ARMS AND THE MAN

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VOLUME XLIX. No. 20. WASHINGTON, D. C., FEBRUARY 16, 1911. $3 a year. 10 cents a copy.

THE RIFLE TELESCOPE—ERRORS.

By Frank Evans.

FOR quite a while it has been on my mind to write an article on rifle telescopes. That I have not done so was because I felt the lack of technical optical knowledge, and feared that I might be rushing in where others better informed might fear to enter. And yet I have been confronted with so many difficulties in using quite a variety of rifle telescopes that I am satisfied what I have to say will interest many users of rifle 'scopes and, if any of my deductions are wrong, will lead to an explanation by some optical expert capable of doing it in a plain, understandable way.

I have been using rifle telescopes about eight years. Their use followed some twenty years' use of aperture sights. In my younger days I could "call" offhand shots within one point (which was practically up to the limits of the rifle) when using aperture sights. A well-made pin-head or "globe" front sight used on a white square card of a size suitable to the distance shot, was a little better for rest shooting, but never so good for offhand (for me) as a front aperture. It is a serious question in my mind whether or not these sights were not superior to a telescope.

You can see better or plainer with even a low power 'scope, but unless the 'scope is a *good* one there are errors that more than offset the better vision. As age creeps on and dulls the eye-sight a 'scope keeps you still in the game, where you would be compelled to retire if you stuck to iron sights.

Within the last ten years rifle 'scopes have been greatly cheapened and are fast coming into general use for all purposes. Five years ago none of the associations would permit magnifying sights in match competitions; now I believe all admit of their use, and it is a rarity to see a Schuetzen rifleman without a telescope. And yet shooting has not particularly improved. What is the reason?

In a general way I have heard and read the statement that the errors of the rifle and of the 'scope are magnified in proportion as the power of the 'scope increases. But I have never heard those errors defined. Now I don't believe any such thing, *i.e.*, that the errors are made greater by the magnification of a high-power 'scope. But I believe in the errors all right, and will take up what has become fixed in my mind as the principal error—probably the only one—but the one that is responsible for all the others.

This error expressed as best I can is: The optical center of the 'scope does not coincide with the geometrical center of its lenses; or, getting a little closer still: the optical center of the object lens (the real "heart" or "life" of the 'scope) does not coincide with its geometrical center. The result is that when the 'scope is rotated or turned in lens mountings the cross hairs describe a circle greater or smaller as the object on which they are rotated is nearer or farther away. Some persons think this is because the cross hairs are not centered. This is rarely the case and, if it were, the trouble would be of no consequence. The real trouble is in the object lens, and if it is rotated while the rest of the 'scope is held stationary, the circle described by rotating the entire 'scope will be found the same.

I have tested something like twenty-five rifle telescopes in the past several years and the best one—that is, the one rotating on the smallest circle—would just about keep on an 8-inch card at 200 yards. The worst one is one of my own, which will cover a 10-foot circle at 200 yards.

Well, what of it?

The makers of late years have provided a slot or rib or something equally as good to bring the 'scope back to the same place in the mountings, and claim that this does away with the necessity of a perfectly centered lens; that everything being the same each shot no error can exist. I believed that once. I don't now.

I thought I could find out what would be the result of an imperfectly centered lens by "reading up" on the surveyor's transit and level, as that instrument is as neat a rifle 'scope as anything I know. . All I could find was that "if a rotation of the 'scope in the Y's (which correspond to the mountings on the rifle) shows the slightest variation on a given point and it cannot be corrected by adjusting the cross hairs, then the error is in the object lens and it must be discarded as the slightest variation will lead to grave errors." What are the grave errors? It didn't say, and I am forced to rely on my own deductions.

But remember, the scope on a transit is immovable in the Y's or mountings until the binding screws are loosened, and when in use it is lwveled with a spirit level and plumbed vertically, two additional advantages a rifle 'scope has not.

A great many times I have had a fine center hold on the target and would "call" a 10—and get it. While sighted perfectly with a gilt-edged rifle, and just after "calling" two or three shots (not always 10's) I have had the hold, called a 10, and got a 6 at 3 o'clock. Curses on the rifle; threats to wrap it around a tree or drop it in the river. But I didn't. Instead, I have tried to study out the cause.

Suppose a 'scope describes a 10-foot circle at 200 yards in rotating; that means a circumference of 30 feet or 360 inches. Now a 32–40 bullet, if shot point-blank, will drop about 36 inches at 200 yards. If the barrel should be shot by rotating on its four equal sides the four bullets would be equally spaced on quarters of a 6-foot circle (3x6=18x12=216 inches). A "cant" of 3 degrees means an error in the rifle of about 2 inches. To this error must be added the 3 inches of 'scope error making a total of 5 inches. . A 3-degree "cant" or "roll" is hardly noticeable unless it has been brought so forcibly to your mind that it is ever uppermost.

Now how much would you have to "cant" or "roll" the rifle to the right to throw the cross hairs off the bullseye to the left, and then if you did that and then pushed the center of the hairs back to the center of the bull the bore of the rifle would be pointing outside the bull at 3 o'clock, plus the 2 inches or more of rifle error; that is, if your 'scope was set at 6 o'clock on its rotating circle as mine is. If your 'scope was set at 3 o'clock and rotating, started the center south or southeast or southwest (reading as a map) the shot would go off in the relative direction from canting the barrel. Since arriving at this conclusion, I notice that in putting the rifle to my shoulder I am just as likely to "cant" it from 3 to 5 degrees as not, and lifting it forward and putting it back again in position is necessary, and sometimes repeated, to bring it reasonably plumb. But in target shooting now the first thing I notice is to "line-up" the vertical hair with the target frame and the 6's on 10 holds have ceased. In hunting, with nothing but the whole of outdoors to line-up on, a slight, unnoticeable "cant" would with such a 'scope miss a squirrel's head when you had the cross on his eye.

Not all the 'scopes made are as bad as this offhand 'scope of mine, however. But the error is there in all of them not perfectly centered and must be reckoned with. I have a 20-power rest 'scope that is a beautiful instrument optically and mechanically, but its center will cavort around over a 2-foot circle at 200 yards. It is no trick at all, if you do not use the greatest care, to make the groups of a 3-inch rifle look like a sawed-off shot-gun's best work. Since discovering this fact my rifles have secured a more lasting place in my affections. I have cursed and abused several good barrels because I couldn't see why they wouldn't shoot, when I should have blamed the telescope.

This off-center business is the cause of another trouble that both my friends and myself have noticed ever since we began using 'scopes. We shoot better, or rather have less trouble with the sighting changing on cloudy days than on bright days. Our range is so we shoot toward the south, and the bullets seem to follow the sun on bright days unless we change the sighting to overcome it; it is so well established with us that

we change without question on sunny days. The cause is the light rays entering the object lens from a different angle as the sun changes, and are not brought to a focal center by faulty lenses with relation to the line of sight.

In shooting south the bullets will get over to 5 o'clock as the sun goes toward the horizon; shooting north the bullets go toward 7 o'clock as the sun goes toward the horizon. In shooting different and varied directions it is a serious matter, and very unreliable for accurate work in field shooting where the distance begins to reach 80 or 100 yards or farther. On a day of alternate sunshine and clouds when a storm is gathering and large fleecy clouds obscure the sun for 5 or 10 minutes and then it shines clear for that length of time, the sighting is uncertain and aggravating at a target when one distance and one direction only are involved.

Dr. Mann in his very complete and logical book on rifle shooting reports a series of telescope tests for this error. The doctor's appliances for these tests, as well as all others he made, were in my opinion very complete. He found no error. *But the doctor's 'scope would rotate on a tack.*

(*To be concluded.*)

SOME POINTS ON BULLETS.

By Edward C. Crossman.

We pause just a moment to explain about the title. After writing it we note a little ambiguity. We refer to the business end of the Spitzers, not to any intent on our part to make you think there is any information in this article.

Things riflewise have come to the stage where if three or more genuine cranks foregather and talk about the only subject they care to gabble over, and one of them says that the Spitzer bullet is or is not the greatest game killing projectile since the days of Samuel Baker, the remainder will throw him down on the floor and promenade up and down his carcass and spoil his clothes and hurt his feelings, in their endeavor to make him realize what an idiot he is. It boots not what opinion he expresses on the subject, he will find himself disliked by some other crank present who doesn't agree with him by four miles.

The evidence as to whether the sharp point bullet is a meat getter or not is as conflicting as the answers to the same hypothetical question put to doctors on opposite sides in a millionaire murder case. That both sides cannot be right appears to be a cinch.

Nobody else appearing to care for the job of figuratively getting out his trusty hunting knife and dissecting the various instances of the use of the bullet on game, the writer has taken over the "bluggy" task and presents herewith a lovely little slaughter-house symposium that may throw some light—red—on the subject. Vegetarians please skip.

I think about the first gentleman to expose his head to the bricks of those always in wait for the man with original ideas was Lieut. Wallen, a Regular Army officer stationed in New Mexico. This officer stated emphatgtically that the sharp point service bullet would make an eight bore elephant gun hang its head when it came to tearing things up—or words to that effect. He stated seriously that he would prefer being shot with a .45-70 at any range after watching the effect of the Spitzer on meat. His statements were met by the usual crowd of theorizers who announced that he was crazy for the following good and sifficient reasons, to wit: *That the bullet could not be fatal in its effects because we never thought it could.*

Then came a gentleman who had hunted big game in Africa and later returned to the equally pleasant task of beating the Democratic party in York State "To a frazzle." He was successful in Africa, however.

Concerning the service bullet he wrote as follows:

The rhinopotamus stood with his side to me, nearly concealed in the brush. A scant sixty feet of his forward section showed through the branches. Taking careful aim with me rusty Springfield—come to look again the word is "trusty"—me trusty Springfield at a small parasite perched on the rhinopotamus's hide I pressed the trigger.

The little bullet struck him—the rhino, not the parasite—fairly in the shoulder, about fifteen feet below the spine, cut the beast in two neat halves, was deflected on striking the air and then pursued a circular course through the meat, creating an effect like a buzz-saw. It finally disappeared down country with a lovely halo of rhino meat around it and killed a newspaper correspondent four miles away. My followers made a lovely pan fry out of the larger fragments of the beast which they were able to collect from the vicinity.

The satisfactory effect of the bullet was marked as the correspondent referred to worked for a Hearst paper.

Now this and other similar accounts were very conclusive as to the effects of the bullet except in one instance where one rhino refused to give up the ghost and the worthy hunter had to pump Spitzers into him for two and a half hours. The animal finally died of exhaustion from carrying the enormous amount of lead around with him. However he was probably a Democratic rhino and too stubborn to die.

The writer preferring the high velocity rifle and believing that our own service cartridge or the Ross .280 constituted the best form of game shooting cartridge in existence, collected every scrap of evidence he could obtain on the game killing qualities of the Spitzer and cannot find a single instance to justify the hunter in the use of the make-shift and inaccurate soft point bullets loaded into 1906 ammunition.

It should be remembered that the 1906 is at present the most accurate cartridge turned out by our factories—as accurate as the usual run of soft point ammunition is defective. At 200 yards most New Springfields will equal the work of the finest of the special Schuetzen rifles, while at 500 yards the mean radius of 1909 Frankford ammunition is but 4.8 inches. Private makes are just as accurate, while the Ross cartridges have proven their accuracy at Bisley.

On the other hand Lieutenant Whelen says that the average groups made by soft point ammunition at 200 yards run from 7 to 13 inches. This is taking 30-30, 30-40, .303 and the made over 1906 soft point cartridge.

While it is true that game shooting is done at fairly close range and that 7 inches is closer than one can hold, yet if you happen to shoot one of the 13-inch boys, your pull is a little high and the cartridge happens to be one of those giving a high point of strike, you may score a miss when the fault was not yours. It is safe to say that most of us would prefer the stuff giving 3-inch groups to that giving from 7 inch to 13 inch, other things being equal. The advantage of the flat trajectory being undeniable, there remains only the effect of the bullet on game to be determined.

We are solemnly assured by a well informed person in another magazine that the United States Government adopted the Spitzer bullet solely on account of its humane disposition. Which reminds one of the warning posted by the old farmer over his melon patch—that his shotgun wan't loaded with no sofy pillys.

Sidling around this novel reason for the adoption of the Spitzer and taking it that high velocity coupled with great retention of its original speed was the chief advantage of the bullet, we find that incidentally was obtained a horrible effect on tissue that makes the sharp point bullet worse than the taboo "Dum-Dum."

A friend of the writer, Dan B. Renear by name, is probably the only man in this country to work out a thorough series of tests as to the effect of the bullet on living animals. The fortunate combination of a man with enough medical experience to make his observations valuable and the opportunity to kill enough animals to make the tests conclusive gives us almost positive assurance of the reliability of the sharp point bullet for game.

Renear, who is vice-president of the Goldfield Rifle Club, a N. R. A. outfit, was also a health inspector for that border mining town. The town became overrun with pariah dogs, animals brought in by people in search of work and never taken away again. Food was scarce for the dogs, the heat of summer was great and the result was a mad-dog scare, justified by the number of vicious dogs prowling about. The edict of destruction went forth and on Renear fell the job of carrying it out.

Before the town was clear of the canines, Renear had shot over 150 of them. With him was Dr. Baker, an English big game hunter who had killed his lions in Africa, his grizzlies in Alaska and his tigers in India and who was fairly well able to judge of the comparative effects of bullets. Desiring to get some benefit out of an otherwise unpleasant job, Renear and Baker killed every dog with either the New Springfield, 172 grain U. M. C. sharp point, a .25–.35 Winchester, a .30–.30 ditto or a .303 Lee-Enfield, made by Greener and a fine example of English sporting arm. In the arms outside the service gun, soft point ammunition was used entirely.

Renear spent two years in the University of Pennsylvania Medical School before his eyes forced him to quit and was able to dissect the animals and to make intelligent observations of the bullet effects.

Dr. Baker expressed it as his opinion that no soft point bullet of small caliber in existence could equal the destructive effects of the service bullets as shown on the dogs. Renear states emphatically that not one of the other rifles used equalled the sharp point bullet in killing effect.

The dogs ran from flea-sized ki-yis up to Newfoundlands and were shot at ranges varying from 10 to 250 yards. Not one of them got to his feet after the first shot from the Springfield and only in a few cases was the second bullet given through considerations of mercy, not because the dog showed any ability to regain his feet.

Summing up the various instances it seems that the bullet at its high velocity has an explosive effect, converting the parts adjacent to it themselves into projectiles. Renear calls it a vacuum. The ever-present tendency of the point to turn to one side helps the bullet in its destructive effect and is probably the cause for the "slashing wound" mentioned by Roosevelt and which Renear found in every case where the point of exit was in flesh.

Some specific instances of the animals shot follow:

No. 1. Bullet tore off entire flank.

No. 2. Bullet struck animal—a large Newfoundland—in the left shoulder, came out the right hip, tore heart into shreds and left the liver torn to small bits, not one as large as a silver quarter. The entire wound channel showed an effect as though the missile had been of extra large bore, while exit was large enongh to insert the entire hand. Slashing effect was marked. In a number of cases the exit was marked by a long wound, large enough to admit the open fingers.

No. 3. Coyote, running up hill, 400 yards away. Bullet entered the jaw and came out the top of the head. The entire top of the animal's head was broken into small bits, the bone being held together by the skin. As Renear describes it a similar effect could be produced only by striking heavy blows on the top of the head.

No. 4. Coyote. Bullet struck low, in the entrails, a shot that usually results in a chase and mortification to the hunter. Animal fell dead after running ten yards. State of entrails too awful to be described, being simply messed all up. In a leg shot, the member came off as though slashed with a knife and, where bones were encountered, the bullet shattered them instead of boring the neat little hole characteristic of the 30–40 full metal patch.

Incidentally the two executioners found that the 25–35 uniformly did more damage than the 30–30.

Corroborating the conclusions of Renear, comes H. W. T. Ross, a well-know Schuetzen shot of Santa Barbara, recently returned from Chihuahua where bear and deer constituted the quarry. After noting the effect of the bullet, Ross refuses to shoot it further on such game as deer, stating that it tears up too much meat and inflicts unnecessarily awful wounds.

Ross and his companion, Haese, shot five bears and half a dozen deer. Ross, being interested in the dispute as to the effects of the Spitzer, noted carefully each wound. Both men used Service rifles as issued by the arsenal.

The bears shot were done for by a single bullet in each case and none of them got 50 yards away from the place where the bullet put in its appearance.

The first bear, a black, was shot in the right shoulder. The liver was torn to bits, Ross's description agreeing with that of Renear's as to the condition of the internal organs. The jacket, in this instance, stopped under the hide on the opposite side. The second bear, a grizzly, was hit in the white spot on the breast but the bullet, shot from below the animal, traveled a trifle too high, macerating the lungs but not killing the bear instantly. A second shot was not needed.

The third bear described by Ross was shot in the chest, the bullet ranging downward and killing it instantly.

One of the deer was shot in the paunch, tearing out almost the entire intestinal system and the shock dropping it 100 yards away. A second one was shot in the neck, as it faced the hunter, the bullet ranging backward and cutting off seven ribs from the spine. Bits of bone and flesh were actually blown clear of the animal. This is the particular instance that soured Ross on the Service cartridge for deer.

A peculiar phase of the experience of the Santa Barbara men is that two deer were shot in the back as they ran up hill from the hunters on different occasions and both times the bullet struck the animal in the small of the back, macerating the meat and exposing the sinews but not entering the body. Both deer dropped to the shot, apparently from the blow as no vital organs were penetrated. Here apparently the point must have turned or else the entire bullet was deflected through its shape.

It is rare that one finds a hunter with a gun that he avows shoots too hard for the game he seeks and Ross's experience with the Service bullet must have been a bloody one to make him swear that he would not use it on deer again.

Stewart Edward White, in a recent letter to the envious bunch he left behind in California when he started for the dark continent, says he interviewed one T. R. a personal friend, while White was in the east and the returned African hunter showed him a number of bullets cut from game, all of them with the points turned to one side. Roosevelt states that they tried out thoroughly the Service bullet against the 220 grain bullet in the same rifles and that the Service gave by far the best results.

He told White that eland, antelope and even rhino dropped to the blow of the Spitzer and that they used nothing else after the first few animals killed. No lubricants were used and no metal fouling occurred until about 2,000 rounds had been fired, when the rifles gave trouble.

One more instance. Lieutenant Whelen writes that a personal friend of his tried out the 172 gr. U. M. C. sharp point on beef and it gave perfect results as to size of wound, channel and penetration. Later the gentleman shot in Wyoming, killing four deer and one elk, the latter animal being shot at a distance of 150 yards. Each animal dropped to a single shot.

Naturally there will be exceptions to the almost universal experience of those who have shot Spitzers on game. It is still common for hunters to write to their favorite sporting magazines, swearing that such cartridges as the .303 Savage, the .30–40 or even the .35 Winchester are entirely deficient in killing power, basing their opinions on their personal experience.

Such differences from the accepted findings of the majority of hunters are due, first to the bullets not hitting at all even though the hunters firmly believe they did, and second to the occasional freakish performance of a metal patched, soft point bullet. And then the failure to mushroom must often be charged to loss of velocity through the distance shot over being greater than usual.

The performance of the Spitzer is not entirely clear as yet. For some reason it has more penetration at 100 yards than at 50 feet as far as white pine is concerned, the figures being 46 inches for the 100 yard distance as compared with 33 for 50 feet. The penetration at 500 yards is over two-thirds that at 50 feet. This discrepancy is not borne out with other subtances, such as steel plates, white oak, etc. If the figures for the pine penetration are to be taken as giving a true line on the flesh performance of the bullet, we arrive at the strange conclusion that if we want to hit the beast hard we are to back away from it. Herein may lie the solution for Mr. Ross—if his rifle hits too hard at game shooting ranges, sneak up and push the muzzle of the rifle against the tummy of the target. Else figures lie.

In ARMS AND THE MAN for November 10, there appeared an article from the English magazine "The Indian Field," in which a hunter of some experience states that while he has never failed to drop his animal dead with a single hollow nosed bullet from a Ross .280, yet with the copper nose sharp point bullet he has failed to get satisfactory results. This he says is due to the tendency of the bullet to suddenly dive or depart from its course while in the body of the animal. He speaks heartlessly of taking a shot at a chink and breaking the spine near the tail. This seems like going a trifle too far in times of peace but maybe there is an over-plus of laundrymen in India.

Getting back to the bullet, the gentleman fails to discriminate between the very rigid point of the military Spitzer and the soft copper nose Ross bullet. The latter on being sectioned turns out to be composed of what looks loke the original Ross hollow nose bullet with a copper tube set into the cavity. The tube has a shoulder that butts against the nose of the bullet and its point continues on the curve of the bullet so it looks precisely like the ordinary Spitzer painted red for ¼ inch of the point.

In theory this hollow copper tube collapses on impact and the contained air being compressed, expands the bullet. Thus the advantage of the sharp point bullet is retained through flight, while the bullet should give terrific tearing effects on impact. According to the experience of the Indian hunter the point merely bends over and deflects the course of the bullet. As the point is composed of a thin copper tube, easily bent, one can see that it might turn over and deflect the bullet where the military Spitzer would continue its straight course.

On wood this Ross bullet does as it is supposed to do and there is no turning or deviation from the approximate course, while it tears the wood worse than any soft point could do. The writer has referred the case to Sir Charles Ross, the designer and patentee of the bullet, who has shot it on stags on his Scotch estate and will later publish his reply. Inasmuch as this bullet or a very close approximation thereto is to be loaded into the 1906 cartridge by one of our largest cartridge companies it will be interesting to get an accurate line on its performance before it is on the market.

However there will always be hunters who complain of the lack of killing power of any projectile—oft-times because the air disturbance around the animal is not sufficient alone to cause death. For these folks we suggest Sir Samuel Baker's cute little bullet, especially designed for heavy game.

"My half-pound shell was exceedingly simple. A castiron bottle, similar in shape to a German seltzer-water, formed the core, around which the lead was cast. The neck of the iron bottle projected through the pointed cone of the projectile and formed a nipple to receive the percussion-cap.

"In external appearance the shell was lead, the iron bottle being concealed within. Half an ounce of the finest grained powder was inserted through the nipple by means of a small funnel, this formed the bursting charge. This half pound shell was propelled by a charge of 16 drams of coarse grained powder.

"I never fired this rifle without killing the animal but the weapon could not be claimed as a pleasant companion, the recoil being terrific.

"I tried this shell at the forehead of a hippopotamus, which was an admirable test of penetration before bursting. It went through the brain, knocked out the back of the skull and exploded within the neck, completely destroying the vertebrae of the spine, which was reduced to pulp, and perforating a tunnel blackened with gunpowder, several feet in length, along which I could pass my arm to the shoulder." Baker does not say, but it is to be presumed that the hippo died.

Too Bad.

"I am sorry to be critical, my dear," said Mr. Lambkin, "but this pie is not the kind that mother used to make—not by a long shot."

"It's too bad, Henry," said Mrs. Lambkin, amiably. "I don't know what to do about it. Perhaps you'd better ring her up on the 'phone and tell her. She sent it over this afternoon."—Harper's Weekly.

THE AUTOMATIC IN ENGLAND.

ENGLISH shooting papers, the press and the regular illustrated magazines, have all contained a great deal of matter referring to the recent "battle of anarchists" which occurred in a suburb of London. Since then makers of automatic pistols and their agents have offered through advertisements automatics of very description.

The Metropolitan Police recently assembled for the purpose of testing out, with a view of adoption, automatics of the following makes: Bayard, Steyr, Glisenti, Webley Scott, Colt's Browning, Mauser, Webley Fosbery, Webley and Williamson, and Smith and Wesson revolvers. The police requirements appear to be a man-stopping bullet and pistol for short range in two forms—a small one for the detective branch and a larger one for the constables. For special work where "offence" is required at longer ranges, some more long-ranging weapon than a pistol is desirable.

Previous to the affair above noted very little or practically nothing was known of the automatic. It took the combined energy of two terror-stricken anarchists to awaken an interest in a weapon that has been in use in this country for some little time.

THE "?" BUREAU.

By Will C. Parsons.

A WELL organized information bureau is a necessity at any State or National rifle shoot.

"Who won the Wimbledon?"

"Any express for me?"

"Say, kid, when can I get a train (or boat) to (anywhere in the United States or Canada)?"

"Please call up the clubhouse and ask if Lieutenant Smith is there."

"Did anyone find my poncho out on the 600-yard line?"

"Say, where *in* the hotel is the Missouri team located?"

These and a million or so others are daily asked of the information bureau.

The men "on the job" must be courteous, tireless, willing, and ready at any moment, day or night, to give quick and accurate reply to any and all seekers for answers. On the work of the bureau men, in a large measure depends the advertising of the range, and the "good-will" that is an asset to possible meets in the future.

The correct detail for a bureau seems to be like this: One officer of good sound judgment, a trained railway and steamship man, and a live-wire newspaper chap. There should be some one on duty from the first note of the trumpet in the morning, until the last fellow has "hit the hay" at night. Everything from safety-pins and collar buttons to timetables and pins, should be kept handy. There will be calls for all. One of the hardest things a "?" man has to do, is to figure right quickly how a man from the Hawaiian team, for instance, can leave camp, visit his long lost cousin in Plunkettville, Tennessee, and get back in time to go into the tyro match on time. He will want to know the cost, railway connections and all that, and it is up to the bureau to deal out the "dope." That is where the railroad clerk comes in handy. The National Guard officer, of course, can answer all the military questions, give information on time of matches, and among other myriads of things, do the honors at the clubhouse and at the social functions. There *are* some even at a shoot.

The newspaper man can be made to pick up the "loose ends", keep a register of every one on the grounds and (where they can be found) look after express stuff; see that the correspondents and the team captains get the latest and complete bulletins; post bulletins and camp orders on the bureau's big board; meet each team on arrival and see that they have all the advance "dope" on housing, meals, and location; distribute literature on the shoot; and last, but not least, see that the gentlemen of the press have every facility for getting the shoot news "hot off the bat!" This big bet is sometimes overlooked, and then there are some people who wonder why the newspapers are a trifle lukewarm the next year (especially when the Regulars are so snippish about their copies of the bulletins in the national events).

The slogan of the bureau should be, "if we haven't got what you ask for wait a minute, and we will dig it up for you." Another good rule is "*Never turn a man down!*"

A large map of the grounds is an absolute necessity. This should show the streets, buildings and at least, the location of the various teams. This map should be kept "up to the minute" and worked in connection with the camp register (also kept right up to the dot) and is really the most valuable thing the bureau can possess. When an individual, or a team leaves, it is a simple matter to fill in, on the register, the forwarding address. The register should have the full name, title, home, and camp location, plainly written thus: "Jones, Captain William L, B Company, 17th Regulars, Ft. Waco Tex., Tent 6, Range Officers' Row." That locates Jones all right: the map does the rest. Now when one comes to think of the possible fifteen or twenty other Jones' who may be at the camp, the map and the register system becomes apparent as a necessity. Long distance telephone calls, important telegrams and the like can, by the map-register system, be made to reach the proper person, day or night.

It is a good proposition for a State team to bring with it its State flag. This helps a visitor to find his friends.

A pair of quick, intelligent messenger boys (soaked over night to eliminate "freshness") help a bureau considerably, and save time and shoe leather for the detail. Perfect harmony in the detail is essential, and there does not need to be any boss, if the right men are chosen.

At a large camp many things are lost, a few are stolen, and it is a good plan to "stand in" with the general service corps. These men make a most valuable detective force. A report of articles lost, stolen, and found, should be kept by the bureau, and the bulletin board should have the baseball scores posted each night. One can always get the telegraph operator to get these for the bureau.

There's plenty to do for the information man

FOR

He—

Puts 'em to bed and helps 'em to rise,
Finds their rifles, ponchos, and "spys:"
Sees that they do not miss their train,
Jollies 'em up in sunshine or rain;
Boosts the whole shoot, wherever he can:
All's in a day's work for the Information Man!

FROM SEA TO SKY.

FROM the depths of the sea to the heights of the air; from service on a submarine to service on an aeroplane, is a far cry for even the oldest and most experienced navigator to make. And yet it has been negotiated by one of Uncle Sam's youngest officers in the Navy.

Lieut. Theodore G. Ellyson, U. S. N., of the class of 1905 at Annapolis, who has seen six years service, three and a half years of which was spent in the submarine service, has been specially detailed by Secretary of the Navy Meyer to receive instructions from Glenn H. Curtiss in the operation of the Curtiss aeroplane. He reported to Mr. Curtiss at Los Angeles on January 2, and is now engaged in mastering the details of the machine and the art of aviation.

Lieutenant Ellyson is an expert engineer, particularly in the operation of the gas engine, such as are used on the submarines. He came from the submarine "Seal" at Newport News, where he had just recently been assigned for duty after several years in the Philippines and at Chinese and Japanese ports. He is an enthusiast on the submarine service and says that only one thing appeals to him more strongly, and that is aviation. The appointment to receive instructions from Mr. Curtiss came to him unsolicited and he is particularly pleased that he will have the distinction of being the first aerial navigator of the United States Navy.

When Lieutenant Ellyson shall have mastered the aeroplane it is likely that he will be assigned to the duty of instructing other officers of the Navy, so that eventually this government will have men on every ship of its Navy to operate the aeroplanes that will sooner or later become a part of their equipment.

The interest of the officers of the Navy in aviation is intense. On the Pacific coast where the Curtiss camp has been installed, it would seem that every officer of the Pacific fleet is seeking to become an aviator. Scores of applications went to the Navy Department, it is said, asking to be allowed to learn to operate an aeroplane, and Lieutenant Ellysonis regarded as the luckiest man of the Service.

In the army on the Pacific coast the interest is scarcely less than in the Navy, and many are the appeals sent to Washington to be allowed to take instructions from Curtiss in the operation of his aeroplane. In fact, the entire Army and Navy are wide awake to the importance of the aeroplane as a part of the military equipment. With this sentiment so pronounced among the men who are trained to see and to advocate the latest improvements of a military character, it is not unlikely that Congress will soon make ample provision for the purchase of aeroplanes for both the Army and Navy.

Lieutenant Ellyson's experience will be watched with the greatest interest throughout the country, as will Mr. Curtiss's water experiments during the winter at San Diego.

EXTRA OFFICERS BILL.

THE Bill providing for 612 additional officers in the Army was placed upon the Army Appropriation Bill in the Senate as an amendment to that measure.

Upon a question in the House with reference to it being new legislation and therefore out of order, the Chairman of the Military Committee of the House, Mr. Hull, agreed to submit the provision separated from the Army Bill. It is being so submitted and will be voted upon Thursday, the day this paper goes into the mail. Its fate will therefore be decided before the next issue, unless some unusual incident should arise.

It seems likely now that authorization for some additional officers will be made, possibly not more than 500, perhaps even a less number.

THE STORY OF A SPRINGFIELD.

By J. N. Lower.

LAST July, with Mr. Newton and son, I was an interested observer on our State Rifle Range watching the State Militia under direction of Adjutant-General Carleton Kelley (a staunch friend of all riflemen in this vicinity) doing some long range target practice. Immediately there arose within me a desire to do likewise.

Interrupting the General while he was telephoning to get on the track of a sharp-nosed bullet that had just left the firing point en route to the 1,000-yard target (and over which grave fear was being expressed as to whether it had arrived there or not), I inquired the correct method of becoming the happy possessor of a Springfield up-to-date U. S. Government long-range rifle. Mr. Newton, who had also absorbed considerable enthusiasm by this time, was ably seconding me on his own account in reference to citizenship, marksmanship and any other old ship which would properly impress the General.

"Hum," quoth the General, "do you belong to the National Rifle Association?"

"We do."

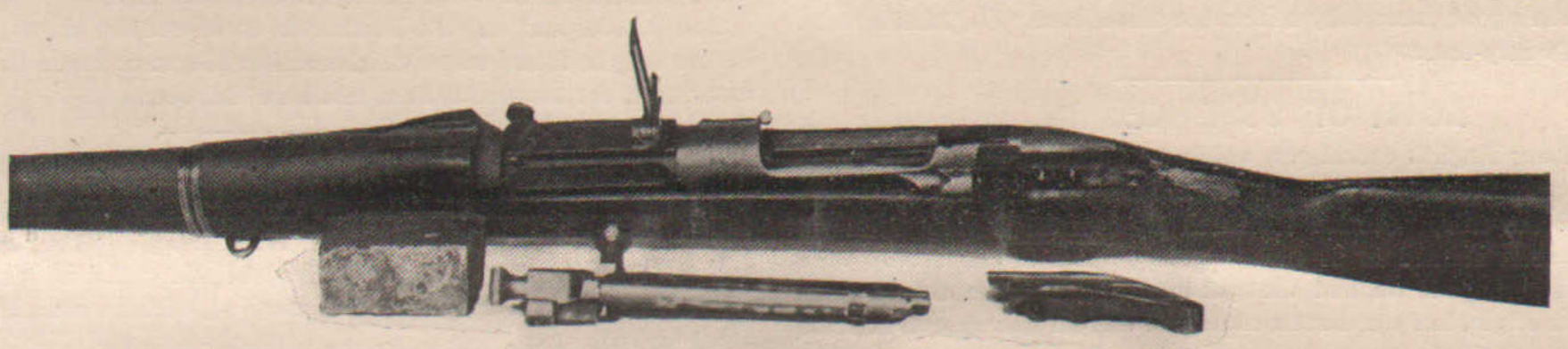
"Have you each got about twenty dollars in U. S. Currency?"

We affirmed we had.

"Cash up and leave the rest to me."

We did, and at the same time with great magnanimity informed the General that the rifles would be all the receipt necessary.

In due time, October 13, 1910, I received a quiet tip that three orphans had arrived from Rock Island, one for myself, one for Mr. Newton, and one for his son, and to get busy. So I hied me hither to secure my annihilator of space. There they were, three beauties, all covered with Standard Oil Goo Goo grease direct from Rock Island Arsenal, each one bearing a tagged pedigree that would make any rifleman's heart bump. With a critical eye for beauty I nailed the most curly haired—I mean curly



THE END OF THE STORY.

stocked—one and then examined the pedigree!

Caramba! I find somewhere among those 21 star gauges a millionth of an inch, more or less, difference. Beauty in outward appearance cannot overcome such a gross error in the vital interior, so I leave that one for friend Newton and I selected a more plain stock but one which had its innards diagnosed by star gauge as being perfect.

After removing that fifth distillation of Standard Goo Goo grease, Mr. Newton, his son, and I hied ourselves to the rifle range to do things. Mr. Newton has a son and I have not. So I fired the first shot from his rifle and was immediately struck, not on the gun at this particular time, but in the action, after a series of gymnastic feats I finally got the bolt back. Something dropped and I found it to be part of the front locking lug attached to the bolt. We hunted up Adjutant-General Kelley who was on the range and presented our evidence. He apologized on behalf of the U. S. Government and furnished us another bolt and we resumed, with no more mishaps with that particular rifle at that time, but within twenty shots the bolt in Mr. Newton's son's rifle met with the same mishap—front lug on bolt broke.

Mr. Newton being satisfied that he had a powerful rifle decided then to take it on a hunt and secured some of the regular government 150-grain sharp-pointed bullet cartridges for the occasion.

He left for the hunt but shortly returned leaving the rifle in charge of Andy Smith, a hunter and guide, near De Beque, Colo., who wished to try it on game. In January he tried it firing three shots with regular Government 150-grain sharp-pointed cartridges, and at the fourth shot produced the results as per photograph, and then initiated Mr. Smith in the science of astronomy for at least ten minutes.

The rifle is a complete wreck, both front lugs on the bolt are blown off, the frame in rear of bolt and which acts as second bolt fastening is cut completely off, under side of frame which holds magazine is broken in pieces, and stock cracked and shattered; had the frame been made from pot metal a more complete bust up could not have occurred.

There seems but one cause to attribute these accidents to, and that is that the material is too hard, lacks toughness and malleability, taking on the character of pottery or china. Either that, or the action is not sufficiently strong to withstand the charge. Since examining this wreck of Mr. Newton's Springfield I am undecided as to whether I shall soften the parts of my new Springfield son of a gun or take out extra life insurance.

Editor's Note: Evidently these rifles were part of a small lot which were too hard when they were sent out, an error discovered too late to secure the return of all of them before use.

COLONEL DURHAM'S NOTEWORTHY WORK.

ON February 8, Col. C. W. Durham, Corps of Engineers, U. S. A., celebrated the fortieth anniversary of the date on which he entered the upper Mississippi river improvement service and began work in the office in Rock Island, Ill. Therefore forty years of his life have been spent in river improvement work, and there is not a man in the Service better posted than he.

In 1869 Colonel Durham, having completed a course at Harvard and at Heidelberg, Germany, came to the west and for two seasons was employed as a civil engineer on the line of the Burlington & Missouri river railroad, which was being built across the State of Iowa. He located and planned a large number of bridges for that line and established an enviable reputation as an engineer.

FIRST WORK ON HENNEPIN CANAL.

On February 8, 1871, he came into the United States engineering service and his first work was done on the original survey and estimates for the Hennepin canal. Afterwards he was engaged in the improvement work on the Rock Island rapids and for five years was engaged in making river surveys.

In this capacity he proved of great service and was all over the upper river locating obstructions and making surveys for improvements.

IN CHARGE OF SNAG BOATS.

In 1876 he was placed in charge of the government snag boats on the upper Mississippi river, a position which he still holds. For twenty years he was in active charge of the snag boats and traveled up and down the river removing obstructions.

The first snag boat he was in command of was the old Montana, which had been built soon after the war and which was abandoned in the 70's. Then Colonel Durham had built the snag boat General Bernard, which will be remembered by many in this city. He saw this boat go into disuse because of old age and then the General McKenzie, now the David Tipton, was built. The name of this boat was changed in conformity to a ruling of the Secretary of War that no boat could be named after a living officer.

Since 1896 Colonel Durham has been in the Rock Island offices of the engineering corps where he is the first assistant to Major Keller, and where he keeps in touch with everything that is being done in the way of river improvement.

HAS SEEN A GREAT CHANGE.

During the years of his service in the river improvement work he has seen many changes. The old method of simply removing obstructions and dredging bars to open the channel has been changed to a comprehensive plan for permanent improvements. In many places where the river overflowed the low lands, dykes have been built and innumerable wing dams have been constructed to deepen the channel of the river. Colonel Durham has been in close touch with all this work and has had a large share in planning it. He is a staunch advocate of the permanent improvement of the waterway on which he has spent more than half of his years and feels a keen interest in all of the waterway plans. He is still active in the service and in spite of his work of forty years has no intention of retiring. His friends say he is good for many more years of work, and he expects to see more and better changes in the work of river improvement.

THE REASON WHY.

Or, Every Unaccountable Accounted for.

DIETZ, handsome Dietz, was employed in the loading room of one of the large armories west of Hell Gate. He was a high-minded young man with a penchant for pistol shooting, and, finding his greatest pleasure in perusing the good work of other performers in his favorite sport was often caught mechanically operating his loading tools

and dreaming of the possibilities of the one-hand arm. "If one could only hold himself together," said John, "long enough to get the twentieth ten in."

He has just about framed up a world's record when the door gently opens, and, standing in the center of the deeply dark background is a vision of feminine beauty. The stately figure enters—violet eyes, pink, cheeks, liquid lips and arching brows; all crowned with an exuberance of rose-golden hair. She, presenting her alabaster hand to John, and, speaking *sotto voce*, tells him in a heliotrope voice that she possibly should not have ventured down the winding staircase, through such dreary little old narrow and darksome halls, but after all the reward of her bold adventures is crowned with success and she now looks upon John's classic features, trustful eyes and manly form; that she simply is "delighted" to see her dear boy again.

Well, this was all too much for John—and—so sudden. It is said of him—this one John Dietz—that, when laboring even under the responsibility attendant to shooting in the League Matches one may overhear: "A peach." The target is inspected and found to show a newly begotten "ten." "Faint heart never won fair lady" comes from the same stall and as a matter of fact the next shot is an "eight." Again, "Ah! 'twould be the bliss of blisses could I live on Maybell's kisses." He, the aforesaid John, squints through the scope and finds that his bullet did not even kiss the bull—it is a c-o-l-d "seven." With a rude awakening, due to the fifty-seventh challenge for a one shot match from Dr. Hicks, John dismisses the "fairest ever" from his mind, and "laying on MacDuff" finally manages to pull out a "forty-two."

Dietz is the king of romancers, and woe betide the balance of the bunch when John has told them "all." He turned not a hair nor flushed a single flicker when the rude writer of this rickety rot dropped in upon his entertaining of that dream of feminine loveliness. It was very embarrassing to the rude writer, but not half so much as has it been to John's scores.

Kliner romances, similar and dissimilar are getting John's goat, and what gets John's goat, materially affects the team score. So, Manhattans, beware!! Twenty-three.

BOTH OF US TAKEN IN.

ONE of our English exchanges, which we faithfully read with much interest, recently published an article by R. Murray-White, with the title, "Motion Executed By Normal Flying Bullets."

At the time it seemed to us that certain phrases in the article were familiar, and perhaps if we had thought more about it we should have discovered its origin, but the matter contained therein was of such interest to us that we decided our readers should benefit by its reading. We, therefore, published the article in our last issue, and were not greatly surprised when the morning mail brought us a protest from one of our subscribers.

We do not know who R. Murray-White is, nor do we care, but he has wilfully taken something which is not his, and has passed it off as his own.

It is not necessary for us to give him his proper title; our readers can judge for themselves.

We cannot blame the N. R. A. Journal any more than we can ourselves for having printed the article, but we do believe that publication should see to it that this person is severely punished and in an early issue give proper credit to Dr. W. F. Mann, author of the "Bullet's Flight from Powder to Target," which book is protected by copyright.

The letter which follows is from a valued subscriber who knows whereof he speaks.

"*Editor*, ARMS AND THE MAN:

If you will take Dr. Mann's book, 'The Bullet's Flight from Powder to Target,' and turn to pages 242 and 243, then take ARMS AND THE MAN of February 9 and turn to the article of R. Murray-White from the N. R. A. Journal, you will find that this article is almost an exact copy from Dr. Mann's book. In this connection I would like to enquire what kind of a man is R. M. W., or perhaps, as I have not read the original article, what kind of a paper is the N. R. A. Journal, that it should thus take bodily from the long painstaking experiments of Dr. Mann and put the same forward as original. It does not look good to me.

I have also read 'The Vanished Tale' with considerable interest, and as I know of no weapon or ammunition which is capable of placing half its shots at 1,500 yards in the space occupied by the average antelope in an average position, say quartering, I have my own opinion that the man who undertook to place half his shots in its size. let alone to make them killing shots, in the average conditions of unknown light, wind and mirage, even if at known distance, would be strictly up against it if for any considerable number of shots, and under these conditions I would give odds on 'Mr. Maine Guide.' If any one has done this, I would hazard a guess that the lucky shots were very limited in number.

H. M. P."

THE HOLY CROSS.

By Cooper Leach.

THE burning rays of the sun lessened in intensity as it slowly sank behind the ragged, wooded ranges in the west. With bandaged head, blood shot eyes and dried, blackened lips, a figure in soiled, dirty khaki labored slowly up a hill, barren but for the loose lava rocks. His rifle he carried listlessly, the muzzle nearly striking his calves as he grasped the small of the stock in his right hand and looked back over the trail to where, on a distant rise, a small black group of men dragged along behind him.

He slowly raised his rifle to his shoulder and fired. One of the natives threw up his hands, staggered and fell. The others scattered and returned the fire, the reports echoing back and forth through the hills. Darkness came on and the soldier muttered between his parched lips: "fourteen."

He had been the target for pot-shots all day long across the rocky, desolate, waterless foothills. One bullet had grazed his temple, knocking him down but the insurrectos had paid dearly for the injury. The rifle of the Tennessee mountaineer spat back at them and invariably death followed the report. Still the doggedness of the pursuers was wearing him down. The great gaunt limbs sagged more and more at every step till at last on a particularly steep rise, he stumbled and fell in a heap, his gun beside him.

It was the Holy Hill and the relentless pursuers surrounded it not daring to ascend even in the darkness for fear of sudden extermination.

Pemberton slept where he had fallen. The lizards came creeping up stealthily, neared him and dashed away in alarm. The dew fell and sparkled on the blue shirt and crumpled campaign hat, and glistened on the rifle barrel.

After hours he awoke cramped, cold and thirsty. Eagerly he licked the dew from the rifle barrel and rim of his hat, then stood up. Leaning heavily on his gun his form was outlined against the sky. A slight mist lay along the ground and curled up about him, making him, to the natives watching ghoul-like below, three times his normal size. He stretched himself, extending his great, long arms and stood thus a moment, yawning.

At his first move the watchers below had seen him—when he sat up, then stood, and as he stretched they beheld the sign of a huge cross, all bathed in misty white.

"Santa Cruz!" they exclaimed in a breath and marched off single file through the shadows in the hollows between the hills.

To his relief and surprise Pemberton continued his journey unmolested. Before long he found water which enabled him to continue his journey and soon reach the command from which he had been lost

THE MILITIA PAY BILL.

MR. STEENERSON from the Committee on the Militia Affairs to which was referred the Bill, H. R. 28436, "To further increase the efficiency of the Organized Militia and for other purposes," reported the same to the House February 14, with an amendment, saying:

"At the end of the Bill insert the following proviso:

Provided. That no money appropriated under the provisions of this act be paid to any person who is not suited to the military service according to the standards prescribed by the Secretary of War nor shall any such money be paid to any person who has not taken the oath of allegiance to the United States, including an agreement to render military service to the United States during any period for which he may be called into such service, providing such period shall not exceed two years; and any officer or enlisted man of the Militia who, having received pay under the provisions of this act, neglects or refuses under any pretext whatsoever to present himself for muster when called into the Service of the United States, shall be be subject to trial by any courtmartial, *constituted as now provided by law for Militia in the Service of the United States*, and upon conviction shall be adjudged guilty of the crime of desertion, and shall be punished as such court-martial may direct. *And provided further*, That nothing in this act, or in any other act, shall be construed to require the United States, in time of war, to accept the services of any Militia Organization or any person belonging to such organization, unless such organization of person has been regularly inspected, reported fit for military service according to the standard prescribed by the Secretary of War, and so carried upon the rolls of the Adjutant General of the Army.'

In reporting the Bill to the House the Committee said: "The Committee recommends that the amendment be agreed to, and the Bill as amended do pass.

The Committee held extended hearings on this Bill at which repesentatives of the National Guard and the War Department were heard at length. The operation of the act to promote the efficiency of the Militia of 1903, as amended in 1908, has proved that greater service has been required of the Militia in the line of training and preparation so that it has been demonstrated that it would be unjust to exact this without in part compensating the officers and men.

The reason for this legislation is fully stated in the report of the War Department on the Bill, and in the "Memorandum for the Secretary of War." prepared by the Chief of Staff for the Secretary of War which is printed herewith by permission of the War Department. (And the memorandum in terms familiar to our readers was printed in the report.)

This session of Congress is so far advanced that to pass the Bill now will require exceptional efforts. The Calendar is crowded. March fourth is but a few days distant, and a thousand conflicting interests are crying out for the passage of other legislation.

Those interested in the vital question of pay for the Organized Militia will have to exert themselves to the utmost along every line to give even a faint hope for the passage of the bill at this session.

ARMS AND THE MAN

1502 H Street N. W., Washington, D. C.

Every Thursday

James A. Drain, Editor

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.

THE GAME WORTH THE CANDLE.

What boy is there who does not desire to go shooting! and for that matter what man, if as a boy he had an opportunity to gratify his boyish inclination and in that way learn something of the pleasures of the chase.

Usually the youngster, with his first gun, an old one cast aside by an elder shot, has difficulty in bringing home anything, and his intense desire to bring back something other than an empty game bag often lends to him a semblance of the character of the game hog.

He shoots the rabbit as it sits, the bird before it flies, and his chief desire is to kill and bring to bag.

A little later on his eyes are opened to the real pleasures of shooting, and he gets his greatest joy from intimate association with nature in her wilder sylvan characteristics.

Being alone in the big woods, on the wide marsh, or the far extending prairie is good medicine for any boy or man. To be able to cut the line of communication and have no other human being to talk to one or to talk to throws the individual back upon his own company, and if he is a normal healthy sportsman he is not apt to find that he bores himself, during periods of solitude not prolonged beyond reasonable limits.

After a time and a greater or less number of varying experiences, ranging from big and bountiful bags down to a complete "whitewash," the question of what he kills when he goes out to shoot becomes a subordinate one. He takes his pleasure from the contact with the world, *au natural*. That is really the right way to look at it.

A good bag adds a little to the pleasure, but a bad bag detracts not at all from the enjoyment of an outing. Hard exercise, lungs full of clean air, eyes trained to a greater efficiency by looking for the hidden quarry, mind diverted from the sordid things of life, and the commonplaces of existence, all are benefits to be gleaned from days in the woods and fields, pursuing as did the natural man the wild things which own him as their ancient foe.

And how the pesky creatures can evade the closest search and the most careful scrutiny! Would anyone suspect a rabbit behind yon little tuft of grass no larger than your hand, or a quail here upon a bare plain as apparently devoid of concealing cover as a side of the Washington Monument?

Then how they startle you when they get up, and leave with expedition and haste for somewhere outside of your line of vision. How your nerves tingle, and if the faithful gun, swung quickly and fired promptly, fails to land its death-dealing charge where you wish, you can always find excuses in the over-hanging branch, the stumbling step, or, in dire need, the surprise of the moment.

But it is good sport. Now isn't it? Hundreds of thousands of Americans are indulging in one form or other of it all over the country. The size of the game, its kind and character, are of no particular consequence. A rabbit in Maryland is as big as a moose in New Brunswick, or an elk in the Olympics, and a quail in Virginia sizes up well with a goose in Texas.

The game, the real game, is the excuse to get outdoors again and tramp good sturdy miles without feeling that you are doing it for the sake of exercise alone.

PICTURES.

How would a man enjoy seeing pass before him on a moving picture film all the events of his life—every one, good, bad and indifferent, reproduced in perfect detail?

There would be times when he would hope for the reel's revolution at lightning speed, and other moments when he would stop the machinery if he could, and allow some transcendant scene to linger upon the canvas indefinitely!

A man's mind is a sensitized film upon which memory prints the record of every hour and every minute of every day of his mundane being. But by the mercy of God, the hand of time smears the colors and dims the outline of some scene we had best forget.

Few except the best of men would extract more pleasure than pain from a film-told story of a whole life. Probably women could sit more content, because their own sins are few, and the wicked acts of those who err against them would not show on the record.

Little children's lives, how they would roll by sweet tales of hope, innocent days, beautiful flowers, singing birds, loving, watchful, careful tenderness, repaid by the loveliness and light.

But for most of us—spare the film, and give us a little more time to make a new and better record.

After all on that great day when all have a final accounting, in what will man's state differ from that of the gazer upon a moving picture? Only that the eternal image will speak as well as move and have more than the semblance of life.

SEEING.

The human eye is a wonderful thing, is it not? It looks upon the face of Nature, the brain behind the eye carries a message to the soul of him who looks, until he is raised on the wings of a beautiful vision above mundane things: Until he may look almost into the visible face of an actual God.

And there are sordid surroundings, bestial, brutal objects, which drag down the spirit until it walks with leaden feet in the slime of the soiled street.

The eye of man looks upon the printed page and his intelligence perceives what a correspondent sought to say.

And the loss of the eyes—blindness; how fearful an affliction to fall upon any man, and how we who can see should praise God every day of our lives that we walk with live and not dead eyes.

But there are other blindnesses than those of the physical eyes. We may be blind to the truth, or as an off chance we may even *shut* our eyes and thus for a little blind ourselves to what is true, being wishful not to see.

As we should keep open the physical eyes to guard our feet from the pitfalls of a rough and tortuous way so we should by every effort of will keep clear the sight in our spiritual eyes until we may go straight to that destination which is intended for us; that destination which for each of us should be the one highest toward perfection within the limits of the powers God has given us.

Is it not so, my friend?

And you must answer, seriously, sincerely, and reverently, "Yes. It is so."

EARLY ENGLISH FIREARMS.

THE Army and Navy Gazette, England, has in its last issue an article dealing with the history of firearms.

No doubt much of the information contained therein has been printed before and is familiar to a great many. We consider it good enough to reprint, however, and we acknowledge our indebtedness to that excellent publication.

"The introduction of firearms may be considered to date from the first hand gun that came into practical use in 1446. It was of very rude construction, consisting of an iron cylinder, with a touch hole at the top, fixed in a straight stock of wood, which passed under the arm of the firer. It was fired by means of a match made of cotton and boiled in a strong solution of saltpeter.

In the reign of King Henry VII, a cock was fitted on the side of the gun to hold the match, and the firer lowered this on to the primer by means of a trigger. This gave the name matchlock to the weapon, which was also styled "arc-a-bouche" or harquebus. This primitive arrangement may still be seen among the Chinese, Tartars, and other semi-civilized nations. The next step was the invention of the wheel lock, which removed the necessity of the match, sparks being emitted from the pyrites by the rotation of the wheel. The musket was introduced into England before the middle of the sixteenth century, These were heavier and of larger bore than the wheel and matchlocks and were fired from a rest. Owing to the expense of the wheel lock and the light emitted from the matchlock, a musket termed the Snaphaunce was produced in Germany and speedily came into favor. As it was the progenitor of the flintlock, which was universally used for pistols and muskets, it deserves a full description. A piece of steel furrowed like the wheel lock was attached to an arm set on a pivot. This was struck by a cock attached to a trigger, a piece of iron pyrite being inserted in the beak of the cock. On lowering the cock on to the steel the arm of the latter was forced back, and sparks were emitted which ignited the powder in the priming pan. The flintlock, with very slight alterations, was copied from the Snaphaunce; it was invented about 1635. The Brown Bess, so often mentioned in English history, was a flintlock in use about 1800, its details being as follows:

Weight	10 lb. 2 oz.
Weight of bayonet	1 lb. 2 oz.
Length of barrel	39 in.
Diameter of bore	753 in.

The disadvantages of the flintlock were the tendency of the powder to get wet and the friability of the pyrites.

In 1807 a clergyman called Mr. Forsyth patented a priming of fulminate powder, which when struck with any metal exploded. This was a most important invention, and enabled the flintlocks in use in the British Army to be altered to the percussion musket, introduced in 1842.

The weight of this rifle was	9 lb. 12 oz.
The weight of bayonet	1 lb. 8 oz.
Length of rifle and bayonet	6 ft.
Length of barrel	3 ft. 3 in.

The British Army used the percussion musket until 1851, when it was partially superseded by the Minié rifle. In 1855 the Enfield rifle replaced both the above.

Rifles were first used in warfare about the beginning or middle of the seventeenth century. Before the introduction of breechloaders, the difficulty that faced the inventor was a satisfactory method of loading the rifle from the muzzle. The diameter of the bullet had to be of such a size that it could be forced down the barrel without deformation, and yet on the explosion taking place would be forced into the grooves and rotated. It was found in 1841 that elongated bullets hollowed at the base could be expanded and forced to take the rifling. In 1847 Captain Minié placed an iron cup at the base of the bullet, causing it to expand on the explosion of the charge. Minié rifles were used by some of the British troops in the Crimea. Their details were:

Weight with bayonet	10 lb. 8¾ oz.
Diameter	.702 in.

The bullets used in the Minié rifle were cylindro-conoidal in form, and were made up into cartridges. The cartridge (after emptying the powder out of one end) had to be reversed and the bullet inserted and rammed home. In 1852 the Royal Small Arms Factory at Enfield produced the Enfield rifle.

Weight of rifle with bayonet	9 lb. 3 oz.
Length of barrel	3 fc. 3 in.
Diameter of bore	.577 in.

This rifle was introduced into general use in 1855, and was the last muzzle-loader in use in our Service, remaining the Service weapon, with minor alterations, up to 1867. In 1848 the Prussians had adopted the needle gun, used with such success in the Danish War in 1864, in 1866 against the Austrians, and in 1870 against France. It revolutionized small arms, for it made it evident that the breechloader conferred on its possessor untold advantages. It rendered loading rapid, safe, and easy; it enabled the firer to load in any position; made it impossible to put two cartridges into the chamber; and facilitated the cleaning and inspection of arms. It, therefore, became imperative to arm the British Army with a breech-loader, and the authorities endeavored to find a means of converting the stock of Enfield rifles. After protracted trials, the invention of Mr. Snider was adopted. The great difficulty that had to be surmounted on the introduction of breechloaders was the obturation of the breech, so as to prevent powder gases from escaping to the rear. In the needle guns, after a few rounds, the escape of flame to the rear prevented the rifle being fired from the shoulder. Breechloading principles, so long as the charge was inserted without a cartridge, or a self-consuming cartridge was used, were comparative failures. This difficulty disappeared with the introduction of a metallic cartridge containing its own ignition. The cartridge adopted by the British Government was the Boxer. In most of the breechloaders of 1850–60 the cap was separately seated upon a nipple and the flame from it had to pierce the cartridge and ignite the charge. In the Boxer cartridge a percussion cap was inserted in the cartridge and a striker in the breech lbock; the hammer forced the striker against the cap and exploded the charge. The walls of the cartridge were made of thin coiled brass instead of paper; this checked any escape of gas. The dimensions of the Snider rifle were as follows:

Weight	9 lb. 1 oz.
Length (without bayonet)	4 ft. 7 in.
Length of bayonet	17½ in.
Sights	100 to 1,000 yds.

It was always felt that the conversion of the Enfield muzzle-loader to a breechloading system could only be regarded as a temporary measure, and steps were immediately taken to introduce a breechloading rifle designed as such. After exhaustive trials with some 160 different rifles, the Committee chose a breech action invented by Mr. Martini and a barrel and rifling invented by Mr. Henry. They also chose a bullet of 480 grains, with a wad lubricated with wax between the charge and bullet. The rifle was named the Martini-Henry, and was introduced into the Service in 1871. Its dimensions were as follows:

Weight	9 lb.
Length (without bayonet)	4 ft. 1½ in.
Length of bayonet	22 in.
Diameter of bore	.45 in.
Muzzle velocity	1350 f.s.

This rifle remained the weapon in use in the British Service until 1890, when the Magazine Lee-Metford was introduced.

At the time the British Army was using the Martini-Henry rifle, foreign nations were armed as follows:

	France.	Germany.	Russia.
Arm	Chassepot	Mauser	Berdau
Weight	9 lb. 5½ oz.	10 lb. 4 oz.	9 lb. 12½ oz.
Length	4 ft. 3½ in.	4 ft. 4¾ in.	4 ft. 5 in.
Length of bayonet	1 ft. 10½ in.	1 ft. 7¾ in.	1 ft. 8¼ in.
Diameter of bore	.433	.433	.427
Muzzle velocity	1328 f.s.	1427 f s.	1444 f.s.

It is proposed in subsequent article to discuss the rifles in use amongst the leading nations of today. These will all be magazine rifles.

A FINE RANGE FOR BOSTON.

ON Saturday night, February 4, there was opened, at 117 Federal Street, Boston, the range of the National Rifle Academy, the members of the Boston Revolver Club attending in force.

There are seventeen firing points, each equipped with a trolley system of target carriers, which can be stopped at fifty, sixty and seven-five feet, the fifty-foot range being for school boy work; sixty foot for standard pistol and revolver shooting and seventy-five foot for schuetzen work, or as it might properly be termed, match rifle shooting.

The man who is responsible for the installation of this range is Dr. Walter C. Miner, a native of Boston who graduated from the Harvard Dental School in the class of 1901. Dr. Miner is thoroughly interested in the proposition of teaching the civilian, from the schoolboy to the big, strong man, how to handle a rifle, pistol and revolver. Associated with Dr. Miner is German Hoffman, for many years a physical director and well known in athletic circles.

Boston is particularly fortunate in having such a fine and well equipped range at its disposal. By the time this is written New York will have a modern indoor range, which is even more badly needed than the one in Boston. It is the purpose of Dr. Miner, who, by the way, is a life member of the National Rifle Association of America, and thoroughly interested in its work, to eventually establish ranges in all the principal cities of the country.

Philadelphia is soon to have a range, the same being in course of construction at the present time and it will be ready for use shortly.

Later on a more complete description and pictures of the new ranges will be forthcoming.

THE NATIONAL GUARD.

New Code for Pennsylvania.

Adjutant General Stewart has been at work for some time on a new military code for the State of Pennsylvania. None of the details have been made public as yet but it is safe to predict that in these able hands a model code will be the result.

The Pennsylvania National Guard will undergo the regular inspections by army officers beginning March 1. It consists of two companies of engineers; one Signal Corp Company; two Batteries of Field Artillery; seven troops of Cavalry and thirteen regiment of Infantry.

Rifle Match in Delaware.

On February 17, there will be held in the armory at Wilmington a competition, known as the Officer's Individual Match, for a trophy. It is open to officers of the Delaware Guard and the conditions are ten shots standing and ten shots prone, with the Springfield Gallery Practice Rifle.

Oregon Inspections.

The regular inspections of the Oregon National Guard will take place beginning February 20, and ending March 17. The Guard consists of the 3rd and 4th Regiments of Infantry and a battery of Field Artillery.

New Hampshire Inspections.

Inspector General Brig. Gen. William Sullivan, will make the annual inspections of the New Hampshire National Guard, beginning March 1, and ending March 24. There is one twelve company regiment of Infantry, a signal corps company; two Hospital corps detachments; one battalion of Coast Artillery; a battery of Field Artillery and one troop of Cavalry.

Figures of Merit.

Prizes for competition among organizations attached to Headquarters of the Division, National Guard of New York, of organizations of each brigade and of the Naval Militia, is a feature of the work in NewYork. The following organizations are the prize winners:

	Figure of merit
Troop D, Cavalry	82.26
Troop 3, Squadron A	70.77
Troop 1, Squadron A	61.11
First Brigade.	
Co. G, 7th Infantry	57.14
Co. B, 7th Infantry	54.32
Co. 1, 7th Infantry	50

MILITIA DIVISION INFORMATION.

Equipping a Battery.

The equipment for a battery of three-inch field artillery, complete including accessories, spare parts, and fire-control system, may be furnished to the batteries of the Organized Militia under such regulations as the Secretary of War may prescribe, without charge to the allotment of a State. The War Department requires that batteries shall consist of a sufficient number of men for the proper care and use of the material, which is considered to be not less than ninety; that the members of the battery shall have had sufficient experience with field artillery to insure efficiency; that ample armory accommodations for instruction and for storage of the materiel shall be provided, either by the State or city, and that the State shall provide a competent mechanic as caretaker, who shall be paid from State funds.

Affecting the Ordnance Department.

The Department had suggested that in the organization of a brigade unit of the Organized Militia of a State, provision be made for an Ordnance Department, and that the ordnance officers be assigned to duty as inspectors of small-arms practice, in addition to their duties as ordnance officers; that is, they would hold commissions as ordnance officers, one to be attached to brigade headquarters, as inspector of small-arms practice and assigned to duty as such, and one to be attached to each regiment, as assistant inspector of small-arms practice and assigned to duty as such. In this case, the Ordnance Department would consist of one Chief of Ordnance with the rank of major and three captains.

It is not necessary that there be a larger number of staff departments than the actual military requirements of the State forces demand, and there should not be in any staff department any greater number of officers than the actual duties warrant.

For a brigade organization, the senior officer of the department should not have a rank higher than that of major.

Entitled to Pay.

Officers of the Organized Militia, participating in joint camps of instruction, are entitled to pay trom the time of leaving their home stations to the date of their return thereto, for the number of days actually on duty, but are not entitled to pay for days during which they were absent with leave. Payment may be made by a disbursing officer from funds allotted to the State under Section 1661, Revised Statutes, as amended, for "Arms, Equipments and Camp Purposes." Form No. 20, Division of Militia Affairs, should be used in stating the account and the commanding officers of the regiment should certify in the proper place on the form that the officers were on duty during the period for which pay is claimed.

Officers of the General Staff Corps of the Organized Militia cannot receive pay and travel allowances for attendance at State camps of instruction, but the commanding general and staff officers of infantry brigades may attend and receive pay and transportation from Federal funds.

Non-Coms for Field Artillery.

With a view to rendering the States all the assistance possible in obtaining increased efficiency in their batteries of field artillery, the Secretary of War has authorized the detail of a noncommissioned officer of the Regular Army Field Artillery to each battery of the Organized Militia. These noncommissioned officers will be detailed under the same conditions as noncommissioned officers of infantry and cavalry are at present; viz., the State to provide quarters, fuel, light, medicines, and medical attendance. Prior to being so detailed, the noncommissioned officers selected for this duty will be ordered to Fort Riley, Kansas, and will be given a special course of instruction with the idea of so preparing them for the work that they may be of greatest assistance to the battery commanders of the Organized Militia under whom they will serve.

The War Department has requested that the governors of the several States and Territories make application for the detail of such of these noncommissioned officers as may be desired, stating in the application the willingness of the State concerned to furnish quarters, fuel, light, medicines, and medical attendance.

While it is not the intention of the War Department to urge or press the detail of these noncommissioned officers, it is thought that excellent result would follow the continuous presence of selected regular noncommissioned officers with the field batteries of the Organized Militia, and that increased field service efficiency would be had at small cost.

The Dropping of Clothing.

Circular, No. 8, Division of Militia Affairs, series of 1910, does not provide a special authorization for dropping articles of clothing. The value of clothing disposed of under the dropping allowance can be ascertained by referring to the prices given in Circular No. 17, October 24, 1910, and General Orders, No. 119, War Department, June 25, 1910.

Books on Form 11.

The fact of certain books being listed on Form No. 11, Division of Militia Affairs (Inspection Report of the Organized Militia), does not indicate that they are standard articles of issue and therefore obtainable on requisition as a charge against a Federal allotment. The purpose of the list is to ascertain what books are on hand in any organization of the Militia and the number thereof.

Only by Officers of the Army.

There is no authority of law under which any part of the appropriation "Encampment and Maneuvers, Organized Militia" can be placed to the credit of any officer of the Organized Militia; these funds can be disbursed only by officers of the Army.

Claims for Land Damages.

Claims for land damages during a State encampment do not constitute a lawful charge against the allotment to a State in the operation of Section 1661, Revised Statutes, as amended, unless, before the encampment and maneuvers are held and the grounds are occupied, a lease has been executed providing for the placing of the leased premises in the same condition in which they were at the beginning of the encampment and maneuvers, charging the State with the cost of such restoration. In case such lease is made, the claim can be paid—not as damage cases—but as claims arising in the execution of a contractual obligation. (See paragraph 175a, Militia Regulations, published in Circular No. 13, Division of Militia Affairs, November 1, 1909.)

Cannot be Diverted.

There is no regulation prohibiting the diversion of funds in the hands of a disbursing officer for the Organized Militia from the allotment for "Arms, Equipments, and Camp Purposes" to the allotment for "Promotion of Rifle Practice;" on the contrary, such a transfer is expressly authorized by paragraph 195 of the Militia Regulations. The transfer of funds in the hands of a disbursing officer, however, cannot be made except by authority of the Secretary of War obtained in advance of the transaction.

Horse Equipment.

Black leather horse equipments can be supplied on requisition of the Governor of a State or Territory, as a charge against the allotment under Section 1661, Revised Statutes, as amended, or the amount set aside by the Secretary of War, under the Act of May 27, 1908, for the purpose of making issues of supplies to the Organized Militia.

The Dating of Bonds.

In order to prevent the entering of erroneous dates of bonds in accounts current, the attention of disbursing officers of the Organized Militia is called to the fact that the date of the bond of a disbursing officer is the date on which it is approved by the Secretary of War, and such date is to appear on all requisitions for funds issued under such bond and also on the account current on which such funds are accounted for.

Rifle Practice Rods May be Had.

Under the provisions of Circular No. 15, War Department, April 12, 1909, not to exceed ten recording rifle rod outfits, for small arms sighting and aiming instruction, are supplied to each troop of cavalry and to each company of infantry, coast artillery engineers, and signal corps of the Regular Service, and therefore these outfits can be supplied to the Organized Militia upon requisition in the usual way, after charge of their value, $1.55 each, against the allotment to the State under Section 1661, Revised Statutes as amended. The recording rifle rod outfit was issued to a number of troops for trial and report, and, upon recommendation of troop commanders, they were adopted for issue to the Regular Service for use in small arms sighting and aiming instruction.

No More Leggins.

The leather leggins listed in General Orders, No. 119, War Department, series of 1910, at $2.25 per pair, are no longer available for issue.

No Pay for Retired Officers.

If an officer on the retired list of the Army holds a commission in a militia organization and takes part in an encampment with such organization, his retired pay would cease to accrue while he drew the full pay attached to his office in the Organized Militia.

LEAGUE DEPARTMENT.

IN THIS DEPARTMENT EACH WEEK WILL BE FOUND THE VERY LATEST RETURNS FROM THE U. S. R. A. AND N. R. A. INDOOR RIFLE AND REVOLVER LEAGUES.

THE U. S. A. REVOLVER LEAGUE.

Honorable Mention.

Five shot possibles have been made by the following:

A. P. Lane, New York	2
Geo. Armstrong, Seattle	2
W. H. Freeman, Providence	2
Chas. Dominic, St. Louis	1
W. C. Ayer, St. Louis	1
I. W. Lee, Chicago	1
Dr. J. R. Hicks, New York	1
J. A. Dietz, New York	1
W. H. French, Newark	1
L. P. Castaldini, Springfield	1
Fred V. Berger, Seattle	1
Jackson, Newark	1
Bean, Chicago	1
H. H. Leizear, Washington, D. C	1
Dr. I. R. Calkins, Springfield	1
Capt. Sheridan Ferree, Washington, D. C	1
E. A. Taylor, Boston	1
H. A. Harris, Oakland, Calif	1
Fred Keller, Louisville, Ky	1
Jackson, Newark, N. J	1
Wm. T. Smith, Philadelphia	1

RESULTS, 13TH MATCH.

Boston	1085	v. Manhattan	1073
Portland	1076	v. New Oakland	....
St. Louis	1050	v. Oakland Bank	1029
Louisville	1027	v. Myles Standish	1001
Spokane	1111	v. Seattle	....
Willow	1046	v. Shell Mound	1036
Newark	1081	v. National Capital	1056
Smith & Wesson	1066	v. Columbus	....
Belleville	940	v. Osborne	883
Youngstown	1029	v. Culebra	971
Century	1097	v. Providence	1059

RESULTS, 14TH MATCH.

St. Louis	1086	v. Osborne	891
Louisville	1044	v. Shell Mound	1035
Oakland Bank	1051	v. Youngstown	1000
Spokane	1066	v. Myles Standish	1009
Portland	1070	v. Belleville	940
Smith & Wesson	1074	v. Duluth	1039
National Capital	1072	v. Willow	1009
Boston	1091	v. Providence	1014
Newark	1083	v. Century	1068
Philadelphia	1069	v. New Oakland	....

STANDING, INCLUDING 12TH MATCH.

	W.	L.		W.	L.
Manhattan	11	1	Willow	6	6
Newark	11	1	Myles Standish	6	6
Portland	11	1	New Oakland	4	8
Smith & Wesson	11	1	Louisville	3	9
Providence	10	2	Duluth	3	9
Boston	10	2	Philadelphia	3	9
Century	10	2	Oakland Bank	3	9
National Capital	9	3	Columbus	2	10
Seattle	9	3	Youngstown	1	11
Spokane	8	4	Osborne	0	12
St. Louis	7	5	Culebra	0	12
Shell Mound	7	5	Belleville	0	12

At a Glance.

High score in match 13—Chas. Dominic, St. Louis, 234.

High score in match 14—H. A. Harris, Oakland, Calif., 230.

High team score, match 13—Spokane, 1111.

High score, match 14—Boston, 1091.

13TH MATCH.

BOSTON.

G. F. Hoffman	223
E. A. Taylor	223
C. E. Heath	215
B. W. Percival	214
K. D. Jewett	210
Total	1085

MANHATTAN.

A. P. Lane	224
J. A. Dietz	217
Dr. R. H. Lane	215
P. Hanford	213
Dr. J. R. Hicks	204
Total	1073

PORTLAND.

F. C. Hacheny	217
W. H. Hubbard	217
J. T. Moore	216
Walter Hansen	213
F. L. Sanders	213
Total	1076

ST. LOUIS.

W. C. Ayer	224
Dr. Moore	218
Paul Frese	211
C. C. Crossman	210
Geo. C. Olcott	187
Total	1050

OAKLAND BANK.

F. M. Cereni	216
J. Davidson	209
H. A. Harris	201
R. J. Hough	208
E. A. Pierre	195
Total	1029

LOUISVILLE.

Fred Keller	221
K. L. Chambers	207
H W. Mattmiller	202
Brent Altsheler	202
J. H. Lindenberger	195
Total	1027

MYLES STANDISH.

H. I. Nesmith	202
A. L. Mitchell	202
H. W. Stevens	201
E. H. Besse	201
R. H. Crosby	194
Total	1001

SPOKANE.

F. V. Berger	48	45	46	43	49	231
Frank Fromm	49	45	47	43	45	229
V. A. Rapp	41	46	43	46	46	222
L. B. Rush	44	45	45	40	46	220
W. C. Bartholomew	44	43	33	38	44	209
Total						1111

WILLOW.

Springsguth	224
Turner	209
Krieg	207
Byrne	205
Bean	201
Total	1046

SHELL MOUND.

R. S. Wixson	214
C. W. Linder	210
W. A. Siebe	207
O. Lillemo	206
C. Whaley	199
Total	1036

NEWARK.

Nichols	226
French	223
Jackson	223
Poindexter	209
Ryder	200
Total	1081

NATIONAL CAPITOL.

Sheridan Ferree	224
M. B. Atkinson	223
J. C. Bunn	212
H. H. Leizear	210
F. Holt	196
Total	1056

SMITH & WESSON.

P. J. Dolfen	229
F. A. Wakefield	225
L. P. Castaldini	210
Dr. I. R. Calkins	203
W. E. Lawrence	199
Total	1066

BELLEVILLE.

Zerban	200
Mertens	195
Sprich	187
M. Cullough	186
Merck	172
Total	940

YOUNGSTOWN.

E. S. Arkwright	225
W. O. Brown	209
J. Kane	204
C. G. Kopitz	198
W. R. Gallaher	193
Total	1029

PROVIDENCE.

W. H. Freeman	225
Edw. C. Parkhurst	220
Geo. E. Joslin	210
H. C. Miller	206
W. Bert Gardiner	198
Total	1059

CENTURY.

Chas. Dominic	234
S. E. Sears	221
W. H. Spencer	217
G. W. Ojeman	213
A. E. Everett	212
Total	1097

14TH MATCH.

ST. LOUIS.

C. C. Crossman	222
W. L. Schroder	221
Dr. Moore	211
W. C. Ayer	209
Paul Frese	205
Total	1086

SHELL MOUND.

C. W. Linder	217
R. S. Wixson	213
W. A. Siebe	207
O. Lillemo	205
F. P. Poulter	193
Total	1035

LOUISVILLE.

Fred Keller	213
H. W. Mattmiller	213
R. L. Chambers	212
H. J. Lindenberger	206
Brent Alsheler	200
Total	1044

YOUNGSTOWN.

C. G. Koppitz	214
W. O. Brown	207
J. J. Kane	206
E. S. Arkwright	202
W. R. Gallaher	171
Total	1000

OAKLAND BANK.

H. A. Harris	230
F. M. Cerini	216
R. J. Hough	210
E. A Pierre	200
J. Davidson	195
Total	1051

PHILADELPHIA.

George Hugh Smith	47	44	47	43	48	229
William T. Smith	46	46	41	46	47	226
Harry L. Reeves	43	43	49	43	39	217
W. H. Ricker	38	39	42	41	43	203
Nathan Spering	41	41	35	39	38	194
Total						1069

SPOKANE.

F. V. Berger	224
V. A. Rapp	208
L. B. Rush	208
Frank Fromm	207
W. C. Bartholomew	207
Total	1066

MYLES STANDISH.

E. H. Besse	220
H. W. Stevens	218
H. I. Nesmith	201
R. H. Crosby	190
A. L. Mitchell	180
Total	1009

PORTLAND.

W. H. Hubbard	218
Walter Hansen	216
F. C. Hacheny	212
J. T. Moore	212
F. L. Sanders	212
Total	1070

BELLEVILLE.

Zerban	213
Sprich	186
Merck	184
Mertens	181
McCullough	176
Total	940

SMITH & WESSON.

L. P. Castaldini	226
P. J. Dolfin	221
Dr. I. R. Calkins	213
F. A. Wakefield	210
E. G. Perkins	204
Total	1074

DULUTH.

Col. F. E. Resche	216
O. I. Olsen	211
McManus	209
Lieut. L. E. Smith	207
H. E. McDean	196
Total	1039

NATIONAL CAPITAL.

J. C. Bunn	220
Sheridan Ferree	219
M. B. Atkinson	216
H. H. Leizear	209
F. Holt	208
Total	1072

WILLOW.

Beau	212
Krieg	208
Springsguth	204
Byrne	197
Turner	191
Total	1009

BOSTON.

K. D. Jewett	228
E. A. Taylor	226
G. F. Hoffman	217
C. E. Heath	215
B. W. Percival	205
Total	1091

PROVIDENCE.

W. H. Freeman	215
Geo. E. Joslin	212
E. C. Parkhurst	203
H. C. Miller	202
W. Bert Gardiner	182
Total	1014

NEWARK.

Poindexter	221
Nichols	220
French	218
Jackson	217
Ryder	207
Total	1083

CENTURY.

Chas. Dominic	226
S. E. Sears	222
G. W. Ojeman	213
W. H. Spencer	210
Dr. A. E. Everett	197
Total	1068

WASHINGTON WHISPERS.

With fear and trembling we started our 13th match with our strongest man, Sheridan Ferree. He realized our expectations and turned in a good 224. Fine business, said we and then we begged, implored and pleaded with the rest of the bunch, but they either did not hear or didn't care for inly average scores were turned in. Poor old Holt how he must have worked for that 195. But, we finally got rid of the hoodoo and in the match with Century totaled about what we should do every week, 1072. Holt, as usual took a new bolt and pulled out a 208. Fine! Bunn topped the list with a nice 220 and went on his beat, for he is a copper sure nuff, with his chest touching his chin and his club describing evolutions of 120 to the minute. All used the .22 S. & W. 10-inch and U. M. C. long rifle Lesmok, excepting Leizear, he shot the Stevens 10-inch pistol and Stevens-Pope armory.

BOSTON BUMPS.

Well, the 13th match sure produced some startling results. We trimmed the Manhattans and got a man on the Honor Roll with a clean 50. He came near duplicating the trick in the 14th with a 49 and a 48.

MANHATTAN MIXINGS.

Boston papers please copy. Kindly omit flowers.

Dietz used a .22 S. & W. pistol, 10-inch and L. R. Lesmok; Lane, a .38 S. & W. Pope revolver and U. M. C. sharp shoulder mid-range; Hanford, a .44 Colt new Service target revolver and hand loaded full charge ammunition; Dr. Hicks, a .38 Colt Officer's Model and hand loaded: Dr. Sayre a .44 Remington pistol and U. M. C. sharp shoulder mid-range.

When the smoke had blown away and Dr. Hicks had stopped looking at that 34 in his score each and every mother's son solemnly vowed to pull out a 230 apiece next week to prove "they can come back."

SPRINGFIELD SPRINKLINGS.

The Smith and Wesson revolver team shot their bookings last night with the Columbus and Duluth Revolver clubs. With the exception of Dolfin and Wakefield the boys had a feeling as in the case of "has beens." But there is one good rumor of there not being a "never was" among the shooters. Lawrence's sights were out of place for some reason or other and Calkins was evidently over-worked, while Castaldini found the light to be defective. Of course all excuses were accepted as the cause of their downfall.

In the second match, which came late, the city's population having retired, the gas pressure increased, enabling Castaldini to reach 226 as he knew the "light excuse" would not pass a second time. The light appeared too much for Wakefield who dropped to 210 with no excuse whatever. It has proved so far that the first opponent receives the score mostly in their favor as the second match has always had a number of points higher than the first. It is nothing more than natural to try and beat yourself.

PROVIDENCE PRUNINGS.

We laid out to lick Boston and some one stole the eggs. Freeman, Joslin, Miller and Gardiner used .22 S. & W. 10-inch pistols and U.M.C. long rifle Lesmok. Parkhurst shot the .38 Colt Officer's Model, 7½-inch barrel and hand-loaded.

ST. LOUIS SINGES.

If Schroder had shot in the 13th match—but, pshaw, what's the use. However, we think we have struck the right combination and will try for a whirlwind finish. Crossman used .38 Special and U. S. Cartridge Co's factory; Schrieder, .22 S. & W. and U.S. factory; Moore, .44 S. & W. Russian, hand loaded; Ayer and Frese, .38 S. & W. special and hand loads; Olcott, .22 S. W. and U. M. C. long rifles.

CENTURY CLUCKINGS.

Dominic hit the trail for a 234 in the 13th, using a .38 pistol. Sears and Dr. Everett, .44 S. & W. special. Ojeman and Spencer, .38 S. & W. special. 1097 isn't so bad for us.

OAKLAND OPTIMISM.

Same old gang with the same old smile. Since meeting the Manhattans we have nothing to say except that we slightly recovered from the horn-growers fever. Oh, dear, those New Yorkers are sky scrapers.

1051 looks fine and 'tis; look at that 50 for Harris, also the 230. Davidson says he will beat it next match. Wait till we meet the Secretary's Springfield tyros, then the outdoor medals for last year will come forth quick for we are to slay them and get what is ours. Fine report that U. S. R. A. So say we all of us.

LOUISVILLE LOLLYPOPS.

How about Keller's 50; we have at last appeared on the honor roll. More bad luck, we didn't expect to beat Smith & Wesson, but we did think we had it on Duluth, they certainly improved some.

Our scores are not bad this week, we told you to watch us, *we are still coming.* Keller used .44 S. & W. Russian, 6½-inch and Ward's special hand loaded; Mattmiller, .22 S. & W. 8-inch, semi-smokeless, and U. M. C. long rifle smokeless; Chambers, .22 S. & W. 8-inch, semi-smokeless, and U.M.C. short smokeless; Altsheler, .38 S. & W. special, 6½-inch and hand loaded; Lindenberger, .38 S. & W. special, 6½-inch and U. M. C. mid-range sharp shoulder smokeless.

SPOKANE SPASMS.

Well! Well! Well! Three times and all in the same place. 1111 and in the 13th match, too. Well, we had to get it out of us. Rapp, Fromm, Bartholomew and Berger used .22 S. & W. and Stevens-Pope cartridges; Rush, .38 S. & W. Stevens-Pope barrel, hand loaded; Fromm used .38 Colts Officer's model and hand loaded in 14th match.

YOUNGSTOWN YEARNINGS.

Pretty well satisfied. Arkwright shot Stevens-Conlin Model 10-inch, .22 long rifle; Brown, S. W. 10-inch, .22 long rifle smokeless; Kane, S. & W. special and .32 semi-smokeless, mid-range; Koppitz, Stevens-Conlin 10-inch and .22 long rifle. Gallaher S. & W. 8-inch and .22 long-range.

DULUTH DAUBS.

Reache used .38, 7-inch Colt Officer's, 120 mid-range, U. M. C.; Olsen, .38, 7½-inch Colt Officer's, 115 hand-loaded; McMamus, .44, 7½-inch S. & .W 175 long rifle; Smith, .38, 6½-inch S. & W. 115 hand loaded; MoDean, .38, 7½ Colt Officers 120 mid-range, U. M. C.

Eastern League.

The seventh week of the Interclub Rifle shooting match in the Eastern League again finds the Winchester Rod & Gun Club of New Haven, Conn., chalking up the high total for the week and defeating the Birmingham (Ala.) Club by a margin of thirty-five points. Trailing but three points behind the New Haven shooters comes the Warren (Pa.) Rifle & Revolver Club with the second highest total 982, winning its match against the Butler (Pa.) team by 51 points. The Bangor (Me.) team defeated the crack Manhattan Club of New York by the close margin of five points. This makes the second defeat for the New York team.

Steady improvement has been made by the weak teams, the most being that of the Birmingham (Ala.) Athletic Club's rifle team, when they recorded this week their highest total to date of 956. The team from Rhode Island defeated the National Capital Club of Washington, D. C., by 50 points. Portland, Me., recorded the fine total of 969 against 878 for Savannah, Ga. The Pittsburg team record the good score of 940 against 834 for Atlantic City. The contest between Bridgeport, Conn., and Erie, Pa., resulted in a victory for Bridgeport by the score of 958 to 931.

The series is now half completed and the New Haven team, which lost the championship last year to the Montana team, is the only club that has not been defeated. It still has, however, two of the strongest teams in the league to meet, the New York and Warren, Pa., teams. It means then that if either of these teams defeat the New Haven club, and they win the remaining matches for which they are scheduled, there will be three teams tied at the completion of the series. This will make an interesting state of affairs, because the championship will be determined by a shoot-off between the leaders in the Western and Eastern leagues.

RESULTS, FEBRUARY 11.

New Haven	985	v.	Birmingham	956
Bangor	978	v.	New York	973
Pittsburg	949	v.	Atlantic City	834
Bridgeport	958	v.	Erie	931
Warren	982	v.	Butler	931
Portland	969	v.	Savannah	878
Providence	932	v.	Washington, D. C.	902

STANDING, FEBRUARY 11.

	W.	L.		W.	L.
New Haven, Conn.	8	0	Pittsburg, Pa.	4	4
Bridgeport, Conn.	7	1	Butler, Pa.	4	4
Warren, Pa.	7	1	Erie, Pa.	2	6
New York City	6	2	Providence, R. I.	2	6
Portland, Me.	6	2	Washington, D. C.	1	7
Bangor, Me.	5	3	Atlantic City, N. J.	0	8
Birmingham, Ala.	4	4	Savannah, Ga.	0	8

NEW HAVEN.

W. H. Richard	49	50	50	50—199
G. W. Chesley	50	50	50	49—199
F. J. Haas	50	48	50	49—197
H. M. Thomas	48	49	48	50—195
A. F. Laudensack	49	47	50	49—195
Total				985

BIRMINGHAM.

H. T. Lattner	49	48	48	49—194
L. C. Brown	48	50	48	48—194
M. D. Smith	47	46	49	49—191
Frank Flinn	46	49	48	48—191
Ed. Anderson	44	47	48	47—186
Total				956

BANGOR.

MacDonald	50	50	50	50—200
Gould	50	50	48	48—196
Doane	47	49	49	50—195
Chilcott	49	49	48	48—194
Harvey	49	47	49	48—193
Total				978

PITTSBURG.

Leacy	192
Beal	192
Frown	187
Fuller	185
Waugaman	184
Total	940

ATLANTIC CITY.

Job	172
Crane	172
Clark	169
McCarn	165
Cloud	156
Total	834

PARK.

Dietrich	194
Gully	192
Webster	191
Scripture	191
Williams, Jr	190
Total	958

ERIE.

Bacon	191
C. Froess	187
J. Froess	187
Wheeler	182
Mount	181
Total	931

WARREN.

Ed. Sweeting	50	50	49	50—199
Dr. Robertson	50	49	49	50—198
E. S. Munson	48	49	49	49—195
Dr. Haines	50	48	49	48—195
H. O. Wheelock	48	48	49	50—195
Total				982

BUTLER.

R. K. Horn	48	49	47	45—189
S. A. S. Hamnar	49	45	48	47—189
R. M. Williams	47	48	48	43—186
H. L. Kelley	45	43	47	50—185
A. J. Thompson	38	49	48	47—182
Total				931

PORTLAND, ME.

Stevens	189
H. W. Stevens	190
Hall	188
Besse	193
Winslow	183
Total	943

SAVANNAH.

Clay	191
Kent	190
Fetzer	184
Weichselbaum	169
Bond	144
Total	878

SOUTH PROVIDENCE.

Downey	189
Ashley	188
Vincent	187
J. Vincent	185
Strong	183
Total	932

WASHINGTON, D. C.

Atkinson	184
Johnson	184
Ferree	182
McAnnally	176
Kahrs	176
Total	902

Notes.

That New Haven bunch ought to be ashamed of itself to turn in such scores. It must be awful to get out of the 10 ring, and we suppose if any one gets out of the black he is yanked off the mat and some one who knows how to shoot substitued. Huh!

McDonald of the Bangor outfit hit it up for 200 this week.

Only one to do it, too. Hurrah for Bangor.

Birmingham slipped into the champion class. Remember when they started last. Gee! wasn't it awful. Now look at them. Fine business.

That Washington outfit is certainly a fine bunch of dubs. We'll bet as much as a k'nickel that they couldn't hit a balloon at 5 paces. See the editor bringing up in the rear. Bet next week he's shot off the team. Watch.

Oh! you Warren! Some score, that.

The Western League.

St. Paul raised the record score of the Western League for the season two points by scoring 976 out of a possible 1000 during the seventh of the eleven weeks of shooting which ended In February 11.

Butte, St. Paul's unbeaten rival, put away Minneapolis by the safe score of 966 to 921. Dickinson, which has lost to St. Paul and Butte only, showed a sudden improvement in form and scored 972 against 924 for Los Angeles.

Individual high honors for the week go to G. W. Keys of St. Paul, who scored 198 out of a possible 200. His first string of five shots brought him 48 points and his last three strings were each 50-point possibles. J. H. Walford of Dickinson was a close second with 197. Unofficial results for the week as reported to headquarters in Minneapolis are:

STANDING, FEBRUARY 11.

	W.	L.		W.	L.
St. Paul	7	0	Tacoma	4	3
Butte	7	0	Cleveland	3	4
Seattle	4	3	Minneapolis	2	5
Pasadena	5	2	Los Angeles	1	6
Milwaukee	3	4	Adrian	1	6
Dickinson	5	2	Santa Ana	0	7

RESULTS, FEBRUARY 11.

St. Paul, Minn	976	v. Santa Ana, Cal	797
Dickinson, N. D	972	v. Los Angeles, Cal	924
Butte, Mont	966	v. Minneapolis, Minn	921
Tacoma, Wash	947	v. Seattle, Wash	889
Cleveland, Ohio	926	v. Milwaukee, Wis	916
Pasadena, Cal	858	v. Adrian, Mich	no report
Dickinson, N. D	964	v. Tacoma, Wash	947

Range, 75 feet. Position, prone. Possible score per man, 200; per team, 1000.

Detailed Western League results for the week ending February 11.

ST. PAUL.

Keys	198
Arnold	196
Narum	195
Clark	194
Boeringer	193
Total	976

DICKINSON, N. D.

Wolford	197
Louden	195
Barker	194
Engebrecht	193
Henderson	193
Total	972

BUTTE, MONT.

Holmes	196
Crawford	194
Westphal	193
Donohan	194
Tisdale	189
Total	966

TACOMA, WASH.

Stewart	191
Scofield	190
J. M. Stewart	190
Neiman	188
Harris	188
Total	947

SANTA ANNA, CAL.

W. McFadden	162
Crawford	161
Martin	161
Todd	158
Bruner	155
Total	797

LOS ANGELES, CAL.

Crossman	189
Kellogg	189
Stevenson	187
Price	185
Meriam	175
Total	924

MINNEAPOLIS, MINN.

Mauldin	188
Babcock	186
Gilman	185
Ringlund	182
Dickinson	180
Total	921

SEATTLE, WASH.

Total score	889

CLEVELAND, OHIO.

Andrews	190
Woodyatt	188
Burgess	187
Liggett	181
Koska	180
Total	926

PASADENA, CAL.

Backus	187
Batch	183
Smith	165
Hubbs	162
Cooper	161
Total	858

MILWAUKEE, WIS.

Walker	188
Gaartz	187
Kenner	186
Barili	178
Ahnert	177
Total	916

ADRIAN, MICH.

Harris	180
M. Watterson	180
Baldwin	177
Nessel	176
Beuner	160
Total	881

POSTPONED MATCH.

DICKINSON, N. D.		TACOMA, WASH.	
Wolford	195	Stewart	195
Barker	195	Harris	190
Louden	192	Scofield	188
Baird	191	Neiman	188
Engebrecht	191	Knoble	182
Total	964	Total	943

Intercollegiate League.

The strong Iowa team wins the honor of making the high score for the week of 1877 points, against the State College of Washington team's score of 1800. The Massachusetts Agricultural College, however, made a strong bid for the honor by putting up the fine total of 1872.

Steady improvement has been shown by nearly all of the colleges. So far only three clubs have managed to keep out of the lost column. They are Columbia, Iowa and Massachusetts. But as Columbia shoots against Massachusetts this week the results will leave only two teams tied for first place. As Columbia has not reported for this week it is impossible to say who won the match.

The team from Dartmouth College recorded 1698 against 1623 for Princeton. The University of Missouri by recording 1718 wins from the University of Minnesota by 81 points. The University of Arizona scored 1697 against 1538 for North Georgia Agricultural College. Cornell University defeated the Louisiana State University by 64 points. The Rhode Island State College improved over last week's score and recorded 1702 against 1697 for the Purdue University team from Lafayette, Ind.

RESULTS, FEBRUARY 11.

Massachusetts	1872	v. Columbia	
Iowa	1877	v. Washington	1800
Cornell	1714	v. Louisiana	1650
Dartmouth	1698	v. Princeton	1623
Missouri	1718	v. Minnesota	1637
Arizona	1697	v. North Georgia	1538
Rhode Island	1702	v. Purdue	1697

STANDING, FEBRUARY 11.

	W.	L.		W.	L.
Iowa	5	0	Purdue	2	3
Columbia	*4	0	Louisiana	2	3
Massachusetts	*4	0	Dartmouth	2	3
Cornell	4	1	Rhode Island	2	3
Missouri	4	1	Minnesota	1	4
Princeton	3	2	Arizona	1	4
New Hampshire	3	2	North Georgia	0	5
Washington	3	2	California	0	5

*Columbia has made no report. Indicates last week's standing.

Interscholastic League.

Reports from the schools are slowly coming in and it is only possible to give the results of the first two matches.

RESULTS, JANUARY 21.

Culver	895	v.	St. Johns	881
Salt Lake	858	v.	Central High	804
Deering	893	v.	St. Mathews	...
De Witt Clinton	836	v.	Portland, Me	790
Harvard	873	v.	Polytechnic, Md	735
Polytechnic, N. Y.	722	v.	Harry Hillman	669
Kentucky	764	v.	Ogden High	700
Morris High	910	v.	Marist, Military Count	436
Western High	838	v.	McKinley	823

RESULTS, JANUARY 28.

St. Johns	916	v.	Central High	830
Culver	892	v.	Western High	844
Deering	915	v.	Salt Lake	857
De Witt Clinton	850	v.	St. Mathews	...
Harvard School	866	v.	Portland High	842
Morris High	912	v.	McKinley	872
Polytechinic	763	v.	H. Hillman, Mil. Count.	389
Kentucky	768	v.	Polytechnic	...
Ogden High	724	v.	Marist	437

Note—Where totals are not given the match is forfeited.

The conditions for these matches are 10 shots standing and 10 shots prone on N. R. A. target at 50 feet, use of sling not allowed. Possible for each team of 5 boys, 10 to shoot, 5 best are taken, 1000.

RIFLE, REVOLVER AND PISTOL.

National Rifle Association, Washington, D. C. Lieut. A. S. Jones, secretary, Hibbs Building.

United States Revolver Association, Springfield, Mass. J. B. Crabtree, secretary-treasurer, 525 Main Street.

Jan. 30 to Feb. 4—Tournament of the Indoor .22 Caliber Rifle League of the United States at the ranges and headquarters, 671 Bushwick Ave., Brooklyn, N. Y. Arthur Hubalek, Secretary.

Feb. 22—100 Shot Military Offhand Championship Rifle and Revolver Match, under the auspices of the Cypress Hill Rifle and Revolver Association, Brooklyn, N. Y.

February 22.—On this date, in all parts of the country, the American Record Match, 100 shots, offhand, at 200 yards, on Standard American target, 8-inch bull, will be held. In the East shooting will be done at Armbrusters Park, Greenville, New Jersey.

March 11–18—15th annual indoor championship match and prize shoot of 1911 will be held under auspices of Zettler Rifle Club, New York.

March 19–26.—On these dates, inclusive, will be held the annual indoor championship contests of the United States Revolver Association. Anyone, in any part of the United States or possessions, may enter. J. B. Crabtree, secretary-treasurer, 525 Main Street, Springfield, Mass.

June 3–4.—Second Annual Combination tournament, Missouri State Rifle Association, St. Louis, Missouri. C. C. Crossman, secretary, 312 N. Broadway.

Ohio and Kentucky Revolver League.

The Cincinnati Revolver Club and First Regiment (O. N. G.) teams shot their match in the League series on February 10, at the Armory range. Some very good individual work was done during the evening. The rapid fire

round still remains a hoodoo for all the contestants, although they are improving in this style of shooting. Dr. E. H. Thompson, of the Revolver Club, carried off the individual honors of the match, getting 168 in the four slow fire rounds, and high total of 197. Capt. Myer of the soldiers, was second with 186, and also made second high score at slow fire, of 158. Colonel Hake made second high 5-shot score in his third round, with 46, three 10's, one 9 and a 7. The League rule limiting the revolver used to one of 32 caliber with 6½-inch barrel, has been changed to comply with that of the United States Revolver Association, and it is thought that this will result in more teams joining the League. The next League match will be shot on February 24 between the teams of the Cincinnati Police and the First Regiment.

Match—twenty shots, slow fire and five shots rapid fire (20 seconds), possible total 250; twenty yards, Standard American target. .32 caliber revolvers, full service ammunition.

First Regiment (O. N. G.)		Cincinnati Revolver Club.	
Capt. Myer	186	Dr. E. H. Thompson	197
Elmer Hake	180	Dr. P. K. Phillips	183
Sergt. Miller	179	Elliott Pugh	167
Col. Hake	176	Dr. A. A. Yungblut	158
Major Ward	170	J. F. Stephenson	154
Sergt. Glass	169	J. R. L. Carrington	140
Total	1060	Total	999

Shellburn Falls Rifle Club.

Thr following scores were made in a 100-shot match on the 45-foot range of the club on February 7:

W. G. Rotherham—
123 123 123 125 123 121 125 122 123 124—1232
124 124 122 123 119 122 125 125 122 124—1230—2462
A. J. Adler—
123 122 121 119 124 124 122 123 123 123—1224
121 122 121 119 122 121 117 120 121 121—1205—2429
F. H. Chandler—
118 122 123 118 124 122 120 121 124 120—1212
123 124 125 116 125 117 124 122 121 119—1216—2428
M. L. Crosier—
120 121 120 122 124 123 122 120 120 121—1214
119 118 120 115 122 122 120 122 125 123—1205—2420

Zettler Rifle Club, New York, N. Y.

Scores of the Zettler Rifle Club, February 7. 10-shot strings, possible 250.

G. L. Amouroux	237	237	243	248	240	—1207
A. Begerow	232	240	232	237	229	—1170
F. M. Bund	234	222	233	237	232	—1158
L. P. Hansen	246	241	240	247	245	—1219
F. Hecking	229	237	232	240	232	—1170
R. Gute	247	248	248	244	246	—1233
Dr. Leavitt	220	225	235	235	231	—1146
L. Mauer	238	229	232	240	232	—1171
C. A. Schrag	222	232	223	234	227	—1138
O. Smith	242	241	245	244	243	—1215
W. A. Tewes	245	245	245	249	246	—1230
B. Zettler	231	229	239	238	237	—1181
C. Zettler	246	246	246	240	236	—1214
H. M. Pope	245	243	244	250	249	—1231

Los Angeles Revolver Club.

Sunday, February 5, the Los Angeles Revolver Club held its regular monthly class medal shoot. The members are graded on past performances into Championship, First Class and Second Class. The conditions are 30 shots per man at 50 yards on Standard American with either revolver or pistol with 5 sighting shots allowed.

Ordinarily the members of the championship class score higher than any of the rest, but they had an off day yesterday, while the first class men averaged about as usual. Most all of the members used pistols with U. M. C. ammunition. Thaxter and Siefert still cling to their faithful .38 S. & W. specials, while Sergeant Smith and Dr. Royce swear by Peters long rifle .22 caliber ammunition. Following are the medal scores:

Championship Class (Gold Medal).

R. J. Fraser	89	91	86	—266
Sergt. W. E. Smith	85	88	90	—263

First Class (Silver Medal).

E. G. Richardson	95	88	91	—274
Dr. G. I. Royce	92	89	86	—267
H. D. Thaxter	86	87	91	—264
Dr. L. M. Packard	85	86	93	—264
J. E. Holcomb	89	85	87	—261
J. W. Siefert	86	84	80	—250

Second Class (Bronze Medal).

A. M. Smith	85	72	80	—237

After the medal shoot the members enjoyed a good practice shoot, the scores being up to average as follows:

Sergt. W. E. Smith	92	91	90	94	93	92	90
Dr. G. I. Royce	88	89	89	94	90	93	89
Dr. L. M. Packard	93	91	95	95	93	91	94
J. E. Holcomb	88	84	83				
E. G. Richardson	90	89					
J. W. Siefert	83	89					

If any club is able at this time of year to use their 50-yard range, we would like to arrange a match with them for a six to ten man team, using pistol and revolver, as each member desires.

Providence Revolver Club.

Following are the scores of the Providence Revolver Club (Newport members) for February 3, 1911:

P. Brooks	237 238—475	F. Coggeshall	230 224—454
W. Almy	232 236—468	J. Easton	218 232—450
J. Biesel	230 226—456		

Bullseye match won by Easton.

20-Yard Pistol.

W. Almy	80	82	89	90	86
Biesel	89	87	86	87	84

50-Yard Pistol.

Biesel	90	87	91	91	89

TRAP SHOOTING.

COMING EVENTS.

April 5—Championship of Metropolitan Club on grounds of Montclair, N. J., Gun Club. Ed. Winslow, secretary.

May 9–11—Charlotte, N. C. The Interstate Association's Sixth Southern Handicap Tournament, under the auspices of the Charlotte Gun Club; $1,000 added money. Elmer E. Shaner, Secretary-Treasurer, Pittsburg, Pa.

June 20–23—Columbus, Ohio. The Interstate Association's Twelfth Grand American Handicap Tournament, on the grounds of the Columbus Gun Club; $1,500 added money. Elmer E. Shaner, Secretary-Treasurer, Pittsburg, Pa.

July 18–20.—Wilmington, Del. The Interstate Association's Sixth Eastern Handicap Tournament, under the auspices of the Du Pont Gun Club; $1,000 added money. Elmer E. Shaner, Secretary-Treasurer, Pittsburg, Pa.

August 8–10—Omaha, Nebr. The Interstate Association's Sixth Western Handicap Tournament, under the auspices of the Omaha Gun Club; $1,000 added money. Elmer E. Shaner, Secretary-Treasurer, Pittsburg, Pa.

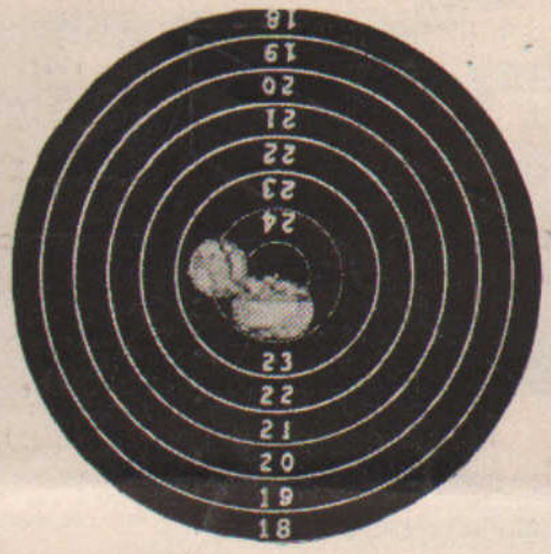
The Sixth Western Handicap Tournament will be given at Omaha, Neb., August 8–9–10, under the auspices of the Omaha Gun Club. There will be $1,000 added money.

The Sunny South Handicap.

The shooting of January 28, over the traps at Delmonico brought to an end, after six days of excellent work, one of the most successful meets the Sunny South has ever had in Houston. Under the able management of Alf Gardiner, the Houston Gun club pulled off a very spectacular event and one that has served to increase the already big reputation of the Sunny South.

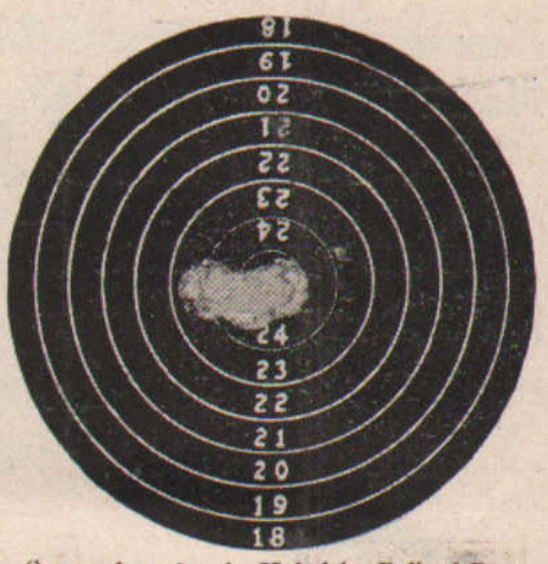
The tenth annual had behind it years of great records. The Sunny South had grown to be one of the world's

Score of 75 by Jesse Smith, Stevens rifle, 5 power cross-hair telescope, U. M. C. cartridges.

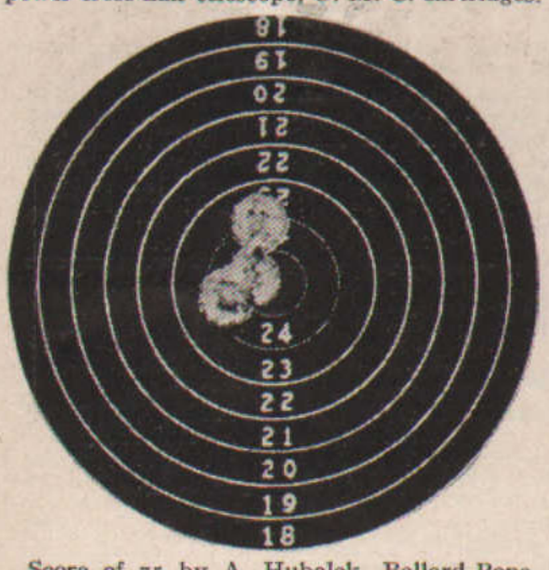


Score of 75 by Jesse Smith, Stevens rifle, 5 power cross hair telescope, U. M. C. cartridges.

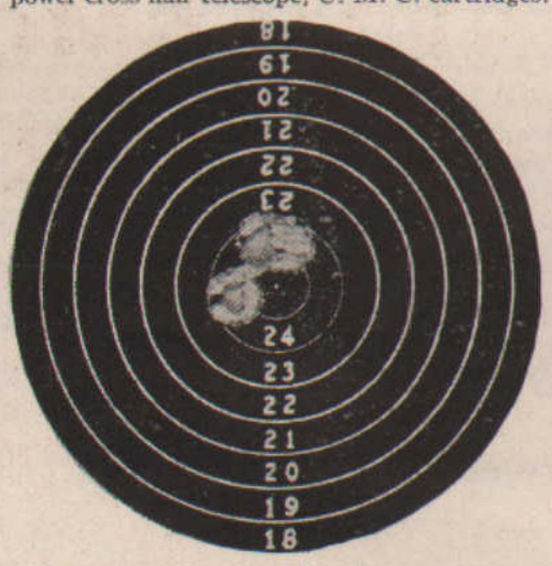
Score of 75 by A. Hubalek, Ballard-Pope, 5 power Stevens cross-hair telescope, U. M. C. cartridges.



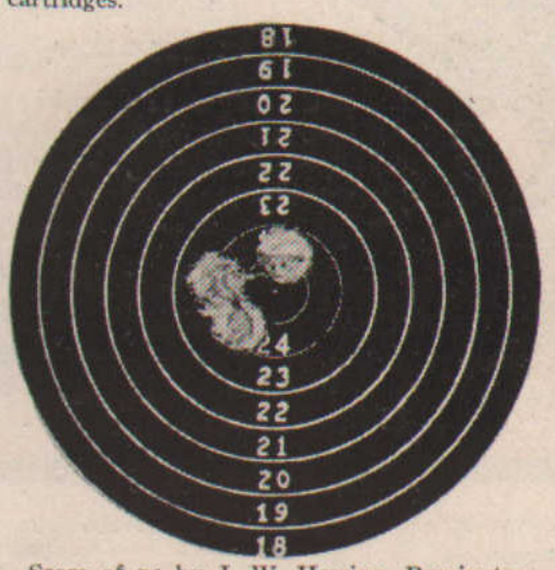
Score of 75 by A. Hubalek, Ballard-Pope, 5 power Stevens cross-hair telescope, U. M. C. cartridges.



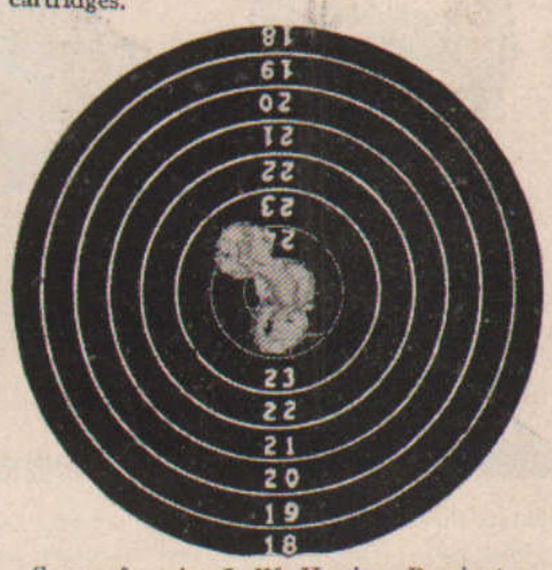
Score of 75 by A. Hubalek, Ballard-Pope, 5 power Stevens cross-hair telescope, U. M. C. cartridges.



Score of 75 by W. Keim, Stevens Pope, 5 power cross-hair telescope, U. M. C. cartridges.



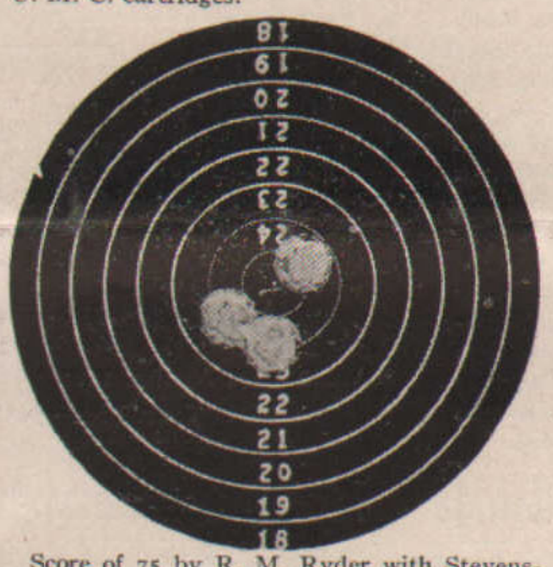
Score of 75 by J. W. Hessian, Remington-Pope, 4 power Stevens cross-hair telescope, U. M. C. cartridges.



Score of 75 by J. W. Hessian, Remington Pope, 4 power Stevens cross-hair telescope U. M. C. cartridges.

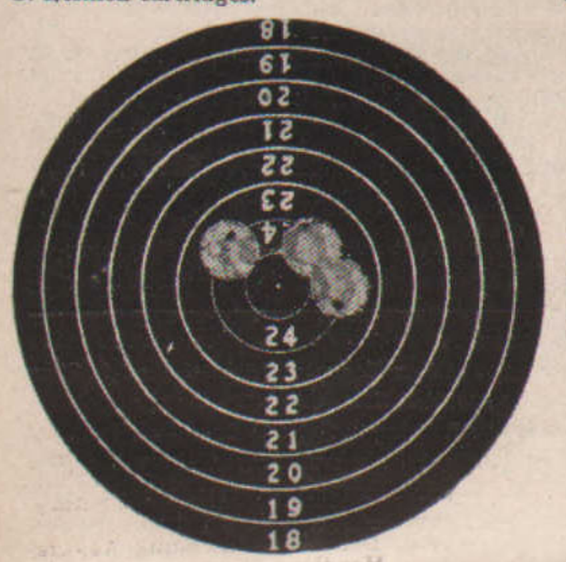
Score of 75 by Jarvis Williams, Jr. with Stevens rifle, Stevens 6 power telescope, U. M. C. Lesmok cartridges.

Score of 75 by Jarvis Williams, Jr. with Stevens rifle, Stevens 6 power telescope, U. M. C. Lesmok cartridges.



Score of 75 by R. M. Ryder with Stevens-Pope, 5 power Stevens cross-hair telescope, Peters cartridges.

Score of 75 by M. Baal, Ballard-Pope, 3 power Stevens cross-hair telescope, U. M. C. cartridges.

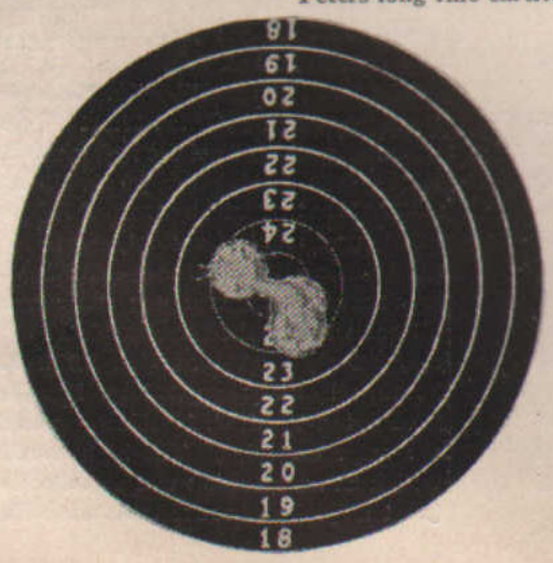


Score of 75 by Dr. J. H. Snook, Stevens-Pope, Stevens 4 power cross-hair telescope, Peters cartridges.

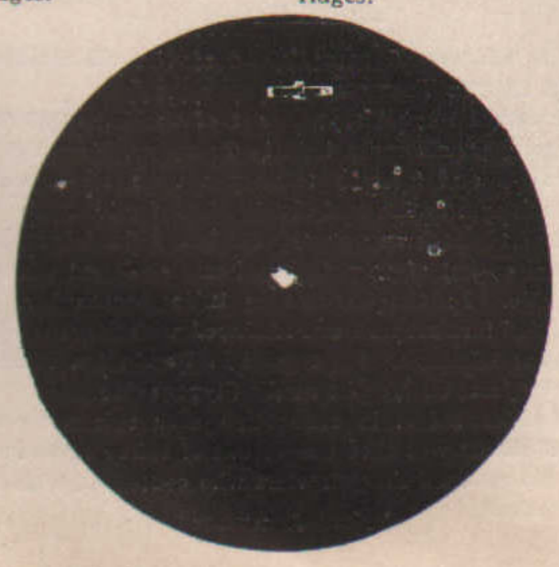
Score of 75 by G. F. Snellen with Ballard-Schoyen, 3 power Stevens cross-hair telescope, Peters long rifle cartridges.

Score of 75 by L. C. Buss, Ballard-Pope, 3 power Stevens perture telescope, Peters cartridges.

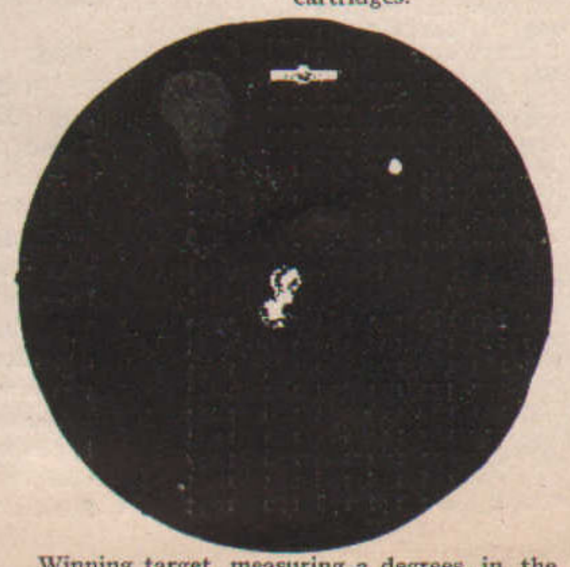
Score of 75 by James B. Fleek, the first one he has ever made, and the best one of the tournament. He shot Peters Semi-Smokeless cartridges.



Score of 75 by F. C. Ross with Stevens rifle, Stevens telescope, Peters cartridges.



Winning target, measuring 6 degrees, in Honorary Target Match, by H. M. Thomas.



Winning target, measuring 2 degrees, in the U. M. C.-Rennington Special Bullseye match, made by Jesse Smith, with Stevens rifle, 5-power cross-hair telescope, and U. M. C. cartridges.

Some of the Full Score Targets made at the 6th Annual Tournament of the Indoor Twenty-two Caliber Rifle League of the United States.

greatest shoots, attracting men from all over the country to take part. This year Manager Gardiner arranged to make it the best paying shoot in America. As a result, over sixty-five trapshooters appeared at the meet for either all or part of the program. With hard targets to insure the promise that the winner would not only have to shoot to finish high but would find a bigger purse awaiting him; with almost ideal conditions at Delmonico except for the light sprinkle thatfell during the week; with every effort made to put the visiting shooters at ease and to furnish the best of attractions and accommodations, the Houston Gun Club succeeded admirably in making the shoot one of the best ever.

The scores follow for the six days' program of the Sunny South: 1. Monday; 2. Tuesday; 3. Wednesday; 4. Thursday: 5. Friday; 6. Saturday; 7. Total. ... indicates that on that day the shooter was either not present or shot but part of the program. Only scores of men who shot entire program for at least two days are included.

Amateurs.

	1.	2.	3.	4.	5.	6.	7.
Guy Derring	185	188	187	149	182	187	1078
M. Arie	188	192	186	146	176	184	1072
W. Ridley	186	181	186	152	173	181	1059
J. Livingstone	177	187	187	137	177	188	1053
O. N. Ford	179	187	184	142	167	184	1043
N. Arie	184	179	177	141	194	177	1042
E. Crothers	183	178	180	143	169	180	1033
C. Ditto	183	186	183	130	169	178	1029
Lee Jones	170	180	172	145	180	178	1025
C. W. Oakey	172	172	177	139	178	186	1023
W. Baggeman	177	179	179	143	176	167	1021
H. Dixon	168	168	175	134	172	181	998
J. Frink	172	175	162	139	175	172	995
Dan O'Connell	170	168	178	131	172	173	992
Alf Gardiner	177	172	167	134	166	170	986
Forest McNeir	159	171	172	146	161	161	977
A. G. Bell	173	161	170	133	168	168	973
B. B. Moritz	162	161	169	142	171	153	958
George Tucker	154	147	160	128	167	161	907
Ack Barnett	171	174	...	138	176	175	834
H. Howard	168	165	...	138	176	177	824
George Mackey	160	148	...	104	167	171	750
J. Selzer	150	144	...	117	115	141	697
F. O. Williams	...	...	177	148	176	181	682
A. V. Thatcher	...	...	165	141	179	168	653
B. F. Veach	160	180	175	135	...	...	650
Jim McLean	174	165	...	130	180	...	649
Otto Sens	158	171	172	141	...	...	642
Will Gruhn	162	171	...	132	165	...	630
Bud Barnes	153	147	...	132	162	...	594
O. E. Hatchet	136	148	...	114	111	...	509
B. B. Ward	...	178	...	133	176	...	487
Charles Byrne	167	...	...	138	162	...	467
A. J. Anderson	...	171	...	128	162	...	461
C. N. Quaid	181	180	...	...	...	...	361
S. Forsgard	173	180	...	...	...	...	353
C. H. Buckle	171	...	174	...	...	...	345
J. S. Dodson	159	165	...	...	...	...	324
H. E. Wetzig	...	...	...	137	176	171	484
C. L. Bering	...	...	172	136	...	...	308
George Lock	...	...	...	139	162	...	301
J. H. Hutchings	...	...	...	135	163	...	298

Professionals.

W. S. Heer	191	189	187	153	164	185	1069
Lester German	187	178	183	143	185	189	1065
Mrs. Toepperwein	181	185	186	147	180	185	1064
Ed. O'Brien	187	192	175	151	175	184	1064
J. S. Day	188	181	180	150	174	180	1053
E. Forsgard	183	175	187	144	181	183	1053
R. W. Clancy	187	177	191	137	199	176	1047
Harry Murrell	175	176	176	148	186	184	1045
Hank Borden	179	183	181	142	178	180	1043
Alec Mermod	171	181	185	146	159	173	1015
Hank Donnelly	181	180	184	139	158	154	996
F. Faurote	166	169	169	138	175	165	982
Ben Schwartz	170	165	170	128	166	162	961
Tom Marshall	...	...	...	143	146	175	464
W. E. Grubb	153	121	...	...	...	...	274

The Montclair, N. J. Gun Club.

In Events 1 and 2 today Thos. Dukes was high man winning out with 24 breaks in each event.

In the team race today with Orange, ten men on a team, 50 targets per man, at the end of the first string Orange was ahead by 11 points, but in the second half Montclair did a little better, while Orange fell down, Montclair winning out by six points.

The championship of Metropolitan club (the fifth annual) will be held on the grounds of the Montclair Gun Club on Wednesday, April 5, 1911.

Team Race—50 Targets.

	25	25	Orange.		Montclair.	
J. C. Atwater	18	18	..	..	15	20
M. R. Baldwin	..	18	22	19	..	..
C. Buch	..	16	..	..	22	17
G. W. Boxall	..	17	..	..	19	19
Thos. Duke	24	24	..	..	21	23
R. I. Hopper	21	18	16	15	..	..
A. Mosler	17	14	18	16	..	..
W. I. Loverel	..	15	..	..	15	12
C. Youmans	18	19	18	16	..	..
R. D. Unger	18	24	19	21	..	..
G. W. Wakely	18	15	19	24	..	..
W. R. Wickes	19	17	19	20	..	..
E. Winslow	17	11	..	..	17	15
H. Von Lengerke	..	20	22	16	..	..
I. S. Crane	..	15	..	..	14	20
Y. T. Frazee	..	20	..	..	22	22
W. A. Herrick	..	19	..	..	14	19

In the Interstate Association yearly average list Mr. T. M. Ehler, Little Rock, Mo., shot at 2080 targets and broke 1893, an average of .9100 per cent, instead of shooting at 2160 targets and breaking 1893, an average of .8763 per cent, as published in the official list.

Holland Gun Club, Batavia, N. Y.

The Interstate Association has registered the Ninth Annual Tournament of the Holland Gun Club to be held at Batavia, N. Y., Wednesday, August 16, 1911. The annual contest for the Western New York Championship will be held at this shoot.

What the Stevens Accomplished at the .22 Caliber Rifle League Tournament.

At the recent annual tournament of the International Indoor .22 Caliber League held in Brooklyn, New York, Stevens rifles and Stevens telescopes were again very much in evidence in the final distribution of prizes.

The Expert Match was won by William Keim (amateur) who scored 49 out of 50 points and was equipped with a Stevens rifle. In the Continuous Prize Match Mr. J. Williams tied for first and was equipped with Stevens rifle and Stevens telescope. First prize in Remington Match was won by Jesse Smith who used a Stevens rifle.

The significant fact in connection with this series of important shoots was that twelve out of thirty telescopes used by the national sharpshooters who contested, were of Stevens make.

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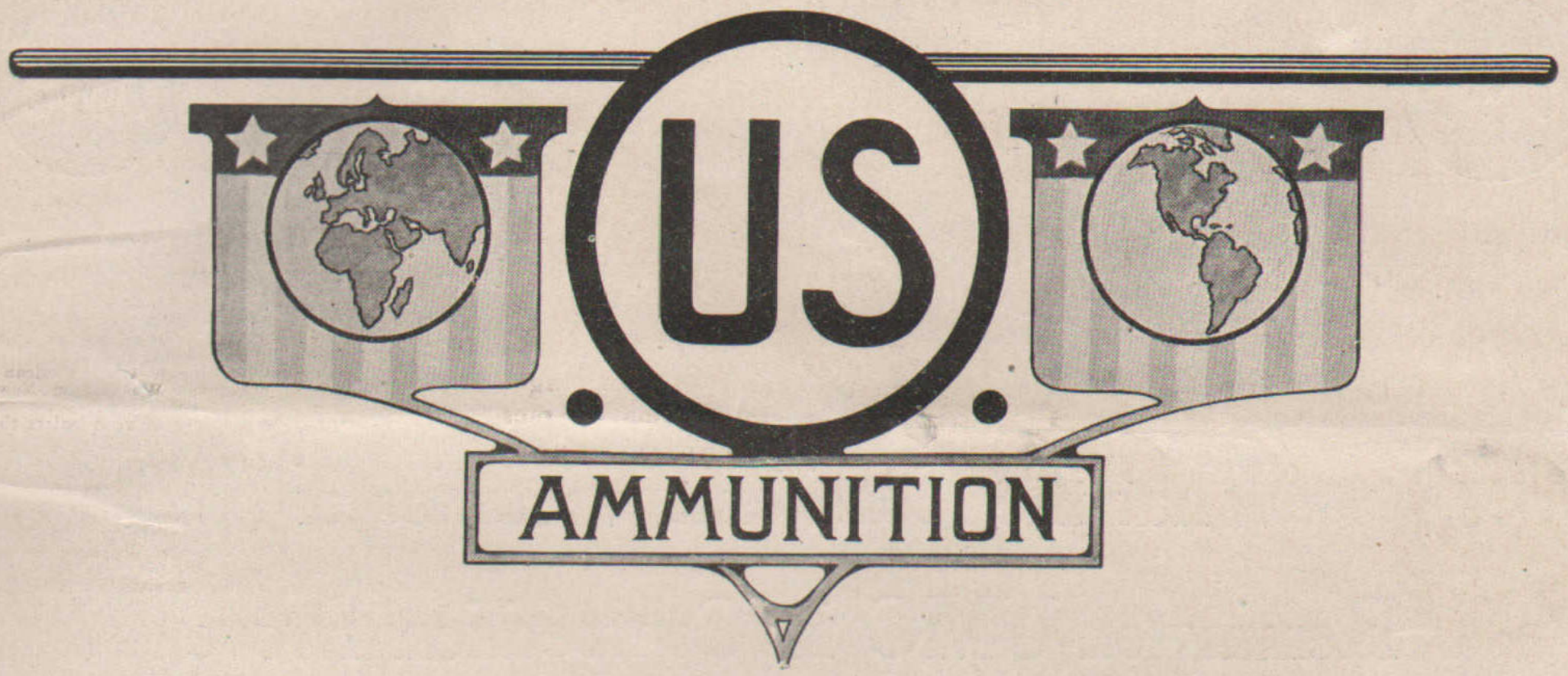
The World's Record.

The Sixth Annual Indoor Tournament of the .22 Caliber Rifle League of the United States, held under the auspices of the Williamsburg Shooting Society at Brooklyn, January 30–February 4, resulted in a sweeping victory for the Remington-U. M. C. .22 ammunition, five out of eight regular events being won with the "Red Ball" brand. Chief among the events, of course, was the winning of the Official One Hundred Shot Championship Match of the United States by Dr. W. G. Hudson, who made the remarkable score of 2482 out of a possible 2500, his nearest competitor being fifteen points behind him, thus establishing a new world's record.

The cartridges used by Dr. Hudson were the commercial Remington-U. M .C. .22 Short "Lesmok." In the continuous match three of the four men who tied for first place, Dr. Hudson, A. Hubalek, Jarvis Williams, Jr., used Remington-U. M. C. Cartridges, as did Jesse Smith and J. W. Hessian, who ranked second and third places. Likewise in the Premium Match for the five best targets, three out of four men tying for first place, used the same make of ammunition; while in the Experts Match all four places were won respectively by Wm. Keim, M. Ball, Dr. Hudson and P Muth, all of whom relied on Remington-U. M. C. The Remington-U. M. C. Match was won by Jesse Smith with the same cartridge. The high excellence of Remington-U. M. C. ammunition was attested to by the fact that the great majority of contestants used this cartridge.



The Cellar Range

The revival of interest throughout the country in rifle, revolver and pistol shooting, can easily be traced back to the steady improvement in the manufacture of Metallic Ammunition, and the rapid developments in perfecting the accuracy of the modern gun.

For all of which shooters should be duly thankful and help keep up the good work by purchasing freely and burning the good stuff as often as possible.

To make it interesting and instructive to the shooters (and incidentally help along our cartridge business) we have had an ordnance officer prepare for us the plans and specifications of an excellent bullet stop for a 30 foot range such as is easily obtainable in the average cellar. It provides for a steel plate and renewable target board and is just the thing for the rifle or pistol crank who wishes to keep up his practice during the winter months.

We hope every reader of Arms And The Man will send for one of these plans and get busy during spare moments. It will help your outdoor shooting.

What do you say? Do you want the plan?

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