

U. S. AMMUNITION FOUND DEFECTIVE
THE ABSORPTION OF OBSOLETE ARMS
NAVY BOARD DESCRIBES GERMAN U-BOATS
REAL RECREATION ISN'T SLAUGHTERING
WILD LIFE

A SKIRMISH RUN FOR PISTOLS

CALCOLD .

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

VOL. LXII, NO. 24



(10)

SEPTEMBER 8, 1917

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WASHINGTON, D. C., SEPTEMBER 8, 1917

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U. S. Ammunition Found Defective

By STEPHEN TRASK

OR the first time in a score of years, suspicion has been cast upon part of the ball-cartridge output of Frankford Arsenal.

The announcement that a portion of the ammunition which accompanied the American Expeditionary Force to France was drawn from the vintage now considered unsafe has complicated matters considerably. The appointment of a Board of Inquiry had been asked, and a storm of criticism was directed against the Ordnance Department previous to the hearings before the Senate Committee on Military Affairs.

At the hearing it became quite apparent that the Ordnance officials acted with commendable promptness as soon as the defective ammunition was discovered. The experts from Frankford Arsenal were also able to assure their inquisitors that knowing what caused the defects, will enable them in the future to be constantly on guard and so obviate any further trouble.

Fortunately, so far no serious injury has resulted to any rifleman—either military, naval or civilian—as a result of the defective shells, and the truth of the matter, so far as the Pershing supply is concerned, is that so far it is not definitely known whether or not the cases of cartridges sent to France are sown freely with hang-fire and mis-fire cartridges. No report has come from abroad.

The Ordnance officials, however, have every reason to believe that when Pershing's men undertake to indulge in practice with the ammunition which was furnished them, they will find that the contents of many ammunition chests are of more than uncertain quality, because other shipments of the same vintage have proved so highly unsatisfactory.

Accordingly, General Pershing was warned by urgent message some weeks ago to use the ammunition in question only for slow-fire practice and to be on guard against imperfect cartridges.

In the meantime, incontrovertible evidence has developed on naval and civilian ranges in the United States which establishes beyond all doubt that primers which would "sour" after a few months of ageing were used in several millions of ball cartridges for the model 1903 rifle, turned out at Frankford between January 1 and June 1, 1917, and that this ammunition is not only far below the usual standards, and thus open, in bulk, to grave suspicion, but is positively unfit for use and dangerous.

All of the ammunition of this vintage which was distributed in the United States has been recalled, and even before any publicity was given the matter the cause had been located and remedied.

About fifteen years ago, the Ordnance Department abandoned the use of mercuric primers in service shells. This step was taken principally, as every one familiar with rifle shooting knows, because the Government desired to reload empty cartridge cases for practice, thereby practicing economy and ob-

taining a larger supply of ball cartridges from each appropriation than before, the mercuric primer so affecting the brass case that reloading was not advisable.

Otherwise, the mercuric primer was quite satisfactory, so far as the life of the ammunition was concerned. It is said that some of the ammunition which went to the bottom of Havana harbor with the battleship *Maine*, when brought to the surface years later, was tested and seemed to show no deterioration.

When the mercuric primer was replaced with the non-mercuric primer an entirely new composition was used, the priming being accomplished by inserting in the vent of the brass cartridge case a cup of gilding metal containing, to quote from the official description of the Model 1903 rifle, ".48 grain of non-fulminate composition, composed of tersulphide of antimony, potassium chlorate, sulphur and ground glass. A disc of shellacked paper covers the composition to protect it from moisture, and to prevent electrolytic action."

From the beginning, the non-mercuric primers gave satisfaction, the potassium chlorate, one of the principal ingredients, being imported, chemically pure, from Germany.

Of course, occasional hang-fires or mis-fires were discovered in the daily tests at the Frankford Arsenal, but for many years the percentage of these imperfect shells was so small as to occasion no trouble and very little notice.

Following the outbreak of the European war, with its consequent shortage of potash products, since Germany has long controlled the potash of the world, the Ordnance Department was faced with the task of locating a domestic supply of potassium chlorate.

Eventually the domestic supply was offered, accepted as pure, and used in the manufacture of primers, beginning about January 1, 1917. So far as the daily tests were concerned, the primers functioned satisfactorily, and there was no indication that anything was wrong.

Early in May, however, a complaint was received from the Navy Department that a shipment of ammunition had developed mis-fires and hang-fires, and on May 9th the manufacture of all ammunition at Frankford was temporarily suspended. An investigation started at that time disclosed the fact that the mis-fires and hang-fires complained of were directly traceable to a decomposition which had set in destroying or partially destroying the primers in the ammunition made since January 1st.

Further tests developed that the potassium chlorate supplied from a source in this country contained a minute percentage of bromate, the salt of bromic acid. The affinity of this bromate for the other ingredients of the primer set up a slow chemical action, one of the resultants being sulphuric acid, which caused the primers to "sour," leading to mis-fires or hang-fires, according to the extent to which the deterioration had progressed.

By June 1st the Ordnance Department had obtained a supply

of primers the quality of which was beyond question, and the manufacture of ammunition was resumed.

In the meantime, however, tracing the shipments from the batch under suspicion led to the discovery that something less than one-third of the ammunition which went with Pershing's Forces had been primed with the suspected potassium chlorate. Pershing was immediately notified that his ammunition was under suspicion, and all that had been distributed in the United States was recalled. By that time other reports had been received from naval ranges and from civilian ranges. These reports seem to indicate that from 20 to 30 per cent of the cartridges distributed in this country have failed to function. The

figures resulting from the ordnance tests of the suspected ammunition, however, do not run this high, being placed at about 10 per cent.

The ordnance officials, however, take the attitude that no cartridge can be classed as perfect or imperfect until it has been fired, and consequently the entire lot of cartridges manufactured between January 1st and June 1st, and in which the imperfect percentage developed, must of necessity be regarded as bad, because there is no way of weeding out potential mis-fires and hang-fires,

There is little question but what the department has accurately located the cause for the imperfections in this batch of ammunition. The new primers which are now being used are as nearly chemically pure as it is possible for science

to make them, and every precaution is being taken to guard against a recurrence of imperfect ball cartridges.

When General Crozier, Chief of Ordnance, appeared before the Senate Committee on Military Affairs, September 3d, in support of his request for the appointment of a board of inquiry, he said: "This is one of the troubles which we must expect under the scarcity of chemicals caused by the interruption of the world's markets. We may have others, but they will be as nearly unavoidable as it is possible to make them. Others of the Allies had their troubles at the beginning of the war, owing to the shutting down of chemical supplies trom Germany. I have every confidence that an inquiry will show no particular person at fault in this case."

CONCERNING THE MACHINE GUNNER

I TOW the machine gun has influ-L l enced modern military tactics, how its use calls for highly trained specialists and how every device possible is used to locate hidden rapidfirers and put them out of business is told in the course of a discussion of "The War of Specialists," by Captain Louis Keene, C. E. F., in the Scientific American.

According to Captain Keene, a machine gun can do the same work as 100 riflemen, bringing the same amount of fire to bear on any given point and occupying considerably less room. "Consequently," he says, "it is possible to bring a tremendous fire to bear from a very restricted space—a sap-head, coroner of an old trench, anywhere almost.

"Imagine a machine which is capable of doing the work of 100 men and requires a frontage of only about a yard, as a reserve power. To bring its equivalent, 100 men, across the "Tops" or through communication trenches takes time, causes obstruction of traffic, and is also conspicuous. In a crisis, or at a threatened point, machine guns are invaluable. The machine gun, being inanimate and mounted on a fixed tripod, is not affected by the excitement which is always present during action.

"Machine gunners are highly trained specialists picked on account of their qualifications and specially trained to their work. It is considered in the British Army a point of honor to keep your gun going. Consequently your reserve power is easier to handle, requires fewer orders, takes up much less space, and can be relied on to do the utmost.

"Germans from the start have been using a great number of machine guns, therefore saving a large number of men. A few men with a large number

of machine guns can do the work better than a large number of men with 'labor-and-man-saving machine' as an enemy-killer, and a man-saver by enabling commanders to have fewer men in the front and keeping more men in reserve ready for an emergency. The Germans trained men in a special separate organization, the Machine Gun Corps, gave them special pay, special uniform, and extra privileges. This unit was entirely separate from other branches of the service; consequently the information and experience gained in the employment of their arms at the very outbreak of war was quickly assimilated and used to advantage. Similar corps had been suggested by the British authorities, before the war, but this had been rejected on account of expense.

"British guns, individually, did magnificent work at the beginning; but the co-operation which can be carried out only when machine gunners are in a special arm of the service, did not come until we had taken the machine gunners away from their battalions and put them under more central control. It is impossible to estimate the limits to which machine gunnery can go. Co-operation in machine gunnery now extends over the entire front from the North Sea to the Alps.

"Great efforts are made to prevent a machine gun carrying out its full powers by either side. The enemy and ourselves will at no time hesitate to turn a battery of artillery onto anything that even looks like a machine gun or machine-gun emplacement, and, if necessary shells of large calibre will be used in the endeavor to knock it out.

"At Hullock, September 1915, 9.2 and 12-inch guns were used on the troublesome machine-gun emplacements, and more recently it was necessary to send out the "Tanks" before

it was possible to advance. If a battery can knock out 100 men it is worth rifles. In brief, it is simply the use of while; therefore, they endeavor to knock out similar value by "strafing" the machine gun. When it is considered that one machine gun will hold up a battalion, and a few well wired in will hold up a division, the necessity of locating the enemy's guns and concealing your own must be apparent.

"Machine guns are best used from innocent looking positions with good field of fire, such as hay cocks, behind timber, growing crops, bushes, hay ricks, bundles of sticks, etc.; that is to say, from positions which are not obviously placed where you would expect them. They are essentially weapons of opportunity and surprise. "Concealment is the best protection." In the northwest corner to the Grand Place, Ypres, there is a shell hole which measures 50 feet across the mouth of the crater and 22 feet deep in the center, caused by the arrival of a 42-centimeter shell (about 171/2 inches) on a hard pavé road. In another we buried thirty horses. This will show the folly of trying to build up anything strong enough to protect a machine gun from shelling. Of course emplacements are made to withstand small shells, shrapnel and bullets; but every inch put on will make an emplacement more conspicuous and any heightening above the line of a trench will be shelled; therefore I cannot repeat too often 'Concealment rather than protection.'

"Lewis guns are distinct weapons from machine guns and are used by the infantry, and in the front line work they go over with the second and later waves. They are inconspicuous, can be carried easily, and look at a distance like rifles. The rate of fire is quicker and more concentrated than that of a machine gun. The 47 cartridges contained in a drum are fired at the rate of 780 a minute while

(Concluded on page 470)

The Absorption of Obsolete Arms

By "SNIPER"

PART 1

A CROSS the far frontiers of the world's outposts, by camel caravan and mule train, by wheezing, ramshackle, gun-running steamers, patched-sailed traders and greasy whalers, have poured the never-ending crop of obsolete firearms during the past sixty years.

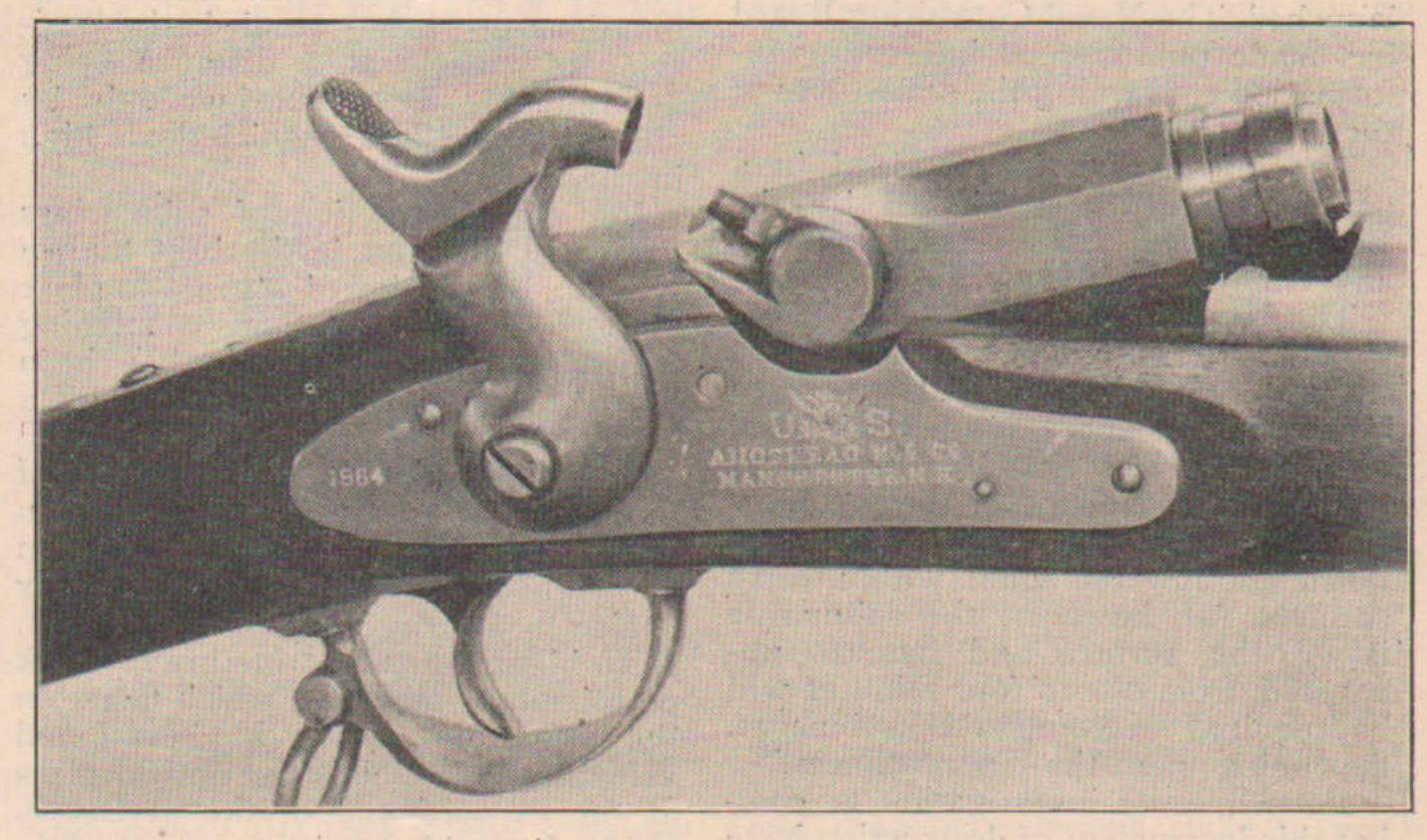
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Over the Outer Rim they have gone, dropping beyond the far horizon, usually to rust out their ancient days as the prizes of savage tribes, the armament of half-civilized armies, or the weapons of opera-bouffe revolutions.

Compare a catalogue of modern weapons with a list of firearms which were familiar to most marksmen at the close of the War Between the States. There were the Burnside, Starr, Joslyn, Merrill, Smith, Gibbs, Gallegher, Sharps, Linder, Hall, Spencer, Sharps and Hankins navy rifle, leather covered; Union, Peabody-Hall, Remington; Winchester 16-shot brass-mounted repeaters; the Henry Rifle which preceded the Winchester, and a score more of commercial and sporting guns, including a long list of shot guns, as well as the old muzzle-loading Springfield of .58 calibre and the thousands of muzzle-loading percussion and flint-lock weapons which had come and gone prior to the Sixties.

A few of these names are still to be heard. They are not, however, applied to the same arms as formerly, since the few companies which have survived have kept their products up with the times and are turning out rifles as different from the obsolete weapons of the past as is the machine gun of the present from the three-barreled "rapid-fire" cannon produced in China during the thirteenth century.

Naturally enough, locked up in the big firearms collections of the world many specimens of almost every firearm ever produced can be found, with the exception of a few ultra-rare types. But the obsolete firearms which form collections are only a small percentage of the original output of the factories which made



Type of action used in the Linder and the Hall percussion breech-loaders which was popular with the natives of the Arctic.

them, and it is the destiny of this greater part of the output of munitions plants of the past which gives an interesting sidelight on the history of firearms.

Often certain types of obsolete weapons appear to be plentiful. In the past job lots of military rifles have even been on sale in city department stores. But suddenly the supply dwindles, and the store of obsolete weapons disappears, having been absorbed completely through some one of a dozen channels of which the average citizen knows little.

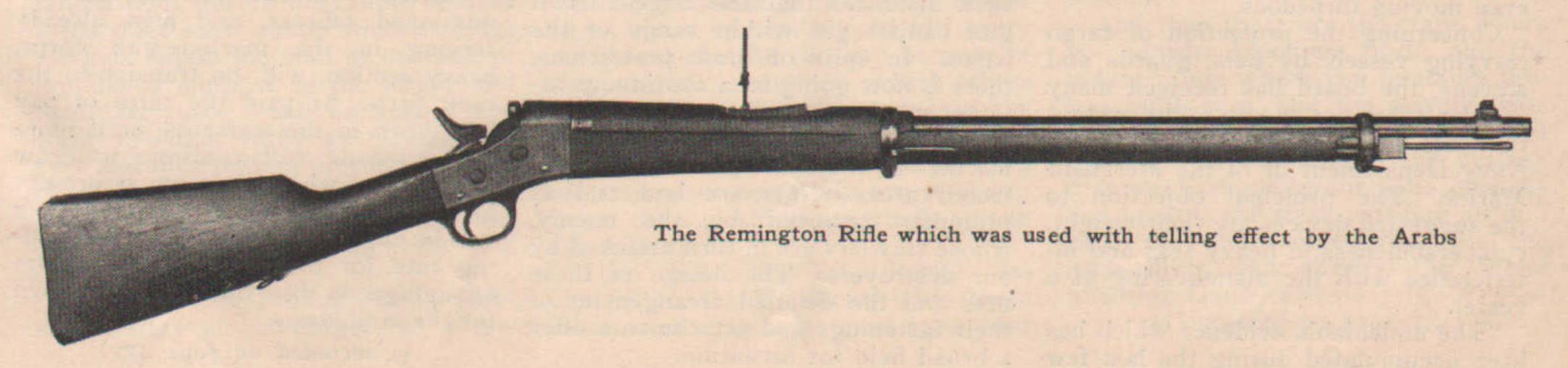
This has been going on for many decades, and the absorption of revolvers and pistols of obsolete pattern has been quite as rapid as that of rifles and carbines. It is said that the entire output of the earliest Colts revolvers, made in New Jersey, was bought up so quickly that in a few years not one was to be had. When at the outbreak of the Mexican war the United States gave Colonel Colt an order for revolvers, he endeavored to locate one of his earlier weapons, to use as a pattern for making the tools

to produce others. Although he offered large sums of money for one of these earlier guns, he was unsuccessful, and was forced to proceed without a pattern, a circumstance which fortuitously resulted in the production of a better gunthan the original.

The huge numbers of obsolete weapons thrown from time to time on the market are the result of two things: in the case of military arms, these great job lots follow nearly every change in the regulation arms; in the case of commercial arms, they follow the rejection by the shooting public of weapons which, while of sound mechanical principle, fail to appeal to sportsmen.

When the seeker after knowledge begins to ask: "What becomes of obsolete firearms?" he must travel farther afield than even the museums of the world. He must penetrate the Australian "back blocks." He must trek across the African veldt. He must drift over the South Sea swells to the Solomons and the Mar-

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BOARD DESCRIBES GERMAN **U-BOATS**

IN order to give the inventors of the I United States a more comprehensive idea of the character of the modern German submarine, against which a destructive campaign must be launched, The Naval Consulting Board has made public some interesting information concerning the sea-wolves of the Hun.

The information is contained in a pamphlet recently published by the Board and entitled "The Submarine and Kindred Problems."

The latest type of submarine in use abroad, the pamphlet states, "has a surface speed of at least seventeen knots an hour and a submerged speed of probably less than ten knots. If running near the surface the periscope might be raised, a quick observation taken, and lowered again, within thirty seconds. If, however, the submarine is on the surface and hatches uncovered, from one to four minutes will be required to completely submerge, depending upon the circumstances."

Four lines of investigation to combat this instrument of destruction have been followed by the Naval Consulting

Board. They are:

1. Means of discovering the approach of a hostile submarine and locating it so as to permit of prompt action for combating its attack.

2. Protection of cargo carrying ships by nets, guards and screens.

3. Protection through decreasing the visibility of vessels.

4. Methods of destroying or blinding a hostile submarine.

Aeroplanes are one of the best means for detecting the under water boats, even when they are submerged to a great depth. The chief difficulty has been to make use of these aerial detectors far out at sea. The construction of "mother ships for carrying and launching aeroplanes" is a good way to meet the problem, but present conditions make such construction a slow process. Sound recording devices based on the principle that water is an excellent conductor of sound, are being carefully tested, and there is promise that investigations in this field may some day make it possible to locate surface vessels, submarines and even moving torpedoes.

Concerning the protection of cargo carrying vessels by nets, guards and screens, the board has received many proposals, but not one up to the present time has received the approval of the Navy Department or of the Merchant Marine. The principal objection to the suggested devices are their weight, cumbersomeness in heavy seas and interference with the maneuvering of a

vessel. "The undeniable evidence which has been accumulated during the last few

months of submarine activity," the pamphlet states, "has demonstrated that the immunity of a vessel to submarine attack is dependent very largely on its speed and also its maneuvering ability."

To decrease the visibility of ships improved smokeless combustion combinations are being studied, the positions of vessels at a distance being determinable by submarines only by observing the smoke, which floats high

in the air.

For the destruction of submarines the rapid fire gun is the best known weapon, but the board appears to place more faith in a method concerning which comparatively little has been heard. This consists of setting off a heavy charge of high explosive well submerged, when the near presence of a U-boat is reported. An explosion under water has a powerful effect on all neighboring bodies and will usually suffice to destroy or cripple a U-boat.

To blind the submarine heavy black petroleum or other oil, which floats on the surface of the water, has been found valuable, as it clouds the optical glass at the exposed end of the periscope. Under favorable conditions the production of a heavy "smoke screen," formed by burning chemicals such as phosphorus and coal tar or else by the incomplete combustion of fuel oil, has been found to make possible frequently the escape of an attacked ship.

Electro-magnetic and electric devices to offset a U-boat attack sent to the board generally appear to be based on misconceptions of these natural forces.

One of the most interesting parts of the pamphlet deals with the problem of "bottling up" the submarines before they can get out to sea. It is as follows:

"The question as to why submarines are not destroyed before they reach the open sea is a most natural one, and the best answer which it is possible to give, according to the officers of our Navy and those of the foreign commissions who have visited this country, is as follows:

"The submarine bases are very strongly protected by land batteries, aeroplane observers, and large areas of thickly minded waters extending to such distances that the largest naval gun cannot get within range of the bases. In spite of these protections, there is now going on a continuous attempt on the part of the allied navies to entrap or otherwise defeat the submarines as they emerge from the protected areas. Nets are laid and as promptly removed by the enemy, whose trawlers are in turn attacked by our destroyers. The design of these nets and the detailed arrangement of their fastenings and attachments offer a broad field for invention.

BRITISH ORGANIZE "TANK CORPS"

IN the promulgation of orders or-I ganizing in the British Army "Tank Corps" is evidence that the great armored fighting machines which have been developed as the result of actual warfare conditions are considered successful from a military viewpoint.

In the British Army orders, dated July 28, 1917, the scheme of organization and the rates of pay provided for the new corps is outlined. The order provides:

The corps is to consist of two parts, namely, technical personnel and non-

technical personnel:

The non-technical personnel, both officers and soldiers, will be granted the rates of pay laid down for their respective ranks in the royal field artillery, and, in addition, they will be eligible for proficiency or service pay.

The equipment officers will be granted the rates of pay laid down for their ranks in the royal field artillery. The rate of additional pay for the battalion adjutant will be 5s. a day.

The daily rates of pay for officers, warrant officers, noncommissioned officers, and men of the technical section will be as follows. These rates are inclusive, and no corps proficiency, or service pay is admissible in addition:

Officers	S.	d.
Major After two years' service in that	19	0
rank	21	
Captain	15	6
that rank (provided that he		,
has at least 12 years' service) Lieutenant	17	6
Second lieutenant	9	6

Other Ranks

Mechanist staff sergeant major, 6s.; mechanist staff sergeant, 5s. 3d.; technical quartermaster sergeant, 5s. 3d.; tank mechanist sergeant, 4s. 2d.

Tank Mechanist, First Class.—Corporal, 4s.; lance corporal, 3s.; private, 2s. 8d.

Tank Mechanist, Second Class .-Corporal, 3s. 6d.; lance corporal, 2s. 6d.; private, 2s. 2d.

Officers, warrant officers, noncommissioned officers, and men already serving in the machine-gun corps, heavy section, will, on transfer to the tank corps, be paid the rates of pay laid down in the warrants, or if more advantageous will continue to draw the rates of which they are at present in receipt. On being promoted they will be eligible to draw the corresponding rate for their new rank if more advantageous than the rates laid down for the tank corps

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Real Recreation Isn't Slaughtering Wild-Life

By F. E. BRIMMER

NEVER could understand why so many shooters bury their rifles I when the hunting season is over and mourn the fact that during eightyfive per cent of the year their guns are useless. Question any loyal hunter and you will find that deep down in his sportsman's heart it is not so much the lust for slaughter that prompts him to tramp for miles through God's Big Garden as it is the pure love for the invigorated mind and body that results from his hunting trip. Nerve rest, mental relaxation, muscle exerciserecreation of the right kind is the kingpin motive that urges every hunter into the outdoors. Of course it looks better to bring home a pile of murdered game for the benefit of envious neighbors and friends every time you start out with your rifle; but I am firmly persuaded that the day is fast coming when the count of heads in the game-bag is not going to be the standard which gauges the success or failure of a hunting trip. I never see a picture of a fool standing beside a long line of slaughtered deer, ducks, or birds but what I feel a sickening horror of regret.

Instead of spilling a lake of ink in moralizing on our fast disappearing wild-life, why don't we hear more about suppressing by stringent measures the cause of the whole trouble—the ignoble game-hog. The day of the pot-hunter is past but still lingers many murderous butchers—a barbaric relic of the age of wanton waste and slaughter. Real recreation is not red-

handed massacre!

The man who has not upon his brow the mark of Cain gets genuine recreation with his rifle, shotgun, and pistol the year 'round. One of the most enjoyable winter evenings I have ever experienced was at what "we three" choose to label with the name of Blind Shooting. It came about like this: Dan and Hal were over to spend the evening with a little card game, but it turned out to be an occasion for telling hunting yarns more than anything else. Finally I went to the cabinet and took out my .35 Automatic. I feel toward this rifle much like a dog fancier does toward his canine because it has done some almost human things for me. Upon the wall at one end of my den I hung a pistol target and then "we three"—call us nuts if you want to-took turns at closing our eyes and then pulling up the rifle upon the target, the result of the shot being known only when the eye of shooter opened and he saw where he was holding.

In a short time I found that by looking steadily at the target for a few

seconds, closing my eyes, and throwing the rifle to my shoulder I could score a bull about three times out of five—it takes a gun that fits you to do that. The other boys kicked because they were shooting a strange gun, so I challenged them to shoot at any future date which we three might agree upon. So it came to pass that we pulled off a Blind Shooting Tournament one blizzardy January night. Hal with his new .230-3000 Savage, Dan with his favorite .30-30 Winchester, and I with my .35 Remington Automatic—thus we entered the field. The target was placed at every conceivable spot and angle on the wallhigh and low, left and right-and each man shot five times at the bull in its various positions. The instant his eye opened he announced where he had shot. Only regular gun-lovers can get enjoyment out of blind or dry shooting.

Few people realize the pleasure and profit that can be had with an airrifle during the long winter evenings. Of course you must pass the excuse to the wise ones that you are only indulging in such puerile nonsense to amuse and train the kids to shoot. Just the same an air-rifle that shoots accurately-and you can get one for about five bucks that will-gives a whole lot of keen excitement. It is a good plan to use a wooden box to catch the shot, putting the target over the open end. For a moving target tie a small tin can on the end of a string and shoot at it as it swings back

and forth.

Isn't it a grand and glorious feeling when Tyrant Winter marches back northward and the grass begins to start? Mr. Woodchuck decides to do his spring house-cleaning and you decide to enjoy a little outdoor shooting. There is just enough zest put into your game by the target being a live one, to make your blood tingle when you are in the car and really on your way out to the rolling hill country to the south of the city. If you take along the .22calibre you may find an interesting red squirrel for a mark, or, perhaps, a woods-cat. No less authority than Hornaday maintains that every hunter at all times of year should kill every woods-cat that he can spy because of the wanton slaughter which these felines inflict upon the young of the wild-folk. And say! can't we eat around the steak and mashed potatoes after an afternoon's trip target shooting at the undesirable criminals among the wild-life?

Then there's the Rifle Range. Its always harder to shoot with three score or more eyes fastened upon your

movements than when out in the woods all alone way-laying an unsuspecting deer. I never get buck fever except at the Rifle Range. The competition is keen as a razor and you go through the afternoon shoot without a single thought about business cares or worries. What a jolly bunch those carefree fellows are at the Rifle Club!

Unexpectedly one morning on the way to the office you are smitten like a bolt from the blue! Sure enough, it froze last night; the leaves are gorgeous in the autumn sunshine, and your heart suddenly becomes that of a blood-thirsty Indian. For the next few days you walk in a dream of green mountain lakes capped with lily-pads and fringed with glistening white birch shafts; tumbled mountains in the background, mossy logs in the foreground. Amid this wild scenery you stand upon a mossy log-Listen! Was that the cautious approach of a deer? Talk about the foolishness of your first love affair—it isn't anything to the fool those day dreams make of you! You count the days, hours, minutes and at least once you figure out the seconds—to see how long it will be before you can chuck the dude duds and step forth into the outdoor wilds—a joyous man amidst the witchery of Nature. That's real recreation!

Last November a good friend returned from his annual hunting trip with the most enthusiastic inspiration of flowing words that ever was uncorked for free distribution. With a far-away look in his eye he pulled me to a quiet spot and in his excitement almost whispered: "And there in the moonlight we saw two beavers cutting a ten-inch poplar-" When I cut in with the question of how many elk he shot he looked at me with the reproach of a dog you have unjustly kicked and replied, "Not a hair! But, say! I got a splendid flashlight of a pair of twin baby moose!" That man doesn't expect to get a prize head every time he plunges into the virgin territory of some remote and unexplored wilderness. He deems it more pleasure to make the intimate acquaintance of the wild people he is visiting-real recreation.

And then there are the traps where you murder bloodless birds, and the indoor range where you puncture lifeless bull's-eyes, and the private little shoot in the basement or back-yard with the .22 calibre, and the dummy practice that gets your eyes open as you breathe the fresh morning air and shoot up every visible target from the back-porch, and there's the Pistol Shooting Game, and

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1110 WOODWARD BUILDING, WASHINGTON, D. C. EVERY SATURDAY

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

Associate Editor KENDRICK SCOFIELD

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That the man shall serve his country in time of war is noble, brave and patriotic; but that a man shall properly prepare himself in time of peace to serve in war is all of these things and more. It is noble with a noblity 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.

DEFECTIVE SERVICE AMMUNITION

FOR several weeks a good many civilian riflemen as well as the officials of at least three big rifle ranges have known that a surprising percentage of mis-fires and hang-fires were developing in ammunition manufactured for the Springfield at Frankford Arsenal since January 1st. Now comes the announcement that defective service ammunition accompanied the American Expeditionary Force to France.

The War Department is to be congratulated that the uncertain nature of the ammunition was disclosed before our troops were engaged in actual war and exposed to danger arising from their own ball cartridges in addition to those of enemy riflemen, and that a remedy of as permanent a nature as possible has been found.

There now seems to be no question that approximately 30 per cent of one lot of ammunition, made between January 1 and June 1, 1917, was totally unfit for use, and even dangerous to any man who undertook to shoot it except with the utmost care, since a hang-fire, exploding at the moment a bolt is being opened in the course of rapid fire is capable not only of seriously injuring the shooter but of causing death.

The gravity of the situation therefore should not be belittled. On the other hand, there should be no national hysteria.

More or less discussion is bound to follow the discovery. There will be some who will seek to make it appear that the Ordnance Department was fully aware that Frankford produced inferior ball cartridges. Others will endeavor to discredit the entire output of the arsenal, and look askance at all cartridges furnished for the service rifle.

Without, however, in the slightest glossing over the very serious and ugly consequences which might have followed if the defects had not been located, there is certainly no reason for the mothers and friends of the men called to the colors to regard this as more than an instance wherein the defective ammunition was discovered and recalled—for all of it has been recalled—before any real damage was done.

The Ordnance Department, however, should spare no

pains to the end of being certain that every ball cartridge sent overseas or issued at home is of the most perfect workmanship possible and made up of chemically pure ingredients.

During the past few months there has been ample indication that part of the Frankford output was defective. Reports have come from the Winthrop, Md., Rifle Range, from Princeton, New Jersey, where National Guardsmen were being trained, from Sea Grit, Wakefield and from several civilian clubs, that the service ammunition furnished was producing an unusually large number of mis-fires and what is worse, hang-fires. Some of the hang-fires exploded from five to fifteen seconds after the trigger had been pulled.

The ranges and the rifle clubs, however, continued to use the ammunition for slow-fire, one range establishing a system of compelling its coaches to count twenty before opening the bolt of a rifle where an apparent misfire had occurred.

It is more than unfortunate that government ammunition has been found defective at such a time, as the quality of the ammunition manufactured at Frankford, since 1905 had annually improved.

That furnished for the National Matches of 1916 was regarded by experienced shots as being the best ever produced for service rifle shooting on the open range.

It will be recalled that, until two years ago it had been customary for the officials of the War Department to designate a board composed of experts in matters pertaining to small arms and small-arms ammunition but who were not necessarily connected with the military establishment. This Board was charged with the inspection of supplies of ammunition held in reserve. As a result of this inspection the issue of defective ammunition was avoided.

The National Matches, also, have in the past been a great factor in improving the quality of service ammunition made by manufacturers and by the arsenal.

The continuation of the Testing and Inspection Board would do much to prevent the recurrence of the present unfortunate situation.

THE BALL-CARTRIDGE ALLOWANCE AGAIN

IN AN order just published by the War Department is seen further evidence of the short-sighted policy of restricting ammunition issued to the enlisted man for practice purposes.

The order provides an annual allowance of 21 rounds of automatic pistol cartridges for each enlisted man to the authorized strength of an ambulance company "for practical instruction in the use of the pistol where any part of such company is armed with the automatic pistol."

If it is the plan of the Department to arbitrarily restrict the practice of each enlisted man in the ambulance corps to 21 shots, very little if any practical benefit will result.

It does not take an experienced marksman to realize that the firing of three strings from an army automatic is just the beginning of a tyro's education in the proper handling of the heavy-calibred hand-gun. There are a good many practical shots trained in the handling of military revolvers who, after having fired many times 21 shots with the army automatic, are far from being proficient in the use of the weapon. This does not mean that the army pistol is not a practical arm. It does, however, mean that, aside from exceptions, men who have handled guns for years have found that the mastery of the .45-calibre pistol is no sinecure.

We have always emphasized the desirability of a policy of restricting ammunition only to the number of shots which each individual requires either to make him proficient in the handling of rifle or pistol or to demonstrate beyond all doubt that he cannot be taught to handle small arms. It is a policy which we shall always advocate.

No greater injustice could possibly be inflicted upon the man who goes into the ranks, whether he be volunteer or selected conscript, than sending him into battle unlearned in the tools of his trade.

The argument may be advanced that the restriction in the instance of enlisted men in the ambulance corps is justified, since they are at least quasi non-combatants. If this government is going to restrict the issue of practice ammunition,

perhaps there is more apparent reason for restricting the practice of ambulance units than any other organization. But even if this were true, the fact still remains that if a man is given a pistol costing the Government \$20, he should at least be trained to handle that weapon so that it will meet the ends for which it was presumably issued.

The army .45 automatic is not, we presume, a piece of "hip jewelry." When a man swings one to his thigh, he does so, or should do so, because by using it he can either fulfil his duty as a soldier or preserve his own life.

It is hard to imagine that any man will refuse to become proficient in the use of small arms, if he is given the ammunition and has the ability to learn. But that is as far as any enlisted man, or officer, can go toward marksmanship. It is high time that the Government abandoned its policy of restricting ammunition and did its share toward making the expeditionary forces of the United States known as an army of men who place their shots.

A Skirmish Run for Pistols

Being an Improvised Course to Acquaint
Green Men with the Action and Operation of the Service Automatic

By CAPTAIN ROY S. TINNEY

Statistical Officer, Verona, New Jersey, Rifle Club

OST of the commissioned and non-commissioned officers, doing interior guard duty, have never even fired the pistols which swing against their thighs.

This is not altogether the fault of the

officers.

As far as I can determine, experienced and competent instructors of small-arms practice are about the last thing the powers that be in this emergency intend to consider. In this respect, the United States certainly doesn't appear to be profiting by England's experience. The papers have recently said a lot about shooting being "seven-tenths of a soldier's business," and everybody else is saying "Amen" and doing exactly nothing.

The need of expert shots is second only to the need of men who can produce them. A few weeks of "intensive training" may produce practical rifle and revolver shots, but I make the statement with many mental reservations. It certainly will not produce competent in-

structors.

Folks seem to think that any man who has by the grace of God and the luck of a sailor qualified as a sharpshooter or an expert is capable of teaching the game. Any man who has spent more than one season on a rifle range knows that this is far from being true.

Wherefore the officers now doing interior guard duty cannot be blamed if their pistols are still mysteries to them. Yet every now and then some one of them requests a friend who is versed in

handling the hand-gun to give him instruction in the handling of the arm which he may at any moment be called upon to use.

I believe that a skirmish run, designed for the pistol or the army model revolver, would do more to accustom the greenhorn to his short-gun than anything else.

Here is a suggestion for a course, all the firing being done on the D target, used for rapid fire at 200 and 300 yards, with service pistol and service ammunition:

Slow Fire

5 shots	standing at20 yards
	squatting at30 yards
5 shots	sitting or kneeling at 40 yards
5 shots	prone at50 yards

The qualification is made by selective scores of five shots each, until the shooter has made 75 out of 100, or better, with a minimum of 19 at each of the four ranges.

It is a good plan not to paste up the target until each string of five shots is completed; then march the shooter down to the target, criticize the grouping and explain to him the reason for each "off shot." If he drops below 19 he must repeat the score.

The Run

Five shots in fifteen seconds, thirty seconds to change from one range to another. When the shooter starts at the fifty-yard line he is equipped with four

magazines containing five cartridges each.

5 shots prone at	50 yards
5 shots sitting or kneeling at	
5 shots squatting at	30 yards
5 shots standing at	20 yards
Required, 75 x 100.	

If a revolver is used the shooter is allowed "time out" to reload between each string.

Owing to the difficulty of obtaining army automatics at this time and the cost of service ammunition, the course may be fired with any revolver of .38 calibre, or larger, measuring six inches or more from the base of the cylinder to the muzzle, and having a grip large enough to accommodate the hand comfortably. Or any automatic pistol of .38 or .45 calibre.

Exception: This course may also be shot with heavy Colt revolvers chambered for the "32-20" cartridge.

This course is the best I have yet been able to devise for giving green men a working knowledge of the service pistol and its operation. In actual fighting a man must not expose himself any more than absolutely necessary, and the only rule is to "hit with speed and accuracy," hence the use of these "outlaw" positions. Qualifying under the rules suggested does not make a man an expert pistol shot, but it does impress him with the importance of a perfect trigger squeeze and teaches him that when using rest the important thing is to steady the arm and not the gun. The course is also calculated to hold the shooter's interest by appealing to his imagination, being a hypothetical "attack," and will in my opinion produce "practical shots" with a minimum expenditure to time and ammunition—something that is badly needed just now.

CONCERNING THE MACHINE GUNNER

(Concluded from page 464)

the gun is firing; but it is impossible to maintain that rate of fire, time being lost through the drums having to be changed.

"Lewis guns are new weapons and are as distinct from machine guns as a revolver is distinct from a rifle, their only similarity being that they fire the same caliber ammunition.

"Machine guns produce a narrow, dense cone of fire, therefore they should be used to a flank, fired obliquetly, and fired to the front only when a favorable target appears. A bullet from a machine gun will hit a man, and hit him again ten times as he is going down; but in the case of a gun catching men obliquetly you always have a target of fresh men. Machine gun training must play an important part in all new armies, and it is only the cool, reliable man with a

thorough knowledge of his work and weapon that can get results. A man must know his gun as a keen motorist knows his car or a jockey his mount. The old idea that you wait for your enemy to show up in numbers, open fire, and then expect them to keep on coming, is wrong. Your work will be over in a matter of minutes and seconds and then you will have to move. On one occasion a machine gunner operating from second stories in village fighting changed his position six times, only firing five minutes from each place. In every case, inside of fifteen minutes from the time he had opened fire, the houses were shelled.

"A rush of men may get past a gun, but not if it is enfilading a barbed wire gun in action enfilading 500 yards of wire is worth a man a yard.

"LUMBERJACK REGIMENT" RECRUITED FULL STRENGTH

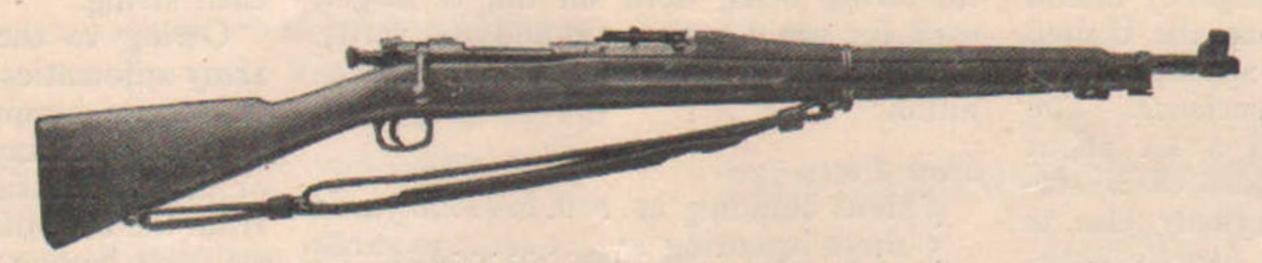
The regiment of lumbermen, officially known as the Tenth Engineers (Forest), and nicknamed the "lumberjack regiment," has been recruited to full strength, and the Forest Service, which has been securing the men, has been notified by the War Department to list no more candidates for service with this regiment. In anticipation, however, of a possible call for another regiment of the same character the listing officers all over the country have been instructed to continue listing names of suitable men who may be summoned when needed.

The "lumberjack regiment" is not a fighting force, but will be employed in woods operations in France, getting out material for Army use. The recruits are now being assembled in Washington, where they are drilled daily by the officers assigned to command them.

Colonel Woodruff, of the Regular Army, who will head the regiment, is in charge, and with the assistance of a staff, made up of practical lumbermen and foresters, is providing an equipment of the most up-to-date character for the type of woods operations called for in the list of the experience of the allies. The regiment will take with it both stationary and portable sawmills with everything necessary for logging and sawmill work and for transporting the product.

Soldier (on leave from the trenches, visiting a London Museum and stopping before enlarged model of common flea)—
"Yes, that's it, father! That's the kind I was tellin' you about, but it ain't much of a specimen."—Punch, London.

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

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Price, 20 Cents, Post Paid

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ARMS AND THE MAN

WASHINGTON, D. C.

Shooting Fraternity Enthusiastic About (S).22 N. R. A. Outdoor

WITHIN forty-eight hours after the first announcement of our new .22 N. R. A. Long Rifle Lesmok cartridge, inquiries and orders began to come in by mail and telephone.

Apparently this new cartridge fills a great need. The increased cost of service ammunition has resulted in a strong demand for a small-bore, outdoor qualification course and an inexpensive cartridge for use thereon.

Extensive details regarding such a course can be found on page 1 of the July 7th issue of "Arms and The Man."

For use on such a small-bore qualification course of from 50 yards to 250 yards and to meet the demands of the British Army Training Camps, we have perfected a .22 calibre Long

Rifle Lesmok cartridge that is accurate up to 250 yards. 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, the cartridge is being referred to as the N. R. A. Outdoor .22 Long Rifle Lesmok. Prompt shipments can be secured through any of the following general selling agents:

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

UNITED STATES CARTRIDGE COMPANY

2201 TRINITY BLDG. NEW YORK

BRITISH ORGANIZE TANK CORPS

(Concluded from page 466)

Army Order 357 of 1916 is canceled in so far as it refers to the machine-gun corps (heavy branch). All officers, warrant officers, noncommissioned officers, and men of the machine-gun corps (heavy branch) will be transferred to the tank corps from the date of the present army order.

The establishment of units will be as at present approved for the machine-gun corps (heavy branch).

Officers will be obtained as follows:

(1) By the granting of commissions to selected cadets from the tank corps officer cadet battalion.

(2) From officers seconded or transferred from the regular, territorial, and reserve forces and new armies.

The promotion of all officers serving with the tank corps will take the form of temporary promotion and will be carried out on a general list of the corps. Temporary promotion granted to officers as above will only hold good as long as they are serving with the tank corps.

Officers seconded or transferred to the tank corps will take seniority in the corps in accordance with the substantive rank they hold at the date of their being seconded or transferred. Any acting or temporary rank which has been granted to an officer while holding a specific position will automatically lapse on appointment to the tank corps. Officers promoted in the corps will take seniority in accordance with the date of such promotion.

The following officers will be regarded as belonging to the technical section of the tank corps: Salvage officers, workshop officers, technical officers attached to headquarters staff, technical instructional officers.

The rank of equipment officer on first appointment to a commission will be second lieutenant, and promotion may be given up to the rank of captain according to his technical proficiency, which will be determined by tests to be laid down from time to time by the director general, tank corps.

The other ranks of the tank corps will be composed of warrant officers, noncommissioned officers, and men transferred from other units to the tank corps.

They will be on probation until passed by a board at the tank corps training center. Other ranks will be transferred to their permanent rank.

Crown Prince (to Kaiser, drafting his next speech)—"For Gott's sake, father, be careful this time, and don't call the American Army contemptible."—Punch.

COMMISSIONS FOR AMERICAN "ALLY OFFICERS"

The War Department is now commissioning Americans who have been officers in the armies of the Allies during the past three years.

Many such Americans have offered their services to the United States since the entrance of this country into the War. At first because many of the Americans found it necessary to become citizens of the nation in whose army they had fought, the government could not take advantage of the offers of service.

After the passage of the selective draft law, this obstacle was removed, and the commissioning of these men begun, their services being needed in instructing our forces in methods of modern war.

Men who have the proper qualifications should apply to The Adjutant General of the Army, furnishing evidence of honorable record and separation from their foreign service. Each case will be considered on its merits according to qualifications. All such men must be physically qualified for active service. Those not native born Americans must show that they have taken out their first naturalization papers.

The Absorption of Obsolete Arms

(Continued from page 465)

quesas. Here and there in the little-known places, he must observe what weapons have taken the place of war-club, spear and bow. Or perchance he must penetrate the wild reaches along the Arabian and Persian gulfs, where from time out of mind the gun-runner has eluded the strict patrol of the British gunboats. When he has gone this far, and farther—even in the vanished wake of the Arctic whalers—he may be able to tell where some of the obsolete fire-arms have gone.

Far from being the worthless weapons which the word "obsolete" might indicate, the firearms which have lost favor with the greater nations of the world in the past have been demanded by many savage nations in preference to modern arms, and even to-day, in some parts of the still semi-savage world, the flintlock musket, with gas-pipe barrel and gaily decorated stock, is a potent factor of trade.

Tracing some of the obsolete weapons which at one time or another have played a military part in the firearm history of the United States has brought to light the fact that many of the old military arms of this country, as well as those from European nations, including England and Germany, were sold broadcast.

John Murdoch, of the Smithsonian Institution, who prior to 1890 spent considerable time in the Arctic, found that the northwest coast of Alaska from Behring Strait to Point Barrow was for a time a profitable dumping ground for obsolete weapons, especially of the breech-loading type. This trade with the Esquimos of that region flourished for many years, until the United States Government, frowning upon such traffic between the natives and the whalers, detailed a revenue cutter to follow the whaling fleet and to wipe out the sale of weapons. Before the trade was suppressed, however, according to Murdoch, many thousands of cases of arms and ammunition were distributed along the coast. In speaking of the many types of obsolete arms which he encountered among the native tribes in the Arctic, Murdoch says:

"Commonest of all was the old brass-framed Winchester 16-shot repeater. This was the favorite gun, and the rimfire cartridges to fit it were always in great demand. From their small size it was always comparatively easy to smuggle them ashore. The natives customarily reloaded the rim-fire cartridges, very cleverly recapping them neatly by inserting a common percussion cap, first drilling a tiny hole in the rim to permit the flash to pass.

"Then they had the old Sharps rifle, one or two modern Winchesters, a few Spencer .50-calibre repeaters, and one or two of the leather-covered Sharps and Hankins guns, formerly used in the navy.

"The first year that I was in the Arctic, a ship brought up several cases of the Peabody-Martini, the rifle whose manufacture in large quantities for the Turkish government ruined the Providence Tool Company. The ship which brought them was wrecked, but a few of the rifles found their way ashore. I am afraid, however, that the sight graduations were of little use to the natives, although the weapons were very powerful, since the gradations were all in Turkish!

"The natives had a few shot guns. These were mostly cheap German weapons. One regulation English Snider found its way to that desolate place and ended its days in the native cemetery, laid out beside the owner's body.

"A curious lot of obsolete arms turned up from out of the way corners of wholesale gun establishments when the traders found that the revenue cutters were going to rigidly enforce the law against trading breech-loaders. Among them were old smooth-bore muskets which had disappeared early in the war of the Rebellion, the 'Yager' rifle carried by mounted rifles in the U. S. Army before the war, and the English ship's rifle, on the Enfield pattern."

The old .58-calibre muzzle-loading Springfield musket was disposed of by a more direct route. Of course, a few of these ancient weapons are still to be found in isolated rural communities, doing duty as fowling pieces. The bulk of them, however, were sold by the United States Government to the government of Turkey. They were not issued, however, in original form, having first been sent to Vienna and there remodeled on the Snider patent.

Those of the Sharps and Hankins rifles which were not seized upon by traders were exported in great quantities at the time of the Franco-Prussian war, and many others were manufactured at that time for the French Government, which, however, never called them into service. Many of these guns also were used with telling effect by the Boers in the South African campaign.

The old Remington rifles were extremely popular among the dwellers of Central Africa. The majority of the rifles which found their way into the Dark Continent during the earlier days, however, were the result of conquest rather than trade. These weapons were made originally in quantities for the Egyptian Government, and thousands of them were lost when the Egyptian soldiers met defeat in battles with savage desert tribes. Ultimately many of these

arms came into the possession of the followers of the Mahdi.

Of the excellent marksmanship of the Arabs armed with the old Remingtons, a correspondent of the London Telegraph wrote in 1885 describing an engagement which took place near Metemmeh:

"The fire from the Arab forces grew hotter and more deadly every minute. Evidently their Remingtons were in the hands of Kordofan hunters. Gradually the enemy's riflemen crept nearer, and skirmishers were sent out to engage them.

"The enemy were firing at ranges of from 700 to 2,000 yards and their practice was excellent. The zip, ping and thud of the leaden hail was continuous, and whilst the camels were being killed by the fifties, our soldiers did not escape, over forty having to be carried to the hospital."

According to data gathered several years ago, the Spencer rifles and carbines, which had been turned out in large numbers during the war between the States, were seized upon by Yankee traders at the close of hostilities. The chief overseas trade in these weapons was with China and Japan. Purchased at prices ranging from \$4 to \$8 each in the United States, these arms each brought from \$45 to \$70, gold, in the Orient.

(To be concluded)

RECREATION IS NOT SLAUGH-TERING WILD LIFE

(Concluded from page 467)

Well, some day you find you have won fame and a Championship at your favorite sport. No, real recreation is not the wanton slaughtering of innocent wild-life.

An English defender of the Admiralty, says the Springfield Republican, in trying to answer the question "What would Nelson have done?" pertinently reminds his readers that nowadays the Nelson who fought Trafalgar could never have got by a medical board with his one arm, his one eye, his damaged head, and his chronic invalidism. In Nelson's day it was enough to be a fighter.

Passing a hand over his forehead, the worried drill sergeant paused for breath as he surveyed the knock-kneed recruit. Then he pointed a scornful finger.

"No," he declared, "you're hopeless. You'll never make a soldier. Look at you now. The top 'alf of your legs is standing at attention an' the bottom 'alf is standin' at ease!"—London Tid-Bits.

On a road in Belgium a German officer met a boy leading a jackass, and addressed him in a heavy jovial fashion as follows:

"That's a fine jackass you have, my son.
What do you call it . . . Albert, I bet!"
"Oh no officer" the boy replied quickly

"Oh, no, officer," the boy replied quickly.
"I think too highly of my king."

The German scowled and returned: "I "I hope you don't dare to call it William." "Oh, no, officer. I think too much of my jackass."—Paris Liberté.

Off Hand From the Clubs

San Diego Accepts Los Angeles Defi

A FEW weeks ago the Los Angeles Rifle and Revolver Club expressed a desire to meet the riflemen of the San Diego Rifle and Revolver Club in competition.

Now comes Walter Bellon, Secretary of the Silver City outfit, taking up Crossman's suggestion, and expressing the entire willingness of his organization to grant the wish of the Los Angeles marksmen. Here is his letter:

"I note, with a great deal of pleasure, in the issue of August 4th, 1917, that Mr. Edward C. Crossman, Secretary of the Los Angeles Rifle and Revolver Club, has at last awakened to the fact that we have down here in this neck of the woods a rifle club consisting of members worthy of special note.

"The letter of the above date refers to the qualification shoot of last June, when Mr. C. Schroder hung up a 222 ex 250 score on our range. Mr. E. C. C. covers considerable space using up about two columns of this valuable paper telling what a punk score 222 ex 250 is. We will grant that 222 is a very poor score for an expert—so does Mr. Schroder. But it was the highest score shot on that date and under very adverse atmospheric conditions, as a dense fog hung over the range during the entire shoot. Being true to my convictions, Mr. S. is in the 240 class and ranks among the first.

"Mr. E. C. C. intimates strongly that Mr. S. took in too much territory by including Los Angeles. I wish to beg your honorable pardon, Mr. E. C. C., for I was not aware that Los Angeles was in Southern California or even in the State. We, in San Diego, had always believed that the sacred City of the Angels was far above the 'common herd,' although fond recollection refreshes my memory to the extent that I had the honor at one time to visit a harborette located somewhere on the Pacific Coast, which Los Angeles claims as her santum sanctorium. By having the right to claim such a prize, the Angel City surely is within the scope of Mr. Schroder's challenge.

"The recognition we have received from Mr. E. C. C., through this medium, has thrown a different complexion upon the screen and has shown us that the rifle shots in Los Angeles are really human and also willing to cast their lot and reputation against the Silver City Squad.

"Up to date, our club has lost about 50 per cent of our expert shots but if Uncle Sam is not too hard on us during the present draft, we, no doubt, can scrape up a team that will make it mighty interesting for the contestants.

"Mr. E. C. C. also refers to his pet course, as was shot over at the National Match at Jax in 1916, but we prefer to shoot the regulation course as prescribed for the regular army, which includes the Battle Sight at the 200, 300 and 500 yard ranges. We also insist on the strict regulation military rifle, with one exception that they may use the largest and broadest front sights that can be obtained, but we draw the line on the knife blade, telescope and aperture sights, for we in San Diego shoot the 'iron club' as the Government delivers it to us. And again, no hair or set triggers as a three pound pull will meet

with our approval. We will agree, however, to allow your club to use all the shin pads, elbow, knee and wrist pads, sweat bands, smoked glasses and camphor lamps that they desire.

"If a team match can be arranged in the future, we will also arrange for an individual shoot to be held at the termination of the match.

"We await with patience until the Venerable Crossman is informed of our reply and his answer returned.

Secretary of the San Diego Rifle and Revolver Club."

Los Angeles Won't Quit

"In spite of the suspension of ordnance sales to rifle clubs the Los Angeles, California, riflemen have absolutely refused to lie down and roll over and play dead until this crool war is ended," declares E. C. Crossman.

"It has got together and resolved to continue to be a rifle club, not a corpse nor a victim of suspended animation. Wherefore the club has adopted a style of shooting it hopes will prove economical and attractive to its members. Some half dozen Krags and a bit of free ammunition which the club managed to get under a law of Congress will be devoted to the gents whose ambitions run in the direction of 'qualifying over the government course.' Otherwise the club will play out its hand very close to its tummy, so far as ammunition expenditure is concerned, and will restrict its activities to those ranges where any rifle and the festive reload will work neatly and efficiently.

"To that end the club started the Owen Council Trophy August 26, and the E. C. Crossman trophy on the same date. Any rifle and any sights may be used in either shoot. The gent so fortunate as to score three wins of either will lug it home as his permanent and inalienable property.

"The course for the council prize calls for two sighters and ten shots off-handwhich means standing on the hind legs and shooting with the aid of the two good arms alone-at 200 yards on the German ring target as giving finer value to the shots than the military A target, which has a four-ring like the shirt front of the obese speaker at the banquet, but no bull to speak of-or to look at. This does not mean that the club will turn forthwith into a Schuetzen layout and lay in a stock of beer and rumbling gutterals, because no rifle weighing more than ten pounds can be shot, but the target has proved superior for offhand work.

"The Crossman trophy will be hung up for the famous Pan-American and International course used by the South American and by many European countries, including Switzerland, for training. The range is 300 yards, the target the International with twenty-four-inch bull's-eye and three and three-fourths-inch ten ring. The positions will be standing, kneeling and prone, five shots in each position. This is the target and the course used at the Pan-American matches at Camp Perry in 1913, which aroused so much interest and which paid so richly in prizes and cash. The war stopped the Pan-American matches, but every year some one of the American countries holds a shoot, to which the United States sends a rifle team. The next match is framed for Lima, Peru."

Another Target Suggestion

R. Buettner, of Chicago, has something to add to the suggestions offered by H. D. Grose, of the Joilet, Illinois, Rifle Club, concerning the manufacture of small-bore outdoor targets. He says:

"May I rise to suggest that in making the D-4 target , with separate units, first lay the said units one on top of another, the largest at the bottom of course, and so on up to the 'bull,' on the paper which is to form the target, all properly centered as per specifications, and then at the exact center of the target, push a pin thru the entire pile. Then at one stroke the maker will have found the common center of all the pieces. Thereafter in tracing each target, it is but necessary to find the center of sheet, as usual, then pin each card as needed, thru the hole, and trace the entire outline. It should be easy to get the straight bottom lines parallel.

"Thus the more easily made stencil can be used without the tedious plotting in each case.

"I am not making any of these targets, but believe the idea a practical solution of the problem and pass it along for what it may be worth."

Sighting Shots

In order to insure funds for the upkeep of the organization, the Cleveland, Ohio, Rifle and Revolver Club has incorporated with a capital stock of \$1,000. This stock has been divided into shares of \$10 each, one of which each member must own.

With the funds thus provided the club has been able to obtain a 5-year lease upon a range site just outside of the township and upon it has erected a club house and six targets.

From another state comes word that the N. R. A. Clubs and the Home Guard organizations are working in harmony. In Connecticut, almost without exception, the rifle clubs have placed their ranges at the disposal of the citizens.

The Connecticut rifle clubs show no indication of giving up target practice, in spite of the shortage of ammunition. The members of these clubs are reloading empties whenever possible, and where this is not feasible, are turning to the .22 calibre loads.

All sorts of things are interfering this season with work of rifle clubs. The Brunswick, Missouri, Club has postponed its shooting season until fall because of a crop of corn which is just now occupying the range. As soon as the corn has been cut, the boys intend to get busy.

The best kind of a start has been made in Nevada toward rousing enthusiasm among civilian rifle clubs. The appropriation passed by the State Legislature furnishing funds for the construction of a centrally located range for the benefit of civilian rifleman has proved a great drawing card. One club alone—that at Reno—

E EVENT

started life with nearly 200 members. This club however was not fortunate in getting its requisitions in before the embargo became effective and consequently is having trouble in getting rifles for practice.

Members of the Rome, New York, Brass and Copper Company Gun Club are considering the formation of a rifle club. The organization has already 225 members.

A club house and a range site has been furnished by the Company.

When stockmen took to grazing cattle on the range of the Blackfoot, Idaho, Rifle Club, it naturally interfered considerably with the practice of the club. The members have therefore located a new range 7 miles out from town where it is possible to shoot up to 600 yards.

Most rifle club members detest rainy days on the range. There is one club however whose members seldom get a chance to shoot under good weather conditions.

The Hartsville, Indiana, Junior Guard Rifle Club is made up principally of workers on farms, who cannot get away when the weather is fair, and consequently must confine their practice to dull or rainy days. In spite of the handicap the weather imposes the first tryout with high power rifles developed that several of the boys could make from 15 to 20 points out of 25.

Several members of the Durham, North Carolina, Rifle Club entered the training camp at Ft. Oglethorpe. They include E. C. Cheek, William Hall, T. S. Graves, P. H. Gwynn and T. J. O'Brien. Cheatum Carrington, John Faucette, Joseph Pridgen, and A. C. Rochelle, joined local military organizations. T. P. Ballou, another member, has charge of the Y. M. C. A. training camp in the Black Mountain, where Y. M. C. A. workers are being trained for duty in France. The Durham Club has constructed a .22 calibre range, and the secretary of the Club reports that it is being well patronized. As soon as a full-charge range site can be obtained a second range will be established. Both ranges will be placed at the disposal of the military companies, the police department and the Boy Scouts of the localities surrounding Durham.

INQUIRIES OF GENERAL INTEREST

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

Q. What part of a squirrel should a man shoot at? Some say that it isn't sportsman-like to shoot at any part of a squirrel except the head.

A. If you can shoot a squirrel in the head, so much the better, for you do not spoil any of the meat, but the distance at which you make the shot and the location of the squirrel with regard to objects that may interfere with your shot has a lot to do with it. If the squirrel is near the top of a very tall tree and you cannot see his head, then there is nothing left to do but to shoot at what you can see.

Q. Is the .22 long rifle cartridge powerful enough for squirrel? There are so many different sizes that it's hard to decide which to get.

A. Considering everything that enters into the question, I believe the .22 long rifle cartridge is the best bet. It is cheap and very accurate and when loaded with the hollow-point bullet is certainly sufficiently powerful. There may be cartridges, a little bit better adapted to squirrel shooting, but they are more costly and are consequently not so good for target practice and the great majority of men can not afford to buy a rifle for just one kind of shooting.

Q. Where can I get a .22 repeating rifle

with a Swiss butt plate?

A. There is no .22-calibre repeating rifle regularly furnished with such a butt plate. If you want one fitted in this way you will have to order it specially. I would advise against it anyway, as you will find it a great handicap on quick shots.

Q. What is the best size of shot to use for rabbits?

A. No. 7½ shot will give excellent results. You can get them loaded in any of the standard trap loads.

Q. Why is it that game of approximately the same size cannot be killed with the same size shot?

A. The toughness of the animal and the strength of its protective coating determine the size of shot necessary to kill it cleanly. A crow, for instance, requires much larger shot than a quail, because the black scavenger has a thick coat of coarse feathers.

Q. Why is it that guns and rifles made with coiled springs instead of flat ones are considered more durable?

A. Coiled springs are more durable than flat ones because the tension of compression is distributed over the whole spring equally and not at one point, as with the flat spring.

Q. I have thought out a way to make a revolver that won't jump when it is fired and consequently the bullet will not fly high. Do you think the idea is a good one?

A. It is impossible to say how much value there is in your idea without knowing a little more about it. The effect of the recoil on the flight of the bullet in a revolver is constant and is provided for when the sights are set at the factory, so that so far as the shooter is concerned it does not exist, so that I can't see that any device such as you suggest would be of practical use.

Q. Which is best a revolver having a right hand twist to the rifling or one having a left hand twist?

A. One prominent revolver company makes its barrels with a right hand twist and another uses the left hand twist and so far as I can see there is not the slightest difference in accuracy. If the twist gives the bullet just the right rotating speed it will have the proper accuracy. If you will recall the days when you spun tops with the other boys, you will remember that the top spun just as well if thrown properly no matter which way the string was wound around it.

Q. What happens if you accidentally put a cartridge in the magazine of a .22 repeater with the bullet toward the rear instead of toward the muzzle?

A. One thing will certainly happen and that is a jamb and you may possibly have an explosion in the action, depending upon the type of rifle you are using. No .22 repeater that I know of is so constructed that it will handle cartridges regardless of which way they are put in.

THE SONG OF THE SHIRT

With apologies to Tom Hood.

(We may smile at this soldier scourge, but those who have experienced it know that it is no laughing matter.)—Ed.

Itch—Itch—Itch,
Through shelling, hunger and dirt,
A soldier sat in dishabile
Picking away at his shirt.

It's sometimes the bomb from above, And sometimes the mine from below, The gas and the flame and whiz-bang, The Germans with ardor bestow;

The rats squeak, and rustle and bite,
The mud is a bottomless pit,
But the Greys, and the Reds and the
Blacks
Are CONSTANTLY "doing their bit."

Bite—Bite—Bite, In mass formation they come, And bite, bite, bite, By threes, by twos, by one.

So it's pick, pick, pick And still their numbers come, And catch, catch, catch. With busy finger and thumb;

With Keating's powder strong, And anti-vermin belt, We strive to hold them off, We seek to save our pelt.

But it's scratch, scratch, scratch, From morn till dewy eve,
And rub, rub, rub
Till we're willing to believe

That all we have to bear,
And of all we have to fight,
The grey-back legions are the worst,
By day, and eke by night.

So when the war is o'er, And home we all have come, We'll surely have the lice, Although we've lost the Hun,—

We love them just as much, Their habits are the same, But they'll outlast the Teuton bugs, In this or any game.

The "League of Nations" may Impose peace on the world, But the creepy armies will still wage war, Whenever a flag's unfurled.

In Egypt's early days,
They shared with first-born slain,
The honour of a "Plague,"—
That place they still retain.

So it's scratch, scratch, scratch,
And ever will be so,
The lion and lamb may lie in peace,
But there'll ALWAYS be this foe.

—A. T. T., in the Canadian Military Gazette.

Scotsmen are well know for their ability in at once "getting on the spot" and for the blunt directness with which they tell a truth that may be most unpalatable to the hearer. This week the "Globe" relates that a Cockney who considered himself a crack shot with a rifle at the target took a deer forest in the Highlands. The first day's stalking was a frost-a washout-for he missed every chance, though several of them were near and easy, thanks to the gillies. He asked the head keeper for a solution of the problem. Like a true Scot, Donald replied by asking another: "Are your rifle and cartridges gude?" "Yes, quite good; in fact, the very best." "Then ye're na gude yersel'."-Shooting Times and British Sportsman.

With the Small-Bore Outdoor League

W ORKING up from seventh place, which they occupied in last week's match of the N. R. A. outdoor small-bore series, the Milwaukee, Wisconsin, Rifle and Pistol Club displaced the Washington, D. C., marksmen and finished with high score in the seventh week's shooting.

The Milwaukee club's total for the week was 952, as against the 949 hung up by the boys in the National Capital, and a similar score recorded by the Kiowa Club of Des

Moines.

Although the Los Angeles Club did not begin to put in 5 targets until the matches were well under way, they are managing to keep fairly near the top in the weekly scores

and in the aggregate as well.

Nearly a score of shooters managed to make 190 or better during the seventh match, and the high score of 197 was tied for by T. K. Lee, of the Birmingham Club, and John Roche, of the General Phil Kearney Rifle Club, of Kearney, N. J. Other creditable scores were made by: J. Kelly, of the Massachusetts Rifle Association; L. J. Corsa, of the Brooklyn, New York, Club; William McNamee, of the Jacksonville, Florida, Club; R. E. Newhause and W. C. Neilson, of the Greater Omaha, Nebraska, Club; H. M. Pope, of the Manhattan Rifle and Revolver Club; C. S. Dick, of the Niskayuna Rifle Club; C. H. Butler, of the Denver City, Colorado, Rifle Club; N. E. Dahm, George E. Meisenheimer and Emil Tech, of the Milwaukee Club; Ollie M. Schriver and C. F. Himmler, of the Washington, D. C., Club, and G. L. Wotkyns and E. D. Neff, of the Los Angeles Club. W. E. Kessler and C. H. Kessler, of the Kiowa Shooting Club, of Des Moines, Iowa, each hung up a score one point below the high record for the week.

The standing of the clubs in the seventh

match is:

- 1. Milwaukee R. & P. Club: N. E. Dahm, 195; G. E. Meisenheimer, 193; Emil Teich, 190; H. W. Mansfield, 190; Lawrence Teich, 184. Club total, 952.
- 2. Washington, D. C., Rifle Club: O. M. Schriver, 195; C. F. Himmler, 191; J. H. Robertson, 189; W. R. Stokes, 187; W. C. Robertson, 187. Club total, 949.
- 3. Kiowa Shooting Club, Des Moines, Iowa: W. E. Kessler, 196; C. H. Kessler, 196; Fines, 189; P. Berry, 187; P. Nichols, 181. Club total, 949.
- 4. Los Angeles, Cal., R. & R. Club: G. L. Wotkyns, 193; E. D. Neff, 191; E. C. Crossman, 186; Dr. L. Felsenthal, 186; Mrs. E. C. Crossman, 185. Club total, 941.
- 5. Massachusetts Rifle Association, Boston, Mass.: J. Kelly, 191; L. H. McAleer, 189; N. C. Nash, 188; A. Niedner, 186; H. Marshall, 188. Club total, 939.
- 6. Brooklyn, N. Y., Rifle Club: L. J. Corsa, 193; H. J. Korb, 188; H. Otto, 187; J. W. Dearborn, 185; Paul F. Lahm, 184. Club total, 937.
- 7. Jacksonville, Fla., Rifle Club: Wm. Mc-Namee, 190; J. H. Whitney, 188; A. R. Reynolds, 188; A. H. John, 188; D. B. Vincent, 179. Club total, 933.
- 8. Greater Omaha, Nebr., R. & R. Club: R. E. Newhause, 193; N. C. Nielson, 192; W. B. Riley, 185; M. O. Baydston, 184; C. Mather, 178. Club total, 932.

- 9. Toledo, Ohio, R. & P. Club: J. W. Taylor, 187; H. G. Affleck, 183; H. S. Crawford, 182; B. C. Wilson, 180; Henry Yunker, 170. Club total, 902.
- 10. Manhattan R. & R. Club, N. Y. City: H. M. Pope, 190; David J. Gould, 188; Alfred H. Seeley, 182; K. H. Fichtner, 175; C. B. Walker, 166. Club total, 901.
- 11. California R. C. R. & P. Club, San Francisco, Cal.: L. R. Kessing, 183; J. S. P. Dean, 179; P. Thelen, 179; R. M. Vaughan, 177; H. Schmidt, 174. Club total, 892.
- 12. Niskayuna Rifle Club, Schenectady, N. Y.: C. S. Dick, 190; H. Cregier, 188; D. G. Bordelean, 174; A. C. Bruker, 169; J. Crawford, 166. Club total, 887.
- 13. Canton, Ohio, R. & P. Club: A. E. Hart, 181; A. N. Scott, 180; W. K. Perdue, 175; C. J. Foltz, 170; Short, 166. Club total, 872.
- 14. Denver, Colo., City Rifle Club: C. L. Butler, 191; C. E. Younkman, 174; D. C. Mc-Conaughy, 170; T. H. Smith, 166; T. B. Watters, 157. Club total, 858.
- 15. Birmingham, Ala., A. C. R. & R. Assn.: T. K. Lee, 197; Malven Jones, 170; Percy Reid, 168; Frank Flinn, 162; A. F. De Funiak, 160. Club total, 857.
- 16. Pentwater, Mich., Rifle Club: E. B. Clark, 188; R. N. Lagesen, 173; F. W. Cramer, 167; M. D. Girard, 166; E. Stanhope, 161. Club total, 855.
- 17. Gen. Phil Kearny Rifle Club, Kearny, N. J.: John Roche, 197; John Crook, 188; John Lang, 181; Peter Blauvelt, 151; S. Marshall, 137. Club total, 854.
- 18. Warren, Pa., R. & R. Club: F. P. Lauffer, 184; J. A. Clark, 182; J. L. Smith, 170; T. M. Carlson, 165; Geo. P. McAnerney, 147. Club total, 848.
- 19. Casenovia, N. Y., Rifle Club: H. C. Thorne, 174; Geo. L. Woodworth, 173; F. D. Holdridge, 168; W. D. Weaver, 167; C. F. Huttleston, 160. Club total, 842.
 - 20. Hydraulic Rifle Club, Cleveland, Ohio:

- E. Gruber, 182; J. Patterson, 180; N. B. Mook, 161; D. G. McNeal, 159; J. Singer, 157. Club total, 839.
- 21. Middleboro, Mass., Rifle Club: H. L. Pember, 177; S. L. Brett, 171; A. C. Jinney, 168; R. P. Jenks, 163; R. Bowen, 159. Club total, 838.
- 22. New Bedford, Mass., Rifle Club: P. Coderre, 171; E. Choquette, 169; J. Blouin, 169; A. Aubut, 166; A. Turcot, 160. Club total, 835.
- 23. Scott, Ark., Rifle Club: Henry Thibault, 175; W. O. Scott, 173; H. Fletcher, 168; Walter Alexander, 165; J. K. Thibault, Jr., 149. Club total, 830.
- 24. Chicago, Ill., Rifle Club: F. B. Roziene, 175; E. B. Witwer, 166; H. F. Walbaum, 165; J. Howard, 161; H. C. Wood, 157. Club total, 824.
- 25. Citizens R. & R. Club, Rochester, N. Y.: F. C. Sherman, 178; C. D. V. Hobbie, 169; W. W. Lewis, 168; G. S. Searle, 156; A. G. Johnson, 152. Club total, 823.
- 26. Joliet, Ill., Rifle Club: A. Gray, 180; L. J. Deiss, 180; H. D. Grose, 167; R. McKee, 153; F. M. Barber, 141. Club total, 821.
- 27. Community Rifle Club, Sherrill, N. Y.: Burlingame, 187; S. Freeman, 177; H. Freeman, 172, Flick, 150; L. Lee, 133. Club total,
- 28. Norwalk, Conn., Rifle Club: J. A. Baker, Jr., 171; A. N. Clark, 168; Wm. Pfleeger, 168; Theo. F. Bygbee, 162; Fred Himsemier, 147. Club total, 816.
- 29. Franklin, Pa., Rifle Club: C. S. Boswell, 183; W. W. Mackey, 161; C. H. Bronson, 160; C. M. Campbell, 156; J. H. Gilliland, 143. Club total, 803.
- 30. Antioch, Ill., Rifle Club: H. E. Williams, 165; N. E. Proctor, 162; Ed. Garrett, 159; B. Worman, 159; F. R. King, 144. Club total, 789.
- 31. Ontario, Cal., Rifle Club: F. H. Wallihan, 182; C. E. Hare, 167; P. Petch, 151; C H. Card, 146; W. H. Fangeman, 146. Club total, 789.
- 32. Olig Rifle Club, Reward, Cal.: S. J. Burris, 177; C. M. Small, 155; W. D. Mc-Nairn, 153; B. F. Mattison, 152; A. C. Dambacher, 145. Club total, 782.



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Members of the Adrian, Michigan, Rifle Club on their Range

33. Canyon City, Ore., Rifle Club: D. Leedy, 149; H. Allen, 148; J. M. Blank, 131; C. G. Guernsey, 129; A. D. Leedy, 108. Club total, 665.

34. Patchogue, N. Y., Rifle Club: F. P. Johnson, 148; Dr. McKnight, 120; C. C. Care, Jr., 119; H. L. Rieth, 118; R. B. Ackerly, 115. Club total, 620.

Clu	b total, 620.	
The	aggregate standing of the clubs a	t the
	se of the seventh match is:	
	Washington, D. C., Rifle Club	6535
	Kiowa Shooting Club, Des	-505
	Moines, Iowa	6517
3.	Massachusetts Rifle Ass'n., Bos-	
	ton, Mass	
4.	Milwaukee, Wisc., R. & P. Club	6500
5.	Brooklyn, N. Y., Rifle Club	
6.	Birmingham, Ala., Ath. Rifle Club	6309
7.	Manhattan R. & R. Club, New	
rin.	York City	6260
8.	Los Angeles, Cal., R. & R. Club	6138
9.	Jacksonville, Fla., Rifle Club	6138
10.	Toledo, Ohio, R. & P. Club	
II.	Scott, Ark., Rifle Club	5987
12.	Pentwater, Mich., Rifle Club	5882
13.	Canton, Ohio, R. & P. Club	5972
14.	Denver, Colo., City Rifle Club	5934
15.	Cazenovia, N. Y., Rifle Club	5927
16.	Cal. R. C. R. & P. Club, San	
	Francisco	5881
17.	Franklin, Pa., Rifle Club	5860
	Warren, Pa., R. & R. Club	5788
19.	Norwalk, Conn., Rifle Club	5780
20.	Citizens R. & R. Club, Rochester,	
	N. Y	5778
21.	Community Rifle Club, Sherrill,	
	N. Y	5698
22.	Greater Omaha, Nebr., R. & R.	
	Club	5658
23.	New Bedford, Mass., Rifle Club	5629
24.	Hydraulic Rifle Club, E. Cleve-	
	land, Ohio	
25.	Middleboro, Mass., Rifle Club	5551
26.	Joilet, Ill., Rifle Club	5409
27.	Ontario, Cal., Rifle Club	5382
28.	Antioch, Ill., Rifle Club	5332
29.	Olig Rifle Club, Reward, Cal	5253
30.	Gen. Phil Kearny Rifle Club,	
	Kearny, N. J	5017
31.	Chicago, Ill., Rifle Club	4948
32.	Canyon City, Ore., Rifle Club	4041
33.	Patachogue, N. Y., Rifle Club	4240
	SEVENTH MATCH MISSING	
34.	Ashburnham, Mass., Rifle Club	
35	Rochester, Minn., Rifle Club	4453
36.	Holbrook, Arizona, Rifle Club	3752

SIXTH AND SEVENTH MATCHES

MISSING

St. Johnsbury, Vt., Rifle Club......3872

•	
	Wilsall, Mont., Rifle Club
	SIXTH MATCH MISSING
	Niskayuna Rifle Club, Schenectady, N. Y
	FIFTH, SIXTH AND SEVENTH MATCHES MISSING
	Akron, Ohio, Rifle Ass'n 2811
	FOURTH, FIFTH, SIXTH AND SEVENTH MATCHES MISSING
	Hoosier Rifle Club, Indianapolis, Ind. 2390
	THIRD, FOURTH, FIFTH, SIXTH AND SEVENTH MATCHES MISSING
	St. Louis, Mo., Col. R. Club 1745 Highland, Cal., Rifle Club
	SECOND, THIRD, FOURTH, FIFTH, SIXTH AND SEVENTH MATCHES MISSING
	Hopkins, Minn, Rifle Club 865 Litchfield, Conn., Rifle Club 491
	NO MATCHES REPORTED
	Saranac Lake, N. Y., Rifle Club.

RICOCHETS

Mt. Olive Rifle Club, Reedley, Colo.

National Rifle Club, Newark, N. J.

Long Beach, Cal., Rifle Club.

Primarily the outdoor small-bore qualification course prescribed for N. R. A. clubs was designed for the .22-calibre rifle in instances where civilian riflemen were hampered in obtaining either service rifles or service ammunition.

The question of range, however, entered into the problem quite as much as equipment, there being many clubs in the country where the greatest distance possible was 150 or 200 yards. Wherefore the proposed new course seems to have obviated other difficulties in outdoor practice than the ones interposed by a shortage of service rifles and ball cartridges.

Already some of the experimentally-minded riflemen with which the civilian game abounds have been asking themselves how the outdoor small-bore course would work if shot with service rifles and reduced loads, and have set about finding the answer.

Whether qualifications made under this course with the service rifle and reduced charges, instead of the .22-calibre weapon, will be allowed is of course at this time un-

determined and beside the point. The nib of the matter is that the course, shot with the service rifle, seems to work very well. A. B. Curtis, of Mark Center, Ohio, is one of the men who desired to find out how the

new course would work with the Springfield. He says: "After the publication of the details of the new course, I reloaded 52 shells with 19 grains (bulk) of new Schuetzen shotgun powder, and Ideal Bullet 308,241, weighing 120 grains, made a set of targets and with my Springfield started out between showers to try the new course out. Owing to the weather, I got a continual change of light and a 3- to 5-mile wind, veering from 5 to 7 o'clock. The low velocity of the load made it extremely difficult to dope the wind, and the result was a 42 at 75 yards, 45 at 125 yards, and 42 at 150 yards, with 50 and 46 at 50 yards and 75 yards respectively, timed fire, a total of 225.

"About three days later I made a second trial, making a total of 238. In these scores

I used a telescopic sight."

Harry Hopper, of the Adrian, Michigan, Rifle Club, shooting the .22-calibre outdoor qualification course, has hung up a score of 240 out of 250, and many of the other members of the organization have made a creditable showing.

The coach and range officer of the club, Captain Meyer, who has done a great deal of .22-calibre shooting at long ranges, is one of the most enthusiastic supporters of the new course. Suffering from an abscess on the jaw bone that hugs the stock of the rifle, he piled up a score of 214, but the total came hard. The 200-yard scores (50 yards) were shot in a brisk wind quite difficult to dope.

As the result of the first trial, the Adrian Club qualified six expert riflemen and one sharpshooter. The men and their scores are: Hopper, 240; Harvey, 236; Hortie, 230; Pochawick, 223; Myer, 214, and Phelps, 200.

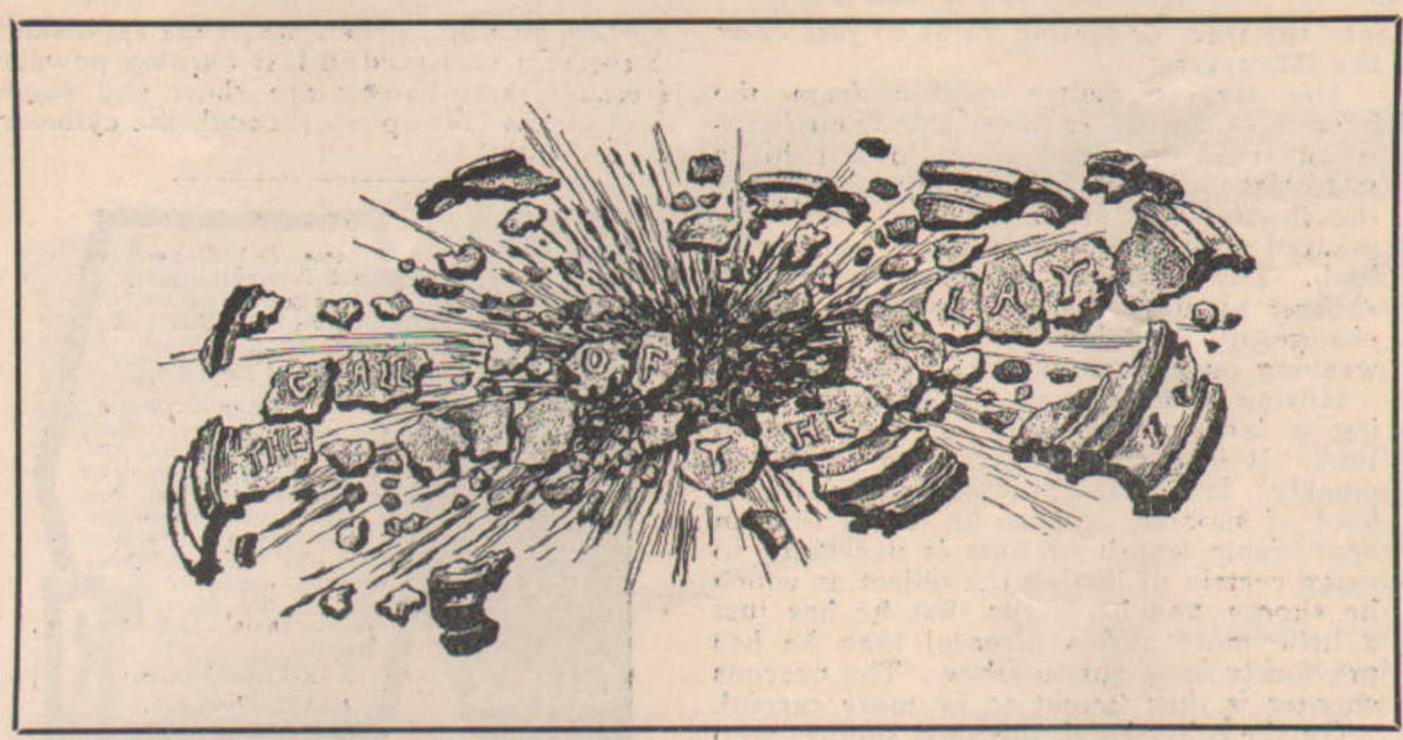
Three experts, one sharpshooter, and six marksmen have been qualified under the out-door small-bore course by the Cleveland, Ohio, Rifle and Revolver Club.

The experts and their scores are: C. H. Burgess, 221; L. W. Wickham, 221; A. P. B. Einig, 213.

The sharpshooter is J. M. Roth, 191.
The marksmen are: A. Herkner, 189; F. K. Rand, 188; C. A. Tunks, 183; F. R. Beaumont, 182; N. S. Rathburn, 180, and C. Miller, 177.

Concerning the shoot, the secretary says:
"On August 11th ten members of the Cleveland Rifle Club, in order to create some excitement and diversion, tried out the new
qualification course tentatively adopted by the
National Rifle Association for outdoor smallbore rifles. The scores I think are good,
considering the fact that none of the members
had fired the .22-calibre rifles at these distances before and were up in the air most
of the time as regards sight adjustments.

"It might be interesting to describe the equipment used by the boys. Mr. Burgess used an old Maynard tip-up action, equipped with a telescope with fixed mounts and movable cross hairs. Mr. Tunks used a Stevens tip-up pistol, 10-inch barrel, skeleton stock and telescope same as Burgess. Mr. Roth used a Stevens action with Andrews barrel and Sidle telescope. Messrs. Einig, Wickham, and Beaumont used Winchester .22-calibre muskets with regular sights and sling strap. Messrs. Herkner, Rathburn and Rand used Remington rifles with Lyman sights, and Mr. Miller a Ballard action with Andrews barrel and Sidle telescope. In this shoot Mr. Beaumont scored at the targets, Mr. Herkner kept the score, and Lieut. C. H. Burgess, formerly captain of the Ohio State Rifle Team and inspector for the Ohio Cavalry Squadron, was in charge of the firing points."



Larson Wins G. A. H. Classic

S MASHING 98 out of 100 blue rocks from the 20-yard line, Charles Larson, of Waupaca, Wisconsin, won the Grand American Handicap, the annual trapshooting classic, which, with many subsidiary events of premier importance in the scattergun world, was held in Chicago from August 20th to 24th.

In the big event 805 aspirants for the greatest of trapshooting honors were entered, and Larson did not have things all his own way, for in the handicap shoot he tied with Mark Arie, of Illinois, but on the shoot-off, when 40 targets were thrown, defeated his rival 37 to 35, running his first 19 blue rocks straight.

A list of the winners of the G. A. H. and

accompanying events shows:

Winner Grand American Handicap—Charles Larson, Waupaca, Wis., 20 yards, 98 out of 100 and 37 out of 40 on shoot-off.

Mark Arie, Thomasboro, Ill., 99 out of 100 and 75 straight on shoot-off.

Winner Preliminary Handicap—John Peterson, Randall, Ia., 99 out of 100 from 18 yards.

Winner National Amateur Championship at Doubles—C. B. Platt, Bridgeton, N. J., 96 out of 100.

Winner Consolation Handicap—Roy A. Nutt,

El Paso, Ill., 96 out of 100.

Winner South Shore Introductory—Frank Troeh, Vancouver, Wash., 199 out of 200. Winner Chicago Overture—Dr. E. H. Powell, Valparaiso, Ind., 100 straight and 38 out of 40 on shoot-off.

Second Trophy in Grand American Proper— Mark Arie, 22 yards, 98 out of 100, 35 out

of 40 on shoot-off.
Third—R. C. Smith, M.

Third—R. C. Smith, Mounds, Ill., 19 yards, 97 out of 100, 19 out of 20 on shoot-off.

Fourth—J. C. Norwood, Davenport, Ia., 17

yards, 17 out of 20 on shoot-off.

Fifth—H. C. Hood, Pittsburg, Kans., 19 yards, 96, and 40 out of 40 on shoot-off.

Second in National Amateur Championship—

Roy McIntyre, Pennsylvania, 99 out of 100 and 73 out of 75 on shoot-off.

Second in Preliminary Handicap—John L.

Lumpp, Youngstown, Ohio, 18 yards, 98 out of 100.

Third—J. B. Lallance, West Virginia, 20 yards, 97 out of 100 and 96 out of 100 on shoot-off. Second in Double Championship—Mark Arie, 95 out of 100.

Third-Roy H. Bruns, Brookville, Ind., 93

Second in Consolation Handicap—John R. Livingston, Springville, Ala., 95 out of 100, 16 out of 20 on shoot-off.

Third—C. B. Stickley, Virginia, 95 out of 100, 14 out of 20 on shoot-off.

Second in South Shore Introductory—J. E. Chatfield, Texarkana, Ark., 198 out of 200, 18 yards.

Third-A. C. Skutt, Morton, N. Y., 197 out of 200, 18 yards.

Second Chicago Overture—C. A. Gunning, Longmont, Col., 100 straight, 37 out of 40 on shoot-off.

Third—H. P. Demund, Phoenix, Ariz., 100 straight, 19 out of 20 on shoot-off.
High on All Targets—Mark Arie.

Second-C. B. Platt.

Winner Professional Championship—Homer Clark, 94 out of 100.

Winner Ladies Trophy in G. A. H.—Mrs.

L. G. Vogel, 87 out of 100.

Winner Ladies Trophies in 50-target Races— First day, Miss L. Meusel, 46; second day, Mrs. A. H. Winkler, 47; last day, Mrs. Almert, 45.

Winner A. B. Richardson Memorial Shoot—R. A. King, 99 out of 100, 24 out of 25 in shoot-off.

Winner Hercules All-round Amateur Championship—Mark Arie, 190 out of 200.

Professional Winner-Bart Lewis, 193 out of 200.

Winner Match Race, between Kennicott and Clark for Professional All-around Championship—Homer Clark.

Two events stand out from all the others in the Grand American Trapshooting Tournament. They are the National Amateur Championship at singles and the Grand American Handicap.

Shooters are inclined to the opinion that the National Amateur Championship is THE event of the program, for it is restricted to the winners of State Championships, or the runner-up, in case the champion cannot attend. The Grand American Handicap is the big money event by reason of the great number of entrants who come in and take a chance on the handicaps they receive to get them in front.

Scores of 99 have won the National title each year. Not one of the three previous winners had to work as hard to win the title as Mark Arie, of Illinois, had this year. Henderson, of Kentucky; Newcomb, of Pennsylvania, and Troeh, of Washington, were alone with 99. Arie was tied by Jay Clark, the Worcester, Mass., attorney, and Roy McIntyre, the Butler, Pa., farmer.

Then was witnessed one of the greatest shoot-offs in history. Clark missed his 20th target on the first shoot-off, and the break in his string eliminated him from further competition, as McIntyre and Arie went straight. Twenty-five more were thrown to each shooter, and neither missed. On the third twenty McIntyre missed his 9th and 21st targets, and Arie again broke every one—174

Arie is without question one of the greatest shots that has ever faced the traps. Cool and collected, with nerves of steel and eyes and finger that work in unison, he went from one event to the other, always near the front. Previous to winning the National Championship he won the Hercules Amateur All-round

out of 175 to win the National Amateur title.

Previous to winning the National Champion-ship he won the Hercules Amateur All-round trophy, and had collected \$47.40 in the South Shore Introductory on a 194 score. He finished second to Clarence B. Platt, of Bridgeton, N. J., for the National Doubles Championship, breaking 95 out of 50 pairs. This score under ordinary conditions would have won, but this was no ordinary shoot. Eightynine won the championship last year, and 90 is a fine score at doubles, but in this tournament Platt broke 96—equaling the world's

record—and ten shooters broke 90 or more.

To top this off Arie finished with a run of 38 in the Preliminary Handicap and began the Grand American with a run of 70-all from 22 yards. The best previous record from 22 yards was 100 straight. He continued for a 98 score in the Handicap, being tied by C. H. Larson, the Wisconsin State Champion, who was shooting from 20 yards. Any young fellow who is good enough to win a State championship event must be a pretty good shot. Larson demonstrated he was, for after missing his first target in the shoot-off he broke 19 straight. As Arie missed one, they shot another string, and in this Arie had his first bad five minutes of the week, missing four in his last seven.

Arie's work in the Grand American Handicap netted him \$743.30. Larson received the same amount. In the three events in which he qualified for money prizes Arie won

\$896.70.

No trapshot ever performed as well in a Grand American Tournament as Arie did this year. It is doubtful if his performance from 22 yards will ever be equaled.

FACTS ABOUT THE G. A. H. By PETER P. CARNEY

With each year the Grand American Trapshooting Tournament becomes a bigger sporting proposition.

In the blue ribbon events of trapdom, held late in August at the palatial home of the South Shore Country Club, Chicago, Ill., 798 shooters participated and fired at 303,258 of the inanimate clay targets. This is 20,788 more than were trapped in the carnival at Grant Park, Chicago, in 1915, and 75,000 more than were trapped in St. Louis, Mo., last year.

The Grand American Tournament is to trapshooters what the "world's series" is to the baseball "bugs." It is a sporting classic of equal importance to the baseball finale. This trapshooting carnival is a much bigger event than the average reader of the doings in sportdom is aware of. There is not another sport that will attract 798 contestants, especially if the contestants pay all their own expenses, as the shooters do. Furthermore, the majority of the trapshots bring their families along, which adds to the expense account and adds to the general H. C. of L.

The throwing of 303,258 targets means that the same number of shells were fired. In those shells were more than a ton of powder. The shells and targets meant an outlay to the shooters of \$21,229.06. The entrance fees of the shooters and the purses offered by the Interstate Association amounted to \$20,000. It is estimated that the expenses of the 798 shooters to the tournament would average \$100 each—or, in round figures, \$800,000. Speaking by and large, this is a considerable sum of money for one week's amusement. It only goes to show the size of the tournament and the great interest that is manifested.

There are many events on the Grand American Trapshooting program. It is the place where the Trapshooting Championships are decided and the mediocre trapshooters get an

events. The shooting was better this year than in any preceding year. Last year in St. Louis, for example, there wasn't one score of 100 in any 100-target event. In the Chicago overture this time four shooters tied at 100 and eleven more were tie at 99. There were so many 98's that only a half dozen of them got into

the prize money.

The shooting was so exceptional that the shooters before the week was up were suggesting that the prize money be spread over more places, that the money be graded so that it would go further and please more shooters. Every one likes to win-no matter how small the prize may be. Another thing that will have to be given consideration in tournaments to come is the number of traps to be used. Ten were used at the South Shore Tournament, and with this number the Preliminary and Grand American Handicaps had to be carried over to the succeeding day. Carrying over an event is something the trapshooters do not relish. They would like to have the event completed the same day as it started. The only way this seems possible is to have more traps.

Clay Birds Keep Hunter in Form

THE game season is close at hand. Dame Nature is already spreading her autumn garb over forest and field, and in a few weeks shooting—the sport of sports—will

There is nothing like trapshooting for keeping a hunter up to form. I have heard some field shooters venture the remark that the sport was tame—uninteresting. Personally I am inclined to differ, for it has been my bitter experience to find a number of "goose eggs" hung up on what might otherwise have been a fine looking score

sheet.

There's nothing particularly easy about "getting" clay birds, and if one follows the rules closely, one is apt to find that the sport has many contingencies that will tax his skill. There are some good game shots that make very poor scores at the trap. On the other hand, there are a great many good trap shots who are also good field shots, and a majority of these men will tell you that their success in the field is principally due to their constant practice at trapshooting.

The snap shot aims and doesn't know it—the trap shot snaps his game and knows that he has aimed. The snap shot will kill everything that jumps one day and miss horribly the next. The trap shot will shoot in form day in and day out. Now, there must be a reason, as they say in Battle Creek, and that reason probably lies in the fact that one shooter is a scientifically trained machine, while the other just hap-

pens.

The fact that a trapshooter knows just where his target is to rise is no positive proof that he can "cover" and "get it in an instant." That pigeon is apt to take unto itself a most mystifying angle and all previous calculations may be upset. Incidentally, once a "saucer" gets under way its speed is greater than that of the swiftest bird, and, so pretty fine judgment on the part of the shooter is essential.

Frankly the automatic trap and the clay pigeon offer great opportunities for practice, but if one desires a more strenuous test there is a little arrangement called a hand-trap that is well worthy of consideration.

There is one particular advantage that the handtrap has over its larger brother, the automatic, and this is the fact that it enables a shooter to obtain conditions in practice that are very similar to those prevailing in field shooting.

With the handtrap targets may be thrown

into the trees or sprung so as to just clear the tall grass.

The targets glance readily from the boughs of evergreen trees and from hard-wood trees, provided they do not hit a good-sized limb fairly. Very frequently the shooter will break a target which has glanced at a considerable angle from some limb. This kind of practice teaches the shooter to make instant allowance for the change of direction of a bird which is weaving its way among the trees.

Hitting or missing in this kind of shooting is largely a question of judgment of time. It is a common error to shoot too quickly. Handtrap practice steadies this kind of shooter, because he learns that an appreciable length of time is necessary to make certain of hitting the object at which he shoots, and he learns that he has just a little more at his disposal than he has previously been apt to allow. The nervous shooter is thus taught to be more careful.

On the other hand, the slow shooter who never before could wing quickly enough to cover a dodging bird is taught to trust more to instinct. I have seen some great improvement in field shooting in cover as a result of a moderate amount of handicap practice.

TRAPSHOOTER.

EXPLOSIVES FROM DYNAMITE DOWN

There are a lot of things about explosives that nobody knows, and we really should be satisfied to know enough about them so that we can get results without blowing our heads off.

Explosives of one kind or another have had a lot more to do in the development of civilization than most people realize. The ancient Egyptians built pyramids without the use of explosives, but it took them much longer than if they had had dynamite to help them quarry the blocks or gasoline motors, which are run by explosives, to hoist them into place.

Of the things we do know about explosives, as applied to firearms, one of the most important is the necessity for using just the right kind of powder to get the desired results.

From a definitive point of view, all explosives are the same. Any solid or liquid substance which upon proper excitation will suddenly transform itself into a large volume of gas comes within the meaning of the definition. The speed with which this action takes place determines the use to which the explosive is to be put.

Dynamite at one end of the scale is a nitro-glycerine compound and it transforms itself into gas so rapidly and so violently that it is next to useless as a propellant for either heavy ordnance or small caliber firearms. Should it be used for such work an explosion would be sure to result owing to the fact that the pressure in the chamber would rise beyond the bursting point of the barrel before the bullet had a chance to start.

For use in high power rifles smokeless explosives are made from nitro-glycerine and nitro-cellulose and certain other substances which greatly reduces the speed with which the powder transforms itself into gas. For other firearms such as shotguns and revolvers various smokeless powders are made up each with proper characteristics and explosive speed for the firearm in which it is to be used. Curiously enough the highest velocity rifles usually require the slowest burning powder. This is due to the fact that they have small bores and the bullet is very long in proportion to its weight. Shotguns require relatively rapid burning powder because they have large bores and also because the walls of the barrel being thin yield a

certain amount at the time of the explosion. Revolvers also require fast burning powder because their barrels are short and some loss of gas takes place through the cylinder of the barrel.



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.

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

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

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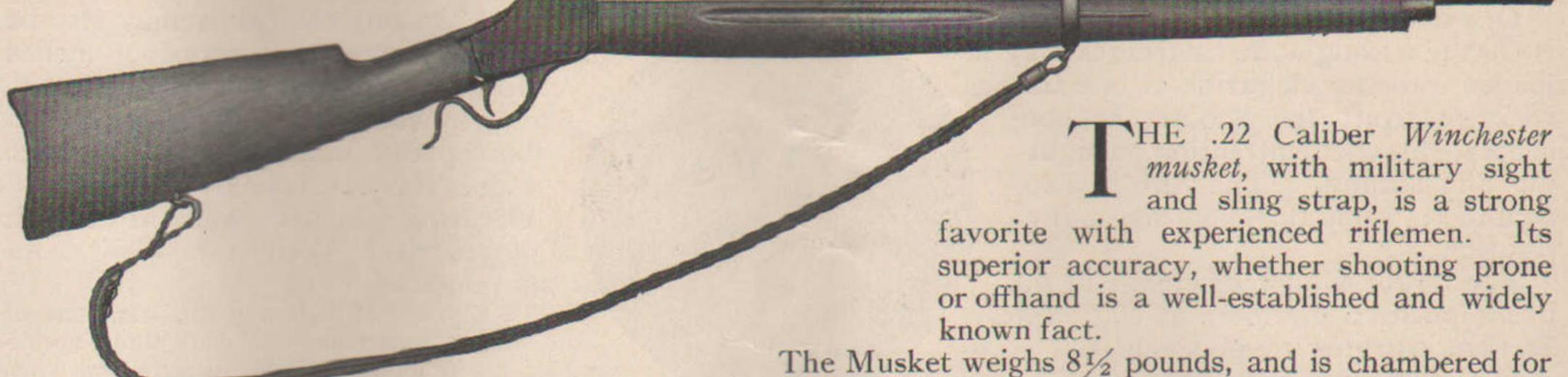


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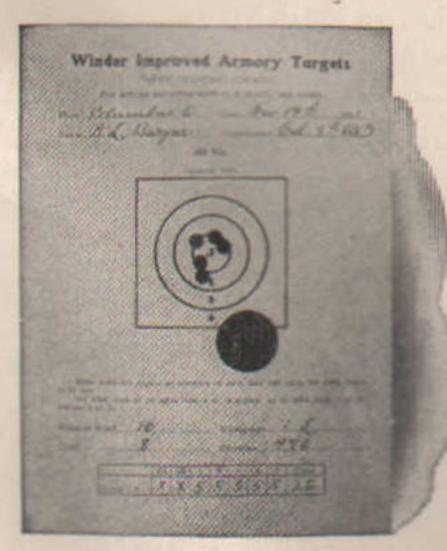


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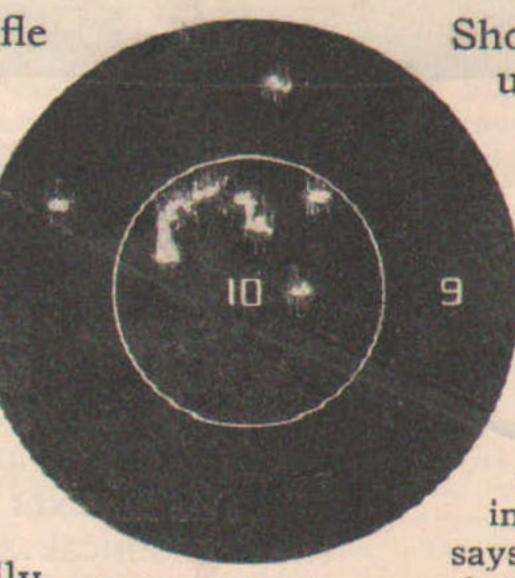
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One of the many good points of this rifle is that ten Long Rifle cartridges may be loaded into the magazine at one time, which permits the shooter to concentrate his entire attention on sighting and aiming. The rifle is also adapted to rapid fire shooting in any position.

The target shown was made in the prone position outdoors at 100 yards. It demonstrates conclusively the accuracy of this excellent rifle.

The new model is chambered especially for the .22 Long Rifle cartridge but the .22



10 shots at 100 yds. prone Reproduction one-half size

Short and .22 Long cartridges may also be used. The barrel is twenty-four inches in length with sixteen inch twist; pistol grip walnut stock fitted with steel butt plate; take down; windgauge globe and aperture front sight and elevating rear peep sight fitted with target disc. Weight of rifle about six pounds.

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



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