. Boswell, 193; C. A. Bronson, 181; W. W. Mackey, 169; C. M. Campbell, 164; H. J. Ziegler, 164. Club total, 871.

15. *Scott, Ark., Rifle Club:* Jas. K. Thibault, Jr., 181; W. O. Scott, 180; Henry Thibault, 176; Walter Alexander, 171; Wayne Alexander, 158. Club total, 866.

16. *Joliet, Ill., Rifle Club:* Arthur Gray, 187; H. D. Grose, 177; Leo J. Deiss, 177; Rex McKee, 168; C. M. McKee, 156. Club total, 865.

17. *Warren, Pa., Rifle Club:* J. A. Clark, 183; F. W. Jefferson, 172; J. L. Smith, 171; Geo. P. McAnerney, 170; F. P. Lauffer, 165. Club total, 861.

18. *Pentwater, Mich., Rifle Club:* E. B. Clark, 176; F. W. Finchugh, 175; J. B. Hendrick, 174; P. N. Lagesen, 168; W. D. Girard, 168. Club total, 861.

19. *Cazenovia, N. Y., Rifle Club:* H. C. Thorne, 183; F. D. Holdridge, 175; Geo. L. Woodworth, 173; Chartley Hutchinson, 164; C. F. Huttleston, 159. Club total, 854.

20. *California R. C. R. & P. Club, San Francisco, Cal.:* R. M. Vaughan, 180; L. R. Kessing, 176; Paul Thelen, 171; H. Schmidt, 169; J. S. P. Dean, 152. Club total, 848.

21. *Community Rifle Club, Sherrill, N. Y.:* G. Burlingame, 181; L. Lee, 169; W. Tucker, 166; S. Freeman, 165; H. Freeman, 160. Club total, 841.

22. *Niskayuna Rifle Club, Schenectady, N. Y.:* Harry Cregier, 174; C. S. Dick, 173; Robert Bush, 173; A. C. Bruker, 161; John Crawford, 157. Club total, 838.

23. *New Bedford, Mass., Rifle Club:* P. Coderre, 174; A. Turcot, 168; L. Desjardins, 166; A. Cloutier, 160; A. Aubut, 159. Club total, 827.

24. *St. Johnsbury, Vt., Rifle Club:* A. H. Dismore, 172; Bert Shepard, 169; O. E. Clark, 168; John Tann, 164; C. W. Bradley, 149. Club total, 822.

25. *Citizens' R. & R. Club, Rochester, N. Y.:* G. S. Searle, 173; F. C. Sherman, 164; A. G. Johnson, 162; W. W. Lewis, 160; C. D. V. Hobbie, 160. Club total, 819.

26. *Norwalk, Conn., Rifle Club:* A. N. Clark, 175; J. A. Baker, Jr., 170; B. J. Reynolds, 158; W. E. Mathews, 158; F. M. Hoppel, 155. Club total, 816.

27. *Ontario, Cal., Rifle Club:* C. E. Hare, 167; F. H. Wallihan, 167; E. Casler, 166; C. H. Card, 154; H. E. Strunk, 150. Club total, 804.

28. *Middleborough, Mass., Rifle Club:* A. C. Jinney, 178; Henry L. Pember, 172; J. H. Buckhead, 154; Richard G. Bowen, 149; R. P. Jenks, 141. Club total, 794.

29. *Chicago, Ill., Rifle Club:* John Turner, 177; E. B. Witwer, 163; K. C. Robinson, 155; H. F. Walbaum, 149; John S. Grimes, 140. Club total, 784.

30. *Antioch, Ill., Rifle Club:* H. E. Williams, 163; Bert Worman, 154; Norris Procter, 150; Ed. Garrett, 144; Joe Pauowski, 132. Club total, 743.

31. *Greater Omaha, Nebr., R. & R. Club:* W. B. Riley, 162; C. G. Riley, 147; C. A. Darling, 144; C. L. Mather, 141; M. O. Baydston, 134. Club total, 728.

32. *Canyon City, Ore., Rifle Club:* W. C. Mason, 154; Harry Allen, 142; J. M. Blank, 138; C. G. Guernsey, 138; J. Muldrick, 127. Club total, 699.

33. *Malta, Mont., Rifle Club:* J. R. Ripper, 148; J. R. Crabb, 147; C. M. Piper, 138; W. E. Orrison, 135; J. L. Patton, 112. Club total, 680.

34. *Patchogue, N. Y., Rifle Club:* F. P. Johnson, 136; Chas. C. Cave, Jr., 131; L. R. Neuchant, 123; Jas. H. McKnight, 122; H. L. Rieth, 121. Club total, 633.

35. *Massena, N. Y., R. & P. Club:* Actis, 148; Glenn Barnes, 123; H. M. Hall, 119; John V. Walker, 113; A. E. Johnston, 109. Club total, 612.

36. *Wilsall, Mont., Rifle Club:* C. C. Denton, 131; Clyde Gilbert, 126; V. F. Ellis, 123; C. E. Gilbert, 122; H. F. Brink, 110. Club total, 610.

37. *Holbrook, Arizona, Rifle Club:* C. P. Cooley, 132; D. Ayon, 125; Chas. Osborne, 108; L. H. Mickey, 97; C. Howard, 90. Club total, 552.

38. *Kenosha, Wis., Rifle Club:* Buckmaster, 132; W. E. Gitschman, 124; C. A. Stuart, 103; Dr. Rowell, 57. Club total, 416.

NOTE.—Several reports were received too late for classification.

The aggregate standing of the clubs at the close of the fifth week is:

1. Washington, D. C., Rifle Club.....	4641
2. Kiowa Shooting Club, Des Moines, Iowa.....	4636
3. Massachusetts Rifle Association, Boston, Mass.....	4636
4. Milwaukee, Wis., R. & P. Club.....	4628
5. Brooklyn, N. Y., Rifle Club.....	4616
6. Birmingham, Ala., Ath. Rifle Club..	4557
7. Manhattan Rifle & Rev. Club, N. Y. City.....	4456
8. Toledo, Ohio, R. & P. Club.....	4320
9. Jacksonville, Fla., Rifle Club.....	4319
10. Scott, Ark., Rifle Club.....	4271
11. Los Angeles, Cal., R. & R. Club....	4266
12. Pentwater, Mich., Rifle Club.....	4252
13. Franklin, Pa., Rifle Club.....	4243
14. Cazenovia, N. Y., Rifle Club.....	4231
15. Canton, Ohio, R. & P. Club.....	4228
16. Denver, Colo., City Rifle Club.....	4211
17. Norwalk Rifle Club, So. Norwalk, Conn.....	4183
18. California Rd. Com. R. & P. Club, San Francisco.....	4130
19. Citizens' R. & R. Club, Rochester, N. Y.....	4101
20. Community Rifle Club, Sherrill, N.Y.	4095
21. Warren, Pa., R. & R. Club.....	4082
22. Niskayuna Rifle Club, Schenectady, N. Y.....	3981
23. New Bedford, Mass., Rifle Club....	3972
24. The Greater Omaha, Nebr., R. & R. Club.....	3878
25. St. Johnsbury, Vt., Rifle Club.....	3872
26. Middleborough Rifle Club, Middleboro, Mass.....	3855

27. Ontario, Cal., Rifle Club.....	3845
28. Antioch, Ill., Rifle Club.....	3763
29. Joliet, Ill., Rifle Club.....	3751
30. Chicago, Ill., Rifle Club.....	3378
31. Gen. Phil Kearney Rifle Club, Kearney, N. J.....	3238
32. Canyon City, Ore., Rifle Club.....	3237
33. Patchogue, N. Y., Rifle Club.....	3023
34. Wilsall, Mont., Rifle Club.....	3167
35. Holbrook, Arizona, Rifle Club.....	3127
36. Massena, N. Y., R. & P. Club.....	3100
37. Malta, Mont., Rifle Club.....	2921
38. Kenosha, Wis., Rifle Club.....	2777

FIFTH MATCH MISSING

Ashburnham, Mass., Rifle Club.....	3428
Hydraulic Rifle Club, Cleveland, Ohio...	3073
Olig Rifle Club, Reward, Cal.....	2929
Rochester, Minn., Rifle Club.....	2821
Akron, Ohio, Rifle Association.....	2811

FOURTH AND FIFTH MATCHES MISSING

Hoosier Rifle Club, Indianapolis, Ind....	2390
---	------

THIRD, FOURTH, AND FIFTH MATCHES MISSING

Highland, Cal., Rifle Club.....	1745
---------------------------------	------

SECOND, THIRD, FOURTH, AND FIFTH MATCHES MISSING

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

NO MATCHES REPORTED

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

RICOCHETS

The Tonopah and the Manhattan Civilian Rifle Clubs staged a competition at Tonopah, Nevada, August 12, shooting a course which called for 600 yards prone, 10 shots at B target; 300 yards prone, 10 shots at A target and rapid fire, kneeling from standing, time 1½ minutes, 200 yards on the A target. The result was a victory for the Manhattan team who piled up 846 points to their opponents' 834.

The scores:

	600 yard	300 yard	200 yard	tot'l
<i>Manhattan—</i>				
Connor	44	42	31	117
Harris	37	43	34	114
James	44	45	35	125
Nash	41	41	40	122
Page	44	43	42	129
Rakestraw	40	42	34	116
Wilcox	41	42	40	123
	291	298	257	846
<i>Tonopah—</i>				
Dowler	41	43	42	126
Raycraft	37	38	36	111
Musante	40	44	38	122
Gillan	40	43	40	123
Young	42	40	36	118
Williams	39	43	29	111
Pittman	41	45	37	123
	280	296	258	834

Ralph L. Pemberton is the first member of the Scott, Arkansas, Rifle Club to qualify under the new outdoor small-bore course. He made a total of 224 out of 250 and has been certified as an expert rifleman. Concerning the tryout of the course, the Secretary says:



A Strike
means a catch, when you keep your reel, your rod, your line and your flies in perfect condition with

3-in-One Oil
A famous fisherman says, "Every Angler should carry 3-in-One in his kit." 3-in-One makes reels run right, prevents rust on steel rods, prevents cracking of cane or bamboo rods and makes silk or linen lines stronger. Also keeps "dry flies" dry.

FREE—Booklet and sample of 3-in-One.

3-in-One Oil Co.
165AKF, B'dw'y
New York

Too much time is allowed in this course on the "Rapid Fire." Two and one-half minutes is ample for a single shot rifle and for repeaters that have a magazine capacity of ten or more cartridges one minute is enough. The addition of a 10-shot string change position fire on the A-4 target at 50 yards, target up 5 seconds and down 5 seconds for repeating rifles, target up 5 seconds and down 10 seconds for single shot rifles would add variety and interest to the course.

The D-4 bull looms up "awful big" at 50 yards and is rather delusive as it can be missed easily by over shooting either corner of the very broad bull. Care must be taken to avoid too much elevation in shooting on this target.

G. A. Snyder won the Fort Pitt Rifle Club's 300-yard match, score 47, August 11, at the Highland range. S. F. Hand ran a close second, but was outranked, score 47.

Range conditions were far from perfect. A mystifying haze, hanging low, made a very fuzzy target and tested the eyesight of the members.

The scores:

300-Yard Match

G. A. Snyder....	47	M. J. Shepard... 44
S. F. Hand.....	47	M. N. DuPre.... 42
P. H. Dillman... 45		M. N. DuPue.... 42
G. H. Keil.....	44	F. B. Fisher.... 41
T. C. Beal.....	44	F. C. Douds.... 39

Record shooting season average; some good scores were made:

800 Yards

T. C. Beal	49	V. J. Shepard... 45
G. B. Armstrong. 47		F. B. Fisher.... 45
G. A. Snyder....	46	

1000 Yards

Dr. Atkinson	46
--------------------	----

C. A. Smith won the Members' Match held by the Bristol, New Hampshire, Rifle Club with a score of 131.

J. A. Easterbrook won the Members' Match held by the Maryville, California, Rifle Club on June 17th, with a score of 125. Ten members took part in the match.

Twenty-one members of the Varney, Montana, Rifle Club competed for the Members' Medal on May 6th. Peter Marek won the match with a score of 116.

R. H. Mathew won the Members' Match shot by the Loup City, Nebraska, Rifle Club on June 18th with a score of 121.

Five qualifications have been reported by the Stanton Government Rifle Club, of Wisner, Nebraska. Three were made under the old course and two under the new course. Those qualifying under the old course are:

Experts—Lincoln Riley, 231; C. S. Deily, 216; M. F. McGill, 212.

Those under the new course are:
Expert—A. F. Fuhlrodt, 155.
Sharpshooter—A. M. Emley, 154.

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

Sharpshooters—Henry Albertson, 170; F. H. Schendel, 164; J. E. Cramond, 164; Obert Blessum, 146.

Marksmen—W. C. Wharton, 163; E. G. Borgen, 154; J. M. Torson, 164.

The Mountain View, California, Rifle Club has reported twenty-eight qualifications under the new course. They are:

Sharpshooters—C. E. Smith, 171; F. E. Odell, 164; L. M. Swenson, 162; M. N. Job, 155; Ira Higgins, 154; H. McCombs, 154; O. M. Thompson, 153; Emile Schmidt, 152; Thomas Watts, 152; Ralph Higgins, 145; total, skirmish fire, 76.

Marksmen—Wm. Van Leuwen, 181; Earl Smith, 178; M. E. White, 178; O. H. McCombs, 173; J. W. Lovejoy, 173; Luther Swenson, 173; R. O. Winnegar, 172; Roy Frick, 170; S. C. Swenson, 170; Walter Howard, 178; Joe Cordoza, 163; Joe McPheeters, 159; H. C. Presba, 157; Clarence Newman, 154; C. F. Hartley, 152; Austin Berry, 151; Mark Stevens, 150; O. W. Whaley, magazine fire, 75, total 144.

Crane Technical High School of Chicago, Illinois, Rifle Club has reported seventeen qualifications under the new course. They are:

Experts—B. B. Bulawa, 165; V. Williams, with a changing position fire score of 70. Sharpshooters—W. Gordon, 155; Al. Gloss, 161; S. McConkey, 150.

Marksmen—F. Martin, 171; Ed Schmidt, 163; Benj. Loes, 158; Bob Miller, 173; L. Gorny, 157; Burdick, 153; Wallin, 169; S. Schlidge, 170; Ed Stoetzel, 166; C. Campbell, 174; Ed. Bulawa, 191; Miss W. Gloss, 174.

Twelve members of the Worcester, Massachusetts, Pistol and Rifle Club competed for the Members' Medal on June 30th. A. S. Haywood won the match with a score of 136.

Two marksman qualifications have been reported by the Savoy, Illinois, Rifle Club under the new course. They are:

George Besore, 151; W. S. Redhed, 151.

Six expert qualifications have been reported by the Jefferson, Alabama, Rifle Club under the old course. They are:

T. K. Lee, 235; L. C. Brown, 230; M. F. Jones, 222; Frank Flynn, 214; R. V. Mabry, 211; Percy Reid, 211.

Two expert qualifications have been reported by the Greentown, Indiana, Rifle Club under the new course. They are:

E. S. Stone, 150; E. S. Lindley, 146.

The Scott, Arkansas, Rifle Club has reported under the new course:

Expert—Hugh T. Brown, 143.

Sharpshooter—Wayne Alexander, 174.

Eleven marksmen have been reported by the Antioch, Illinois, Rifle Club, under the new course. They are:

L. Hoffman, 179; James Stearns, 177; P. O. Hawkins, 177; A. Dalgard, 174; C. W. Hill, 165; E. D. Garrett, 163; Joe Panowski, 157; N. E. Proctor, 156; R. E. Webb, 155; G. R. Olcott, 153; W. W. King, 146.

Fifteen marksman qualifications have been reported by the Honeoye Falls, New York, Rifle Club under the new course. They are:

F. E. Barnard, 176; J. Burton, 163; W. E. Durrant, 168; L. E. Gates, 186; F. Grace, 157; M. Hopkins, 156; F. Harris, 167; L. Morosco, 162; C. Mattern, 152; E. Meyers, 174; V. L. Shepard, 188; L. Shepard, 168; E. Tiffany, 166.

The Riverside, California, Rifle Club has reported thirty-two qualifications under the old course. They are:

Experts—Charles G. Darling, 240; W. V. Darling, 235; Frank A. Thomas, 231; F. E. Winship, 229; Martin W. Lundgren, 229; Hugh O. Higgins, 226; Norbert C. Stebbins, 225; Minguel Estudillo, 217; Wm. S. Carmichael, 215; Arthur E. Gaston, 214; Sothus P. Dahlberg, 214; Clifford J. Backstrand, 213; Ben H. Gustin, 212; Harry G. Pattee, 212; Harry E. Mitchell, 211; Purl L. Miller, 211.

Sharpshooters—B. F. Thomas, 209; Jules H. Covey, 208; J. A. Charlton, 207; W. V. Darling, Jr., 204; A. G. Urquhart, 202; F. G. Russell, 201; G. A. Fisher, 199; N. H. Gardner, 197; J. S. Kimball, 197; Fred H. Austin, 195; Arthur L. Brown, 194; John Wog, 192; J. E. Herbert, 192; Paul Ridgeway, 190.

Marksmen—A. C. Fulmor, 171; Laurence H. Brown, 163.

Nine qualifications have been reported by the Ventura County, California, Rifle Club under the old course. They are:

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

The Everett, Washington, Rifle Club has reported eighteen qualifications under the new course. They are:

Sharpshooters—M. O. Lund, 161; B. W. Pasche, 157; L. Chiswell, 183; W. C. Phipps, 172; Omar Schau, 180; J. M. Hisey, 174; A. C. Bosshard, 166.

Marksmen—F. P. Buell, 157; Harold Marseth, 155; G. G. Whiteaker, 169; G. Vingen, 154; W. Ericksen, 170; K. Thorsvig, 166; P. E. Paulson, 179; B. Marseth, 163; John Solbakken, 162; Halver Quam, 172; R. P. Wood, 162.

Three qualifications have been reported by the Rugby, N. D., Rifle Club under the new course. They are:

Sharpshooters—J. G. McClintock, 161; G. D. McClintock, 153.
Marksman—C. H. Shannan, 156.

The Washington, D. C., Rifle Club has reported William F. Heisterman as having qualified as marksman with a score of 175.

Benjamin Grotz of the Ottumwa, Iowa, Rifle Club has qualified as a marksman under the new course with a score of 156.

R. R. Robinson, Jr., of the El Cajon Valley Rifle Club of Bostonia, California, has qualified as an expert with a score of 225.

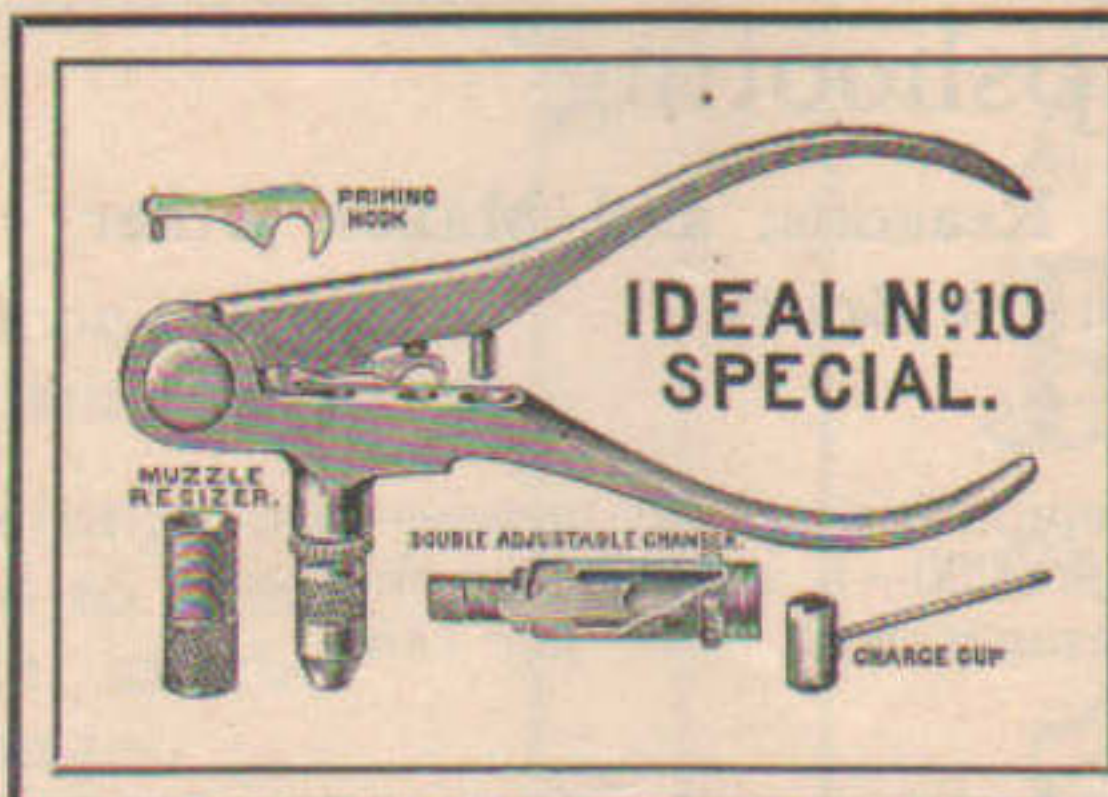
The Members' Match was shot by the El Cajon Valley Rifle Club of Bostonia, California, on July 15th. Fourteen members participated and R. R. Robinson, Jr., won the match with a score of 131.

Ten qualifications have been reported by the Beverly Hills, California, Rifle and Revolver Club under the new course. They are:

Sharpshooters—W. E. Belknap, 152; Daniel Clarke, 154; R. C. Lane, 164; Mark Kelsey, 168; C. G. Hill, 159; L. W. Gregg, 171.

Marksmen—W. R. Clarke, 164; Lawrence Rentsch, 181; Eric Barclay, 162; Watts Clarke, 151.

Seven expert qualifications have been reported by the University of Chicago, Illinois, Rifle Club under the new course. They are:



IDEAL RELOADING TOOLS

**Solve the Wartime Ammunition Problem
Reloads Are Safe, Inexpensive, and Accurate**

Outfits for reloading both Krag and Springfield cartridges are ready for IMMEDIATE DELIVERY.
Orders for single tools will receive the same careful and prompt attention accorded to orders for armory outfits.
Send 6 cents in stamps for Ideal Hand Book No. 26.

The Ideal Manufacturing Co.

Phineas M. Talcott
271 Meadow Street New Haven, Conn.



Newton High Power Rifles Highest velocity rifles in the world. A new bolt action rifle, American made from butt plate to muzzle. Calibers .22 to .35. Velocity 3100 f. s
Price \$50.00. Newton straight line hand reloading tools.

Send stamp for descriptive circular

NEWTON ARMS CO., Inc. 506 Mutual Life Bldg. BUFFALO, N. Y.

E. F. Ingals, Jr., 146; W. F. Loehwing, 141; R. V. Merrill, 140; F. W. Parker, 154; L. M. Parker, 141; J. M. Clark with a changing position fire score of 76, total 137; G. C. Moss, with a changing position fire score of 70, total 132.

The Members' Match was shot by the M. N. Dodge Camp Rifle Club of Rockland, New York, on July 21st. Seven members participated and Walter R. Chrisler won with a score of 104.

Earle Gans of the Red Bluff, California, Rifle Club has qualified as a sharpshooter under the old course with a score of 200.

Two sharpshooter qualifications have been reported by the Commencement Bay, Washington, Rifle Club under the new course. They are:

W. W. Wainwright, 159; F. C. Hofstetter, 151.

Eleven members participated in the Members' Match shot by the Central Rifle and Revolver Club of Des Moines, Iowa, on July 29th and it was won by A. T. Carter with a score of 134.

The Farmington, Iowa, Rifle Club has reported three qualifications under the new course. They are:

Experts—John Hamlin, 143; H. A. McWilliams, 143.
Marksman—Wm. Boreman, 175.

H. Wager of the Saginaw, Michigan, Rifle Club has qualified as a marksman under the new course with a score of 153.

Seventeen members participated in the Members' Match shot by the Renton, Washington, Rifle Club. R. E. C. Emery won the match with a score of 110.

WHAT FOOT SOLDIER COSTS GOVERNMENT

The reason for Liberty loans and other war revenue devices in the United States was made plain by announcement of some figures on what it costs to equip an infantryman for the field.

The total cost of making a foot soldier or "slogger" ready for field service is \$156.30, the clothing expenditure being \$101.21, while \$47.36 is spent for fighting equipment and \$7.73 for eating utensils. The rifle the soldier carries costs \$19.50, while the latest style in warriors headgear, the steel helmet, "sets Uncle Sam back" just \$3.

WANTS AND FOR SALE

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

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

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

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

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

WANTED—By N. R. A. member. New Springfield bayonet and scabbard, and new U. S. army holster and belt for the .45 auto and first aide poche. Curtis G. Holmes, 318 Commerce Ave., Grand Rapids, Mich.

WILL BUY your field glasses or binoculars for cash—this is the time to sell them. Will pay you the full price you paid within past 3 years for any purchased of the F. W. King Optical Company of Cleveland, and a fair price for any others in good condition. Lemaire field glasses wanted especially. F. W. King, 12 Maiden Lane, New York City.

FOR SALE—Two Winchester Scheutzen rifles, one 32-40, the other 22 short, both fine guns. 38 S. & W. Special 6½-inch bbl. with equipment, \$18.00. 38.55 muzzle loading target bbl. \$6.00. H. P. Warner, 41 Spring St., Ilion, N. Y.

FOR SALE—22 Stevens 6 in. Diamond Model Pistol; 22 Winchester take-down Musket, with Lyman windgauge and Globe sights; 22 barrel for Springfield .06 rifle; 25 Rimfire Ballard with telescope; 32/40 Ballard Schuetzen, double set triggers; 35 Stevens repeating rifle, engraved action-fancy stock; 38 Colts Police Positive revolver; 38/45 Bullard Repeating rifle; 38/55 Winchester take-down model 1894, fancy; 45/70 Winchester take-down model 1886, fancy. All in perfect condition and at bargain prices. H. H. Bennett, Beacon Chambers, Boston, Mass.

"Why I Took up Trapshooting"

The Former Amateur Champion Gives His Reasons, and Makes Other Interesting Commentary on the Sport

By RALPH L. SPOTTS

Twice winner of National Amateur Championship at 200 targets—in 1914 and 1916 His 1916 performance—196x200—is record for the event. In 1916 he was third in amateur averages with 95.33 per cent on 3150 targets.

THERE are two reasons "why I took up trapshooting."

First is that after one trial at the traps I was annoyed to find out that I could not shoot as well as others.

Second is a chance remark that I overheard.

In 1909 a registered trapshooting tournament was held near my summer home in Maine. Although I had hunted in the field and had done considerable rifle shooting I had never tried trapshooting. I watched the shooting for several days and finally I was induced to try it. It was with considerable effort and pain, too, as my gun did not fit. I shot at 50 targets and did not break one. Later that day I shot 25 "straightaways" and succeeded in breaking three.

My maiden effort brought forth this remark from one of the observers: "That fellow could not hit a flock of barns and never will."

This remark annoyed me as much as my failure to hit the targets, for it wasn't a pleasant feeling to me to know that others could break the clay targets and I could not. I immediately purchased a trap and had it placed on my ground and practiced there until I could break some of the targets at least. Then I became more interested in the sport and on my return to New York I shot at the clubs I belong to with more or less success. I have disproved the chance remark by winning the National Amateur Trapshooting Championship twice.

A word about trapshooting as compared to other pastimes. I am a great enthusiast on all outdoor sports and competitions, but in trapshooting you meet men who are fair in competition and perfectly willing to aid each other more than in any other sport. One wins or loses almost invariably with the good will of his competitors. In the past eight years I have met thousands of trapshooters and with very few exceptions I am glad to know them and include them among my friends.

There is no sport in the world in which the spirit of competition is more fair or where the standard of sportsmanship is higher than in trapshooting. It is the good-fellowship among the competitors and the appeal of a sport which is fair and clean that is accountable for the marvelous increase in the popularity of trapshooting.

There must be something essentially beneficial in the sport to attract so many people. Golf, Country, Yacht and Women's Clubs, schools and colleges have taken up the sport until it has become a pastime of national interest. It is a sport on which all meet on an equal footing. I like it and recommend it.

No article is complete without a few words to beginners.

My advice to them is: First, select a gun upon the advice of some good shot. Get a gun that fits and adapt yourself to it. Be careful not to stand or so hold your gun but that you are free and easy in your shooting, and remember that if you do not break them it is invariably your own fault and not the fault of your gun or your load. If any of us could shoot any gun or any load as well as it could be shot, we would break them all. So really, my only advice

to beginners is to select a gun that fits and adapt yourself to it and then concentrate, and always remember that no match is ever won or lost until the last shot is fired. That is how I have twice won the Amateur Championship.

Worth While Trap Tales

Many are the tales told among trapshooters about members of the clan and their doings. Two of the stories that have gone the rounds of the trap fraternity are given here.

John Philip Sousa, the bandmaster, and Fred Gilbert, the professional trapshot, are friends of long standing. Sousa at a dinner given in Gilbert's honor, told of his first meeting with "Fritz" and the proposal that Gilbert teach Sousa how to shoot clay pigeons, in return for which instruction, Sousa was to teach Gilbert the most approved way to play a bass drum.

As the music master told it, "Fritz" had confided his great ambition to become the bass drummer of the Silver Cornet Band of Spirit Lake, Iowa, his home town, while, on the other hand, Sousa told Gilbert that since he was known among trapshooters as a musician, he was desirous of making a reputation among musicians as a trapshooter.

The terms were accepted by both the party of the first part and the party of the second part, and instruction began. However, according to Sousa, while Gilbert quickly mastered the boom, boom beats on the drum, he has never succeeded in progressing to the bumpety, boom, boom stage, and the S. C. B. of Spirit Lake still needs a bass drummer.

Sousa's high scores at the traps pay tribute to the great musician as a pupil and "Fritz" Gilbert as an instructor.

The "hero" of this narrative is Tom Marshall, the dean of trapshooting and the game's "official orator."

When the All-American trapshooting team returned from England, after having defeated the best shooting talent of the British Isles, Captain Marshall, with several of his team-mates, toured a number of States giving exhibitions of shooting skill in an effort to popularize trapshooting.

Captain Marshall acted as spokesman of the "missionaries," and prefaced his explanation of the sport with a few well chosen words in which he paid tribute to the particular city in which the demonstration was held.

We are told that among the things he said was, "It is with peculiar pleasure that I come here to —; a place so intimately associated with my early days, for it was in the little red school house over yonder (there is always a little R. S.—over yonder in every section) that I learned my a, b, c's."

This neat little "bull" invariably made a hit and was given liberal space in the newspapers of the towns until the editors—through their exchanges—discovered that "Tom" had learned his "a, b, c's," at least, twenty-five times in as many different places.

It is needless to say that thereafter Captain Marshall never made reference to his early education.



Write for These Books on Game Birds and Game Farming

They tell all about game farming—the profit and pleasure to be obtained from it. "Game Farming for Profit and Pleasure" is sent free on request. It treats of the subject as a whole, describes the many game birds, tells of their food and habits, etc. "American Pheasant Breeding and Shooting" is sent on receipt of 10c. in stamps. It is a complete manual on the subject.



HERCULES POWDER CO.
1153 Market Street
Wilmington Delaware

REMINGTON NOTES

G. T. Meloy was high gun at the La Crosse Gun Club on July 15th. He broke 147 out of 150 clays, shooting on "Perfection Combination" of a Remington pump gun and Nitro Club "Speed Shells."

The Sleepy Eye Rod and Gun Club had a good turnout at their shoot on July 22d. Dr. F. H. Allen was high amateur, with 149 x 150. He shot Nitro Club "Speed Shells."

At the Burnham Gun Club on July 19th Ed. Hellyer, Jr., was high gun. He broke 149 out of 150 with Arrow shells.

The Geneva Rod and Gun Club had a good turnout on July 12th, when 50 followers of the clay saucer faced the traps. A. C. Skutt was high gun, with 146 x 150. He shot the "Perfect Combination," a Remington pump gun and Nitro Club "Speed Shells."

Breaking 146 out of his quota of 150 rocks, Max Kneussl was high gun at the Peoria Gun Club on July 15th. He used Nitro Club "Speed Shells."

Dan Glenn broke 47 out of 50 rocks and was high gun for the day at the Troy Gun Club on July 11th. He shot the "Perfect Combination" of a Remington pump gun and Nitro Club "Speed Shells."

Forty-five shooters faced the traps at the Bradford Gun Club on July 19th. Max Kneussl, shooting Nitro Club "Speed Shells," was high gun, with a score of 145 x 150.

Missing but 3 of his quota of 150 clays, Al Koyen won high amateur average at the Bedford Gun Club on July 20th. He used Nitro Club "Speed Shells."

The Rex Cross Tournament of the Pastime Gun Club, held on July 15th, brought forth a good turnout of trapshooters. J. W. Hartwick was high gun, with 94 x 100. He shot the "Perfect Combination," a Remington pump gun and Nitro Club "Speed Shells."

J. F. Fisher was high amateur at the Goldfield Gun Club on July 17th. He broke 145 out of 150 clays with Nitro Club "Speed Shells."

Shooting the "Perfect Combination," Wm. Shean broke 192 out of 200 rocks at the Anamosa Gun Club on July 23d. He was high gun for the day.

THE
Winder System
OF GALLERY TARGETS

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

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

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

Winder Targets are inexpensive.



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

Aiming Targets, mid and long range, each .....	.05
Windage and Elevation Charts, each .....	.25
200-yard Targets, slow fire, per hundred .....	.35
300-yard Targets, slow fire, per hundred .....	.40
500-yard Targets, slow fire, per hundred .....	.40
600-yard Targets, slow fire, pin wheel, five targets to sheet, per hundred targets.	.40
600-yard Targets, slow fire, 5 targets to strip, per hundred .....	.40
800-yard Targets, slow fire, 5 targets to strip, per hundred .....	.40
1000-yard Targets, slow fire, 5 targets to strip, per hundred .....	.40
200-yard Targets, rapid fire, per hundred .....	.35
300-yard Targets, rapid fire, per hundred .....	.35
Wind Clock and Flag	3.75
"X"-Target, "Gallery Practice," per hundred .....	.40

Order through ARMS AND THE MAN
1110 Woodward Building, Washington, D. C.

Are You Reloading



Send Us the Name and Caliber of Your Rifle

RIFLE SMOKELESS DIVISION

E. I. DUPONT DENEMOURS & COMPANY
WILMINGTON, DEL.

The Wonderful Results Obtained by Using

J. L. N. Gunoyle

Makes it necessary for every rifleman to have it in his kit.

The most perfect solvent for nitro powder.

Sample on Request

E. HALSTEAD HAVEN
95 FRONT STREET NEW YORK CITY

FREE SAMPLE

IDEAL GUN PATCHES

WRITE TODAY

Ideal Gun Patches, specially prepared for .30 calibre rifle, are just the right size and very convenient. We will send 1800 of these patches, express prepaid, on receipt of \$1.00.

THE IDEAL CHEMICAL COMPANY
27 McLean Street Wilkes-Barre, Pa.

Aiken Rifle Range Target

Official Army Target in use on all State and Government Ranges

BUY DIRECT FROM THE FACTORY

For prices write to

The Aiken Engineering Company
WINTHROP HARBOR ILLINOIS

THE NATIONAL RIFLE ASSOCIATION HAS GIVEN AN ORDER FOR

FIFTY SERVICE TARGETS

To insure immediate deliveries to Rifle Clubs desiring to install outdoor ranges. These targets are of steel construction, strong and durable. They are light running and make pit service a pleasure instead of work.

The targets operate as single sash, speed up the firing line, avoid confusion in scoring and reduce target pasting and changing to a minimum.

Service Targets Complete, \$50.00	Standards, \$1.50
Interior Frames: 4 x 6, \$1.10	6 x 6, \$1.20 6 x 10, \$1.70

Rem Oil on the Rio Grande

DURING the mobilization of United States troops on the Texas border last year thousands of Army rifles were kept free from rust and in excellent condition for immediate service because REM OIL was used.



It has been demonstrated that REM OIL is a nitro solvent, rust preventative and lubricant, and may be depended upon to keep any firearm as bright and fresh in appearance as when it first came from the maker's hands.

Every sportsman should have a bottle of REM OIL in his gun cabinet, and use it frequently to keep his gun free from rust and the acid residue of smokeless powder—his worst enemies.

Any Remington UMC dealer will supply you with REM OIL.

2½ oz.
Bottle
25 cents



One Quart
Can
\$1.25



THE REMINGTON ARMS UNION METALLIC CARTRIDGE CO.
Incorporated

Largest Manufacturers of Firearms and Ammunition in the World

Woolworth Building

New York City

CHARACTER

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

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

Products which project the personality and individuality of our clients, constitute the secret of our success.

Thomsen-Bryan-Ellis Company

WASHINGTON

BALTIMORE

NEW YORK
Woolworth Building

PHILADELPHIA
Widener Building

The Warner & Swasey Prism Terrestrial Telescope

Used by the U. S. Signal Corps
and the National Guard of
Various States, Rifle
Clubs, Hotels

And in many Summer Homes on
Seashore, Lake and Mountain

The Warner & Swasey Co.
Cleveland, Ohio



**Sell
Your
Surplus
Shooting
Equipment**

Our For Sale, Wanted and Exchange Column is at your disposal and for this service we make

NO CHARGE

if you are a subscriber and your subscription is paid up. If you are not entitled to a free insertion, send in the advertisement anyway and if it does not run more than a half inch the charge will be fifty cents; one inch, one dollar.

ARMS AND THE MAN

Advertising Department

Washington, D. C.