

ARMS AND THE MAN

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MILITARY AND SHOOTING WEEKLY

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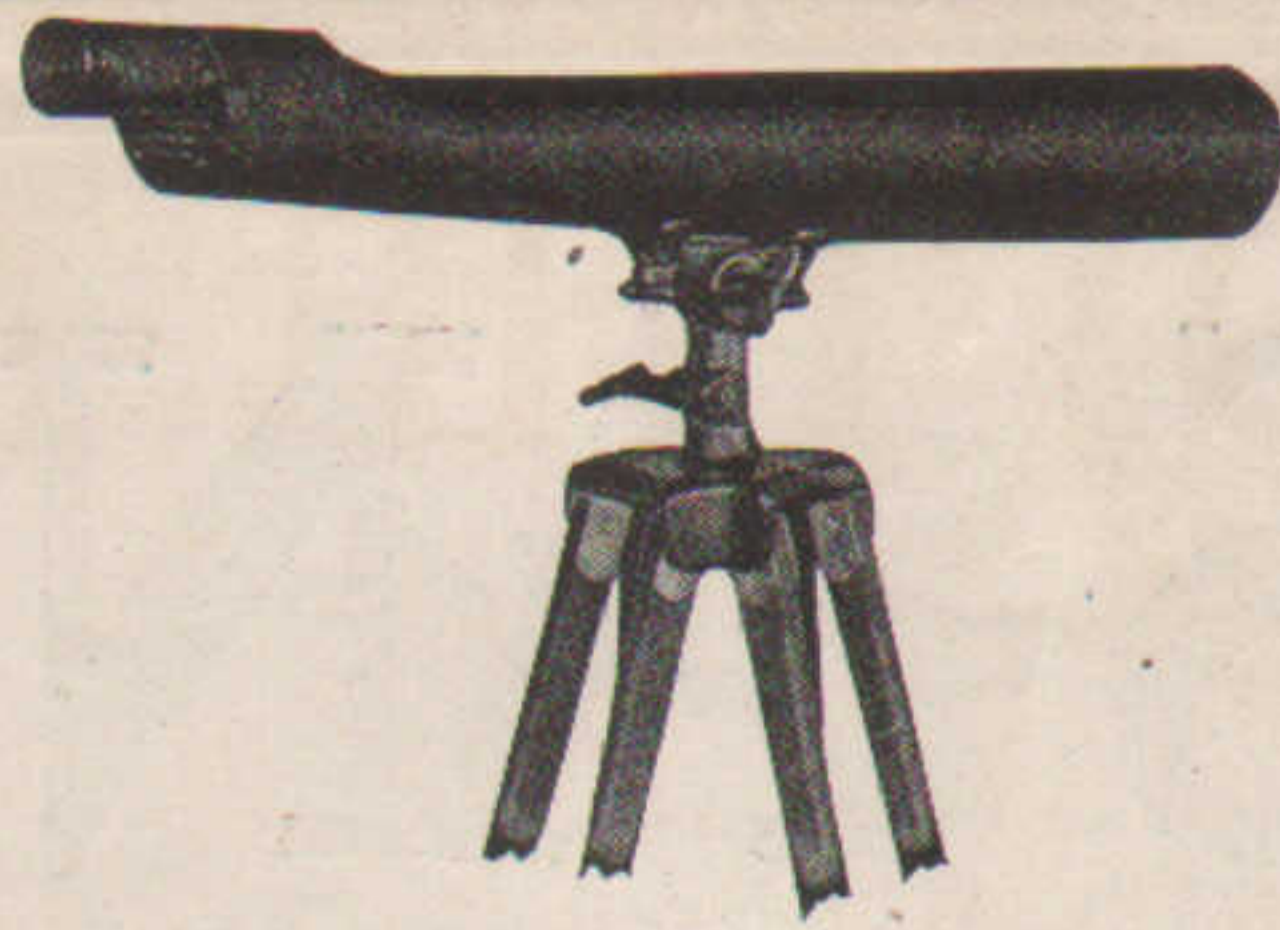
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Mr. W. Wilnoski, Wilkes-Barre, Pa., shooting BALLISTITE, and Mr. M. L. Wise, Marysville, Pa., shooting SCHULTZE, tied for first place in a field of 264 shooters. Score: 94x100. Mr. Wilnoski won in shoot-off,—20 straight.

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Fred Gilbert, from 22-yard mark, broke 96x100, shooting DUPONT
L. Z. Lawrence, from 19-yard mark, broke 96x100, shooting DUPONT

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HIGHEST OFFICIAL PROFESSIONAL AVERAGE

C. G. Spencer, 346x350, SCHULTZE

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Pan-American International Team Match, at Buenos Aires, Argentine Republic, May 23, 1912, between *United States*, Argentine, Chile, Peru, Brazil and Uruguay.

International Legation Guards Match, at Peking, China, June 5, 1912, between *United States*, Great Britain, Germany, Holland, Russia and Italy.

The International (Team Match) at the Olympic Games, Stockholm, Sweden, June 29, 1912, between *United States*, England, Sweden, South Africa, France, Norway, Greece, Denmark, Russia and Hungary.

The Palma Trophy Match, at Ottawa, Canada, September 14, 1912, between *United States* and Canada.

RIFLE SMOKELESS DIVISION
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WILMINGTON, DEL.

ARMS AND THE MAN

FORMERLY
SHOOTING AND FISHING.

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Experiments With Sporting Rifles.

BY LIEUT. TOWNSEND WHELEN.

In his letter of enclosure the author says:

The article represents a lot of hard and long continued work on my part. I have tried to make the deductions as fairly as I could. By no means all the experiments are recorded here, but only those from which I felt that I could make accurate deductions. For example, a large number of groups have been fired from different sporting rifles which are not recorded at all, and a lot of experiments with reduced charges have also been made. Most of these bore out the facts as found in the experiments recorded in this article and have been omitted for the sake of brevity. I have also had a large number of tests made by the duPont Co. and by the various ammunition companies as to velocities and pressures which are not mentioned as the experiments for which they were undertaken have not been finished. In all the deductions I have made I have my proofs in the shape of carefully conducted experiments. It may be that some riflemen will not agree with me in these. It would seem to be only fair that if they see fit to dispute matters that they come forward with their proofs in the shape of recorded experiments. In other words, mere opinion on such subjects is of little value and is apt only to lead to confusion as to the truth. On the other hand, if I have been manifestly wrong in any of my experiments, or in the deductions I have drawn from them, I think that the matter should certainly be published for my benefit as well as others. I have been simply looking for actual facts.

THE appearance of Dr. Mann's work, "The Bullet's Flight," several years ago completely upset some of the most cherished beliefs of myself and other riflemen throughout the country. The doctor's work was most revolutionary, and at the same time was so carefully and accurately done as to leave no possible cause to question it. His experiments, as detailed in the book, had but one object, that of determining why a rifle would not shoot with absolute accuracy. The book set me thinking and working. There were a number of matters which vitally concern us which Dr. Mann had naturally not touched. Could it be possible that in our beliefs regarding these we were wrong also? I determined to try to find the truth as to these myself. The chance to start this experimental work came about two years ago, and it has been progressing steadily since that time. It is by no means completed yet; I doubt if it ever will be completed as long as I can see to shoot and have strength to hold. But I seem to have found out quite a lot already, and without going into the details of all the experiments, for which there would not be space here, I determined to write up a few of the results and deductions with a view to having them discussed by riflemen throughout the country for the benefit of all.

In these experiments so far thousands of rounds have been fired from a number of rifles. All the shooting has been done from muzzle and elbow rest with rifles equipped with telescope sight. While the personal element has not been entirely eliminated, it has been done as far as it is possible without resorting to purely mechanical shooting. The results thus show just what can be expected when the rifleman does his part perfectly. The majority of the experiments were conducted with a view to determining several matters. Thus a single group would be shot to determine the accuracy of a load, the point of impact of the first shot from a clean, cold, slightly oiled bore, the angle of elevation required, etc., and this group in comparison with a number of others would have its tale to tell. Many problems suggested themselves and each of them was solved as well as I was able.

ACCURACY WITH HUNTING AMMUNITION.

Experiments conducted from time to time by the Government and the National Rifle Association have demonstrated clearly the accuracy of our military ammunition. Likewise there have been a number of experiments made and matches shot which clearly show the accuracy of the .22 caliber rim-fire ammunition, particularly .22 short and .22 long rifle. But, to the best of my knowledge we have no data which will show the accuracy which can be expected from ordinary soft-nose hunting ammunition. It is true that there has been a certain amount of desultory shooting with such ammunition by individuals but it has been of a character to show us practically nothing. Riflemen are too prone to publish only selected groups. What I wanted was the accuracy which could be depended upon from such ammunition, and from sporting arms.

When we speak of the accuracy of arms and ammunition we mean

not only the diameter of the circle which will contain a series of ten shots, but also the size object which one can be absolutely certain of hitting the first shot provided the range is accurately known. It will, therefore, not suffice to simply fire a number of groups with a certain ammunition and rifle. The experiments must be continued from day to day, and the sight elevations and center of points of impact noted. This was done to the extent of approximately 6,000 shots fired from six different sporting rifles. Accuracy tests also figured in a number of other experiments so that I have before me over 1,000 groups of 10 shots each carefully fired from muzzle and elbow rest with telescope sight. The tables show the average size of the groups and the correct elevation for each lot of ammunition. As the experiments were not conducted with a view of determining the most accurate ammunition, and also as they in most cases show simply what was accomplished with one rifle with one make of ammunition it would manifestly be unfair to publish the names of the different makers of the ammunition. They are therefore referred to by number only. Only well pulled groups were recorded. When I was conscious that I had pulled a shot badly, the whole group was thrown out and not considered. In almost all cases the figures given represent the average for 10 groups of 10 shots each. The letter "M" means that the bullets were lubricated with Mobilubricant.

ACCURACY TESTS WITH HUNTING AMMUNITION.

Table No. 1.

U. S. Magazine Rifle Model 1903, caliber .30, chambered for 1906 cartridge. Groove diameter of bore .3080 inches. Sights: Winchester A5 Scope. One minute of elevation or windage equals .6 inches at 100 yards. Range, 100 yards.

Ammunition.	Weight of Bullet. Grains.	Mean Radii Inches.	Group Measure Inches.	Elevation. Minutes.	Windage. Minutes.
Make No. 1 M.....	220	.870	3.15	17.25	67.
Make No. 2 M.....	150	.624	1.93	5.3	62.
Make No. 2 M.....	190	.812	2.55	19.	65.5
Special No. 1 M.....	170	.820	2.92	15.	69.5
Special No. 2.....	200½	.855	2.75	27.	66.
Special No. 3.....	154	1.112	3.00	38.	70.

NOTE. The Special loads were hand loaded as follows:
No. 1. Reed 170 grain soft-point spitzer bullet, 46 grains (weighed) 1909 Military Powder, No. 9 U.M.C. Primer, F. A. Shells.
No. 2. Ideal Bullet No. 308334, 25 grains Lightning Powder, No. 9 U.M.C. Primer, F. A. Shells.
No. 3. Ideal Bullet No. 308241, 10½ grains Marksman Powder, No. 9 U.M.C. Primer, F. A. Shells.

Table No. 2.

Winchester Single Shot Rifle, caliber .30-40 U. S. (Krag). Groove

diameter of bore .3082 inches. Sights: Winchester A5 Scope. One minute of elevation or windage equals one-half inch at 100 yards. Range, 100 yards.

Ammunition.	Weight of Bullet. Grains.	Mean Radii Inches.	Group Measure Inches.	Elevation. Minutes.	Windage Minutes.
Make No. 1-----	220	.856	3.40	79.	90.
Make No. 1 M-----	220	.768	2.80	81.	89.
Make No. 2-----	220	.930	2.90	75.5	93.
Make No. 2 M-----	220	.658	2.15	75.5	93.
Make No. 3-----	220	.891	2.90	75.	89.
Make No. 3 M-----	220	.799	3.10*	80.	91.

*One or two off shots in a group will sometimes make the group measure of one series larger than that of another series which shows a smaller mean absolute deviation. The group measurements are given here only for reference. The true measure of accuracy is the mean radii.

Note how the use of Mobilubricant improved the accuracy in every case, also the apparent effect that it had in the elevations required.

Table No. 3.

Savage High Power Rifle. Caliber .22 Savage High Power. Winchester A5 Scope. One minute of elevation or windage equals one inch at 100 yards. Range, 100 yards.

Ammunition.	Weight of Bullet. Grains.	Mean Radii Inches.	Group Measure Inches.	Elevation. Minutes.	Windage Minutes.
Make No. 1-----	70	1.578	4.86	30.6	95.
Make No. 1 M-----	70	2.004	6.15	19.7	91.
Make No. 2-----	70	1.867	6.11	20.2	94.
Make No. 2 M-----	70	2.298	7.65	19.5	92.
Make No. 4-----	70	1.424	4.32	20.0	92.
Make No. 4 M-----	70	2.055	6.90	19.7	92.

NOTE. This rifle was the only case where the use of Mobilubricant failed to improve the shooting of rifles using American powder and metal-jacketed bullets. It is understood that since the above tests were made the ammunition for this rifle has been greatly improved. The rifle with which these tests were made was a very accurate one when used with reduced loads.

Table No. 4.

Two .280 Ross rifles. One with Lyman sights, the other with Adolph three-power telescope sight. Groove diameter of each .289 inches. U. S. C. Co. 145-grain copper-tube ammunition. Range, 100 yards. Mobilubricant used.

Sight.	Mean Radii Inches.	Group Measure. Inches.
Lyman-----	.646	2.54
Telescope-----	.513	1.95

The tests showed conclusively that there is no way of determining in advance just what elevation and windage a given rifle and ammunition will require on a certain day without resorting to the target shot's method of sighting shots. Changes in temperature, air pressure and humidity will cause changes in elevation, but there will be other changes, the causes of which I have been unable to determine, and they can not be allowed for.

It is a remarkable fact that these unknown factors affect the .30 caliber Model 1906 rifle much less than they do those of the .30-40 class, and that the .280 Ross is scarcely affected at all. This is borne out by our military experience. With the Krag we found it necessary to use the thermometer, barometer and hygrometer to aid us in calculating our elevations from day to day, and even then our sighting shots were often way off from where we expected them. With the advent of the Springfield, however, we could calculate our elevations very closely without the aid of instruments. We make a little allowance for days much cooler or warmer than normal and for strong rear winds, and our first shot hits very close to the point called. Herein lies one of the greatest advantages of modern rifles of high intensity over the arms of ten years ago.

Many of my experiments were made on days when the weather conditions were as near alike as possible and yet the points of impact would vary considerably on different days. By keeping a careful record of the sighting and the center of impact of each group and by reference to the average size of the groups I have been able to form a pretty close estimate of the accuracy of each class of rifles. The range and the normal elevation being known the rifleman can not depend, with sporting ammunition, upon hitting a smaller object than the rectangles given in the following table:

Arm.	50 Yards.		100 Yards.		200 Yards.	
	High Inches.	Wide Inches.	High Inches.	Wide Inches.	High Inches.	Wide Inches.
Rifles of .30-40 Class--	2½	1½	5	3	10	7½
.30 cal. Model 1906----	2	1½	4	3	8	7
.280 Ross-----	7/8	7/8	2½	2	6	5

This table will show us how small an object a rifleman can be sure of hitting at any known range provided he does his own part correctly. That is to say, let him go out any day with his rifle clean, not having previously fired that day, knowing his normal elevation and the exact range, no wind blowing, and he will not be able to surely hit a rectangle larger than those given in the table, due to the daily variation from unknown causes.

Bullet fit and its relation to accuracy deserve some comment here. There are three systems of fitting the modern jacketed bullet to the bore which we may discuss. First the supercaliber bullet as used in our Model 1898 and 1903 Government rifles, the bullets having a maximum diameter of about .0005 inch larger than the groove diameter of the bore. Second, the sectional diameter bullet having a diameter slightly smaller than groove diameter so that when the lands cut into the bullet they will displace just enough metal to cause the bullet to swell to the bottom of the grooves; say about .3065 inches for a groove diameter of .308 inch. This is the system used by the Ross Rifle Co., and by most of our sporting rifle makers. Third, the Mann two-cylinder bullet. This is a long cylindrical bullet having a long bearing of just bore (land) diameter and a very narrow (1-32-inch) base band of groove diameter. This is found only in special hand-made rifles and is mentioned here only for reference, it not being intended to discuss this particular system at this time.

The first system seems to do its best work with rifles having velocities around 2,000 feet. In fact the second system does not give as good accuracy with these velocities as shown clearly in a number of experiments with hunting rifles having bullets fitted under the second system. The second system works best with velocities of over 2,500 feet, and while I have not been able to prove conclusively that in rifles of this velocity it gives better accuracy than the first system, yet it certainly does give less breech pressure and less metallic fouling and as good accuracy. The best shooting obtained with any rifle has been with one using the Mann two-cylinder bullet. This bullet is better adapted to front seating in target rifles than to fixed ammunition for repeating arms and should be treated rather in an article dealing with target than sporting rifles.

THE FIRST SHOT FROM A CLEAN, OILY BORE.

Does the first shot from a clean, oily bore fly high and wild? Our rifleman have invariably claimed that it does. The results of over 300 carefully pulled groups enter into the answer to this question.

With commercial sporting, or the best military fixed ammunition with jacketed bullets and high pressure smokeless powder the results were as follows: Shooting the first shot with the bore clean, cold and slightly oiled by swabbing with a flannel patch slightly lubricated with sperm oil, Three in One, Hoppe's Powder Solvent No. 9, Marble's Nitro-Solvent Oil or Mobilubricant invariably the first shot did not fly high or wild but was found well in among the other shots of the group with no tendency to be in any particular place. This is the usual way a rifleman protects his barrel from rust when shooting from day to day, and is the condition in which the hunter usually carries his rifle. The results being as stated it would seem that the use of fouling shots or of gasoline to dry the bore is unnecessary.

Shooting the first shot with the bore heavily greased with Cosmic No. 80 Soft, gas-engine cylinder oil, Winchester Gun Grease, or a very heavy coating of Mobilubricant almost always gave a high shot, sometimes very high, but always directly above the succeeding group. The first shot apparently always carries out all the grease as the second shot is invariably well in the group.

With the .22 caliber rifle and .22 long rifle Lesmok ammunition, the bore being clean, cold and slightly lubricated with thin oil, the first shot, usually but not always, strikes a little above the succeeding group. Errors from this source are seldom greater than three-fourths inch at twenty-five yards.

(Concluded next week.)

To the Movies.

"What a lively baby!" said Flaherty. "Have ye had his picture took yet, I dunno?"

"Not yet," said Fogarty, the proud father. "We thried to, but affter an hour's lost labor the photygrafer rayferred us to a movin' picture studio."—Lippincott's.

A LITTLE STORY ABOUT WOMEN TRAPSHOOTERS.

ABOUT two months ago eleven women of the city of Wilmington, Delaware, made up their minds that they wanted to learn to shoot a shotgun and enjoy the sport of trapshooting. They realized that it was a clean, healthful, outdoor sport and one that would be very beneficial to them.

With the permission of the management of the Du Pont Gun Club, they presented themselves at the traps on the club grounds one afternoon a week for instruction, and being very apt pupils they soon learned to break flying targets.

Only a very few of the women owned guns, so the management to stimulate the interest of the novices, offered six guns as prizes to the first lady shooters breaking fifteen out of twenty-five straight-away targets.

As they were all desirous of having their own guns, the women worked hard and in four weeks' time all the guns had been won and the women were able to shoot in regular squad formation.

New members entered each week and the little band grew to such numbers that it was deemed advisable to organize and form a women's club. Constitution and by-laws were adopted and the name "Nemours Gun Club" was selected as the name for the club.

The membership now numbers sixty-four and from the way new members are crying for admission, it will only be a short time when the membership will number a hundred or more.

7. Mrs. Joslyn.....	52 out of 100
8. Miss Carson.....	36 out of 100
9. Mrs. Clark.....	43 out of 100
10. Mrs. Prettyman.....	36 out of 100

JUDGE NOT.

By C. W. ROWLAND.

IN re Brother Crossman's interesting remarks in ARMS AND THE MAN July 3—"Off Hand Shooting"—may I be permitted to preface these few lines with this query?

Why do we shoot? If primarily for the sole purpose of educating brain, eye and hand to most expeditiously exterminate man, beast and bird, then indeed is rifle practice prompted by motives most sinister; but thank goodness, dear brethren of the twisted tube, such is not the case.

A very large percentage of rifle shooting the world over is participated in simply from a standpoint of recreation—sport—fun—and it's up to the shooter to choose, each for himself and without criticism from others, as to the style and nature of such shooting, also the kind of rifle and appliances and manner of manipulation out of which he personally gets the most fun.



MEMBERS OF THE NEMOURS GUN CLUB OF WILMINGTON, DEL., COMPOSED ENTIRELY OF WOMEN.

In spite of the fact that these women had had only one practice day a week, ten of the members took part in the "Eastern Handicap," and considering that it was the first time any of them had taken part in a big shoot, their scores were very good. They attracted much attention as they composed the first two squads of women shooters that ever took part in such a shoot in the country.

The ten amateur markswomen were attired in white with green sashes or hat bands. Their youthfulness in the ranks of trapshooters was ever present in the minds of the thousands who thronged about the traps and they were applauded heartily whenever the referee called "DEAD."

From the interest displayed by women in trapshooting, it is safe to say that it will only be a short time before many women's clubs will be formed and trapshooting will be a leading sport among women throughout the country.

As a practical illustration of what might be done in regular competition the following scores are quoted from the records of the Eastern Handicap held at Wilmington, Del., July 17, when two squads of women shooters made the following scores. They are shown in the illustration reading from left to right:

	Scores.
1. Miss Hirst.....	40 out of 100
2. Mrs. Hart.....	55 out of 100
3. Miss Lannan.....	53 out of 100
4. Miss Riley.....	34 out of 100
5. Miss Moody.....	60 out of 100
6. Miss Hammond.....	59 out of 100

If he enjoys the military with its heavy tax on shoulder and pocket-book, well and good. If even his choice may favor the "scatter gun" and its quick and decisive handling, to smoke the darting and elusive clay, or as is now being so rapidly revived, the shooting of bow and arrow, I say—Why not? All are in line with the object sought, viz., recreation and the acquiring of skill—skill, mind you, in the handling of projectile projecting implements; for believe ye not that thousands of the 70 to 90 per centers at the shot-gun traps would ever fail in time of need to most effectually man our nation's arm, as their schooling of all faculties to a degree of exactness and accuracy can not be gainsaid.

Again, in the Schuetzen or match rifle with its marvelous accuracy, fine adjustments and appliances, what have we? Simply the mentor, the teacher, the demonstrator, the pathfinder and trail-blazer of all things pertaining to accuracy the desideratum of rifled arms.

Had there never existed civilian riflemen, shooting match rifles, each striving for greatest accuracy and supremacy at the range, together with the consequent incessant study of methods and principles pertaining to greater efficiency, the accuracy of the rifle today would still be confined to a barrel head at 100 yards; for be it known, kind reader, that practically every added improvement conducive to rifle efficiency, has been suggested or directly applied by intelligent riflemen who have gained reliable experience and information in match rifle shooting.

Again, let us not for a moment entertain the absurd proposition that one style of shooting, with any particular chosen arm, totally

unfits one for all or any other method of shooting; as in fact the reverse is often the rule. Take, for instance, the painstaking off-hand match rifle shooter. He has learned that to land his shots right, strict attention must be paid to all details of hold—pull and weather. After such a man has acquired a degree of skill that accords him a look-in with experienced match-rifle shots, give him a military rifle and compare his score with military shooters of like experience. For instance, at my private range during the past month, my son, 15 years old, shooting a military rifle for the first time, exceeded the best 200-yard off-hand scores of the Local military company then in long practice for State competition; and notwithstanding this very young shooter had gained his shooting knowledge from use of Schuetzen solely, his score of 42 is suggestive of value of match-rifle training.

Again, from the ranks of the Denver Schuetzen Rifle Club and possibly from thousands of others may be chosen men whose skill in the use of military in slow or rapid fire, or match-rifle, pistol, revolver, indoor or outdoor shooting or at flying targets, compare favorably with the best in the land, and with very few exceptions these experts have learned to "shoot straight" with fine match rifles, which, however, they can lay down and with the military or hunting arm might quickly prove that their practice has not been in vain.

In conclusion, let's agree to shoot and learn to shoot straight. If we take more comfort with one style of arm than another, use the favorite when possible, but let's not delude ourselves with the idea that we are O. K. and our neighbor N. G., as said neighbor, even a "Schuetzen Crank" might distance a military welder when brought right down to the rub. So brothers, let's shoot bullets at targets, not "hot air" at each other's right, privileges, likes and dislikes.

NOTES ON RIFLE CLEANING.

THE above is the title of a paper-covered pamphlet just published by the Birmingham Small Arms Co. Ltd., of Birmingham, England. There are forty illustrations from original photographs and drawings, which we might say, in passing, are considerably better than some which have appeared in shooting works on this side. To give a general idea of the contents, we make a few extracts. We believe that this booklet will be of considerable value to those who shoot.

RUST CURIOUSLY LIKE A PLANT.

Even at the risk of being extremely unscientific, no better simile for rust is available than to regard it as a noxious plant or weed of spreading habit. Anyone who has examined the ravages of rust closely must have noticed that it takes the form of sundry isolated patches, apparently having the power of spreading by contact, as distinguished from an even depth of formation over an entire surface. The micro-photograph at the front of the book very well illustrates this point. Even if rust is not a plant it is susceptible to destruction by the equivalent of a week-killer. It loses its potency by the solvent treatment of boiling water, and it is guilty of its worst ravages when it is in free contact with a moist atmosphere.

WHY BOILING WATER PREVENTS IT.

Probably the explanation why boiling water poured down the barrel is so effective a remedy for rust is, first of all, because hot water is an excellent solvent for the harmful ingredients of fouling. It certainly removes any acid that may be present, while it carries away the various residues, which are obviously more soluble in water than in oil. A further reason favoring the boiling water treatment is that water is a perfect solvent for washing soda, Hudson's extract, or any of the other domestic cleaning agents which owe their efficiency to their alkaline nature. The conscientious rifleman who elects to use boiling water, as a matter of course, drops a large lump of soda, or its equivalent, into the kettle beforehand.

OBJECTION TO BOILING.

The boiling water treatment is very messy and inconvenient when carried out on a small scale, and it possesses, moreover, the great objection of not being as a rule available immediately after shooting has ceased. A great disadvantage of the boiling water treatment is the great difficulty of avoiding spilling some of the fluid over the woodwork of the stock and fore-end, with the result that warping may follow through moisture being introduced between the barrel and fore-end, accompanied by the formation of rust in an inaccessible situation. The heating of the barrel to boiling temperature may or may not be a disadvantage, but it represents the kind of disturbance which a wise shooter will avoid in a rifle where constancy of shooting may make all the difference between success or failure in competitions or sport. After boiling water has been applied very special care should be taken in the subsequent drying and oiling, the latter for preference being postponed till the barrel has cooled down somewhat.

RAZORS NEVER RUST.

That razors never rust is a rule to which there are, of course, many exceptions, but as these mostly relate to spare razors put aside in a drawer, possibly for many years, the general truth remains intact that a razor in use never rusts, although the amount of oil that it may receive from the strop is quite incapable of accounting for its immunity. The secret of its permanent polish and mirror-like reflections is in the soap with which it is daily brought into contact. The razor is, therefore, here quoted to provide another argument in favor of the effectiveness of alkaline materials for gun preservation. A so-called gun oil consisting of a water solution of caustic soda was submitted to riflemen some years ago, and it obtained an extensive sale; but it has since fallen out of use because the same degree of alkalinity can be imparted to oil, thereby combining the preservative qualities of oil with the chemical utility of an alkali.

NEW RIFLES NEVER RUST TILL FIRED.

In proof that the rifleman is face to face with an entirely exceptional problem, mention may be made of the remarkable circumstance that a rifle need cause no anxiety until it has been shot. This experience does not fall within the knowledge of the ordinary user, because before a rifle comes into his hands it has received a certain amount of testing at the factory, together with the firing of the proof charge under the provisions of an Act of Parliament. But within the factory itself rifle barrels are not treated with any particular degree of care until shots have actually been fired from them. Then begins the period of anxiety which never ends till the rifle is discarded as unserviceable. Rifles frequently receive their final polishing after the proof and other tests have been made in order that they may leave the factory as so many lengths of steel tubing undiluted with fouling—chemical, metallic, or otherwise.

NICKEL FOULING.

Metallic fouling, which is known as "nickelling," is a serious trouble amongst those who indulge in military target shooting. The greater or less deposit of nickel in the barrel is partly dependent on the barrel and partly on the composition and physical properties of the metal envelope of the bullet. Both sets of causes are exceedingly difficult of investigation, but it may be assumed that at some future time a full explanation and consequent preventive agent will be found. Metallic fouling, as a cause of erratic shooting, was first investigated by match rifle shooters who regularly practice at the long ranges, but the growing care taken by rifle shooters at 200, 500 and 600 yards, has shown that it has a proportionate effect in marring the high standard of accuracy which now prevails amongst the best of those shots. Its presence can best be ascertained by the use of a gauge which fits the barrel in its normal condition. A set of gauges with quarter- or half-thousandth rises of diameter will suffice for the needs of service rifle users. If nickel fouling is in excess, it should be wholly removed by "K. N." or other analogous solvent. The same treatment is of very great value as a preliminary to putting away a rifle for an extended period. The most efficient of oils is hardly to be trusted for prolonged periods of storage of military rifles without first removing all traces of nickel, or rather cupro-nickel, as the alloy is called. Very fine abrasive materials are also used for removing metallic fouling, amongst which "Motty Paste" is probably the most popular. Considerable caution should be used in the employment of rust-removing compounds even when they are supposed to be free from gritty particles. The condition of a barrel should be correspondingly serious to justify the adoption of drastic remedies. It is not that gritty materials are dangerous in themselves so much as the fact that they possess a power which may be misused by inexperienced persons.

HARD VERSUS COVERED RODS.

On the subject of cleaning rods a great amount of misunderstanding exists concerning the relative advantages of steel and wood-covered rods respectively. It is constantly affirmed that the former are liable to cause injury to the barrels, especially in the presence of gritty particles. As a matter of fact, there is no substance less able to act as a carrier of grit than hard steel. Soft steel is inferior to hard, because emery grit might indent the surface sufficiently to obtain a grip, afterwards acting on the barrel like a glazier's diamond. Brass would be worse than iron, and copper worse than either. The last-named metal is regularly used in workshops for the process known as "lapping," where copper acts as a file or grindstone in combination with a mixture of emery and oil.

If any further argument were needed to destroy the fanciful impression that steel cleaning rods are bad for rifles, it is that in the

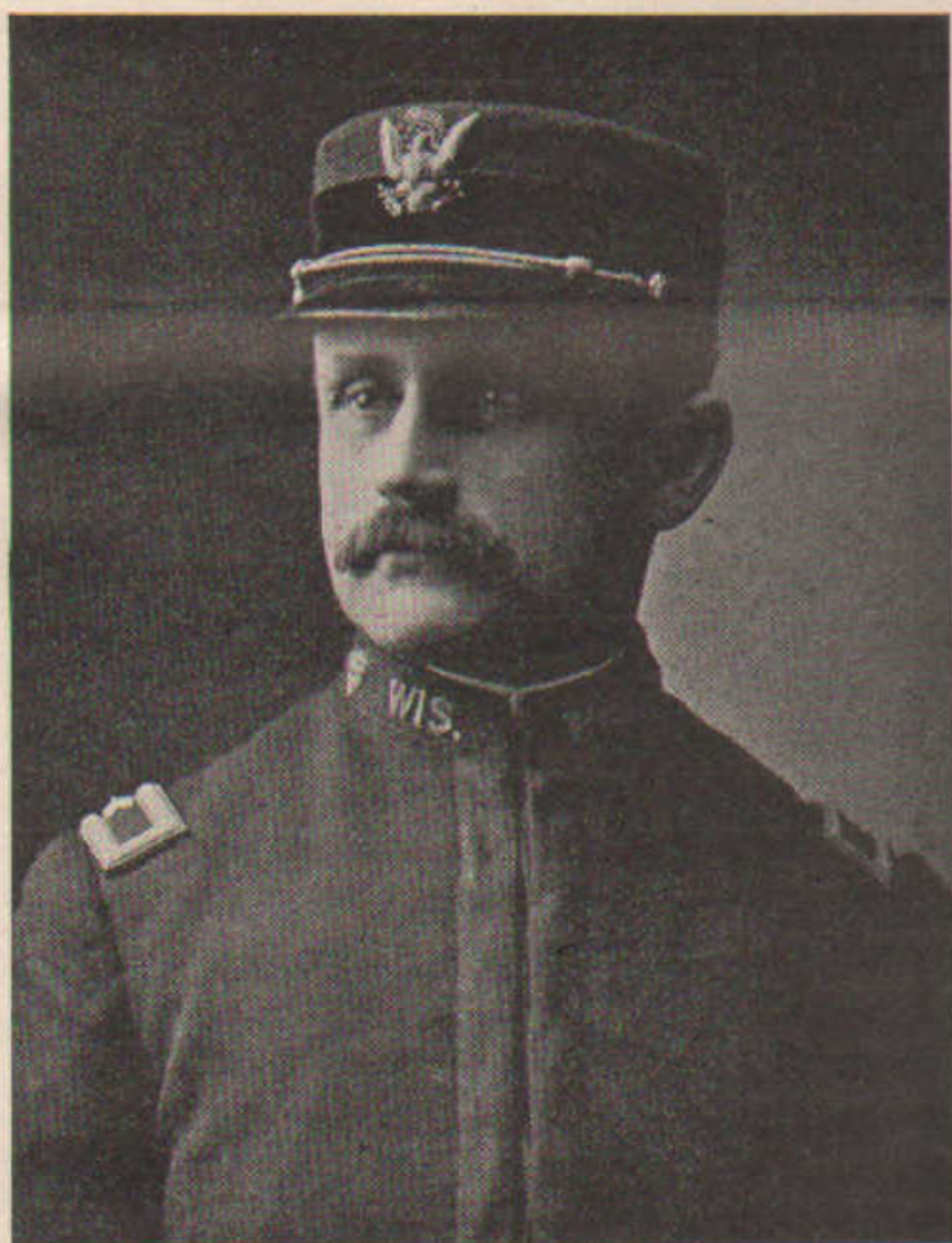
workshops where rifles are made these implements, which are tabooed by the riflemen, are freely used. At the risk of shocking the reader it may further be stated that they are used in combination with quite gritty emery for polishing the bore. Wood-covered cleaning rods have obtained a certain amount of popularity owing to the erroneous conception that it is necessary to protect the bore from contact with a steel rod. Wood-covered rods possess two advantages, viz.: lightness and absence of liability to rust. They suffer, as a rule, from being of rather flimsy construction in the small bore sizes, so that the steel rod has here an advantage. The steel rod, if properly hardened and tempered, is better able to withstand a powerful thrust such as it is almost sure to receive when the rod is used in the vise with a tight-fitting patch. Any cleaning rod that is soft enough to take a permanent bend should be barred, for the short kinks which they are bound to develop are liable to press against the rifling with results that can not be beneficial.

GENERAL BOARDMAN RETIRES.

A distinct loss to the Organized Militia of the United States and especially to the Wisconsin National Guard has been experienced through the retirement of Brig. Gen. Charles R. Boardman.

General Boardman has been long recognized as one of the best if not the best adjutant general in the United States. His appointment as Adjutant General he has held outside of political considerations and for life. His retirement is brought about by the press of personal business responsibilities from which he can no longer escape. He is the head of a large printing concern, and the first vice president and general manager of the Wisconsin National Life Insurance Co. He has made many sacrifices to continue at the head of the Wisconsin National Guard and there is no doubt that he is justified in retiring at this time.

General Boardman has been the Adjutant General of his State for



GEN. CHARLES R. BOARDMAN.

sixteen years. He first entered the Wisconsin National Guard as a private in Company B, 2d Infantry, April 30, 1880. His service in various capacities has continued since that time.

General Boardman has been for all the years since the National Guard Association of the United States became an active factor in the affairs of the nation, largely concerned for the success of that organization. The majority of the time he has been a member of its Executive Committee.

He has been a member of the National Militia Board since the creation of that body in 1908. He was named some years ago as a member of the Board of Directors of the National Rifle Association of America and has served as a member of its Executive Committee.

He is a man of sterling worth, honored, respected and loved by his associates in every walk of life. Such men as he do much good in the world. His keen intelligence, his incorruptible honesty, and his unselfish devotion to a high ideal of public service have made him an exceptionally useful man to his nation and State. Not only the good wishes of the officers and men of the Wisconsin National Guard, but also of those men with whom he has been associated in national affairs are his.

General Boardman made the first announcement of his request to be placed upon the retired list, to date from August 1, at the annual camp

of the Wisconsin National Guard held last week, in a parting address to the organization made at that time. In closing he used these simple but memorable words:

"And now for a brief personal word. I, who have held the highest post among you so long, have been the least in the causes that produced the results that have redounded to your credit. I have been blessed with associations with the best men in the army. The regulars have ever been our model and to them the wisdom of your governors and the efficient corps of officers around me is due all the credit. Individuals are nothing. It is the organization as a whole that counts for everything. The mistakes I have made, and they have been many, have been honest mistakes. They have been mistakes of the head and not of the heart. If I have been unjust to or careless of the interests of any, it has been unwittingly so, or it has been because I thought the action the just and best course to pursue. I leave you, therefore, with many regrets, but no apologies, for the little I have given has been my all and it has ever been willingly given.

"I take with me my own reward. It is the associations and friendships that have been formed in the last thirty-three years of service. Nothing but death can take them from me. Money can not buy them for they are too precious for that; neither can time diminish their fervor nor tarnish their lustre.

"So, as your adjutant general, I bid you one and all farewell, wishing you the honors that come to honorable men, and as I pass to the retired list, I do so serene in the belief that the stability of your future is better assured now than it ever has been in the past, and that under my successor your services will be better and your success and your pleasures will be greatly enhanced."

FOREIGN NOTES.

It is a well-known fact that several of the great powers of Europe are seriously considering a rearmament of their vast armies and have been trying out rifles of various kinds and systems, principally rifles of the self-loading type.

The English military authorities have recently tested the "Laird-Manteyne-Degaille" self-loading military rifle on a large scale, and if reports are reliable, these trials proved very satisfactory. The weight of this rifle is about eight and one-fifth pounds. Its caliber .275, and its muzzle velocity is given as 2,918 foot seconds.

The Austrian ordnance department has been trying out a self-loading rifle of the "Roth" system, about six and one-half millimeter caliber (.25 caliber), the results of which have not been made public.

It is said the Germans have tried a number of self-loading military rifles, some of which have been highly praised by the German proving commission.

France, whose army has been equipped with the Lebel rifle during the past 27 years, is looking forward to the introduction of a new army rifle in the near future. The Lebel rifle is no longer considered as an up-to-date modern army gun, and the introduction of a new and more modern rifle has become imperative.

In order to avoid for as long as possible the rearmament of the French army with a new rifle, the try-out commission have made extensive tests of a new bullet for the Lebel rifle that is said to increase the efficiency of this gun very materially. It is called after its inventor "Derguesse," and is made of an alloy of Wolfram metal. Great penetration at long ranges is claimed for this bullet, which is not of the sharp-pointed variety. Wolfram is a very scarce, and therefore a very expensive metal. The proportion of weight between Wolfram and hard lead is 16 to 11. Further tests with this bullet are going on at present on the proving ground Satory.

So as not to be caught napping and unprepared, the French ordnance department has also been looking for a good model of the self-loading military rifle. They claim to have found such a rifle in the "Pralon" self-loader having a caliber of six and one-half millimeter (.25 caliber). This rifle can be used as a repeater as well as a single shot rifle and its magazine will hold 10 cartridges. The rifle can be changed instantly from a single shot into a repeater by simply turning a screw.

But the French authorities, like the authorities of the other powers, realize the enormous expense and responsibility in rearming an army of several million soldiers with an entirely new style of weapon, not heretofore used on a large scale in any army and in any actual campaign. They will probably be very slow and careful in making the change, although they claim to have a good working model laid aside and ready, should it become necessary to make the change.

APPOINTED TO NATIONAL MILITIA BOARD.

THE retirement of Brig. Gen. Charles R. Boardman as the Adjutant General of Wisconsin, involved his resignation as a member of the National Militia Board. To succeed him as a member of that important body Brig. Gen. E. A. Wedgwood, the Adjutant General of Utah, has been appointed by the Secretary of War.

General Wedgwood was this year reappointed for the third time as the Adjutant General of his State. He is an officer of more than ordinary ability. He holds his office regardless of politics, as he differs in that respect from the Governor under whom he is serving.

General Wedgwood has had a military experience covering many years. He served in the ranks of the Organized Militia in various capacities. He was mustered into the service of the United States as First Lieutenant of Light Battery B, Utah Volunteer Artillery in May, 1898, and mustered out as Captain of Battery A, same organization in August, 1899. The Utah batteries saw service and rendered a good account of themselves in the attack on Manila and in the actions immediately succeeding.

General Wedgwood in civil life is a lawyer of high standing in his home city of Salt Lake. The Utah National Guard though small is shown by the reports of inspecting officers to be in excellent condition. General Wedgwood's appointment is primarily in recognition of his individual ability, and high soldierly character, but no doubt the condition of the Utah National Guard has been considered an element in the demonstration of his comprehension of Organized Militia problems.

ARGENTINE TEAM ARRIVES

THE team of rifle and revolver shots from Argentina arrived in New York on Monday, July 21. The team is headed by Senor Juan C. Gallegos, and is made up of the best shots from the great Southern republic.

Arrangements have been made by Admiral Betbeder, of the Argentine Navy for the Argentino Marksmen to go to Sea Girt for practice until they leave for Camp Perry. Brig. Gen. Bird W. Spencer, Inspector General of Rifle Practice of New Jersey, in charge of the Sea Girt Range, has prepared to put 300-meter targets and other facilities at the disposal of the team.

The date of the departure of the team for Camp Perry is as yet undetermined.

STALKING BY MOTOR CAR.

STAG stalking by motor car is the newest thing in continental sport, being introduced by the Kaiser.

The Berlin correspondent of a London newspaper reports that the Kaiser shot a stag one day before breakfast in the forest of Rominten. A report was received later that a "high-grade stag, with irregular, sixteen-pointed antlers," was roaming in another section of the preserve.

The Kaiser jumped into his swiftest motor car, and a little after two o'clock got within range of his quarry. "With a splendidly aimed shot," to quote the veracious correspondent, the Kaiser killed the animal, "which," to supply the detail necessary to add an air of verisimilitude to an otherwise bald tale, "weighed 389 pounds."

RIFLE SHOOTING IN AUSTRIA.

FOR a number of years past," writes the Melbourne, Australia, correspondent of ARMS AND THE MAN, "rifle shooting has advanced here by leaps and bounds, until now we consider that we are one of the top-flighters of the world. We hope our Australian team demonstrate this next month at Bisley. They are a classic lot, with youth on their side and plenty of grit.

"During the next few months prize money to the value of about £15,000 will be distributed in the six States of Australia. The principal competitions will be the New South Wales annual matches, £6,000; Victoria annual matches, £5,000, and Queensland, £2,000; so you will see that there is plenty of money forthcoming to encourage target shooting.

"The arrangements are practically the same as at Bisley, and in the very near future we here in Melbourne hope to have one of the largest ranges in the world, both as regards the number of targets and distances."

TO COMMAND TEXAS NATIONAL GUARD.

THERE has just been appointed to the command of the Texas National Guard, which consists of a brigade of three infantry regiments, one squadron of cavalry, a separate battalion and a battery of field artillery, a new brigadier in the person of Lieut. Col. Oscar C. Guessaz.

General Guessaz has been for some years Inspector of Rifle Practice of the Texas National Guard. He has been a shooting member of the Texas Rifle Team and has demonstrated his ability as a very fine all-around shot. He is and has been for some years a member of the Board of Directors of the National Rifle Association of America. In civil life he is a publisher and business-man of San Antonio, Texas.

Incidentally, General Guessaz is one of the very finest of shot-gun shots, especially on ducks, to be found anywhere in the world, and a prince of good fellows.

He has long been connected with the Texas National Guard. He attained prominence as a volunteer officer during the Spanish-American war, where he rendered excellent service. His appointment and promotion are well-deserved recognitions of merit. Under his efficient direction we shall expect to see the Texas National Guard, which has for some years been rapidly gaining in efficiency, gain still more ground toward the front. The Lone Star State is to be congratulated upon the choice of so capable an officer for high command.

INVITED TO GERMANY.

MAJ. GEN. LEONARD WOOD, Chief of Staff of the Army, has been invited by the German Government to attend the autumn maneuvers of the German army. If conditions in the Army at the time permit, General Wood, accompanied by Captain McCoy, his aide, will leave for Berlin the latter part of August.

General Wood is a personal friend of the Kaiser and attended the German maneuvers in 1902 and again in 1908.

BREAKS 800 YARD RECORD.

ACCORDING to press dispatches from Wakefield, Mass., under date of July 21, all records for 800 yard rifle firing were broken, when Capt. Stuart W. Wise, shooting in the ninth annual meeting of the New England Military Rifle Association, made a run of 103 consecutive bull's-eyes. The record for consecutive bull's-eyes at 800 yards was held by J. W. Hessian, of Bridgeport, Conn., who recorded 57.

AIGRET LEGISLATION IN DANGER.

DR. WILLIAM T. HORNADAY, director of the New York Zoological Park, heads a vigorous protest that is being made to the Senate over the modified form which anti-aigret legislation takes in the Senate's revision of the Underwood tariff bill. As the bill passed the House it prohibited the importation of aigrets, egret plumes, or "osprey" plumes, and the feathers, quills, heads, tails, wings, skins or parts of skins, of wild birds, when not to be used for scientific purposes.

The sub-committee of the Senate finance committee, dealing with the subject, has amended this so that it will not apply to the "feathers or plumes of birds commonly recognized as edible or pestiferous."

Dr. Hornaday and his fellow objectors assert that "Under that wording, the skins, feathers, or plumes of every bird species in the world may be imported." They will make a concerted effort to have the objectionable language remedied on the floor.

POLO AT THE EXPOSITION.

TEN or fifteen days' polo, with teams from various nations, are planned by the management of the Live Stock of the Panama-Pacific Exposition at San Francisco, for the opening period in 1915.

California already breeds polo ponies and D. O. Lively, Chief of the Department of Live Stock, is authority for the statement that in the recent international match three California ponies played, two on the American side and one on the English.

THE Journal of the Military Service Institution for July-August contains, among other interesting articles, a reprint from ARMS AND THE MAN of Edward C. Crossman's description of rifle shooting from an aeroplane, entitled "Rifle Shooting—Plain and Aeroplane."

ARMS AND THE MAN

1502 H STREET NORTHWEST, WASHINGTON, D. C.

EVERY THURSDAY

Editor

JAMES A. DRAIN

Associate Editors

FRANK J. KAHRs ASHMUN BROWN

Communications.—The Editor will be pleased to receive communications on timely topics from any authentic source. The correspondent's name and address must in all cases be given as an evidence of good faith, but will not be published if specially requested. Address all communications to ARMS AND THE MAN. Manuscript must be fully prepaid, and will not be returned unless accompanied by sufficient postage.

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

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

CONFERENCE ON NATIONAL GUARD LEGISLATION.

In the conference which occurred last week, continuing for two or three days, in the office of Assistant Secretary, and now Acting Secretary of War, Henry Breckenridge, on Federal legislation affecting the Organized Militia, there were present Acting Secretary of War Breckenridge, Brig. Gen. Albert L. Mills, Chief of the Division of Militia Affairs; Maj. Evan M. Johnson, Militia Division; Maj. Gen. Edward C. Young, Illinois; Brig. Gen. John Chase, of Colorado, and Col. W. E. Harvey, District of Columbia.

The whole subject of Militia legislation including the provision for pay was discussed. A bill of considerable size intended to take the place of all existing law relating to the Organized Militia and to carry out such amendatory and new ideas as seemed desirable, was analyzed in detail. The purpose of the conferees was to reach a basis of agreement, it being the desire of General Young to have a tangible definite bill to put up to the convention of the National Guard Association at its next meeting.

It is hoped agreement can be reached between General Young and his associates of the Executive Committee and the War Department, and the agreement with the association, upon all the fundamental propositions of Organized Militia Law, that these may be presented to the new Congress which convenes in December. If such agreement can be reached the moment is propitious for securing the desired legislation. President Wilson and his administration have much influence with Congress. Any legislation which the President favors has already been carried far on its way toward passage.

It will be impossible to get a perfect law. Nothing human is without imperfections, and it is especially true of all forms of legislation that compromises must be made. There must be a mutual spirit of give and take; a bending of wills, so that minds may join on the fundamental purpose to get the most of that which is right for a just cause.

The Acting Secretary of War showed a great interest in the subject. General Mills and Major Johnson were also alive to its every feature. The representatives of the National Guard are wide awake and devoted to the interests of the organization. It should be possible to get some new and good laws for the Militia including a proper provision for pay.

In the consideration of the questions involved, one principle should be kept ever in sight: that this or any other legislation affecting the Organized Militia is not for the benefit of the Organized Militia, but for the benefit of the whole country; all and every part of it.

We do not want legislation unable to stand the acid test of fullest national utility, whether that legislation affects the National Guard, the Army or what not.

AN APPRECIATION.

In the course of a sympathetic and appreciative editorial on the subject of the recent semi-centennial celebration at Gettysburg, the British Broad Arrow makes this epigrammatic utterance:

"It is not the victories of peace that stir men to higher things, but memories of war."

The phrase is one full of meat. It is worth remembering.

Somewhat the same thought was expressed the other day by Mr. Dooley, the Archey road philosopher. Speaking of his cousin who was at Gettysburg, he said:

"He always told me he niver spint a more injyeable day in his life, an' I envied him, fr I sarved me counthry in thim troublous times be dhruvin' a thruck, an occypation akelly dangerous, but with little glory to it. I r-read about these Gettysburg vethrans with a tear runnin' down me nose, but d'ye suppose I cud get up anny enthusyasm at a reunion iv th' Thruck Dhruvers iv Sixty-three if some other ol' vethran come up to me an' said, 'Ar-ren's ye th' hayro that lost the' bill iv ladin' on Canal sthreet?' or 'D'ye remimber whin ye dhropped th' crate iv wathermilons at Pier Six?' No, sir." * * *

"It's a sthrange thing to me, Hinmissy, that with ivry wan boostin' peace there's so little iv it in th' wurruld. There've been peace congresses an' wars goin' on side be side iver since I can remimber. There's niver anny peace annywhere exceipt afther a war."

THE PRACTICE PERIOD.

Military rifle and revolver practice and competitions are swinging into full stride throughout the country this week. In the Army the department rifle and revolver competitions are on in each territorial subdivision, while in the National Guard the State matches and tryouts for Camp Perry are in progress in practically all the States.

At Fort Sheridan the Army Infantry team for Perry is being trained, twenty-five picked men at work from whom the team selections finally will be made. The Cavalry, with a similar number, is at work at Fort Ethan Allen. Navy and Marine Corps have their men at Wakefield for the same purpose.

It is a season of much firing and high interest in the great game, all a part of the greatest shooting year in America. With its climax at Perry and the final burst at Sea Girt, it is a year that will go down in history as remarkable in more ways than one.

AMERICAN IDEAS BEST.

It is significant that the new Field Artillery material being tested this week at Sandy Hook, N. J., has been evolved entirely in this country, independent of observations made by Army officers in foreign countries.

That there are valuable military lessons to be learned abroad no thinking man can deny. It is essential to preparedness that our Army keep closely in touch with military advancement in Europe and in the countries to the South of us. At the same time the fact must not be lost sight of that this country possesses peculiarities of terrain and other conditions that make it absurd for us to copy slavishly that which another country happens to find good.

For example, an ordnance officer has been quoted as saying that no new ideas in ordnance had been gleaned by American Army officers observing the progress of the Balkan War. The Balkan states and Turkey merely copied the larger European powers, some of whom have taken not a few ideas from us.

The new field pieces being tested at Sandy Hook are a 3.8-inch howitzer, firing a 30-pound projectile, and a 4.7-inch gun. They are expected to be a valuable addition to our armament.

When finally approved arrangements to manufacture and issue these important additions to the fighting strength of the firing lines of our Army should be promptly consummated.

Hague Gun Club.....	2,374
District of Columbia.....	2,357
Engineers' Rifle & Revolver Club.....	2,363
Bucyrus, Ohio.....	2,356
Olympic Rifle & Revolver Club, Des Moines.....	2,352
Dickinson Rifle Club.....	2,343
Eagle, Globe & Anchor.....	2,322
Auburn, N. Y., Rifle Club.....	2,307
1st Wisconsin Old Guard Rifle Association.....	2,305
Providence Revolver Club.....	2,238
Priest River.....	2,297
Milwaukee.....	2,271
Fremont Rifle Club.....	2,247
St. Louis-Colonial Revolver Club.....	2,215
Presque Isle Rifle Club.....	2,214
Massachusetts Rifle Association.....	2,112
Cypress Hills.....	2,192
Shell Mound Pistol & Rifle Club.....	2,191
Philadelphia Rifle Association.....	2,123
Salt Lake Rifle Club.....	2,112
Mitchell Club.....	2,030
Old Dominion.....	2,010
Kiowa.....	1,998
Diamond Spring.....	1,980
Watertown Rifle Club.....	1,894

THE ORDER OF THE CHIGGER.

THE Standard Dictionary says that the Chigoe (also Chigger), is a very small flea (*Sarcopsylla penetrans*), of sandy places in the West Indies and South America, the female of which burrows beneath the human skin, especially the feet.

If we ever publish a dictionary we are going to add "and found in great quantities on and near the Congress Heights' Rifle Range, Washington, D. C."

This troublesome little pest is surely a great discomfit to the National Guardsmen now shooting the qualification course at Congress Heights. Plans are on foot to perpetuate the memory of those who have been "stung" by bringing into being "The order of the Chigger," the qualifications of which are simply that initiation consists of being bitten by the Chigger.

A GRAPHLEX'S VERSION OF SURPRISE FIRE.

No eye is fast enough to analyze the movements of a man dropping to the prone in Surprise Fire when he really means to get down with some degree of celerity.

We called in a Graphlex camera with focal plane shutter to report to us what a fellow really did, and I send the results herewith.

The first print, showing the rifle pitched forward and the safety being unlocked, is from the side opposite to the last two, for the sake of getting a view of the rifle. All three pictures were made in actual work, the subject, one R. J. Fraser, one of the finest pistol, Schuetzen rifle and military rifle shots on the coast, making bulls during the picture taking.

The actual time elapsing between the first position and the third is, of course, a small fraction of a second. The pictures were caught at different stages of three different shots to show just what happened. Shutter speed 1-400 sec.

It will be noted that Fraser pitches the rifle forward into the left hand and throws over the safety, but makes the error of throwing off the safety by "pinching" it between thumb and forefinger instead of sweeping it off with the thumb alone. Then he goes to his knees, rifle gripped in both hands, then falls to the prone position. The last picture caught him just before his elbows struck the ground, they being about six inches in the air.

Needless to say, plenty of elbow padding is called for as the entire body weight is taken on the unfortunate joints, and a cobble-stone pavement is not just the spot to select to practice the stunt.

EDWARD C. CROSSMAN.

ORDNANCE DEPARTMENT EXPERIMENTS.

Special report of new work undertaken, of modifications in supplies for the service, and of experiments and tests made by the Ordnance Department during the months of May and June:

The Ordnance Board.

Effect of hydroline oil on polished steel.—Tests extending over nine months indicate that the present service grade of hydroline oil has no corrosive or other injurious effect on polished steel.

Three-inch mountain howitzers and carriages, model of 1911.—Tests of this material are now nearing completion. The few defects that developed are minor in character and difficulty in correcting same is not anticipated. In tests for rapidity-accuracy an average interval of 10 seconds between aimed shots was obtained on a clay platform, and a total dispersion in range of about 260 yards at a range of 5,500 yards was obtained. The board considers the showing made by this material as most satisfactory.

Frankford Arsenal.

Rifle grenades.—The development of a new type of rifle grenade with a stronger form of safety pellet is in progress. A number of these grenades have been made up and are ready for loading. Several manufacturing orders for additional rifle grenades of the present standard design are also in progress.

Night tracers, delay pellet, Frankford Arsenal design.—During the last bi-monthly period report has been received from the Sandy Hook Proving Ground setting forth encouraging results of this type of tracer fired in connection with the brass cartridge case mouth-closing diaphragm. A further lot of tracers is being made up for test in this connection. An order has been received for the manufacture of 5,000 Frankford Arsenal tracers when the design shall have been completely worked out in connection with the mouth-closing diaphragm.

Smoke bomb outfits, for simulated fire for field artillery.—The manufacture of 120 sets pole type and 60 sets rifle grenade type smoke bomb outfits is completed. Additional orders have been received which will aggregate 120 additional sets pole type equipment and 20 sets rifle grenade type equipment.

Ball cartridges for caliber .45 automatic pistol.—The design of the caliber .45 ball cartridge, using a cannellured bullet and case not cannellured, has been undertaken. The preliminary results of the firing indicate that a very satisfactory cartridge which will not split in the neck during storage, can be manufactured.

Fencing sword.—A new wooden fencing sword has been designed. This is made almost entirely by machinery at about one-half the cost of the former model. It more closely resembles the Cavalry sword and has a better balance than the old fencing saber.

Scabbard for new Cavalry sword for enlisted men.—A wooden scabbard, covered with canvas has been designed for the enlisted men for use with the new Cavalry sword. This is a modification of the scabbard recommended by the Cavalry Equipment Board.

ALDERSHOT COMMAND RIFLE MEETING.

BRITISH service papers call attention to the great change that has been made in the character of the annual Aldershot command rifle meeting. Competitions this year will be tests of fire discipline and tactics, as well as accuracy of fire. Many other things besides hitting a target will be taken into consideration in awarding prizes.

At the coming meeting the various teams will be marked according to their ability to apply their fire to certain targets under given tactical conditions. The mutual support afforded by one portion of a command to another will be taken into account, as well as the fire orders given by the commanders and the fire control exercised by the subordinate commanders. Distribution has a head to itself, evidently to emphasize the importance of that item of fire control.

Also the tactical handling of the command with regard both to the ground and tactical considerations will affect the markings.



No. 1

THE SURPRISE FIRE STUNT
No. 2

No. 3

TO DEVISE BIRD REGULATIONS.

SECRETARY HOUSTON, of the Department of Agriculture, has announced the selection of fifteen men to advise with him in framing regulations under the McLean Federal law for the protection of migratory birds. The fifteen are as follows:

John B. Burnham, of New York City, president of the American Game Protective and Propagation Association, chairman; F. W. Chambers, State fish and game commissioner, Salt Lake City, Utah; Prof. L. L. Dyche, State fish and game warden, Pratt, Kans.; W. L. Finley, State game warden, Portland, Oreg.; E. H. Forbush, State ornithologist, Boston, Mass.; Dr. George Bird Grinnell, of New York, vice president of the Boone and Crockett Club; Dr. William T. Hornaday, of New York, director of the New York Zoological Park; John F. Lacey, of Oskaloosa, Iowa, author of the Lacey act regulating importation and interstate commerce in birds and game; Marshall McLean, of New York, chairman committee on conservation of wild life of the Campfire Club of America; T. Gilbert Pearson, of New York, secretary National Association of Audubon Societies; George Shiras 3d, of Washington, D. C., author of the original bill protecting migratory birds; Gen. John C. Speaks, chief warden, Columbus, Ohio; William P. Taylor, of Berkeley, Cal., chairman committee on conservation of wild life in California; John H. Wallace, State game and fish commissioner, Montgomery, Ala., and Maj. Bluford Wilson, of Springfield, Illinois.

The regulations to be devised will become effective on October 1, 1913. Before any are adopted hearings will be had by the board of advisers.

NEW AEROPLANE FOR THE ARMY.

ABOUT August 15, the Signal Corps of the Army will have its flying equipment increased by the addition of seven aeroplanes, being built under the aviation appropriation of the last session of Congress. Three are military armored scout type, equipped with radio telegraph and other apparatus and propelled by foreign motors. Three of the new machines practice-type tractors, equipped with 70-horsepower engines. The seventh machine is a spare one without engine.

The late Judge Silas Bryan, the father of William J. Bryan, once had several hams stolen from his smokehouse. He missed them at once, but said nothing about it to any one. A few days later a neighbor came to him.

"Say, Judge," he said, "I hear'd yew had some hams stolen t'other night."

"Yes," replied the Judge, very confidentially, "but don't tell anyone. You and I are the only ones who know it."—National Food Magazine.

Enjoying Life at Last.

Jones had been working so hard and worrying so much that he brokedown and went out of his mind. They sent him to an asylum for the insane. There he was visited several weeks later by his employer, who found Jones sitting on the porch smoking a pipe and evidently enjoying himself.

"Hello, Jones! Glad to see you looking so well. How are you feeling?"

"Fine. Couldn't be better."

"When are you coming back to work?"

"What," replied Jones. "Leave a great big home like this, and a garden and lots to eat just to come back to work? Say, do you think I'm crazy."—Exchange.

Rifle, Revolver and Pistol.

Headquarters of the N. R. A. Washington, D. C. Secretary, Lieut. A. S. Jones.

Headquarters U. S. R. A. Springfield, Mass. Secretary, J. B. Crabtree, 525 Main St.

FORTHCOMING EVENTS.

- July 21-26, inc.—Annual tournament of the New England Military Rifle Association. John M. Portal, Secretary, Woburn, Mass.
August 15-23, inc.—Matches of the National Rifle Association of America, Camp Perry, Ohio.
August 25-29, inc.—National Matches, Camp Perry, Ohio.
September 1-9.—International Rifle and Revolver Matches, Camp Perry, Ohio, including Palma Trophy Match.
September 12-20.—Matches of the New Jersey State Rifle Association.
September 19-20.—North American Match at Sea Girt, N. J.

Zettler Rifle Club Weekly Shoot, Union Hill, N. J., July 19, 1913.

We, the undersigned, hereby certify that we witnessed this afternoon the shooting by A. Hubalek, at 200 yards offhand of 50 consecutive shots on 3/4-inch German Ring Target. This was not a 50 shot score, but the last five consecutive scores of 80 shots fired this afternoon.

Score 230 235 235 240 238—1178

- H. M. Pope, Scorer.
George Schlicht,
L. P. Hansen,
Alexander Steiner,
Oscar Duerr,
Herman Ott.

Union Hill today was on its best behavior—not too hot, a good light and for the latter part of the afternoon not a breath of wind; so one's rifle stayed sighted through the port hole. Mr. Hubalek's shooting is almost unbelievable, that is it was till we saw it done, now we don't know where the limit is. It is extremely unfortunate that the 50 shots did not come as a fifty shot score to count for record, still it actually is five consecutive 10 shot scores with such a wonderful total that it will be a long time, we predict, before the man, the weather and the gun will again be found in such combination.

The score of 240 was, however, shot under all record conditions, and we claim for Mr.

Hubalek the tying of the accepted 10 shot record. It was shot on the regular club shooting day, for record and properly witnessed.

Score: 23 23 25 24 24 24 23 25 25 24—240
Pope finished his score first, making 1155, for a while this was thought to be some score, but Arthur had four straight scores that looked big and was urged to fire one more which he did making 238 and 99 on the last 4 shots, some finish.

Examining the scores in detail we find Hubalek had for low shots 2-21s, Pope 3-21s that is 100 shots for two men all in 7 1/2 inches and 95 of them in a 6-inch circle.

Hubalek used a Pope barrel in Ballard action with a Winchester 5A scope. Cal. 33, 216 gr. bullet, black powder primed with Schuetzen Smokeless, total about 47 grs.

MEDAL (ONE ENTRY EACH).

- A. Hubalek, 25 23 22 25 24 22 24 24 24 22—235
H. M. Pope, 22 23 23 22 24 25 23 23 23 21—229
Geo. Schlicht, 23 18 24 21 22 23 23 22 23 19—218
L. P. Hansen, 21 21 23 24 18 23 23 22 20 20—215
HONOR.
A. Hubalek, 22 25 24—71
H. M. Pope, 21 24 22—67
Geo. Schlicht, 22 22 25—69
L. P. Hansen, 20 20 21—61

RECORD MATCH.

- Hubalek (80 shots) 23 23 21 22 22 25 23 22 25 20—226
23 22 20 21 25 24 21 23 23 23—225
23 24 23 20 19 25 22 23 23 22—224
(50 shots) 22 23 25 25 22 23 25 22 22 21—230
25 24 23 22 21 24 22 25 24 25—235
25 23 22 25 24 22 24 24 22—235
23 23 25 24 24 24 25 25 24—240
23 25 24 22 23 22 25 25 24 25—238
Pope (50 shots) 23 24 24 22 23 23 22 25 23 23—231
23 23 22 23 23 23 24 21 24 25—229
25 23 23 23 23 22 23 25 25 25—237

- 22 23 23 22 24 25 23 23 23 21—229
22 23 25 24 21 24 22 23 22 23—229
Schlicht 23 23 22 18 23 24 22 22 20 22—219
19 21 24 22 21 21 23 24 21 24—220
24 20 23 24 23 18 24 21 22 23—222
24 22 19 23 23 23 24 21 24 22—225
23 18 24 21 22 23 23 22 23 19—218

- Hansen 22 23 21 22 21 25 20 21 22 23—215
20 22 22 22 21 23 19 19 22 25—215
Ott 23 21 25 21 19 23 24 20 21 20—217
19 24 22 22 16 22 16 23 23 22—209
25 23 24 22 24 22 23 19 23 18—223
24 17 20 23 16 22 24 22 23 18—209
Duerr 21 19 17 20 22 14 22 19 25 21—200
8 21 20 20 14 24 23 22 18 21—191
20 18 20 23 23 21 25 15 22 18—205

SCORES SATURDAY, JULY 12TH, CONDITIONS FAIRLY GOOD. MEDAL.

- Pope 23 20 24 24 22 25 23 24 24 24—233
Hansen 23 22 22 21 19 23 24 22 20 23—219
Schlicht 23 24 24 22 16 21 22 22 25 21—211

HONOR.

- Pope 17 21 20—58
Hansen 21 23 21—65
Schlicht 21 21 21—63

RECORD MATCH.

- Pope (50 shots) 22 20 25 24 24 24 22 20 24 25—230
25 24 21 24 23 23 21 20 24 20—225
25 22 24 20 25 24 23 23 23 23—232
21 20 19 19 25 23 21 23 21 24—216
23 20 24 24 22 25 23 24 24 24—233
Schlicht 23 24 24 22 16 21 22 22 25 21—223
24 24 23 22 24 20 21 22 23 20—223
Hansen 23 24 24 24 21 24 20 22 24 23—229
20 21 20 22 22 22 20 21 20 23—211
25 23 19 22 21 24 20 22 19 19—214
Ott 25 20 21 18 22 15 23 21 23 25—213
23 21 15 23 20 23 21 24 16 21—207
20 21 25 18 23 22 25 21 17 15—207

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United States Rifle Team

which won the International Team Match at Buenos Aires, South America

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22 Cal. Rod (14 inches long) for Pistols	.75c and 1.00
Motty Rifle Paste, for removing nickle fouling; price per jar	.50
Rear Sight Covers	.75
British Micrometer, for adjusting sight	3.00
Vernier Micrometer, for adjusting sight	2.75
Ideal Micrometer, for adjusting sight	1.50
Shooting Case "The Olympic"	13.50
Shooting Case "Camp Perry"	9.00
Ball Bearing Brass Cleaning Rod	1.00 and 1.25
Brass Wire Brush for same	.10
Rifle Rest, to hold gun off ground when firing	.25
Long Range Score Book	.50
Mid Range Score Book	.25
Suggestions to Military Riflemen, by Lieut. Townsend Whelen	1.00
Little Wonder Telescope	3.00
Tripods, to hold Telescope off ground, per pair, 1.75, 2.00,	2.25
J. A. R. Elliott Ear Protector	1.00
Riflemen's Favorite Sight Black	.25
Hygrometer, Barometer and Thermometer, in Russet Leather Case	7.50
Micrometer Calipers, for Calibrating a Rifle	4.50
Canvas Case, to fit New Springfield Rifle	1.00 and 1.75
Locking Front Sight Cover	1.50
Military Special Wrist Watch	3.50
30 Cal. Wood Cleaning Rods (British)	1.25
38 Cal. Wood Cleaning Revolver Rods (British)	1.00
The P. J. Cleaning Rods	.75
Steel Wire Brushes	.35
Barrel Gauge	2.00
Ready Made Patch (for cleaning the Rifle) price per pound	.50
Bulls Eye Score Book	.50
Hoppe No. 9 at 35c per bottle, or one dozen for Rifle Trunks	3.00
Marine Corps Score Book	9.00
Mobilubricant	.15

Special Rates to State Teams and Clubs

average with a slight gain each week, except fourth and eighth weeks when we fell off slightly from the week previous. However, we enjoyed the matches and hope that another series will be run next year and no doubt you will see us on the list even if it is among the also rans, as we are this year. T. J. B.

AUBURN ANTICIPATIONS.

DEAR AL BLANCO:
"Hooray," we have at last reached the 2,300 mark, which is what we have been fighting for from the start and, of course, are quite satisfied with the showing we have made during the match, as it has been an entirely new game to us and we hope it will be continued next year with perhaps some modifications.

We like Brother Disbrow's suggestions for a target for this kind of work and hope it will be adopted for next season.

We also like the U.M.C. Specification 73 for they have certainly helped us a lot.

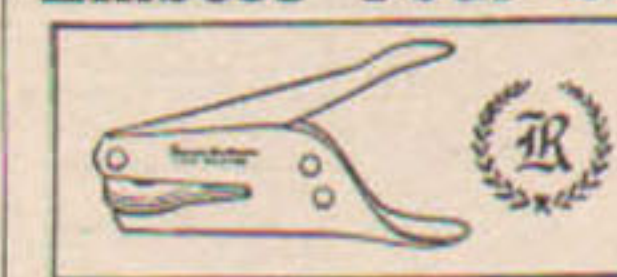
CHAS. E. SHAPLEY,
Executive Officer.

MITCHELL MITES.

DEAR AL BLANCO:
Am enclosing united effort of last week which shows some improvement over previous scores, but leaves considerable room for improvement. We gather a great deal of encouragement out of not being the tail-enders even the novices, and hope next year to make some of the middle class hump. We have not as yet considered challenging the Park Club.

In the first matches we shot repeaters with open and Lyman sights and "Any Old Ammunition," but are now shooting 414's and Winchester single shot rifles and U.M.C. ammunition which shows we are getting better equipment and from now on it is up to us to cut the mustard. Although the "tools" are right, the 25 ring looks more like an "accident" than an "intention" to most of us. Well here's success to the 1914 shoot. G. G. KIMBALL.

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with our Pocket Embosser. Weight only 3 to 5 ounces. Any one can use it! EMBOSSES Initials, Monograms and addresses.

Embosser-Impression like this, but three times the size. 25c to 50c Post Paid Write for Samples. MEYER'S MILITARY SHOP 1231 PA. AVE. N. W. WASHINGTON, D. C.

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SHELL MOUND SHELLINGS.

DEAR AL BLANCO:

We are able to report that our tenth match and the final came to a close with a score of but 2,191. Of course, our average was at the beginning something like 2,000, and we did make a score of 2,271 and expected to reach 2,300. We had a full team of ten men at all times and occasionally more. We had ten today, but as one of our team members failed to report his score average we were only able to give you the report of nine men.

Our team wishes to give three cheers for ARMS AND THE MAN PUBLISHING COMPANY for getting up the Short Range League, and, as it was such a big success, we hope that a similar league will be formed on the indoor range this winter. We are in for it, and you may count our team in on any short-range stuff.

WM. A. SIEBE.

Peters

CARTRIDGES

WIN

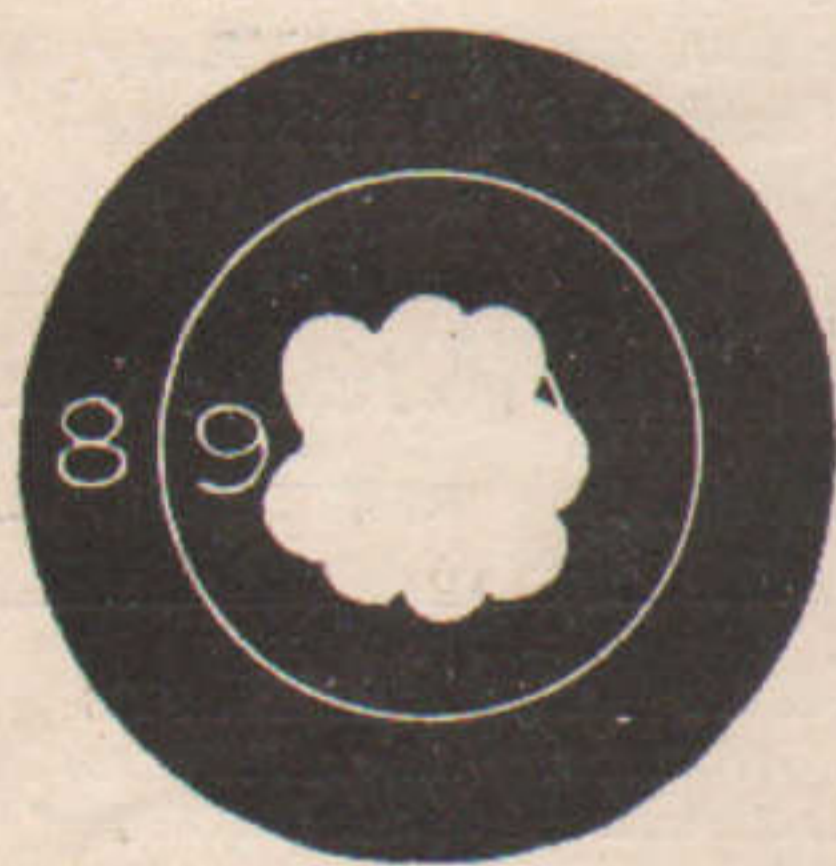
INTERNATIONAL HONORS

The 1913 International Small Bore Match between teams of 50 men each, representing the United States, Great Britain and Canada, resulted in a victory for the United States Team; score, 24,551 out of a possible 25,000, leading the second team by 41 points.

5 out of the first 10 men on the U. S. Team used **Peters** .22 Semi-Smokeless Ammunition

Messrs. Jos. Lorenz and F. A. Anderson, of Butte, Montana, each scored

500 out of a possible 500 with **(P)** brand and were the Only Perfect Scores Made in the Match



JOS. LORENZ, 500
Butte

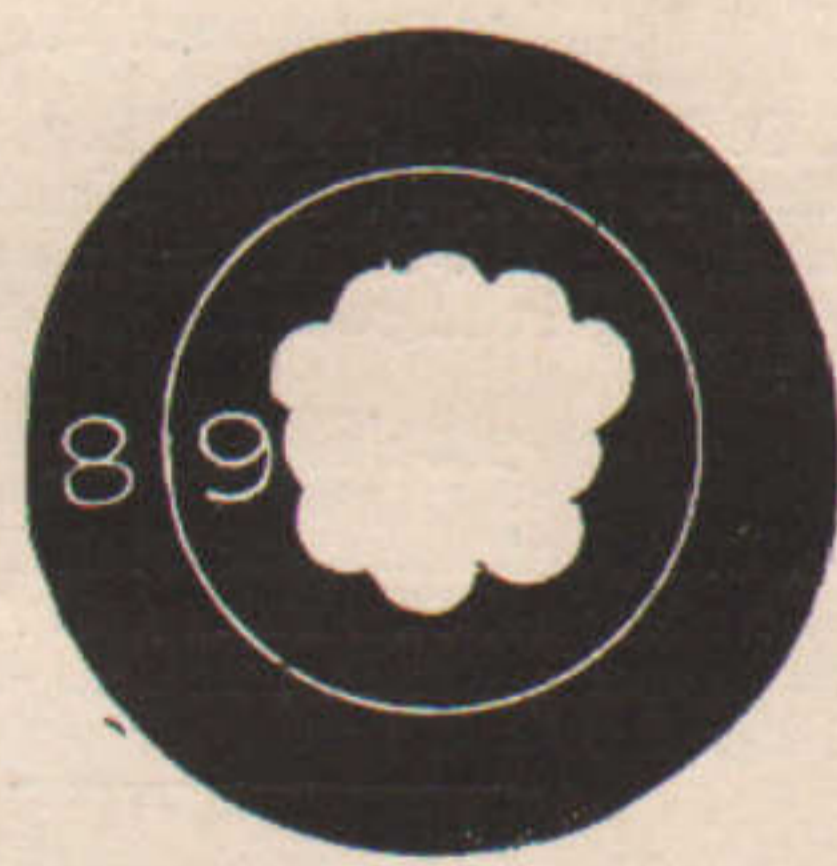
W. C. ANDREWS, 498
Cleveland

J. C. SEMON, 497
Cleveland

G. W. EASON, 496
Cleveland

The average of these 5 scores is 498, and the average of the entire team 491.1

The scores made with PETERS Semi-Smokeless Ammunition in this match are simply a continuation of the victories of P users in the Indoor .22 Cal. U. S. Championship, the N. R. A. Inter-Scholastic events, the U. S. R. A. Outdoor and Indoor Championships, etc., etc.



F. A. ANDERSON, 500
Butte

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CYPRESS HILLS CLIPPINGS.

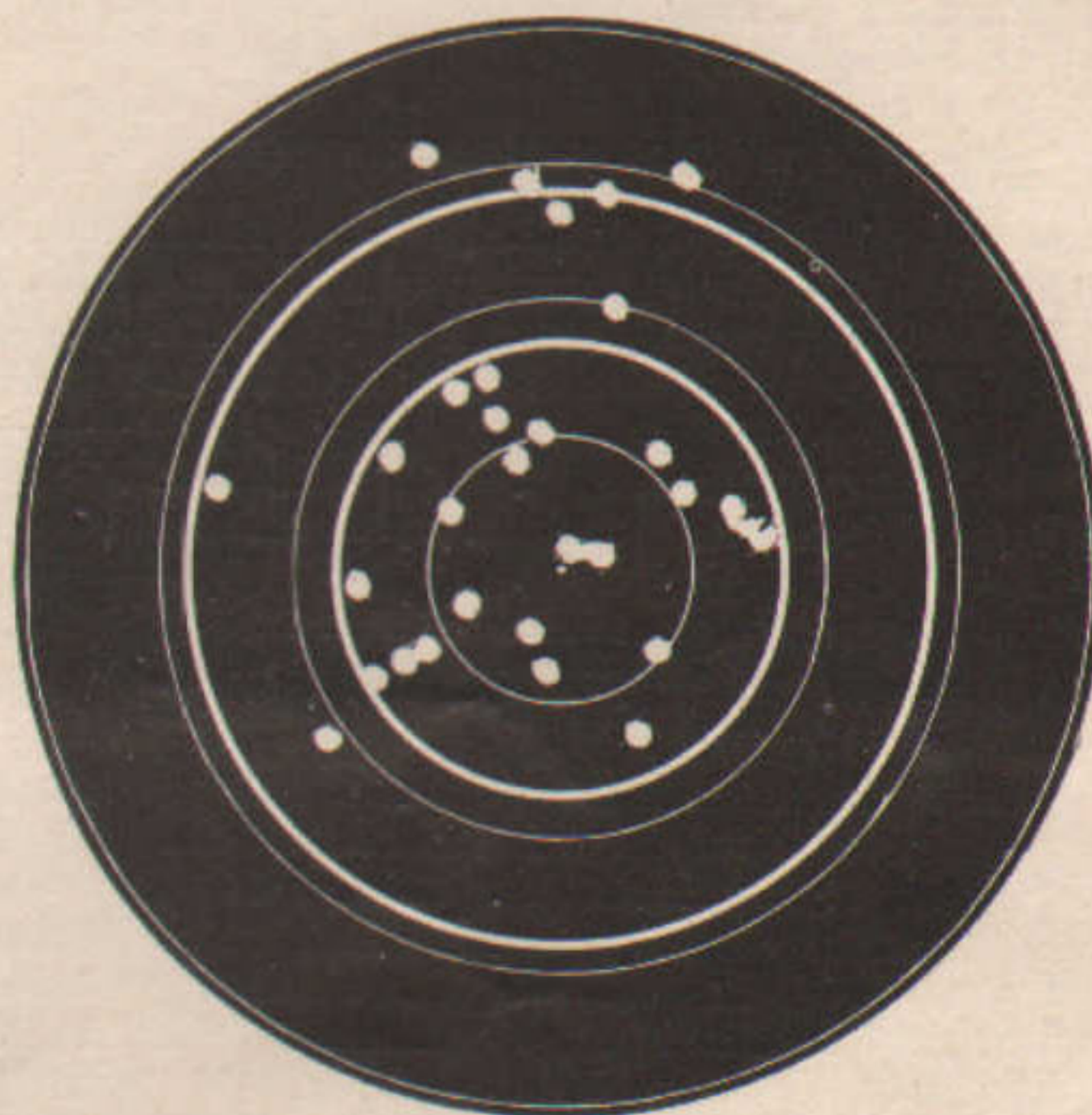
I enclose herewith a picture of our 50-yard range which I promised to send some weeks ago. Our official photographer, Mr. Islam, has taken this picture and it speaks well for his ability as a snapshot artist. The picture does not show our 200-yard range, which is located on the other end of the backstop. At 200 yards we shoot over a pond which one of our former secretaries has termed "the lake, the lake, the beautiful lake." Damn mosquito-breeding mud puddle I call it. Reading the story of the trial and tribulations of the Canal Zone Rifle Club always makes us sympathize with them. But how would they like to find the range every Sunday morning with the backstops and the target frames torn down, by boys and hoodlums looking for lead and ground strewn with broken glasses and bottles. They have not to contend with a New York picnic crowd. It generally means an hour's work to get things in shape for the rest of the boys. We have been putting up with this sort of thing for seven years and have to be glad we are permitted to shoot. The targets proposed by Mr. E. Newitt in the July number of ARMS AND THE MAN we consider even better than the one proposed by us some time ago, also the rapid fire system on silhouette figure targets on a neutral background reduced to 50 yards. We favor the adoption of these targets for next year. We also would like to see the matches commence on or about the first of May as it is hard to keep members from their vacation later in the season. The matches to end in June. Otherwise we enjoyed the shooting immensely.

H. O.

A New Pistol Record.

With the announcement that a new 50-yard, 30-shot pistol record of 290 out of a possible

300 by Frank J. Dreher, of Denver, Colo., in regular U. S. R. A. medal matches, and properly witnessed, the old record of 289 in 1903 by Tom Anderton is recalled. The new record holder has developed into a consistent shot very fast and already ranks with the best of them. This new record was made with a Smith & Wesson 10-inch pistol and Peters



.22-caliber Stevens-Pope Armory Semi-Smokeless cartridges. The shooting was witnessed by A. M. Poindexter, C. M. McCutcheon and Dr. A. O. Burgeson.

Fort Pitt Rifle Club.

Saturday afternoon, July 20, we had scheduled a five-man team match at 200 and 1,000 yards with our ancient enemy, the Butler Rifle

Club, but received word several days in advance that they would be unable to get together a team to meet us this year and called the match off.

We, therefore, got busy on the phone and notified the boys that we would shoot the postponed match on the 1,000-yard range for the gold medal presented by one of the club members.

Early in the afternoon Thompson and Williams, of the Butler Club, blew in and informed us that they were looking for trouble and suggested a two-man team match. Beal and Atkinson were selected to uphold the Fort Pitt end of the fracas and possibly well did they succeed, their score of 181 topping their opponents by 20 points. The Butler boys, both of them rattling good shots, were way below their usual form. It is not surprising, however, to find a slump in the natives of this formerly lively town, for poor Butler is suffering from an acute attack of local option. They say a camel can go eight days without a drink, but who wants to be a camel?

The 1,000-yard match was taken down by T. C. Beal with a score of 48. If you happen to notice a cocky-looking bantam strolling through Perry next month wearing a gold medal about the size of a dinner plate you will recognize the party. We are glad to note that some of the other civilian clubs expect to take in the big show this summer. A number of our members have signified their intention of going, and Beal, Atkinson, Waugaman, Olson, Paulson, and Swanton will likely make up the crowd. McGlashan, one of the old crowd, has been accumulating weight so rapidly that he complains it makes him too warm to skirmish, so it's the board walk and a wheel chair for Mac this summer.

1,000-YARD MATCH.

T. C. Beal, 48; H. C. Arthurs, 47; D. A. Atkinson, 46; G. A. Snyder, 44; J. McGlashan, 44; F. C. Douds, 42; R. O. Hodges, 40; G. H.

CHAMPIONSHIP OF MISSISSIPPI

The above honor was hotly contested for by a large field of the best Amateur talent of the South, at Hattiesburg, Miss., July 4th and 5th, and was

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AT TUPELO, MISS.	AT TACOMA, WASH.	AT ROCHESTER, N. Y.
99 x 100 High Gun (Tie) By Walter Huff	382 x 400 Second Professional By F. C. Riehl	134 Straight
47 x 50 High on Doubles By Homer Clark	361 x 400 Second Amateur Average By E. W. Cooper	120 x 120 High Over All
		Continuing Run to 142 Straight
		By L. D. Willis

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125 PAGES, CLOTH, PRICE \$1.25.

League Baseball Club are among the attractions. The park system includes half a dozen public resorts, and Riverview Park, which overlooks the Missouri, and a half dozen smaller squares, which afford the public an easy escape from the heat of the summer.

Omaha is famous for the Knights of Ak Sar Ben, an organization which, in conjunction with the Commercial Club, has become famous throughout the country.

The Knights of Ak Sar Ben, originally organized twenty years ago for the promotion of an annual fall festival, have extended the scope of their activities until the very name is a synonym for hospitality. A special initiation ceremony is arranged every year by the Knights—who hold weekly and often special performances at the den for the purpose of initiating visitors into the joys of the kingdom of Quvera, and giving them a touch of true Nebraska hospitality.

Finds Real Recreation With Guns and Dogs.

The ball player is a good hunter by instinct and inclination. He is a good hunter first, because he likes it and, second, because he needs to be. Baseball is a strenuous game, and the player needs his vacation as well as anybody else. As he is an athlete as well as a laboring man, for I consider baseball as very real labor, he needs an athletic kind of a vacation, and hunting is made to order for him.

It would be hard for me to say whether I prize my base-stealer record above the pleasure I have received from my various hunting excursions or not. I never think of comparing baseball with hunting as a sport, for I do not consider baseball as a sport at all. It is work, and hard work at that, in the strongest kind of competition with the best men in the business. I doubt if any man in any kind of business has laid awake nights studying a situation and trying to figure out how he could advance himself any more than I have laid awake nights studying out how I could best take advantage of an opposing pitcher and catcher when I was trying to build up a good base-stealing record. And it is just as hard in batting or fielding or pitching or anything else a player may be called upon to do. I know, much as I am wrapped up in baseball and much as I like the game, I am glad when the closing days of the season are at hand, for it is then that I can take my gun and my dogs and get out in the fresh air and be alone.

Tennessee is a State that still offers a great deal to the hunter. It will be a long time before its rugged hills and heavy timber will be settled, and there is still abund-

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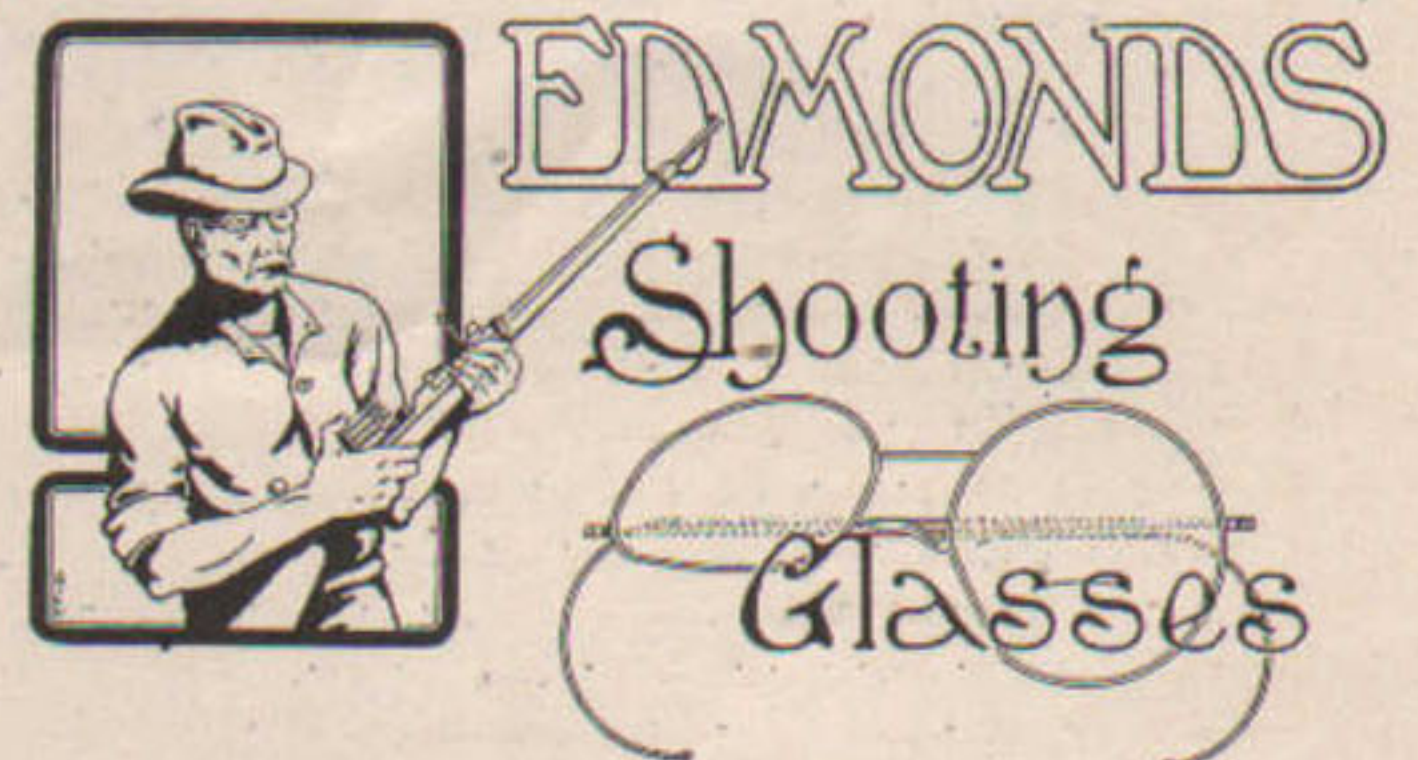
3-in-One prevents rust on steel rods, keeps joints and connections clean and smooth, preserves wooden rods, too, making them tough and pliable.

Draw your line, silk or linen, through rag moistened with 3-in-One. Makes it stronger and last longer. Will not rot, twist or tangle, preserves, lines, nets and traps in either fresh or salt water.

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The 1913 Model of the Edmonds Shooting Glass is the result of years of experiment and years of co-operation with the ARMY, NAVY, and MARINE Corps Rifle Teams—and that result is Shooting Glass efficiency in the highest form:

The men who make these teams know that with the Edmonds Shooting Glass they won't "blow up." They know they will make consistent scores.

You would not use an inferior grade of ammunition in a big shoot—the odds would all be against you. Then don't fool with a poor glass that is a positive menace to a good score.

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TARGET PASTERS, 40 Cents a Thousand

C. W. HINMAN

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Mr. Clyde Milan.

ance of game. My home town is Linden, and while I have never had the opportunity to strike into those parts of the State which offer the most in the shape of game I have found good hunting close at hand.

In my experience I have found a Remington shotgun the most serviceable weapon, and would use no other. I have never been a crack shot, but I did make one shot once perhaps by accident that shows that I had at least a good gun whether I am a good marksman or not. I refer to the time when I killed five ducks on the wing at one shot. It was the best shot I ever made.

There are still some few prairie chickens left in Tennessee, and I have bagged them as well as rabbits and squirrels, but my main object in hunting has generally been quail.

Although most of my hunting has taken place in the vicinity of Linden I have made several trips to Texas, making the town of Clarksville my headquarters.

This is an entirely different type of country, level instead of hilly as it is in Tennessee and well watered with streams and a number of lakes. Ducks are one of the main attractions here and it was here that I made my record shot. Clarksville is a famous winter resort for ducks and the hunter can find all he wants of this kind of feathered game. There are also a great number of quail in Texas and a considerable variety of other game, such as foxes and the like. So far my hunting has been confined to these two States. I have thought for some time of taking a trip into Oklahoma where I understand there is a good deal of game left, especially in the Western part of the State. Walter Johnson is thinking about visiting that country after bears. I am not so anxious to meet a bear myself, but I would like to see the country. Always admitting that I am more interested in small game than anything else from elephants down.

W. E. Staunton, of Winnemucca, Nev., was winner of high amateur average, 412 out of 425, and high average on all targets, 575 out of 600, shooting Remington-U.M.C. Arrow speed shells at the California-Nevada Transshooters' Association tournament on July 4, 5, 6. Mr. Staunton also won the State Championship Diamond Medal with 70 straight.

Some excellent shooting was done at the July 11 meet of the Clifton Forge (Va.) Gun Club, W. D. Rennels, of Staunton, Va., with a Remington pump gun with Nitro Club speed shells capturing high over all, 156 out of 160.

H. T. Strothers won the Mallory cup with 59 straight shooting a Remington auto-loading shotgun at the Cedar Point, Ohio, Indian Tournament and Pow-Wow of July 8-10. A long run of 174 straight was recorded by George Maxwell, the one-armed wizard of the clay bird game, using Arrow speed shells in his Remington.

The ground record at the Eastern Handicap tournament was broken when W. H. Heer, shooting a Remington pump gun and Arrow speed shells, ran 264 straight. The preliminary handicap was captured by Walter Welroski, of Wilkes-Barre, Pa., shooting Remington-U.M.C. speed shells for a score of 94 out of 100 and 20 straight in the shoot-off. J. R. Graham, with a Remington pump gun made the high score of 48 out of 25 pairs winning the 25-bird doubles event.

A. C. Connor, an amateur of Springfield, Ill., was high over all, 284 out of 300, shooting Remington-U.M.C. speed shells at the two days' tournament of the Illinois Gun Club at Springfield.

John Deist, of Sandusky, broke 142 out of 150 with Remington-U.M.C. Arrow speed shells winning high amateur average at the Lorain, Ohio, Gun Club's meet of July 17.

Mr. D. Arnold tied for high amateur average at Jersey Shore, Pa., July 9 and 10, 273 out of 300, using Peters shells.

At Milton, Pa., July 7 and 8, Messrs. Lester S. German and Neaf Apgar won first and second general average scoring 313 and 310, respectively, out of 330, both using Peters shells.

Barton Lewis, amateur champion of the United States, won high amateur average at Philadelphia, Pa., July 12, shooting as usual Peters "steel where steel belongs" shells. Score 145 out of 150.

W. S. Hoon, shooting Peters "steel where steel belongs" shells was high amateur at Dows, Iowa, July 8, 194 out of 200; also at Spencer, Iowa, July 10-11, 375 out of 400.

High general average at Ridgefield, Conn., July 12, was won by Mr. M. Hepburn, 115 out of 125, using Peters shells.

At Springfield, Ill., July 15 and 16, high professional average was won by Mr. H. W. Cadwallader, of Decatur, with Peters factory-loaded shells. Score, 279 out of 300.

High amateur average at Paragould, Ark., July 15 and 16, was won by Mr. Harvey Dixon with Peters factory-loaded shells. Score, 301 out of 320. Mr. Dixon also made the longest straight run of the tournament, 91.



Mr. H. R. Bosley.

Winner of the Southwestern Handicap at The Interstate Association Tournament, San Antonio, Texas, April 10; score 92 out of 100 from 19 yards, made with Peters shells.

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