

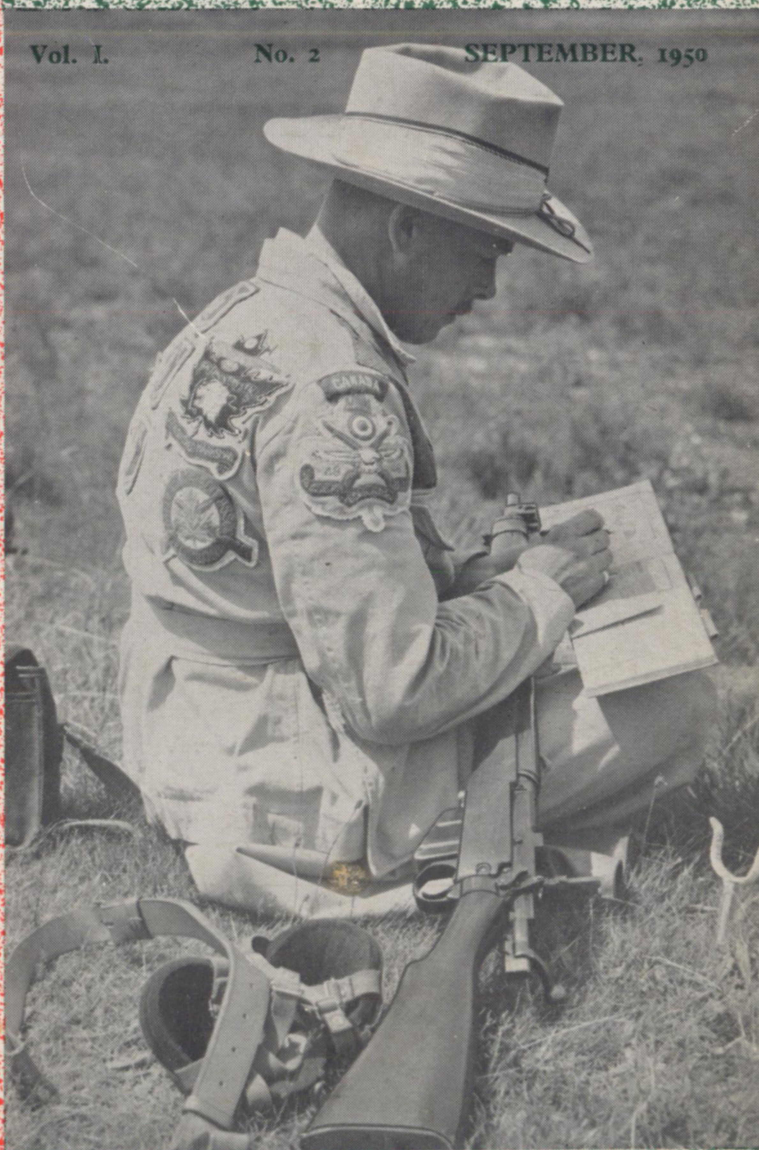
THE MARKSMAN

The
Magazine
for all
Shooting
Enthusiasts

Vol. I.

No. 2

SEPTEMBER, 1950



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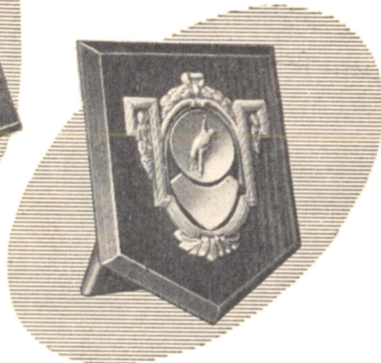
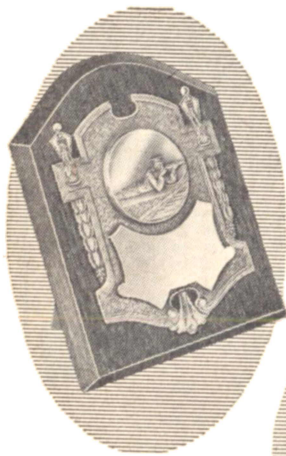
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THE MARKSMAN

In response to requests by our advertisers it has been decided to date this number of "The Marksman" for the month of September instead of August. The next number, to be published in September, will be dated October. The only result of this change, so far as our readers are concerned, is that no issue will be dated August.

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The magazine for all shooting enthusiasts

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Editorial

MUCH is heard these days about the decline of the rifle and the pistol as a factor in the armoury of modern war. From this it has been argued that the sport of target shooting with these weapons is losing its purpose, since as a sport it owes its existence to the ultimate purpose of self-defence.

Let us clarify the situation a little.

The easily portable weapon, such as the rifle or the pistol, has two uses in times of war or civil strife. One is its tactical use ; that is the employment of a large number of them carried by a large number of people in order to undertake a co-ordinated tactical operation, whether it be one of offence or defence.

The other is as a "personal weapon," to give it its official name. In this role the weapon is purely and simply a means of ensuring that the owner is provided with some means of fighting a private battle of his own, either in self-defence or offensively, if and when the occasion arises.

No matter what his arm of service, excepting of course in the Chaplain's Department and the Royal Army Medical Corps, every officer and man in the army carries a personal weapon. Be he a cook or a clerk, an orderly or a general, he has his personal weapon, and he must know how to use it.

The light single-shot weapon for use in war is being superseded, as a tactical weapon, by the very many offensive and defensive devices which are so rapidly becoming available ; but this fact does not imply that the rifle and the pistol are becoming obsolete.

LESSON FROM KOREA

Indeed, we have an interesting example of the successful use of small arms of this sort in the Korean war, where it is evident that the North Koreans are, for the moment successfully, waging a war which is based on a combination of tactical and guerilla, or "personal," methods, with the rifle predominant as a weapon.

Furthermore, the proper handling of the rifle and pistol is still the basis of the proper use of all sighted, single-shot weapons which use a rotated projectile. The man who can fire a rifle or pistol accurately is a quick and ready student when it comes to training him to be a tank gunner, for instance ; half his knowledge is there already.

One essential, common to the employment of any offensive weapon, is the conscientious maintenance of it by the owner. It must be kept so clean, so well cherished, that if the owner fails to hit his mark he *knows* that it is his own fault and not that of his weapon. This, of course, is bound up with another essential in the use of every firearm—complete confidence in it.

This is where practice with the rifle and pistol as a sport is of such inestimable value in the training of a soldier. For, while fashions come and fashions

go in the armament of tactical warfare, most of the weapons used have grown out of the rifle. Moreover, the personal weapon is likely for long to remain similar to the weapons used in the thousands of rifle clubs throughout the kingdom.

As every shooter knows, there are innumerable qualities that go to the making of a good marksman. It is not merely a question of foresight and backsight ; of squeezing, not pulling, the trigger. No one will take to the sport or rifle-shooting unless he can score as well in heavy rain as in sunshine. He will have to eat sketchy meals as and when he can—or even go without. He will have to fire, not when it is convenient to him, but when the organisers tell him to. After shooting, he will have to look after his rifle before he looks after himself.

What is the difference between the exacting nature of the shooter's sport and the relationship between a soldier and his personal weapon ?

Very little indeed.

THE SOLDIER AND HIS RIFLE

A British Major-General has criticised the standard of shooting in the British Army. He infers that our military position in Malaya might be happier to-day if our soldiers could shoot a little better.

There was once a time, of course, when the deadliness of the British soldier with his rifle was a by-word among the nations of the world. Enemy troops supposed that our infantry had machine-guns, so quickly did they manipulate their bolts.

There is a suggestion that this dexterity, and a measure of accuracy, has disappeared. Yet the men from the Army have done very well this year in matches where they have met competitors from the other Services and civilian marksmen. Let there be no mistake about it, the British soldier of to-day is taught to shoot straight.

Memory colours and magnifies the glories of the past, and there are old men who think that things will never be so good as they were. And there are younger men who do not remember at all, but still will have their say.

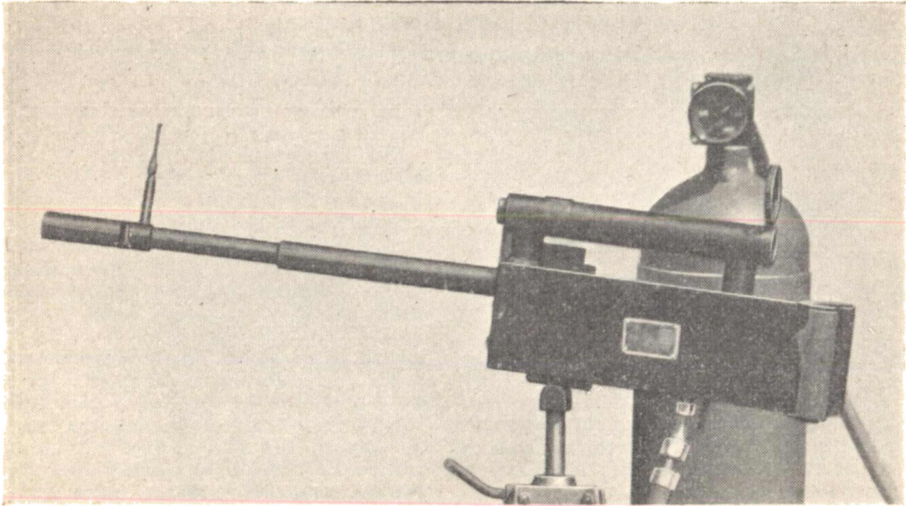
It must be noted, however, that the modern soldier has many tricks to learn. His rifle will not stop a tank, not clear the mine from his path. It is not an effective instrument against aircraft, and there are many situations in which automatic weapons are more useful to him.

Our soldiers are fighting to-day, and they are fighting well. To-morrow they may be engaged in new theatres of war, and if there is to be criticism, then let it come from the foreign jungles and beaches when the fighting soldier lives—and dies.

★ If you are unable to obtain a copy of "The Marksman" from your local retailer, please apply direct to the publishers—Garraway Ltd., 11a Kensington Church Street, and 37a Kensington High Street, London, W.8.

An Automatic Air-Gun

By L. WESLEY



REPETATING air-guns of various types have been made for well over 200 years. The Swiss gun-makers were making 10- and 12-shot large calibre repeating air-guns even before 1700, while as far as can be ascertained the earliest air-gun of which we have any record was made just prior to 1500.

Not until modern times, however, was there such a thing as a fully automatic air-gun, and because this is a weapon that comparatively few persons have seen, a description should prove interesting.

These guns were made by the McGlashan Air Machine Gun Corporation, of Long Beach, California, U.S.A., and closely resemble aerial machine-guns.

The gun is fitted with two handles with the firing button set between them, so that it can be pressed with either one or both thumbs.

The McGlashan gun was manufactured for training air crews in aerial gunnery, and on account of the extremely small cost of operating, must have effected a very considerable saving in ammunition cost.

The gun operates from a steel supply cylinder filled with compressed air, carbon-dioxide or other suitable gas and a 12-volt D.C. supply of electricity.

The air is conveyed from the cylinder to the gun through a length of flexible high-pressure laminated rubber hose.

The gun barrel has a smooth bore of .177-inch diameter, and the weapon is designed to use steel shot, which is normally

copper coated to prevent its rusting when stored in bulk.

The object of using steel instead of lead shot was twofold:—

- (1) To reduce to a minimum any possibility of the mechanism jamming, lead shot being softer and far more liable to distortion while passing through the automatic feed.
- (2) After firing practice a powerful magnet could be drawn over the ground and all the shot recovered and used many times over.

In point of fact the gun will operate quite successfully using BB lead shot similar to that used in No. 1 Bore repeating air-guns of the "Daisy" type.

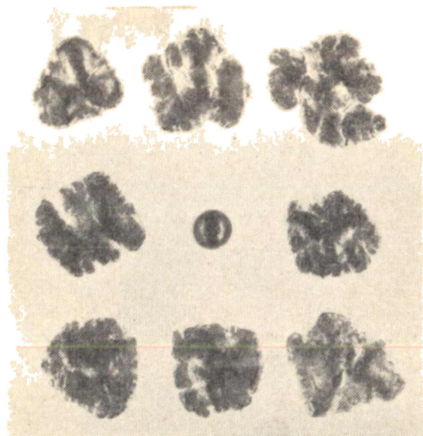
A comparatively low air pressure of 150 lb. per sq. in. is quite sufficient to operate the gun, but very little power is developed.

Using 300-400 lb. per sq. in., however, the shots are projected with enough force to embed themselves in an ordinary deal plank.

The weapon is capable of a rate of fire of approximately 300 to 350 shots per minute if the firing button is kept depressed. Single shots can be fired if the button is pressed and instantly released.

Sighting is by bead foresight and ring-type backsight fitted with centre crosswires.

The magazine consists of two concentric tubes of different diameters; the space between them being exactly the diameter



Unfired shot (centre) and others which have been fired at a steel plate

of the shot. The outer tube is provided with a sliding band which forms a cover for the filling hole into which the shots are poured. The magazine has a capacity of approximately 2,000.

The cylindrical space enclosed by the inner tube allows of an electric torch being fitted; the light, at night, illuminating the stream of bullets and giving a realistic tracer effect.

At 400 lb. per sq. in. air pressure a 12-volt 30-amp. accumulator will provide ample power to operate both the electromagnetic air release valve and the automatic feed mechanism.

At higher air pressures a more powerful battery is needed to overcome the increased pressure against the valve head. Also, of course, a much heavier flexible air hose must be used.

In operation the weapon makes a typical chattering sound similar to a real machine-gun, but naturally the noise is more modulated.

On page 57 the gun is shown mounted on an adjustable tripod, and connected to an air supply cylinder.

Another view shows the right cover plate removed revealing the mechanism which consists essentially of two switches, a condenser, an electro-magnet

(solenoid), and an air chamber with valve.

The operative cycle is as follows. When the firing button is pressed, switch No. 1 (immediately behind back plate) is closed. Assuming switch No. 2 to be also closed, the current flows from the battery to the solenoid. (This is the coil positioned on bottom plate.)

When energised, the solenoid pulls the air-valve lever which opens the valve and allows air to flow into the breech. The air thus released drives the shot out of the barrel, and pushes back the recoil rod.

Simultaneously the solenoid actuates another lever which operates a slider which it pushes forward.

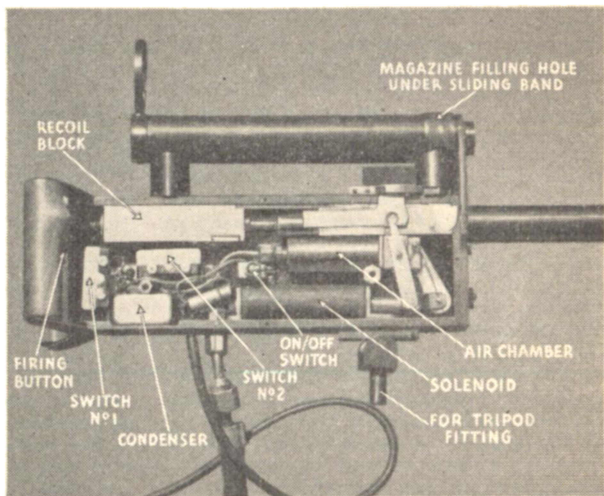
Attached to the slider is a spring arm which engages the ratchet of the automatic feed mechanism, moving it forward one notch. The ratchet teeth are cut on the periphery of a steel disc which has ten equally spaced holes drilled in it and arranged in a circle, one hole behind each tooth. The shot is gravity fed into the holes in this revolving disc, which allows them to drop one at a time into the breech.

When the air valve is open and the shot is fired, the pressure blows back the spring-loaded recoil block and a small stud is allowed to slip into the block.

This opens switch No. 2 and cuts off the current from the solenoid, allowing the air valve to close, while a spring causes the feed slider to move back, the slider spring arm engaging the ratchet ready to advance the next shot.

As soon as the recoil block has completed its recoil it moves forward under spring pressure, allowing the stud to pop out again.

This stud, pressing against a light flat spring, closes No. 2 switch and the whole cycle commences again.



The weapon is shown here with the right-hand cover plate removed.

The condenser is connected across the terminals of switch No. 1 to minimise sparking.

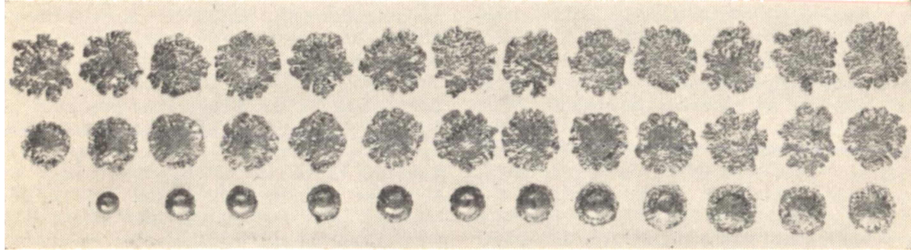
The small illustration on page 56 shows

one unfired shot (centre), and several shots which have been fired against a steel plate. For this test the gun was using 300 lb. per sq. in. air pressure.

WALKING-STICK AIR-GUNS

IN our July issue we inadvertently omitted to acknowledge this article, which was written by L. Wesley. We take this opportunity to reproduce below an improved photograph of the pellets referred to in the text, showing the 37 consecutive shots which were fired at a steel plate before the reservoir of the gun was exhausted.

On page 32 the last two lines of column one should have read : “. . . a spherical ball of exactly $\frac{3}{8}$ in. diameter weighing $1\frac{1}{2}$ oz.” On page 31 the diagram of the lock mechanism should have included a swivel connecting the claw of the mainspring to the centre-piece which carries the square hole.



Converted Fire-Arms

By A. TAYLERSON

THIS article deals very briefly with the early types of conversion from match-lock to flint-lock most commonly found in the small collection; the later types of conversion from percussion to cartridges are not touched upon.

The percussion system, produced in this country by the Rev. Alexander Forsyth, was accepted with reservations by the sporting world, but was superseded quite rapidly by more convenient mechanisms, and exists to-day in small numbers only.

Two types of the original detonating lock were manufactured by the inventor, one lending itself readily to the conversion of flint-lock arms (see sketch); the other, which used a sliding instead of a rotating magazine, appears to have required a weapon designed for it. To convert a flint-lock to the Forsyth principle required the replacing of the hammer, the removal

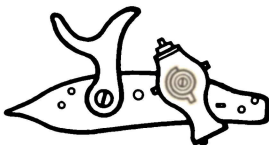
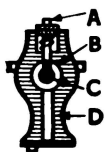
of the pan, pan cover, and feather spring, and the tapping of the touch hole to take the roller, or stem, of the detonating magazine.

TWENTY-FIVE SHOTS

This magazine held enough detonating powder for some twenty-five discharges; to use it the hammer was set at half-cock, and the “scent bottle” magazine rotated on its roller B through 180 degrees. This brought the column of detonating compound D into the vertical, and deposited a few grains of the compound in the tiny pan C drilled in the roller; rotating the magazine back to its original position brought the firing pin A over the charged pan, and, on setting the hammer at full cock and pulling the trigger, the detonating powder in the pan was exploded by the firing pin, and the main charge ignited through the channel in the centre of the roller.

Both conversions and guns originally made on this principle are quite rare, but they are the first type of conversion likely to be found.

Between the Forsyth lock and the well-known percussion cap came various percussion systems such as the tube lock



and the pill lock ; a few arms were converted to use these means of ignition, but lack of space forbids any consideration of them.

With the arrival of the percussion cap, and its qualified acceptance about 1825, the way was open for the extensive conversion of every type of weapon. The Army were not impressed, but from this date until the close of the percussion period, a multitude of weapons were converted from flint-lock to the new system by means of one of the three methods outlined below.

Conversion No. 1 was the simplest and cheapest of the three, involving merely a new hammer, the removal of the pan and its appendages (with the occasional insertion of a piece of metal to fill the lock plate (see sketch), the sealing of the old touch hole, and the placing of a percussion nipple on the top or side of the barrel. The nipple might or might not be supported by a small ring of metal brazed on the barrel. This type of conversion is not as common as might be expected, since it was normally applied to the cheapest of weapons, and their rate of survival is not high.

Conversion No. 2 is probably the commonest example found to-day ; it was applied to arms of every type and of every class of workmanship from the cheapest and crudest of horse pistols, to the deadly and expensive duelling pistol.

The procedure was simple, involving the same preliminary work as in a Forsyth conversion, but, in place of the detonating magazine, a steel converter with a percussion nipple mounted on it was screwed into the touch hole in the barrel ; the curve in the lock plate where the pan had been removed helped to support the converter. In a good conversion of this type, the converter has a small screw let into the head to allow for cleaning, and there is provision for a special spanner to grip the converter and unscrew it, if desired. In cheap conversions of this type there are no such refinements, and the standard of workmanship is extremely low.

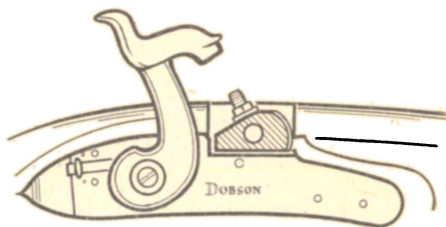
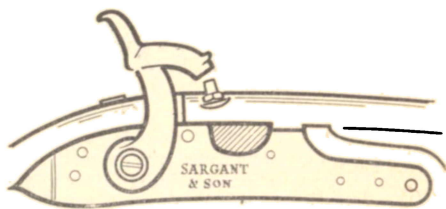
Conversion No. 3 is an expensive variety requiring a good gunsmith, and is usually found on expensive guns with good expectation of life. It is frequently difficult to spot this conversion at a glance, since it resembles a Nock or other patent breech at first sight.

In this type of conversion the hammer is replaced, as in the other methods, but the old flint-lock breech is cut off entirely and a new percussion breech fitted in its place, having the appearance of the patent breech mentioned above. The old pan and accessories are removed, and the lock plate is often considerably altered in outline, the top edge forward of the hammer

being flattened off to support the new nipple seat forged as an integral part of the new breech.

A less expensive version of No. 3 involved the brazing of a metal "bolster" on to the side of the breech to carry the nipple, instead of fitting an entirely new breech ; this appears to have been the officially approved method of conversion for some service flint-locks.

The converted weapon has a definite place in the representative or specialist collection, but it is less desirable to the man who concentrates on flint-lock or percussion arms, to the exclusion of other types : it is as well, therefore, to distinguish the converted weapon from the purely transitional arm, which is a highly desirable piece, made only while percussion caps were unobtainable in some parts of the world. These weapons may be recognized by the fact that either form of ignition may be fitted at will, by the owner, and without benefit of gunsmith, by minor changes of the lock. Examples may be seen in both books by the late J. N. George, and in Jackson and Whitelaw's "European Hand Firearms."



These sketches illustrate the three conversion methods described above.

FIRST AID FOR SHOOTING ACCIDENTS

By RICHARD SMART

WHAT type of wounds is one likely to meet? What should one do in such an emergency? What should one tell the doctor over the telephone? What kind of medical equipment should be kept at shooting ranges?

The doctor will wish to know the patient's name and approximate age; where the patient can be found; what time the accident occurred; the part of the body affected; the type of gun the wound was made with; and, if it is suspected that a bone has been broken by the bullet. This latter information would help in deciding what type of splint might be required.

Rifle and revolver bullets will make a small punctured wound at the point of entry. It will depend on the force of the discharge and the range or distance from the casualty at which the shot was fired which will determine the depth to which the bullet penetrates. A bullet in the head will undoubtedly fracture the skull bone and damage some of the brain tissue. In the chest it might penetrate the heart or lung or liver, or break a rib or pierce one of the main arteries or fracture a vertebra or the spinal cord. In the abdomen the intestines will probably float away and escape damage, but the spleen or kidneys may be injured or, again, the vertebra, spinal cord or bladder.

Injury to the limbs may produce a fracture or splintering of bone or injure arteries or nerves, or it may be that only a flesh wound will result.

Shot-gun wounds, on the other hand, if at close range will cause a much larger entering wound, but will probably not penetrate so deeply.

WHAT TO DO

As in all first aid treatment to the injured, it is necessary to keep calm and observant. Assess quickly the extent of the injuries and the part of the body injured. Send a message to a doctor (not half-a-dozen doctors), saying what has happened and where the patient is, then order a conveyance. *Stop haemorrhage.* This can usually be achieved by covering the wound with clean lint and a firm bandage; a tourniquet is very seldom required. Treat shock by getting the patient under cover, keeping him warm with hot water bottles and blankets, a little hot tea or a cigarette if he smokes, and reassure him. Keep the patient quiet and lying down. Get rid

of hysterical individuals by sending them on messages. If you cannot get a doctor get the patient conveyed to the nearest hospital as soon as possible.

If the patient is shot through the head and is unconscious put a dressing on the wound, keep him lying down with his head turned to one side and if he vomits see that his head is in a position so that he can vomit freely and not inhale the vomitted matter into his lungs. Remove any artificial dentures. If an artery is cut and is spurting, apply a dressing and exert pressure against an underlying bone.

If the wound is in the chest apply a dressing and get the patient to lie on the injured side. This will help to exert pressure and prevent the injured lung from expanding and will give the uninjured lung free play to carry on the functions of respirations.

If the wound is in a limb and there is reason to suspect a bone is broken put on a splint. If it is an arm it can be bandaged to the body which will act as a splint. If it is the leg it can be bandaged to the uninjured leg with a suitable padding for support. If it is in the abdomen lie the patient on his back and place a pillow or rolled coat under the knees so as to flex the thighs slightly.

EQUIPMENT

First aid equipment should include: sterile gauze in packets, cotton wool, a quantity of two or three inch wide bandages. If a disinfectant is required, flavine is mild and non-irritating. Iodine is painful and some people react badly to it. Aspirin five-grain tablets may be useful to relieve pain. Sal volatile (a teaspoonful in half a cup of water) is a mild stimulant. It should be sipped by the patient.

Long splints reaching from under the armpit to the ankle are used to immobilize a broken thigh bone. For the lower leg, use a splint reaching from above the knee to the ankle.

For the forearm use a short back and front splint and a triangular bandage to rest it in.

For the upper arm use an outside splint and rest the forearm in a narrow sling, letting the elbow hang free.

It is important that wooden splints should be padded with cotton wool and no splint should be tied on so tightly that it stops the circulation in the limb.

STALKER COURSES

By "THE OLD COACH"

By permission of "The American Rifleman"

ONE of the best ways for a rifle club to add colour and variety to its shooting programme and also provide something of value in another field of shooting activity is to work out a few stalker courses. Most riflemen are hunters even though they do not get afield as often as they like. Why not develop these courses, not only to teach accuracy in shooting, but to work against time also? After all, the nimrod that can't get his shot off when he is surprised by a buck breaking cover fast isn't really a successful hunter.

The stalker range should be at least 100 yards long, backed, if possible, by a hill, a strip of wasteland, or perhaps a body of water. The firing line must be plainly marked, and there should be enough room on it for two or three men since hunters usually work in pairs or trios.

SELF-CONTROL

Bear in mind that self-control under the stress of surprise is a paramount asset to the hunter. The objective in these stalker courses is to create a situation that will simulate, as near as possible, actual surprise field conditions. The instant that big buck breaks cover a hunter must automatically fire at least one accurately aimed shot—if he's going to bag that buck.

O.K., then our stalker course must be a surprise affair. Here is a place for a running deer set-up. Mindful of even the small-bore Hi-speeds (any small-bore rifle and any sights should be allowed) the deer should be reduced to about one-half the regular 100-yard size and the firing done at about fifty yards. Otherwise a fellow could easily get a false impression of the necessary lead and do some terrible shooting with a 3,000-foot-velocity rifle during the deer season. The run of the paper deer should be as long as possible and to make the practice more valuable the deer should pass behind at least one thick bush or some other obstacle. Also, if the wheels of the deer carriage are set off centre on the axle, the deer would go up and down in its course somewhat like the motion of a mule deer. On this running-deer course the contestant is allowed five shots for each run. The shooter should be started at least fifteen yards behind the firing line, and the deer will start its run just before the stalker reaches the firing line. Each contestant can have only five cartridges and no shots

will be fired except from the firing line.

He can fire one shot or five, if he can, as the deer races across his front. To score, allow ten points for each hit in the front half of the deer and five for each hit in the rear half—fifty points being a possible.

FIVE TARGETS

Another idea is a rising five-target arrangement, one for each stalker, set at an unknown distance from the firing line and controlled from a point not visible to the firing relay. Each unit would be attached to a two-by-eight piece of lumber about five feet long and staked to the ground. On the base will be placed five metal or wood target frames, about ten inches wide and of different lengths. These frames would be bolted at the bottom to a common bar held at each end to the base in loops or bearings so that it can turn easily when the targets are raised for firing. Extending from the axle bar is a lever connected to a wire which runs to a control point. A heavy coil or other spring, or maybe a piece of inner-tube, attached to the axle will jerk the targets back down when the rising pull is released. The aiming point can be a regular four- or six-inch black bull's-eye, a printed crow, squirrel, or woodchuck fastened to a target face made of wallboard or thin fruit-box wood. To operate, stalkers are lined up fifteen yards behind the firing line and ordered to load magazines with ten rounds, chamber empty, thus providing for a possible two hits on each target. Upon order, the relay loads rifles and with rifles at the ready, advances to the firing line. When the men arrive on the firing line, the targets suddenly pop up. The targets remain in view for fifteen seconds, then vanish. Unexpectedly, the targets come up again for another fifteen seconds. The range officer orders "Cease firing." In scoring, allow five points for each hit, fifty points being a possible. A stalker having more than two hits on any of the targets but a total of only ten shots will be penalized one point for each extra hit.

I hear the N.R.A. will market plaster of paris discs of one and five-eighth-inch diameter soon. Hung from frames at forty to sixty yards by wire loops of varying lengths, to make it impossible or difficult for a contestant to hold hard and simply swing the rifle along the line hitting each

target, an interesting match can be worked out. These plaster discs will be in full view as the stalkers run the fifteen yards to the firing line—and I mean run. The watch will start as the men leave the starting line, not when they arrive on the firing line. Time allowance for this run should be fifteen seconds for five shots, or twenty-five seconds for ten shots.

OILCAN TARGET

For small clubs or non-club groups, try the following. In place of the running deer use a five-gallon oilcan with a heavy

line attached to each end so it may be pulled back and forth across the range. All contestants take turns at the pulling, but they must be in pits or behind other safe cover. Conduct this stalker run the same as the running deer. To make it more realistic vary the speed of the can but always keep it moving.

As organized riflemen the challenge of adding to our membership more of that vast majority of rifle shooters who do not care for regular target shooting faces us. These stalker courses should interest these fellows. Why not try them out ?

FILMING THE .45

By B. T. O'CALLAGHAN

HOLLYWOOD must be running out of history for its Westerns. The screen story of every notability who flourished in the days when Western America was uneasy Indian country has been told. And in between Billy-the-Kid and Buffalo Bill, Hollywood unearthed a few more to fill the empty spaces.

The weapons used in those hectic days are familiar to every schoolboy. Winchester and Colts spring to the mind without effort. It is surprising that stories have not been built around them long before now.

Looking back over the years I still remember the old Cowboy and Indian films with nostalgia. They gave us action and gunfire in plenty. Inhibitions released within our bosoms at the sight of lusty men facing death or mutilation were not smoothed down by soft glove technique. Even the romances were rugged; the good man always got the girl. But Hollywood became plot-minded and much of the old glory was sacrificed to bring love to the one-and-nines and scenery to the stalls.

"Colt .45," Warner's latest Western, recaptures much of the old drama and ruthlessness.

The story begins with Randolph Scott trying to interest the Sheriff of a town in this new .45 Colt. Repeating weapons were strange in those days. Apparently Randolph had done some good work with the .45 in a late war because he is now chief salesman for the Colt company. A local bad-man (Zachery Scott) locked up behind nearby bars, listens while Randolph explains the features of the revolver. A

coach arrives, in the middle of the sales talk, to remove Zachery to a better jail and while the changeover is taking place he breaks free from his guard and grabs a pair of .45's.

From then on things happen thick and fast. Using the stolen Colts Zachery raises a gang and plays havoc with law and order. Randolph is suspected with being in league with him. Zachery plans to raid a stage-coach (with the connivance of Miss Ruth Rowan) but Randolph does a spectacular rescue, making friends with an Indian Chief in the process. Incidentally, I always thought that Indians wore an inscrutable look; this Chief allows himself an occasional smile.

While Zachery possesses the stolen .45's he is a menace and Randolph's aim is to disarm him and hand him over to justice.

The story builds itself up around a lot of misplaced faith and fifth column work. Ruth Rowan as the wife of one of the gang, trying to get her spineless husband away from them, is as tough and quick-witted as the theme demands. An Indian tribe assists the cause of justice.

The action loses some of its tenseness at times because of too many changes of scene but towards the climax it becomes concentrated and the end rushes in almost, but not quite, in a blaze of guns.

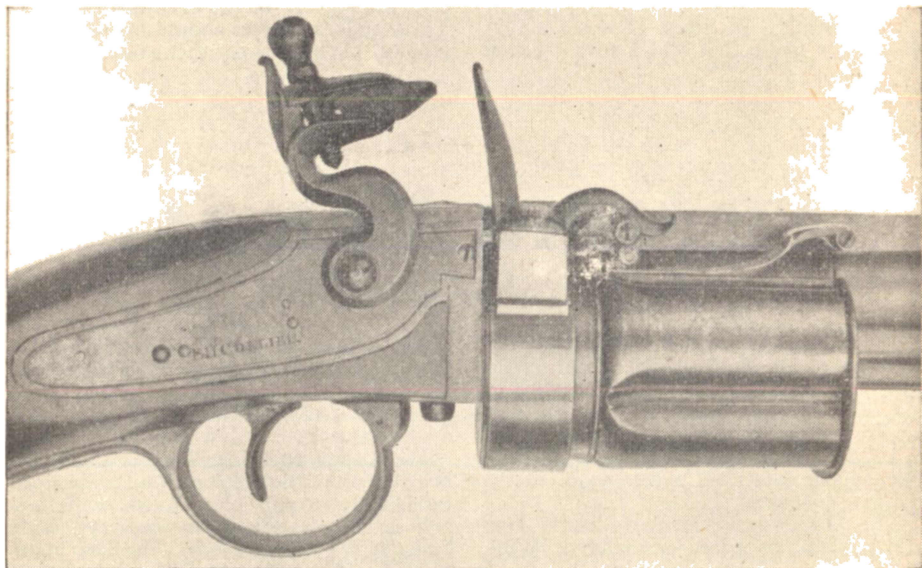
It is not a history of the Colt .45; but a brief sketch of what the power of this new weapon must have been when first used in the lawless West.

On the whole a good picture. At times credulity may be strained, but there the fault lies with trying to mix the old style Western with the newer technique.

THE REVOLVER (1819)

By S. B. HAW

The first part of this article appeared in the July issue of "The Marksman."



Revolving chambers on a Collier rifle

ON 24th March, 1824, Collier appeared before another Committee of Artillery officers at Woolwich Arsenal, bringing with him a number of his arms. A percussion-lock revolving rifle, fitted with the spring-rotation mechanism and carrying a charge of two drams of powder in each chamber of the cylinder, was selected for a firing test. This was carried out by Collier himself. In the space of twenty-nine minutes, he contrived to load and fire one hundred rounds, putting seventy-one bullets through the target (and lodging one in it) at a range of one hundred yards.

NO MISSFIRES

He then fired five rounds at two hundred yards, piercing the target in each case. There were no missfires throughout the test. Three days later,

he wrote to the Board of Ordnance, asking for details of the Committee's findings. In reply, Lord Fitz Roy Somerset confirmed the details mentioned above, adding that the arms submitted "appear to be well finished" and that the cylinder of the rifle revolved freely without "clogging" (*sic*).

ADVERSE DECISION

The summarized reproduction of the above reply makes no mention of the very evident fact that the Committee's decision was again adverse. In all probability, Collier deemed it advisable not to stress this point in his broadsheet.

Full details of the circumstances which brought about the convening of the second Committee are not known. A clue may, however, be found in the fact that a revolving

rifle, which Collier had loaned to a Lt.-Colonel J. D'Arcy¹, was demonstrated by the latter, at Chatham, to the Duke of Clarence and an assembly of senior officers. In a letter which covered the return of the rifle, D'Arcy informed Collier that all those who witnessed the demonstration were agreed that this arm would be well adapted for "the service of Light Cavalry, Riflemen, Marines in Tops or Boats, and Travellers in general." His Royal Highness had "expressed his approbation of it in the strongest terms," recommending that it should be shown to the Duke of York "as worthy the attention of Government." The letter mentions that the demonstration took place on 12th November, but, unfortunately, the year is not given. It is not unreasonable to surmise that it was 1823 and that the trial at Woolwich, six months later, was actually undertaken on the direct suggestion of the former Commander-in-Chief. Whatever may have been the origin of the trial, it was Collier's last attempt to secure the official adoption of his revolvers and rifles.

From this time onwards he was concerned solely with their sale on the open market.

FLINT-LOCK IGNITION

In this connection, he appears to have concentrated mainly on his shoulder arms, with his revolvers occupying a somewhat secondary place in his activities. The fact that his original models were fitted with flint-lock ignition has been noted earlier in this article. Up to the present, there has been a general impression that his percussion-lock models were produced only in the latter stages of his gunmaking career. In point of fact, there is considerable evidence that he made a partial

adoption of this new system of ignition at a relatively early date. It is mentioned in his first broadsheet and, as the reader will have noted, it was fitted to the rifle employed in the firing tests at Woolwich Arsenal early in 1824.

It most certainly did not oust the flint-lock completely, as far as his arms were concerned, for there is definite evidence that he was still selling rifles and shotguns fitted with the older system of ignition from his last business address, in the City. A modest number of Collier rifles and shotguns, fitted with percussion locks, have survived to this day. On the other hand, existing specimens of his revolver² are, almost without exception, of the flint-lock pattern.

DID NOT MAKE GUNS

Despite the fact that he described himself as "Manufacturer," there is very little doubt that he never maintained a gun-making establishment of his own and that he contracted with one or more firms in the gun trade. Their identity has never been completely established. John Deane (in his "Manual of Firearms (1858)") states that Evans, of 114 Wardour Street, Soho, manufactured the cylinders of the Collier arms. It is interesting to note, however, that Evans himself on one occasion³ made the assertion that "in the year 1822, he manufactured a number of flint-lock revolving chambered-breech firearms for Mr. E. H. Collier." It is possible that he did, in fact, make some of the earlier and more plainly finished

² There is a flint-lock Collier revolver in the Museum of the Royal United Service Institution. At the time of writing, two other specimens are on loan exhibition in the Armouries of the Tower of London.

³ In the discussion which followed the paper "On the application of Machinery to the manufacture of Rotating Chambered-Breech Firearms, and the peculiarities of those Arms," read by Samuel Colt at the Institution of Civil Engineers, London (November, 1851).

¹ The broadsheet gives no clue to his unit or appointment at Chatham. A footnote mentions, however, that (at the date of publication) he was holding an important military post under the Lord Lieutenant of Ireland.

specimens in their entirety. The more elaborately decorated arms of a later date, which are best known to collectors of to-day, were probably made by another firm. There is much to commend the theory (advanced by the author of "English Guns and Rifles") that this was Rigby, or another of the leading Irish gunmakers of that day. The impression that his arms were on the market soon after his arrival in England (in 1818) lacks proof and the date 1822, mentioned by Evans, may have marked only the small beginnings of his marketing activities. It is not improbable that lack of funds prevented him from launching out directly after his failure to secure Government support in 1819 and that, in the meantime, he worked at his own profession of civil engineering.

SPORTING GUNS

The first (and smaller) of his two broadsheets was issued from No. 6 Herbert's Passage, Beaufort Buildings, Strand, which was presumably his first business address. It solicited orders for what he described as his "Patent Feu-de-Joie Fire-Arms," in the shape of "sporting guns, rifles and pistols" and quoted an extremely eulogistic testimonial signed by Samuel Nock, W. A. Beckwith and Thomas Mortimer, well-known City gunmakers of those days. It is likely that it was issued prior to 1824-25, for, at about that time, he moved to No. 54 Strand. By then his business seems to have developed and he took the step of subscribing for an insertion in the London Directory. His name appeared in it for the first time, under the title of "Collier & Co., Gunmakers" in the trades section of the edition of 1825. No doubt the main cause of the development was the orders which he secured at the time for the Indian market. According to his own statement, made in the course of the evidence which he gave in the Colt lawsuit, he shipped altogether about

£10,000 worth of his arms—apparently rifles and shotguns—to India. They were consigned through Messrs. Bazette, Farquhar, Crawford & Co. (one of the great East India houses of those times) and through another firm, whose name is not recorded. For these arms he received an advance payment of twenty-two guineas apiece. Some of them sold for as much as sixty guineas.

CHANGE IN DESIGN

The period 1824-25 also marked an important technical change in the design of Collier's arms—his abandonment of the Coolidge system of spring-rotation. He retained the sliding-cylinder gas-check device, but, thenceforward, all his revolvers, rifles and shotguns were fitted with cylinders which had to be rotated by hand. His own explanation of the change was that he wished to simplify the design and came to the conclusion that the driving-spring was an unnecessary fitment. It is not improbable, however, that he also wished to cheapen the cost of manufacture. All the known specimens of his arms, in private or public collections, are of the later hand-rotated type. Specimens of the spring-rotated type are so excessively rare that it is an open question whether any have survived intact until to-day.

VAGUE ANSWERS

The precise number produced is not known. Collier was questioned rather closely on this point by Counsel for the plaintiff in the Colt lawsuit, but his answers were very vague and from them one can glean no more than the statement that "from fifty to one hundred" were manufactured (the proportion of revolvers to shoulder arms was not stated) and that "perhaps thirty to forty" were included in the first Indian consignment. The remaining consignments were of the hand-rotated type.

In about 1827-28 Collier moved his business to the City. The London

Directory of 1828 gives his address as No. 3 North Piazza, Royal Exchange. He appears to have occupied part of these premises as a sub-tenant. The very scanty technical works of the period make no mention of his arms, but the second and larger of his two broadsheets (almost certainly issued from the Royal Exchange) quotes two interesting letters. One is from the Captain of the Honourable East India Company ship *Waterloo*, who had devoted part of Christmas Eve, 1824, to trials of a newly-purchased Collier revolver. He was highly delighted with its performance. A friend, who was present on the occasion, was so impressed that he wished to order a similar specimen. He himself would like to exchange his single revolver for a brace. It was possible that he might pass these on to a fellow Captain, who was on the point of sailing. In this event, he would require another brace to replace them. The other letter was from a member of a Volunteer Rifle Corps, who had more than seventeen years' shooting experience.

ASTONISHING PERFORMANCE

He had obtained a Collier rifle on approval and had tried it out on a five-man target at a range of two hundred yards. To his astonishment, he had contrived to discharge the load of five rounds in fifteen seconds, hitting each of the painted figures in turn. He had made up his mind to order a rifle and would call in at Collier's office within a few days, to give instructions regarding the details of its finish.

It is not beyond the bounds of possibility that a certain number of Collier revolvers were purchased by Officers of the two Services, but there appear to be no records of their use under active service conditions. They were, in fact, not very well adapted for the latter, since the flintlock hand-rotated type (most generally produced) required three motions for each successive shot and the use of both

hands—an embarrassing feature if the user was already burdened with a drawn sword. There is, however, an interesting footnote to the second broadsheet, which states that "The Patentee is proud to add that Lord Cochrane (*sic*) has ordered Specimens of the above Fire-Arms, for the defence and protection of Grecian Liberty." The arms in question were probably revolving rifles, but, so far, the writer has been unable to find any reference to them in the various works dealing with Lord Cochrane's career.

LITTLE SUPPORT

The total output of Collier arms of all kinds will always remain a matter for conjecture, but it is doubtful if they amounted to more than three to four hundred all told. Despite the fact that they appear to have functioned quite satisfactorily under normal conditions, it is very evident that they failed to attract any useful measure of public support. In all probability, their cost of production was their greatest disadvantage. There is reason to believe that their manufacture ceased in or about 1830.

Collier remained in England for nearly twenty years after that date, engaged in his normal profession of civil engineering. There is evidence that he was established at Rotherhithe in the middle 1830s, concerned with the manufacture of a marine boiler of his own design, patented in 1836.

LATER PATENTS

It was given a fairly extensive series of trials by the Admiralty in the same year. Later patents, which he obtained, covered such diverse items as pumping-machinery (1837), furnaces (1843) and nail-making machinery (1839 and 1845). He returned to the United States early in 1850 and settled down in Boston. His brief appearance in the Colt lawsuit, of the following year, is the last episode of his career of which any record seems to exist.

READERS' LETTERS

Shooting in the U.S.A.

I read with interest the article by Mr. J. T. Ferri, of U.S.A., in the July issue of **THE MARKSMAN**, and note his remarks that a licence is not required to own a gun in America, but that clubs with indoor ranges must have a general club licence.

I notice, however, in an American shooting magazine that a licence costing 10 dollars is required in New York for a pistol, and they are trying to pass legislation bringing into force an order that a Police permit costing 10 dollars is necessary in order to purchase ammunition "suitable for any gun which can be concealed on the person."

This includes .22 rim-fire cartridges and possibly shot shells and air-rifle pellets.

Does the licensing condition depend on the State ?

I would also like to point out that in the U.K. a registered rifle club does not have to hold a firearms certificate for rifles, etc., owned by the club, although apparently they must have one in the States.

I am also rather surprised at the statement regarding .22 rifles used on indoor ranges, as I understand that in the U.S.A. they go in for target shooting in a very big way, and they certainly make some first-class rifles, such as the Winchester 52 and the Remington 37, etc.—or are these used only on outdoor ranges ?

J. B. LESLIE,
London, W.C.1.

Pistol Regulations

I am particularly interested in all that appertains to the pistol, and while I am to some extent in agreement with the authorities that some control is necessary I find the restrictions of the present time irksome and irritating.

Punish those who abuse the possession and use of the pistol, but don't punish the intelligent and reputable citizen who has a keen and properly balanced liking for pistol shooting.

The pistol lover need not be, and is not, a potential criminal or maniac.

I find myself in sympathy with many of the remarks of your contributor, Lt.-Col. Granet, and hope to see more articles by him in the future.

ARTHUR J. LOCKE,
North Harrow, Middlesex.

Collectors' Pieces

I note in your "News From All Quarters" that the Kent Police have had some 281 weapons surrendered to them during the past year. I wonder how many valuable

antique guns and pistols have been handed in by people with no knowledge of their cash value—and whether all these weapons are destroyed ?

On one occasion I saw a very nice Deane Adams percussion revolver, complete in case, which an old lady had surrendered to the local police station. On making enquiries, I was told that it would be destroyed !

At another time I remember finding that a percussion pistol had been withdrawn from a public auction of furniture and household effects because a local police authority considered it to be a "lethal fire-arm."

I have often wondered whether the Home Office has ever considered the advisability of authorising the police to issue a "collector's permit" to those who collect and wish to study various types of rifled and hand guns.

E. F. HAYMAN,
Caterham, Surrey.

ANY QUESTIONS ?

From the United States of America comes the kind offer by Mr. F. Bob Chow (an international marksman) to endeavour to answer any questions regarding shooting in America that readers of "The Marksman" may wish to put to him.



Bisley Personalities

1950

FOR shooting men there is a prize cherished above all prizes. And the great day of all shooting days is the final shoot for His Majesty the King's Prize at the Bisley meeting of the National Rifle Association.

In the late afternoon hundreds of people gather at the firing points and face along the Stickle-down range.

In a commanding position stands a mobile transmitter of the British Broadcasting Corporation, and between it and the points the large crowd waits.

Bright and sober blazers, colourful dresses, Naval officers with brass telescopes, Army and Air Force uniforms, dotted the rows of spectators. There's no doubt about this being the Ascot day of shooting.

And when the winner is decided a solid avenue of people form, and then, led by a glittering regimental band, escorted on either side by uniformed policemen, the victor, high on Sergeant Wainwright's 1883 chair, starts on his tour of the camp.

I DON'T BELIEVE IT

You can be sure that Ronald Greig was a very happy-looking man indeed. In fact, over an hour later he was heard to say to a friend, "I don't believe it. It's all a dream."

But the King's Prize had been truly won by R. D. Greig with 277 points when his last shot score a bull's-eye. Conditions were extremely difficult with a strong cross-wind.

Ronald Greig, formerly a Captain of the Royal Scots Fusiliers, is thirty-seven and comes from Sittingbourne, Kent. His profession is chartered accountant, and he is now working as a company secretary.

He first came to Bisley as a Winchester School boy in 1931, but began definitely with the meetings in 1934. The "All-comers' Aggregate" fell to him in 1936, a King's Silver in 1938 and a King's Bronze in 1939.

In the year 1937-38 he was a member of the English team which toured South African and Australia. The rifle which he used then was the one with which he won the King's Prize this year.

Ronald Greig was a very popular winner indeed, and it is obvious from his shooting history that he has thoroughly earned his

success.

He is a member of the North London Club.

GRAND AGGREGATE

The Grand Aggregate was won by A/Sgt. F. S. French, late Hertfordshire Yeomary, with 565 points.

Stan French is now sixty-three years old and lives in Enfield. Two years ago he retired from the Royal Small Arms Factory, where he was an Armourer Sergeant.

He began competition shooting in 1910, and since then he has had such a variety of successes that the only way to note them would be to inspect his mantelpiece and sideboard at home.

He won the King's Prize in 1935; he came second in the Grand Aggregate twice—once in 1914 and once in 1949; that is, with 35 years in between. Having finally won it this year must be a source of great satisfaction to him.

The English team has seen him represented six times in the Kolapore; he won the *Daily Mail* Cup in 1935 and the *Daily Telegraph* Cup in 1937, and... so one could go on adding to the list.

He must indeed be an honoured member of the City Rifle Club.

REVOLVER SHOOTING

The Revolver Gold Badge was won by Flt.-Lieut. H. Kennedy with 655 points.

The winner is a regular R.A.F. officer, aged 43, and he has his home in N. Ireland.

He began revolver shooting seriously in 1936, and is also a keen rifle shot. He



Sir John Hall, Governor of Uganda, who presented prizes at Bisley N.S.R.A. meeting.

would have entered for the rifle competitions this year too, but the thought of bringing a double load of equipment from Ireland dissuaded him.

This is the sixth year he has been in the R.A.F. revolver team, and at the R.A.F. meeting a few weeks ago he became the individual revolver champion after being runner-up last year.

He uses a Smith and Wesson, practices a good deal at "dry shooting," and is a firm believer in complete horizontal relaxation before a contest.

SMALL-BORE SHOOTING

This year the N.S.R.A. held its twentieth meeting on the Running Deer Range at the edge of Bisley camp. An iron framework, tarpaulin-covered, ran along the firing point and behind were three rows of marquees and tents for official and club use. Between the point and the tents was an area where a great deal of talking and mutual enquiry took place.

Looking at the gathering of contestants, one was struck by the extraordinary uniformity of the clothes worn. Olive-green jackets and trousers (for men and women) crowned by a jockey-cap of similar colour, seemed to be the rule.

Nearly everyone carried an array of brightly-coloured badges sewn to his back. Some of the old-stagers were heard to mutter darkly that "It wasn't like this in my day. Badges really *meant* something then."

Moving among these marksmen and markswomen a visitor would be hard to please had he not been impressed by their good-fellowship, helpfulness and sportsmanship.

The tyro who has doubts about entering open competitions would do well to bear his in mind.

There were more than nine hundred entries for this year's events, more than fifty above last summer's total.

Tuesday, July 4th, was a conspicuous day in the N.S.R.A.'s history, when 5,078 targets were shot at—500 above the previous record. Needless to say, the organisation was smooth to achieve that figure. The Secretary, Range Officers and the men behind the scenes are all to be congratulated on a very successful meeting.

THE "ROBERTS"

A feature of the small-bore meeting this year was the successes won by members of the Borough of Wandsworth Rifle Club,

H. R. Hammond, captain of the club, holds the British Championship and the Championship of England as a result of having won the Earl Roberts' Memorial Challenge Cup and the St. George's Challenge Cup.

Runner-up in the "Roberts" was F. K.

Lamberg, also of the Wandsworth Club.

The short-range British Championship was won by yet another Wandsworth marksman, J. W. Johnson, and (if this were not enough for one club), A. E. Spiriti, Wandsworth, won the Grand Aggregate for the meeting.

The final for the "Roberts" produced a tie at 586 points each for Hammond and Lamberg. They therefore shared the first and second-place prize money. For the Challenge Cup itself, a tie-shoot was held as soon as the results were known. On the first card each scored 99 points and on the second Hammond scored a possible (100) and Lamberg 99.

Hammond, 47, lives in Streatham and is a clerk with British Railways in the Superintendents' Office at Paddington.

He has been shooting in competitions since 1926, attending the Bisley and Scottish meetings yearly. Before he won the "Roberts" he remembers as his greatest success the year 1930, when at Wick he won the Benjafield Cup and the Parbury Cutlery; both of which are now extinct, the former having been blown up in the last war. At Bisley he has won various prizes, but no major trophy up to this year.

Since 1929 he has shot in the International Railways Competition, and for the last three years has had the highest score with 399 points.

WANDSWORTH CAPTAIN

To-day he is captain of the Wandsworth Rifle Club and London County.

He uses a Winchester 52 (which he got only a week before this year's Bisley) with Vaver sights and Super Match ammunition.

The newcomer to Bisley, he considers, should pay a great deal of attention to the need to modify his aim in different conditions of light and wind.

When asked what advice he would like to pass on to marksmen who hope to reach the experts' class, he remembered what he was told when he first came to Bisley. He said it was the best advice possible. He was taking aim when he suddenly realised that the wind conditions had changed. Seeing nearby two men whose coats were covered with badges, he asked what adjustment he should make. One of the men turned to him and said, deliberately, "You find out for your — self!" And that is precisely what Wally Hammond did, and has been doing ever since.

Fritz Lamberg is a Production Engineer, aged 45, and lives in Hampstead. He belongs to the Johnson Matthey, Wandsworth and Embankment R.C.s and this is his fifth shooting year.

He has been to Bisley twice before. In 1948 he won the Jaeger Trophy, Class C, and in 1949 he came 27th in the Grand Aggregate of A and B classes.

His rifle is a Remington 37 with Mastic bedding, and for this competition he used Western Super Match Mk. 2 ammunition.

Like Wally Hammond he has picked up his experience as he has gone along, but he considers it is essential for a man to get plenty of training at an outdoor club before coming to Bisley. In this connection he has found the book on outdoor competition shooting by A. G. Banks a great help.

When asked how he felt about just missing the trophy himself, he answered sincerely, "Nothing could have pleased me more than that my friend and team-mate Wally Hammond won it."

TIE BETWEEN THREE

The Class A Aggregate Competition; won after a tie-shoot between three men, by E. A. Spireti.

E. A. Spireti, known variously to his friends as "Geeser" or "Macaroni," is 36 and lives in Stockwell. His clubs are Wandsworth, the L.P.T.B., the Sutton Transport and, for full-bore shooting, the City R.C. He works as an electrical engineer for London Transport.

He has been shooting for two years, and got himself secondhand a 1936 12/15 B.S.A. which still has its original barrel. He reckons that at least 20,000 shots have been through it. It has electrical and mastic bedding with a trigger of his own make. His ammunition is Peter Dewar Match.

Altogether he has been shooting for two years, and his first time in Bisley was in 1949, when he came down for a week-end, blazed away at everything there was going, and then went back home having seen what things were like at the meeting. In the full-bore of the same year he reached the King's 100.

CLASS B AGGREGATE

The Class B Aggregate was won by Ron Middleton, of Bromley, Kent.

He belongs to the Lewisham and St. Nicholas R.C.s. He is 25 and is an engineer working on milling machines.

He began shooting three years ago and went to the 1948 Bisley meeting, where he was in Class C. His performance was average, and he was prevented from making a better showing at the 1949 competition through an attack of appendicitis, which kept him away. By this year his average had increased to 98.3, and so he entered the B class only, feeling that he would be out of his depth in the "Robert's" Cup.

He used a B.S.A. 12/15 rifle, modified with a band on the fore-end to clamp the floating barrel and EZXS ammunition.

At the end of the first day's shooting, which had been very wet, he was 12 points down, and in the average class again. Next day, which was ideal shooting weather,

he surprised himself. "I found them going in one after the other." By the end of the day he found that he had won the whole competition on aggregate points. And not only that. With the double 50 and the double 100 he scored a possible (400), and so is eligible for the 400 Club, into which he has been elected.

WOMEN'S COMPETITIONS

The "Flowers" Trophy was won by Mrs. W. H. Hyde, who comes from Salisbury and has been shooting for two years. In 1948, when she came to Bisley, she had no classification, in 1949 was Class D and this year she is Class A. In 1949 she won the Jaeger Challenge Bowl in Class C, and the women's Class B Postal Shoot, while this year she won the Kent Trophy at Glasgow.

Her rifle, a Winchester 52, used to belong to her husband, and is fitted with a Johnson barrel. He has shortened the stock to suit her more comfortably. She uses Palmer Kleanbore ammunition.

Her clubs are Salisbury and Worpleston. In the Home Counties Women's International match, which was won by England, the highest scores were made by Mrs. G. Broughton and Mrs. A. B. Culf with 296 each; both of the England team.

PISTOL SHOOTING

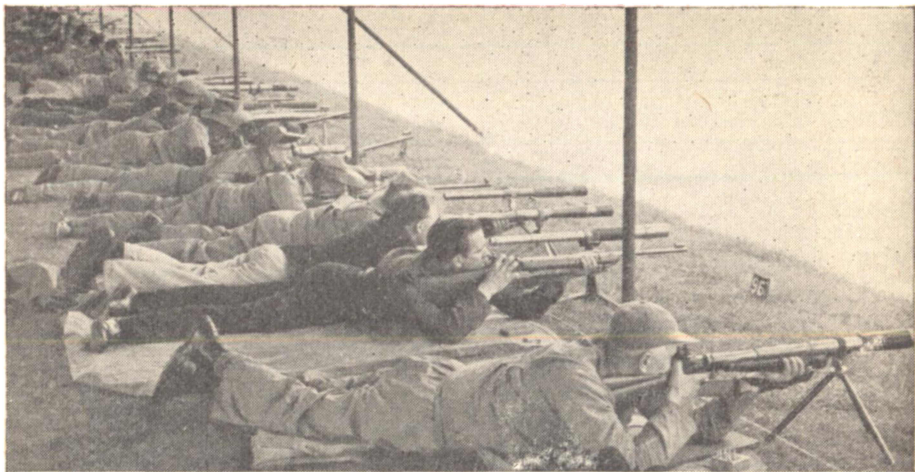
The winner of the Individual Pistol Championship, A Class Aggregate, was G. C. (Gog) Horsman. He is a man who has had difficulties to overcome. His neck was broken in the Italian campaign, and he spent seven months in a plaster cast, which was removed in May, 1945. He took up rifle shooting at the end of 1946 and pistol shooting in the beginning of 1937. He won the C Class Aggregate in the N.S.R.A. Rifle Competition in 1949, and this year with an A classification his performance was average. But since it is a strain for him to hold a rifle for long periods, he is still to be congratulated.

He uses a Colt Match Target Pistol, which he got secondhand. Shortly before this competition, the rear sight was broken, so he fitted in a spare from a Webley, wedging it with a piece of cigarette packet. He used I.C.I. ammunition.

Even more than his own personal success he was delighted with the results of the County Pistol Championship. His own club, Surrey, of which he is the secretary, breaking into Middlesex's long run of victories.

He finds that one of the advantages of coming to an open meeting like Bisley is that one learns to accustom oneself to the nervous strain of the conditions—and that is half the battle.

He is 44, and lives in Sutton, Surrey.



Above : England team (small-bore rifle) firing.

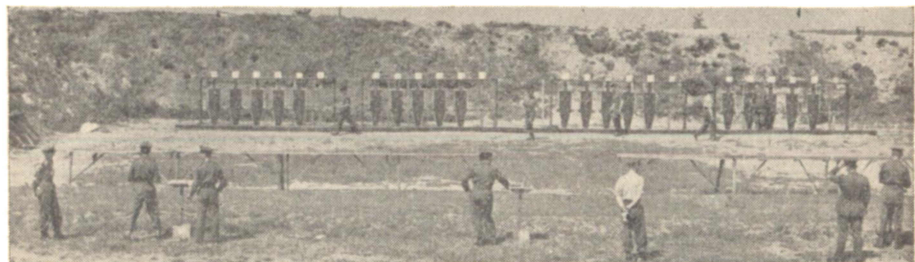


Left : Trigger-testing, before the "King's."

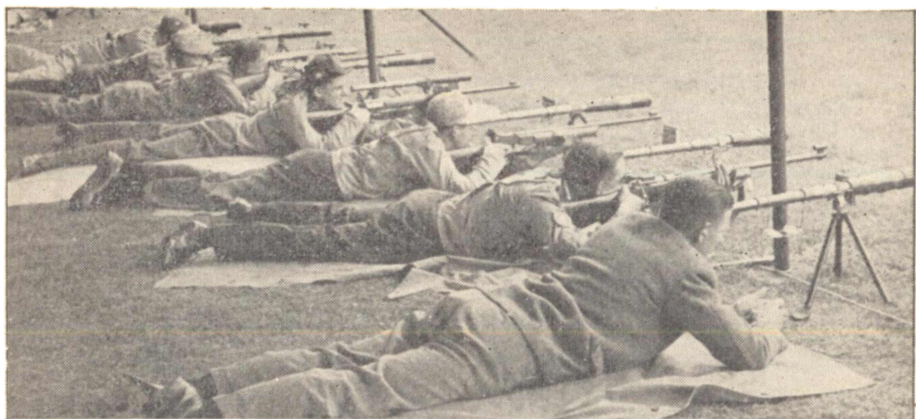


Above, right : Colonel Gould fires from the sitting position.

Right : C.S.M. "Bill" Meaker, Army pistol champion.



Services Meeting, pistol silhouette range.



Above : *Surrey team (.22) firing in Queen Alexandra Cup.*



Left : *The English ladies' team.*

Right : *R. D. Greig, King's Prize winner, being carried in the chair after his victory.*



The Marksman

Left : *Watching the score-boards.*



Right : *Harry Johnson, oldest member of the English team (.22 rifle), and the highest scorer.*



Right : *The tie-shoot for the "Roberts."*



Left : *Mrs. Elsie MacCrae, wife of the Commandant of the Canadian team, and the only woman competitor from N. America.*

Right : *Waiting for a "bed" on the free ranges.*





Above, left : *Scottish cadets.*



Right : *Selecting ammunition.*



Right : *Firing in the second stage of the "Roberts."*



Left : *Shooting in the Whitehead competition.*

The Marksman



Left : Military band escorting Greig after he had won the "King's."

Right : English ladies' team firing.



Above : England small-bore International group.



Above : *English team Kolapore winners.*



Left : *Sgt. E. F. Bach shooting in the final of the "King's."*



Above : *Scottish International Small-bore team.*

The First Open Meeting

By "TWO-TWO"

ONE day when I was having a comfortable practice on the 25 yd. range the skipper came over and told me that I was wanted to shoot in the National "A" team. So I went to the 100 yd. firing point where I managed to score 590. This, I considered pretty satisfactory, but someone said it had probably cost us the match.

The next thing that happened was a suggestion that I might get my entry in for the aggregate at an open meeting which was being held a fortnight hence. I might be shooting in the team. And so it turned out.

On the day, the skipper and the two other members of the team shepherded me to the competition tent.

I had never seen such a crowd of shooters. Very obviously everyone was an expert—at least up to Dewar-class shooting. They all seemed to have so many badges on their backs that I felt quite naked with my one club badge. After very shyly donning my home-made shooting-jacket there came the trigger-testing ordeal. Although it had been tested dozens of times within the last few days, I had visions of being drummed out because it would not take the three-pounds weight.

However, all was well, and I was given an envelope with masses of sticky tickets inside. These had to be put into my programme until required and there followed instructions on how to hand them to the Range Officers.

Eventually, on being told that 100 yards was just right for shooting, I managed to get down between two Internationals! That first shot just would *not* go off and when, at last, it *did* go, it seemed certain that the remaining nine could never be fired in the seven minutes allowed—but in the end I had three minutes to spare.

Although it was dead calm between my shots, a tornado seemed to rage when I was actually shooting.

However, a very comforting discovery was that the rest of the competitors were human beings after all, and most helpful at that. When the man on my right (with a Dewar badge and three chevrons) suggested "four right and two up" and the man on my left told me to "hold it" until a gust died down, I could hardly believe that they were speaking to me.

Between them, I got quite a few hanging

on to that elusive 10-ring, and although I was petrified when the team sticker went on my card, my confidence was growing.

It was quite a thrill to see my scores go up on the cards outside the Stats. (particularly the good ones!) and what followed may be counted as one of the most enjoyable days shooting that I have ever had.

All this happened years ago and I have since attended many similar meetings with varying success and enjoyed them all. I would like to give this advice to any competitor who has not shot at one before:

Go to as many open meetings as you can. You will enjoy them and it will improve your shooting.

Before you go, make sure that your trigger will carry the weight, and check over all equipment.

Have a good 'scope for spotting your shots.

Don't worry about being a tyro—all the experts were the same at one time.

Fix your "stickers" by one corner into your programme, using a separate page for each distance. Make sure that you bring enough "Unlimited" or "Practice" tickets and have these on a separate page.

Don't thrash your legs about or speak to the next man or over him when he is shooting. Wait until the men on either side have finished shooting before getting up or speaking.

Don't rush your shooting—you will find that there is ample time allowed for the card.

Don't be overcome by the occasion—remember people are not all watching you or your scores, and if you're in trouble, ask for advice. I'm sure that you will find everyone most helpful.

THE MERCURY CURE FOR LEAD IN THE BARREL By "TWO-TWO"

ONE method of removing lead from a rifle barrel involves the use of a small quantity of mercury, which can be obtained from a chemist's shop.

Clean the barrel out in the usual manner with oil and then with dry patches.

Plug the breech end with a tight-fitting wooden plug, and then pour in the mercury.

Place the thumb over the open end, and shake and twist the barrel for some minutes; the lead will amalgamate with the mercury, which can be poured out into a bottle to be used again if required.

After removing the lead, the barrel should be polished, as it is more than likely that there is a rough patch inside the bore which caused the lead to stick.

Where are the Ladies?

By MRS. J. C. KAIL

"I WISH my wife would take up shooting." This remark, made by one of the male members of a certain small-bore rifle club, made me wonder why it is that comparatively few women show any active interest in the sport. At most clubs women members are very much in the minority, and their absence is also noticeable at open and national meetings.

Why should this be so? Perhaps because the idea seems prevalent that guns and shooting are a man's pastime. And yet shooting is one recreation in which women can participate on equal terms with men. No great physical strength is required, and postal and open competitions are open to all.

I was most sceptical when introduced to small-bore shooting. I had never held a rifle and I knew absolutely nothing about firearms.

But after my first "shoot" I was enthusiastic and wanted to learn. At first, the conversation of fellow-members, liberally sprinkled as it was with references to "bundles," "actions," "elevations" and "windage" was unintelligible, but by asking questions and by keeping my eyes and ears open, I gradually came to understand.

The first step in my technical education was learning to clean my gun. This seemed to me then a major operation, but later it became a matter of routine. I have since progressed a little further and have even re-bedded my rifle—with satisfactory results.

The apparent weight of a rifle frightens off many potential markswomen, but it is a mistaken idea that a target rifle is too heavy for a woman to handle. I use a rifle which weighs nine-and-a-half pounds, and have used one weighing fifteen pounds.

I find that I am not nearly so steady when using a lightweight rifle.

You *don't* have to hold the rifle up, and if you have a properly adjusted sling, the weight is considerably diminished.

And don't let the cost of equipment deter you; most clubs have rifles available and telescopes for spotting.

No woman should take up this sport if her appearance is always uppermost in her mind as there is very little glamour in slacks and a shooting jacket—which is, to my mind, the best wear for the range. You need to be comfortable, unaware of your clothes and, above all, warm enough. Chattering teeth and a shaking hand are not conducive to good scores.

Age need be no obstacle, provided that your eyesight is reasonably good, and, in any case, glasses can be worn, or a lens may be fitted to the rifle itself.

I know one woman of sixty-six who still enjoys regular shooting on both full-bore and small-bore ranges.

Women members are welcome at most clubs. There may be, in a few places, a tendency (usually among the more aged members) to discourage the efforts of women, but such cases are rare. Generally speaking, you will find that fellow members are very willing to give helpful advice and to coach you while shooting.

The trouble is, sometimes, to sort out the hints—because everyone seems to have his own ideas about firing positions, sighting and trigger-squeeze.

Concentration and co-ordination of eye and hand—plus a little normal intelligence—seem to me to be the ingredients of good shooting. Surely these can be acquired and perfected by practice—and more practice—just as easily by women as by men?



A woman competitor at this year's Scottish National meeting at Rouken Glen.

News from all Quarters

ENGLISHTOWN sub-district, with a score of 454 points, won the Coleraine area "B" Special Constabulary rifle competition at Moneydig range, Northern Ireland.

Glasgow won the team competition for the Holyrood Cup at the open meeting of the Scottish Police Small-bore Rifle Association held at Seaton Park, Aberdeen.

The 4th Essex Home Guard Rifle Club beat Bishop's Stortford Home Guard R.C. by one "bull." Each team scored 511 out of a possible 630 points so the match was decided by a count of bulls.

The "Belfast News-Letter" challenge cup for the Ulster individual championship was won by T. D. Ward, Roe Valley, with a score of 789.2. F. H. Craig, C.I.Y.M.S., was second, and G. Turner, R.U.C. The women's individual championship was won by Miss L. Stewart, Clawdeboye.

R. Skinner won the shield for the best aggregate score at a clay-pigeon shoot held by the Sid Vale gun club at Sidford.

At the Aberdeen and District Small-bore Rifle Association "Wapinshaw" at Seaton Park, A. Cannon (Turriff) won the Hon. President's trophy with a score of 300. Miss Rattray (Aberdeen Ladies) won the "Press and Journal" trophy and the G. Strathdee trophy. Miss B. Craigmyle (Home Guard) was first in the competition for the N.S.R.A. trophy.

Eaton Rifle Club, Norwich, has a new range which was declared open last month by Dr. B. B. Rose, the club president.

Cyril Firth won a pewter tankard presented by the president of the club, Mr. H. Scott, at a Huddersfield Rifle Club shoot.

For the second year in succession, Major R. M. Parsons, Royal Ulster Rifles, won the King's medal and the championship of the Army Rifle Association. The title of Champion Young Officer was won by Second-Lieutenant J. Dalby, Parachute Regiment, who last year, as a rifleman, was awarded the title of Champion Young Soldier.

The 1st Battalion, The Rifle Brigade, won the K.R.R.C. Cup, Unit Championship of the British Army.

A new Yorkshire rifle club, Conisbrough British Legion and Home Guard, was formed last month.

Herts. Meeting

The open prize meeting of the County of Hertfordshire Small-bore Rifle Association will be held at the S.T.C. Ranges, New Southgate, on September 9th and 10th. The Hertfordshire hon. secretary is Mr. R. T. Garner, "Ingleside," Hitchin Road, Stevenage, Herts.

An Open Meet organized by Leeds and District Association of Rifle and Revolver Clubs will be held at Meanwood Woods, Leeds, on Saturday and Sunday, September 9th and 10th.

Small-bore riflemen at Consett, near Newcastle, have asked local farmers if they may help to rid the land of rabbits.

C. W. Harvey won the all-comers' competition at Worthing Home Guard Full-bore Rifle Club annual prize meeting.

At the annual open shoot of the Keighley Rifle Club, F. M. Barnes, Bradford, won the "Keighley News" Rose Bowl, the Grand Aggregate, the Open individual championship of Keighley and District, and the F. Varey Trophy. W. Alred, also of the Bradford club, won the Keighley R.C. individual championship and the F. Pickles Trophy.

The electrical bedding developed by Edwards ("Pete") Brown, vice-president of National Shooters Supply Inc., Washington D.C., U.S.A., is being made in England by John C. J. Knott, Ltd., Kingston, Surrey, sole licensed manufacturers in the United Kingdom. Edwards Brown was a member of the staff of the American N.R.A., and is now in partnership with Arthur Cook, 1948 Olympic small-bore champion.

Hampshire Postal League

Nine hundred competitors fired in Hampshire County Postal League matches during the 1949-50 season. The number of "possibles" recorded was 350, and there were 813 "ninety-nines."

At a clay-pigeon shoot at Taverham, Norfolk, G. Platt of Yarmouth won the Aggregate Cup with 39 out of a possible 40. It is hoped that the shoot will become an annual event.

Lowestoft Division of the East Suffolk Constabulary won a shooting match (.303 rifle) against Norfolk County Police at Pakefield. Bisley targets were used, and shooting with a fairly strong 3 o'clock wind, the winners put up a score of 1,182 against 1,108. The highest scores were 111 by Inspector B. Riddlestone, Sergeant Gooch and Special Constable Bell, all of the Lowestoft team.

Gun Sale

More than £3,000 was realised at a gun and fishing-tackle sale held by Messrs. Knight, Frank and Rutley at Hanover Square, London. About 100 guns were available for sale, ranging from specimen pieces to rook rifles. Guns by Purdey fetched £125 to £150 each and Holland and Holland realised £100 for a single gun. Guns by other well-known makers such as William Powell and Son, Cogswell and Harrison, Greener, and Boss, realised £50 to £80 each.

A team of riflemen and light machine-gunners of the 4th Battalion The Royal Hampshire Regiment have won, for the first time, the championship of the Territorial Army. This championship carries with it the China Challenge Cup, a silver trophy valued at £1,000.

Leys School, Cambridge, won the Ashburton challenge shield, at Bisley, with 513 out of a possible score of 560. There were 77 other teams entered for the event, more than there have been for several years. Epsom College were second with 507 points after a tie-shoot with King's College School, Wimbledon.

Stolen Pistol

Stolen from the display tent of the Shooters Supply Company at Bisley, the following pistol: No. 7643, calibre 7.65 (.32), made by "MAB." The Shooters Supply Company and the parent firm A. H. Mitchell (Firearms) Ltd., would be grateful if any person who obtains possession of this pistol would notify them direct at 194 Gt. Titchfield Street, London, W.1, or report to the nearest police station.

The Belgium challenge cup Service rifle competition at Bisley, was won by the Rhodesia Regiment with a score of 558.

County Match

The English Twenty County Rifle Team Match was won by Surrey with a

score of 1,111. Sussex was second, and Northumberland was third.

The Royal Marines won the United Services Challenge Cup. They had a lead of eleven points over their nearest rivals, the R.A.F.

Corporal J. G. Proudfoot, Royal Scots, won the Elkington Aggregate Challenge Cup with a score of 91 points.

Chief Petty-Officer Crook, Portsmouth, won the Navy revolver championship with a total score of 328.

Other Bisley Results

Wednesday Aggregate: (1) C. W. Lewis, East Lancs. A.T.C., 147; (2) Major R. A. Fulton, 147; (3) G. T. Pearson, Manchester R.C., 147.

St. George's Challenge Vase: Flt.-Lieut. G. Richardson (after a tie shoot with Major R. B. Hodgson), 73.

The Loder: Major H. C. Patrick, Surrey Yeomanry, 97.

"Daily Mail" Prize: Miss B. Badcock, South London R.C.

Donald Smith: Sq.-Ldr. Laceby-Stevens, R.A.F.V.R., 100.

King's Veterans: Capt. H. J. Vodden, Devonshire Regiment, 99.

Northland: Cpl. G. H. Emperingham, Canada, 73.

"Times": Lt. A. G. Warne, City Rifle Club.

Grey Squirrel Shooting

By L. R. JAMES

HOW many .22 enthusiasts realise the sporting possibilities of the grey squirrel?

Even the keenest target man will admit that making holes in cardboard at fixed distances has its limitations, and in the writer's opinion the grey squirrel offers magnificent sport to the rifleman, and a fascinatingly difficult target to the pistol shot.

The grey squirrel was introduced from America in Victorian times, liberated at Wooburn and London, and has spread widely over the South and West of England in woodland areas, especially in beech and chestnut woods. It has now become a serious menace to agriculture and forestry, and causes great havoc in fruit gardens, and among nesting birds and game.

Grey Squirrel Clubs are sponsored by the Ministry of Agriculture, who issue free .12-bore and .410 cartridges to members—details can be had from your County Pest Officer. These clubs destroy large numbers of the animals each year, and perform a most useful service, but rifles and pistols are not normally allowed to be used as they are officially classed as dangerous weapons! Personally, if I *had* to be shot, I would prefer a .22 wound to the dreadful damage caused by a shot-gun accident. The pistol or rifle gives a clean kill or a clean miss, makes little noise and so causes the minimum disturbance to game, is relatively cheaper, and above all gives the animal a more sporting chance than a shot-gun. It must be admitted, however, that where squirrels are very numerous and must be destroyed, the shot-gun is the more efficient.

Most squirrels are seen in the early morning when they are foraging on the ground, and when disturbed they usually make for the nearest tree, travelling rapidly through the twigs and branches. When moving they are a difficult target for the most skilled shot, but they frequently rest, and sometimes "freeze" into immobility

against a branch, so offering a reasonable chance.

Their meat is excellent eating, and winter-shot skins when tanned make fine gloves, etc. Eighty skins make a fur coat worth £100.

Responsible shots can readily obtain permission to shoot grey squirrels from owners of woodlands, but in case of difficulty the local N.F.U. or A.E.C. can help.

I use a Webley .22 target pistol, but the ideal weapon is a Colt Woodsman with H.V. cartridges. If signs are present, but squirrels seem scarce, targets may be found by getting a companion to poke the dreys with a long pole—sometimes six squirrels may be dislodged in winter from a single drey.

It is, of course, dangerous to shoot squirrels while they are on the ground, and a wounded squirrel should be handled with caution, as they can inflict a severe bite.

Squirrel hunting with a .22 pistol will test the marksmanship, and give most exciting sport to the most blase target shooter.

ALFRED J. PARKER

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The Choice of a Sporting Rifle

By

Lt.-Col. C. H. STOCKLEY

THERE has been such a long interval since the hunting of big game of any kind has been possible, that the number of people experienced in such matters is not nearly so large.

There was the same hiatus after the Kaiser's war, when about one in five survived of the company commanders who would have shown their subalterns the way to start on a big game career—the awful result being that in many cases subalterns took to stink-bikes and poodle-faking instead of improving their figures sweating after markhor or tiger.

The present revival of interest in, not only big game hunting but in wild life generally, is an unexpected and a most pleasant phenomenon.

Though rifles have altered little in the past forty years, their cost has gone up ridiculously. I said as much to one of the oldest members of the gun trade a couple of years ago. His reply was that it now takes one man to make each part of a rifle, somewhere about a hundred in all; to which I rejoined that even forty years ago it did not take ten men to make a very excellent gun or rifle and reversion to such methods might be the answer.

PROBLEMS OF THE NOVICE

However, let us suppose that a novice wants to take up big game shooting and is thinking of buying a rifle, but does not know what conditions should govern his choice.

Firstly, he must decide what he wants to shoot and where he wants to shoot it.

If he is only going deer-stalking in Scotland, he has a wide choice of small and medium bores, from about .256 to .375. But he must not believe that just any of them will do. There must be velocity and weight of bullet to produce a flat trajectory and killing power; and the remaining striking energy when the bullet arrives at its target must be sufficient to ensure a clean kill, which is the object of every stalk.

A rook rifle will not be suitable for stag-shooting.

I have known a railway official in India pot at blackbuck as he went along on a trolley on inspection duty, using a low velocity .300 rook rifle and soft lead bullets for this nefarious work. I stopped him and protested, having seen wounded buck run off, but he said that he quite often killed them with this inadequate weapon. I asked how many he wounded and he replied, "A good few, but you see I cannot leave the trolley to follow them up." Later I had to spend a whole day of my precious leave finishing off a couple of his wounded beasts, one of which had three bullets inside it and would have lived in agony for several days.

.256 MANNLICHER

A good rifle for stag in Scotland and game of similar size was the old .256 Mannlicher, which had a slightly higher muzzle velocity than several others of larger bore, and remaining energy to ensure good killing power. This was brought about by the well-balanced charge and bullet.

Perhaps the best of them all is the .318 used with a 250-grain bullet, with which I have killed cleanly over 100 species of big game of all sizes, and which is the nearest approach to an all-round rifle that I know. Let me say here that there is no such thing as an all-round rifle which I would dare to recommend to a novice for use against every species of big game.

After 35 years' experience of big game-hunting in several countries I came to Kenya with a couple of .318's and got 62 animals with the first 64 cartridges fired from one of them; but when the war came and I found myself compelled to go into really thick stuff, after buffalo and rhino which were doing damage, I got myself a double .450.

At a range of ten yards or less a hit on dangerous game must have sufficient shock to knock it out, and it is not always possible to pick your aiming point.

SUITABLE RIFLES

There are many rifles from .400 to .577 bore which are suitable for dangerous game, provided they are not too heavy for the sportsman to carry for long periods of tracking or still-hunting. Giving one's rifle to a gunbearer when dangerous game is being followed up (or is even a possibility) is a folly for which the sportsman is bound to suffer sooner or later, either in lost chances or actual personal hurt.

If a man decides that he wants to hunt dangerous game and bases his choice of a rifle on its efficiency for this purpose, which means the purchase of anything from a .425 upwards, he need not despise his big rifle as a killer of smaller animals.

Fifty years ago a .450 was almost a small bore, and if one comes across an old Farquharson action (falling block) .450, very likely made by Fraser of Edinburgh, it will probably be found that it has done excellent work in its day against ibex and similar beasts in the Himalayas, or against antelope in Africa.

DOUBLE-BARREL RIFLES

For big and dangerous game most people prefer the double barrel, though it may leave them unloaded after the first two shots. It is a matter of personal preference, for I can get off four aimed shots from a magazine rifle faster than I can two double shots, having to reload between.

Against that, I always reload the empty chamber after the first shot with a double, if there is time—and there nearly always is. I much dislike having an empty rifle in the presence of dangerous game.

For stag, antelope and wild goats, the magazine is most suitable, and a bore from .256 to .366 (9 millimetres) with a muzzle velocity round about 2,500 feet per second quite high enough. Higher muzzle velocity is not a good thing for the bullet will not stand up to the shock of impact at close quarters, but will fly to pieces. This means that it is unsuited for use in thick cover where there is the chance of dangerous game. When the striking energy is too great for the strength of the bullet's jacket it breaks up without penetrating.

SIDE-STEPPING A TIGER

Once, in Siam, I was carrying a .280 in the hope of getting a barking deer on the march through heavy jungle. A tiger tried to take my terrier off the path in front of me and I fired into the junction of chest and shoulder at about ten yards range, and then, as he charged me, into his back at that point where the shoulder joins the spine.

The second bullet knocked him down from only about a yard away, and he slid past me on his chest, then lumbered up and staggered away, dying within a hundred yards in some high grass. Both bullets had broken in small pieces and there were two big cavities of blood and broken splintered bone, but he would have had enough energy left to maul me if I had not side-stepped him behind a six-inch tree.

Never under-gun yourself, even when merely going for a walk, if there is dangerous game about. It is far better to knock a large hole in a small animal than have one made in your own hide by a dangerous one.

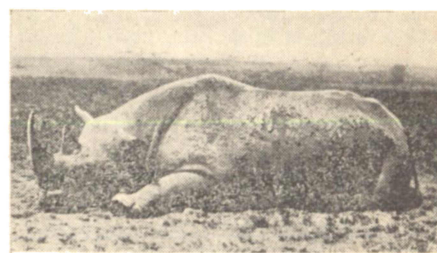
Tests for a rifle should be carried out at 25 to 40 yards for dangerous game, and



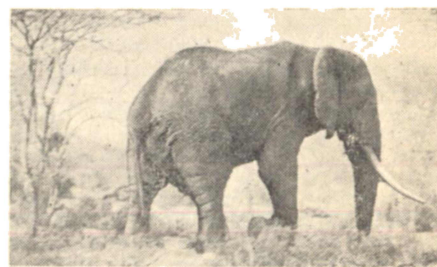
Any high-velocity light or medium rifle suitable.



A nasty place to take on a bull buffalo. Heavy rifle needed.



Heavy rifle needed for this African rhinoceros. No cover available in case of a charge.



Bull elephant on the move, Lower Tana River. The head will be bobbing, so the heart shot must be taken and a heavy rifle needed.

at 150 for all other game. Normally a prospective purchaser is taken to a range and put down to fire the rifle at 100, 200 and 300 yards, with a leaf on the backsight for each range. A standing backsight, without any extra leaves, for 150 yards is all that is needed. With modern flat-trajectory rifles the aim can be taken a couple of inches up or down on the quarry itself. Telescopic sights are unnecessary for anyone with normally good eyesight, but many men like an aperture sight on the bolt or behind it.

Very long barrels are clumsy and badly balanced, and balance is a main quality of a good rifle, which should come up almost on the aiming mark without catching in

the clothing or having to be pushed away from the user. Constant practice in bringing up the rifle, aiming and reloading, should be taken with the eyes on the target, until the rifle is thoroughly familiar. A recoil pad is useful, especially in the case of a man with long arms, as it gives extra length to the stock.

Best of all, before even going to a gunmaker, get someone who really knows to give advice. Do not copy him slavishly, especially if he be an expert using a small or medium bore for everything, but go for safety. Later on you can always sell the big rifle and buy a smaller bore if you feel like taking risks—but never under-gun yourself.

The Rifles They Use

MRS. A. B. CULF, of Sale, Cheshire, has gained so much fame in shooting circles (both full-bore and small-bore) that her fine performance in the Women's International match at the Bisley N.S.R.A. Meeting came as no surprise.

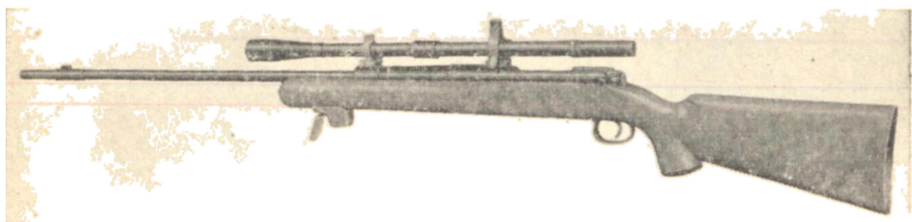
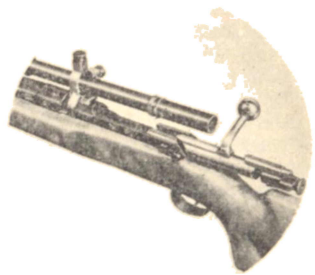
She has been shooting since 1941, and in 1946 competed at Bisley for the first time.

Mrs. Culf belongs to the Manchester City and Cheshire rifle clubs, and her rifle for small-bore shooting is a Winchester 52 with which she uses Peter Dewar ammunition.

The rifle illustrated here has been specially stocked for her in sycamore by J. C. J. Knott, of Kingston.

It is a .303 match rifle and is suitable for use in the prone position. Such rifles are normally used in the back position on the long ranges at Bisley, that is, from 900-1,200 yards.

The action is Mannlicher Steyr, and the bolt handle has been altered and lengthened to permit the use of the telescopic sight. The sight itself is mounted on a metal extension of the receiver and does not, therefore, interfere with the lightweight match barrel.



Gun Fitting and Coaching

By A. J. FOSTER

I TRIED to show in my first article in THE MARKSMAN that owing to the comparatively short range of the shotgun, speed of handling, coupled with accuracy, was the secret of shotgun shooting,

To acquire speed, a good-fitting gun is necessary. I do not believe anyone can shoot really quickly and accurately from the gun-down position unless his gun is a reasonably good fit.

Whether a man needs a perfectly fitted gun or not depends on the standard of shooting he sets himself. If he aspires to the higher forms of shotgun shooting, a correctly fitting stock is absolutely essential.

THE MODERATE PERFORMER

Quite a number of people have the idea that they can shoot with any gun, and often prove the theory to their own satisfaction by using several guns of varying weights and stock sizes and putting up a moderately good show. That is the point. It is possible to put up a moderately good performance, but a man will never become a really fast and brilliant shot in this way.

A perfectly fitting gun is necessary to the game shot, because a man's whole concentration should be focused on whatever he is shooting at. It is difficult enough to work out the varying angles and speeds of

a moving bird, or beast, without having to bother about the gun itself. The gun should slip into position on the shoulder, and follow wherever the gunner looks.

BRINGING THE EYE INTO LINE

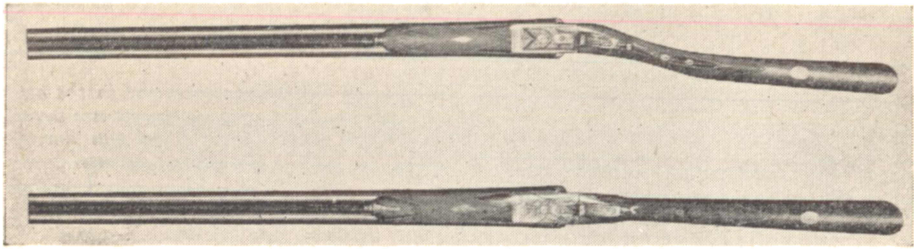
The main idea of gun-fitting is to get the aiming eye into the correct position, as there is no back sight on a shot-gun. The comb of the stock positions the head, and with correct fitting brings the eye into line with the centre of the barrels, and by raising or lowering the head position it adjusts elevation.

A person who wants a gun for an occasional pot shot, where he usually has time to screw himself up into a position to adjust himself to the stock, a correctly fitting stock may not be so important. But for the small outlay in comparison with the cost of any decent gun, he might just as well be fitted. The time is bound to come when he needs a gun that can be used quickly.

Keeping both eyes open is recognised as the best way to shoot with a shotgun. The advantages of this method are manifold; one of the most important being that it is a great help in judging distance. This brings up the question of the "master" eye. The strong eye, or "master," will naturally guide the barrels in their alignment, when



Even experienced shots can benefit by a course of lessons



Comparison between normal stock and one fully cast-off.

shooting with both eyes open. Therefore, when shooting from the right shoulder, and with the right eye being the "master," the gun stock is set, or "cast-off," to bring the right eye into line with the rib in the centre of the barrels. The amount of "cast-off" will naturally vary with the build of each particular person.

TRIAL AND ERROR

Where the left eye is the "master," several methods can be tried, such as having a fully "cast-off" stock—that is a stock set so that it is possible to get the left eye into line with the rib, but still butt the gun on the right shoulder. Another method is to blot out the left eye by using a disc that fits on the left side of the barrels, or using the gun from the left shoulder with the stock "cast-on"—that is, the opposite toe "cast-off."

The modern shooting school with its lay-out of clay-bird traps set to simulate the flight of practically any type of game bird, and modern "try" guns, with their completely adjustable stocks—to say nothing of the gun fitters and coaches who spend their lives correcting shooting faults—provide the answer.

If a man can afford it, the very best way to get a correct stock fit, is to take a course of lessons at a shooting school. Here he can shoot with a "try" gun, that has been set to his particular style and build. As the course progresses, the gun-fitter will make alterations to the stock as he sees necessary. In this way, by the end of the course, the stock fit should be as near perfect as it is possible to get.

I say take a course of lessons, because unless a man has done a lot of shooting and developed a very consistent style of gun-mounting, it is very difficult for a gun-fitter to fit correctly at one session. It must be obvious to anybody that a person who butts his gun on the edge of his shoulder for one shot, and close up to his neck for another, will need a different measurement for each shot he fires. The same thing applies if the stock is placed higher or lower on the shoulder, or the head altered in its position on the comb of

the stock.

We all have our faults and peculiarities of style. The aim of a good gun-fitter or coach is to iron out these faults and give us a stock that will help us in our particular style. Even an experienced shot would benefit by a course of lessons. Even if he did not learn a lot more about the actual shooting technique, the gun-fitter would be able to note his average or consistent style, and fit accordingly. A man cannot tell what he is doing when he shoots. The faster he has to shoot, the more mistakes he makes. This applies to every type of shooting, whether it be with pistol, rifle, or shotgun. So it is very necessary to have someone to watch and see what happens.

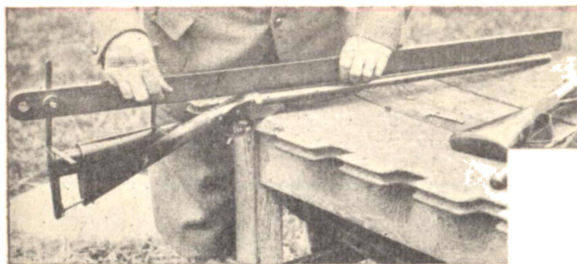
MEN WHO SHOOT WELL

I know there are men who shoot well with guns for which they have not been fitted, and who say that they have never been coached. It will usually be found that, by luck, they happen to have got hold of a gun that is a reasonably good fit, and that they have been coached by older members of the family or by friends. Or, by being very interested in shooting, they have over a number of years, picked up information and tips, and applied them to their shooting. And again, there are people who have become good shots by reason of the enormous amount of ammunition they have fired.

To acquire shooting skill in this way and without guidance, is a matter of doing a thing over and over again. Finally, by the process of trial and error, the body, hands, eyes and feet, adapt themselves to what is wanted. This system, however, requires such an expenditure of ammunition and takes so long, that it is not worth considering as a possible means of acquiring shooting skill, especially in these days when ammunition is so expensive.

How much better to take a course of lessons and in a few weeks be fitted perfectly.

Another thing that will show up during a course of lessons is the weight of gun that best suits a man. A lot of bad shooting is caused by a man being "over-gunned."



In this picture and in the one below, measurements are being taken from a try-gun during the fitting process.

When trying the weight of a gun in a shop, it may feel quite light, and easy to swing around. On a short walk, with half-a-dozen shots fired, it may seem perfection.

LATE IN THE DAY

Not so late in the afternoon of a hot autumn day, when one has walked 10 miles or so, stumbling through root crops and stubble fields walking up partridges; or late in the day shooting driven birds, when that split-second handling of the gun is necessary to make a decent score. Many times have I seen men who would shoot well for the first hour or so, but then seem to lose all their form. The reason was usually plain to see, that tell-tale shifting of the gun from the ready position to the crook of the arm or to the shoulder; the barrels drooping down and occasionally catching up in the undergrowth; the slowness in bringing the gun to bear when game got up; and the plainly shown low shots at ground game or low-flying birds. Every man should go into the question of what weight gun he can carry and use effectively all day.

GRAB THE NEAREST

I remember a certain person, connected the gun trade, who used to shoot with me. His idea of choosing a gun for a day's shooting was to grab the nearest one to him from his large stock, sling in a few boxes of cartridges, and off he would go. He maintained that he fired so many guns of varying stock sizes and weights in the course of his work that he could adapt himself to practically anything.

The climax came, however, when we arrived at the shoot on an extremely hot day in September for a day's partridge shooting, to find our friend had picked a 3in. 12-bore wild fowl gun weighing about 9lbs., and, as I know, shooting about 80 per cent pattern. The gun's previous owner had been of large and robust build, and needed a very long, deep and well "cast-off" stock. To see our friend going into action with this

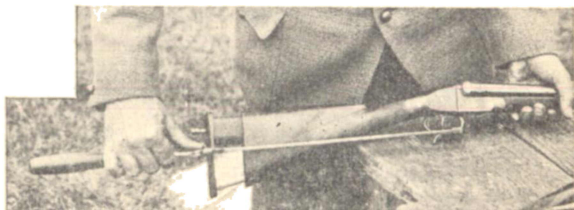
weapon was a sight for the gods; as he was not a big man by any means. Up would go a bird; up would come the gun. At least, the butt came up, with the barrels following some appreciable time after. His right hand clawed madly for the trigger; his left did a levering act to get the barrels raised; while the large stock pushed his head up with the comb and dug into his chest with the toe.

ONE BIRD IN THE BAG

His bag at the end of the day was one bird; and that was a bird which had beaten the line of guns and flown wide over our friend. Because of this he had plenty of time to get into action and his close-shooting barrels did the trick. As he had "wiped all our eyes" in this instance, he was satisfied, but I noticed that the next time he came out with me, he erred decidedly on the light side, and used a gun that he had been fitted for, and shot very well.

In fact, it was the good shooting that he did with his own gun that forced him to sell it. People seeing the gun cut down game, right and left, would make offers for it; and, at last, one offer was too good to refuse, so the gun was sold. From then onwards, his shooting went all to pieces.

One thing I would like to stress is that once a man has been correctly fitted, he should stick to the gun and measurements, and not play around with other ideas of gun-fitting. I speak very feelingly, because there was a time when if I missed a couple of shots at one particular angle, I immediately got the idea that my stock needed some alteration. I was constantly altering the stock (though I had been



fitted) by packing it up with pieces of cardboard or wood, bound on with adhesive tape.

EVERY MONTH

On a few isolated occasions I actually turned up at a shoot with the stock festooned with packing. This is something I shall never live down. At one period I should think I was actually having the stock altered by the stockers about every month. A couple of misses at one particular angle and off I would go on some idea of improving the stock fit. The stockers must have been highly amused when my gun came in for these weird and wonderful alterations. I would remain in feverish suspense until the alterations had been carried out; then as soon as I got the gun back, I would tear off to try it on "clays"; thrown at the particular angle that I had missed at previously. Going down fresh and with nothing to do but concentrate on one particular type of shot, I would invariably shoot well. I would then be at peace with the world until a couple of misses would start the ball rolling again.

Anyhow, the result of all this was that I did learn something about gun-fitting (apart from finding out that my original measurements could not be improved on). It was experience dearly bought, and I hope no reader will be tempted into trying the same thing.

PRACTICE

Do not expect too much of your gun. You must do your part as well. Practice is necessary to keep in form. I have known quite a few men who would take lessons, be fitted, and have guns built for them. They would shoot quite well for a season, and their guns would be put away and not touched till the following year. They were always most surprised at the poor show they put up when they started shooting again, and usually blamed the cartridges, or anything but themselves.

It has always struck me as curious that men who will go to infinite pains to get the right type of gear for any other sports they indulge in, never seem to think that their shooting should come in for the same attention. Even riflemen, who will go to any lengths to ensure that their rifles are a perfect fit, are inclined to treat their shotguns as mere "Cinderellas." How often have I visited an enthusiastic rifleman and been swamped with details of altera-

tions and gadgets he has had fitted to his rifle, and then, on enquiring as to whether he did any shotgun shooting, to be shown a rather "moth-eaten" specimen of a scatter-gun, and blandly told "if course this is only a shot-gun."

The procedure adopted by most shooting schools is usually as follows.

First, the pupil is sized up and given a "try" gun with the stock a rough fit. Then he takes up a position about 25 yards from a large plate that has been washed over with a white solution. In the centre of this plate is a mark. (Some schools use a moving mark and others a stationary one.)

The pupil is told to bring the gun up and, without any pause for adjustment of aim, to fire. A number of shots are fired in this way with the gun-fitter making alterations, until the pupil is covering the aiming point each time. Most schools use a stationary mark at the start, then go on to either moving marks—that is, a target moving up and down and from left to right—or stationary marks in several positions; the gun-fitter calling out quickly which one his pupil is to shoot at.

The idea is the same in each case; to make the pupil shoot quickly, and without taking deliberate aim.

When the gun-fitter is satisfied a move is made to a single-rise clay trap. Here the pupil fires a series of shots at simple "going-away" clay-birds. After this, it is at the discretion of the fitter as to what the pupil does, and depends really on how he has shaped.

There is the "walk" where he can be given shots that simulate "walked-up" partridges.

The "driven partridge stand," where "coveys" of clays are flung over a hedge.

The "grouse butt," where the shooter takes birds in front and behind.

Then various stands where the shooting is at clays thrown from heights varying from 30ft. to 120ft.

CLAY PIGEON SHOOTING

In the article entitled "Clay Pigeon Shooting" which appeared in the July issue of *THE MARKSMAN*, we omitted to state that the diagrams used were taken from the C.P.S.A. Handbook and reproduced by kind permission of I.C.I. Ltd.

Shooting in Switzerland

By The President,
Societe Suisse des Carabiniers

To the people of Switzerland, marksmanship is something more than a sport. Shooting with the rifle and pistol is regarded as an art, and, at the same time, as an occupation inextricably bound up with the liberty of the nation and of the individual.

EVEN before the discovery of powder, we find some references in the works of ancient societies, or fraternities, of marksmen to the cross-bow in the reign of Peter II of Savoy about 1255, and as early as 1314 in Zurich. At Lausanne, the Brotherhood of Archers, officially recognised and supported, was founded in 1378. Of shooting societies still existing, the most ancient is at Grandcour, which dates from 1381. This society, "the Militia of Grandcour," has now been in existence for about 600 years.

FIFTEENTH CENTURY

In the 15th century shooting societies grew up all over Switzerland—automatically, as it were. Shooting festivals, which made their first appearance towards the end of the 14th century, expanded considerably from 1400 onwards. We find them everywhere, the majority enjoying government grants. Many of these festivals lasted from eight to ten days. We contend that the customs of our ancestors survive more strongly than ever.

From the foundation of the Confederation, shooting, be it practised with javelin, sling, arquebuse, musket or gun, has always been very popular. Moreover, for a long time important historical events have been celebrated in many regions by

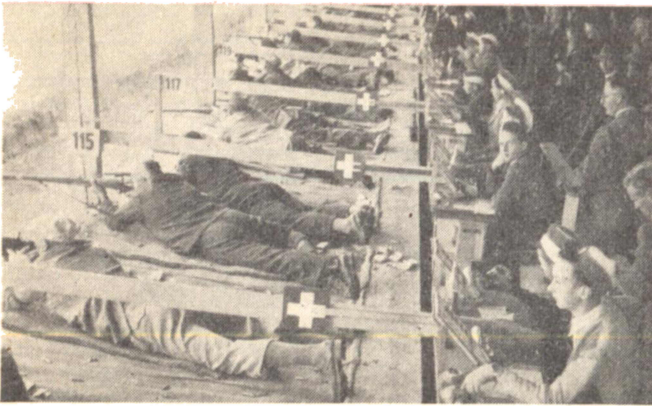
a shoot. It must also be remembered that the majority of ancient societies were of a military character. Aided and supported officially, they enjoyed real benefits. Even the marksmen obtained exemptions. In the Pays de Vaud in particular, the shooting king of the popinjay (a kind of wooden bird) was exempted from taxes and dues for a year.

COMING OF FIREARMS

The introduction of the gun must have brought about an increase in the liking for shooting. In 1653 the first company of fusiliers, armed with the steel gun, was organised at Berne, while in 1751 the first company of riflemen, composed of volunteers and poachers, was formed at Aigle.

Firearms were improved in the following stages: in 1851 came the federal rifle, firing from 200 to 1,000 yards; in 1863 the Swiss infantry gun was manufactured, to the extent of 58,507 pieces at Fr.78. Soon after appeared the Vetterli, then the 7.5 gun in 1889, which we have just sold at the rate of Fr.5 a piece; then the model 11, followed by the present gun, model 31. Our gun 31 can be considered one of the finest of all the arms in the world.

It was in 1820 that the idea of bringing together all Swiss marksmen was conceived. It was not easy to create an opportunity,



Young men, and the elderly rifleman.

that is to say, to organise a large gathering at a central place where all the marksmen of the country could meet.

The Swiss Society of Riflemen (S.S.C.) was founded during the federal shoot of Aarau, which took place in June, 1824. It has just completed its 126th year of existence. The ideals of the S.S.C., expressed by all the "statutes" from 1824 to 1948, has never varied. They can be summed up as the love of shooting; love of the fatherland; assistance in the defence of our country; and the maintenance of our liberty and independence.

WORLD-WIDE REPUTATION

Through the Swiss Society everyone helps to maintain the world-wide reputation of the Swiss marksmen. The brilliant successes obtained by our marksmen at the time of the International matches had their origin in our inter-cantonal matches, which take place on the occasion of the

federal shoots, the first being at Berne in 1910. A book inscribed in gold giving the results of these matches is kept in the Swiss Museum of Riflemen at Berne. One of the factors which contributed most to the great expansion of the S.S.C. was certainly the creation of the federal competitions for the divisions in the country.

EFFECT OF WARS

The first world war, like the second, strengthened the S.S.C., not only by the large increase of its force, but chiefly because everyone came to appreciate more than ever the value of voluntary shooting.

It was only at the beginning of 1876 that compulsory shooting was instituted. The issue had been raised in 1862, but without result. In the early days compulsory military shooting could be practised not only in a shooting society, but in any association containing a minimum of 15 members, whose leader was an officer.



Civilian marksman and infantrymen.



A time for ceremony . . .



. . . and for food.



All these pictures were taken at one of the great Swiss shooting festivals.

The military authorities soon realised, however, that it was only in shooting societies that shooting was practised seriously, and that these societies were the best equipped for developing shooting in our country. Those are the reasons why the federal Council, in its order of 1883, made it obligatory for all marksmen to join a shooting society. Since shooting has grown up, results have steadily improved. The shooting programmes have followed the evolution of arms. From 1894 to 1912 compulsory shooting took place at distances of 300 and 400 m. since one did not shoot more than at 300 m. (328 yards).

Side by side with the compulsory programme, the federal authorities set up in 1893 an optional programme, which is to-day the programme for shooting in the country.

TACTICAL EXERCISES

In most of the compulsory and optional exercises some tactical exercises were included, by federal orders and regulations dating from 1876, and these still exist under a different name. We must, however, admit that these exercises are less and less popular by the societies, due to the fact that the ammunition is not free and that no aid is given.

Referring to pistol shooting, it is only in the last few years that this has grown. The reasons are two-fold. Firstly, it is not compulsory; and secondly, it is only recently that newcomers to this sport have had an equal claim with riflemen to the federal subsidy.

One of the finest activities of the S.S.C. is, without doubt, the instruction of young people. It can be said that at all times young people leaving school have been trained in the use of arms. The Confederation, however, like the State, has only been concerned with this question since 1875.

ORGANISATION

Current practice provides that the organising and administering of the courses for young riflemen should be entrusted principally to those shooting societies which are legally recognised.

As you will have seen from this brief historical sketch, if the S.S.C. has not changed in its ambition, it has on the other hand changed in its structure. It has taken on an even greater importance over the years in proportion as its tasks have multiplied. By all the means in its power, and without relaxation, it has endeavoured to fill an eminently patriotic mission; in addition the work which it entails is enormous. In order to give you a picture, here are a few figures.

At its inception, besides the gathering under a central banner of its members, it only undertook the organisation of federal shoots. The federal shoot of Aarau in 1824 had seventeen targets, and an endowment of 15,000 and 2,000 Fr.—gifts of credit. Our present federal shoots have more than 300 targets, lasting between 18 and 20 days. The endowment has been raised to nearly 2,000,000 Fr. and the gifts of credit to about 400,000 Fr. During a federal shoot three-and-a-half million cartridges are used. The total amount of funds exceeds thirty-five millions.

GROWING POPULARITY

The total strength, which was 571 in 1824, has risen progressively. In 1880 there were nearly 7,000 members; in 1900 there were 69,000; in 1924 the number rose to 181,500 and to-day there are no less than 446,000, divided into 4,370 sections. At the end of last century, 515 sections were taking part in the competitions of country groups, with 11,622 marksmen, whereas now there are 3,500 sections with 175,000 competitors at the 300 m., and 750 sections with 1,600 pistol shooters, giving a total of more than 4,000 sections and 190,000 marksmen.

As for the ammunition used, both free and paid for, it amounts to about thirty-five millions.

FRIENDLY RIVALRY

The S.S.C. is constantly endeavouring to improve shooting and encourage shooters. This year it has for the first time organised championships of groups to encourage friendly rivalry, which will certainly play an exciting and important role in the future. More than 3,000 groups have taken part in the eliminating shoots and we believe that in 1951 there will be 10,000 to 12,000 groups participating at this match.

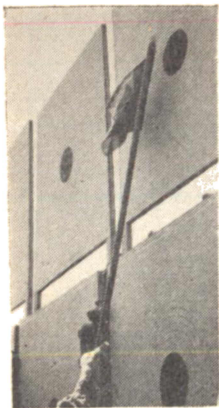
The activities of the S.S.C. are numerous, among them the Assurance of the Swiss Societies of Shooting; the "Rifleman's Gazette"; the medal of merit; mention in the compulsory exercises as well as distinctions in the country shoot; the creation of the medal of mastery in the country; the free and annual receipt of a brochure for the young marksman; the construction in 1938-39 of the Swiss Museum of Riflemen at Berne; the formation of a foundation for international matches, etc., etc.

LIBERTY

From the most sheltered valley to the largest town our powerful association is represented throughout the whole Confederation. Under cover of its flag, which



Shooting; some drinks; and a sleep in the sun.



Signalling a "bull"; a pistol champion and the waiting rifleman.

flies alongside that of the country, are grouped all the civil and military marksmen.

In conclusion, let me recall some lines written by Jeremias Gotthelf in 1842 :
"To-day the greatest earthly blessing which the Swiss citizen possesses is his liberty : he understands that he has to defend it and that it is in his power to do so. It is why he loves and respects that which permits him to protect it and that it must always be to the extent of his force ; he loves his gun. The art of shooting is a free art, gay and sociable ; it brings together marksmen not only for mutual instruction but for competition. There, each is his own master."

And in May this year at the meeting of the delegates of Romanshorn, General Guisan said, *"The S.S.C. is the backbone of our army."*

THE NATIONAL SPORT

Shooting is the Swiss national sport *par excellence*. It is inherent in the nation. Let us remember that (with gymnastics)

shooting is not only the sport in which we excel, it is also the expression of our character and the assertion of our personality.

It is, perhaps, the precision so necessary in making these delicate instruments, together with the proverbial conscience of our workers, which produces an ensemble of qualities—control, perseverance, patience—which, we like to think, distinguishes the people of Switzerland in international affairs.

PEACEFUL INTENTIONS

In all our competitions, be they local, cantonal, federal or international, we can prove to all the world that the Swiss, gun in hand, has no bellicose intention, but is the defender, born of true democracy.

And if to-morrow a gigantic conflagration were to kindle the world, all the citizens and soldier-marksmen Swiss, greedy for independence and liberty, would answer present to the call of the country.



A forest of flags, and the lady marksman.

Genius among the Gun-men

By

DEWI MORGAN

Although Browning's name is inevitably associated with machine-guns and cannon, he was for more interested in the sporting guns of peace than in weapons of war.

TWENTY-FOUR years ago this autumn there died a man who had perhaps been a greater friend to sportsmen than any other. In fact he still is a great friend, for few modern guns show no trace of the influence of his brain.

John Moses Browning was born in 1855 in a spot where shooting was much more than a hobby or a sport. His father, Jonathan Browning, started life in Kanecsville, Iowa, and in 1851 moved to Ogden.

In those days Ogden was very much of a frontier township. Law and order existed much more in theory than in practice. To such people a gun was the first and most important of their possessions. So there was always plenty doing at Jonathan Browning's smithy and gunshop. And Jonathan was a good workman. Before John Moses Browning was born his father had perfected two new rifles.

HIS FIRST RIFLE

The boy grew up in his father's shop and not only inherited his father's ability but also brought with it a zeal for the job. Before he was fourteen he had whittled out wooden breech mechanisms. It was not long before he had made his first crude rifle from scrap metal. His next job was to make a present for his brother Matthew. When his father saw the rifle he had made he commended him and said it was a better gun than he himself could ever make. He went further and rewarded him by giving him permission to use the foot lathe.

It was on this that John worked with his first invention. This was a single-shot rifle with a lever that opened the breech

and ejected the spent cartridge. By the time John Moses Browning was twenty-four years old this rifle had been patented.

It was this particular rifle which formed the foundation of Browning's future prosperity. It soon became extremely popular and John and Matthew built a two-storey shop. After a great deal of work their stocks eventually mounted to six hundred guns. It was then that a Winchester agent, who one day happened to be passing, got to know about Browning and bought his entire stock together with the patent rights. The price was 3,000 dollars. The partnership which the Browning brothers then established lasted right to their deaths.

RETIRING NATURE

The secret of John Moses Browning's genius lay in hard work. He had little use for the company of others. His whole life centred around his workshop where his bashful and retiring nature found peace. He was a very big man—being six feet three inches tall—and had very mild blue eyes. Even when he became very wealthy he had little use for money or the social round.

In 1884 Browning created the lever-action repeating rifle. This gun, called the '86 model, was distinguished by a tubular magazine under the barrel in which cartridges were carried. With it one could shoot, eject the shell, reload and shoot again in a second. When the '22 model and several other models were designed Browning found the same mechanism worked ideally. It was eventually applied to a repeating shotgun.

MACHINE-GUN

It was in 1892 that Browning made a really important discovery. He was out shooting with his brother and commented on the fact that the marsh willows bent away every time someone shot. His brother remarked that it was due to the force of the gases generated from the powder.

"You're right," answered John Moses, "and it gives me a very good idea."

When they got back to the workshop John immediately began boring a hole, slightly larger than a bullet, in a heavy metal block. When a test shot was fired through the hole the big block naturally jumped from the expanding air. Browning's next move was to make a small metal flap which he attached to the gun mouth with hinges. When the gun was fired the flap flew back with great force.

Browning smiled. His idea would work. He now connected the flap to long metal rods and thence to the breech repeating mechanism. As a result, the next shot

jerked the flap which moved the rod which operated the repeater. And thus was the machine-gun born.

The rod and flap, however, was a very cumbersome arrangement. But it did not take him long to get over it. He discovered that a very tiny hole in the barrel would allow the gases to escape whereupon they would operate a piston. After a great deal of work he had made the model work to his own satisfaction. It was a proud moment when he put it in his shop window, bearing a display card which said, "This gun shoots sixteen shots a second."

RECOGNITION

Naturally such a claim was scoffed at. Until people made tests. It was then that they realised its possibilities and, as a result, it was not long before the gun went to war. It was used by Roosevelt's men at Santiago and also by United States Marines in the Boxer risings in Peking. And, of course, it was of vast importance in World War I.

Browning, however, was far more interested in guns for sportsmen than he was in guns for war. And sportsmen were soon rejoicing in his automatic shot-gun which loaded, ejected shells and reloaded automatically with a pull of the trigger.

It was after a series of misadventures with American businessmen that Browning impetuously sailed for Belgium. Here, at Liege, he called at the Fabrique Nationale D'Arms de Guerre and offered the Belgian gun-makers the world rights of his gun. Such was the reception that they gave him that he spent a great deal of his time there during the remaining years of his life. It was while he was at Liege that he produced the gun which, perhaps, has done most of all to make his name famous—the "Browning Revolver." This uses the same principle of recoil as he had discovered on the salt marshes in 1892 and is a compact little pocket gun which operates with every pull of the trigger.

Just before World War I the American War Department held a competitive test of guns. Browning won very easily with the .45 automatic pistol which he submitted. It proved itself capable of firing nearly 40,000 rounds before suffering breakage. It also sustained rusting with acids, was corroded with dust and sand, and was subjected to all sorts of gruelling tests. It emerged triumphant through them all. It was adopted by the Government under the Colt name.

DEFENCE PROBLEMS

In his later years Browning was much pre-occupied with the problems of defence. He foresaw another war when "the sky would swarm with warriors." He managed to perfect an aeroplane machine-gun and also an anti-aircraft gun. He developed the 37 mm. cannon and a special 9 mm. high-power pistol for the Belgian Army.

Browning's name is not regularly associated with all the guns which we owe to his inventive genius. The .45 Colt, the Stevens hammerless repeating shot-gun, the Winchester lever-action rifle, the Savage, the Remington, the Belgian Overunder shot-guns, the .303 Spitfire guns, the 37 mm. cannon, the .50 calibre aircraft guns, these are only a few of the two hundred patents in Browning's name.

Yet he remained the honest, shy and somewhat gawky man who had little use for crowds. He accepted only two honours for his works, one of which was the Belgian Chevalier of the Order of Leopold.

As might have been expected, Browning died in harness. For he was busy at the Liege factory when he suddenly dropped dead in 1926. It is quite certainly the way he would have chosen to die. For his seventy-one years were all devoted to one goal, making perfect guns. They were seventy-one years of ingenious thought and have certainly left their imprint on marksmanship in our lifetime.

"The Marksman" Small-Bore Rifle Competitions

ENTRIES for the Through-the-Ranges and Short-Range competitions have now been checked, and to the fifty competitors with the highest scores have been sent tickets for the final stage of the shoot.

In the Through-the-Ranges competition the three best scores sent in were :—

G. A. G. Jones, Walthamstow Ensign	...	...	...	...	300
R. E. Wood, Walthamstow Ensign	...	...	...	...	299
C. J. Hyde, Salisbury	...	...	...	...	299

The lowest score to be accepted for the final was 288.

Best scores in the Short-Range competition were :—

R. T. Garner, Stevenage Home Guard	...	...	398
L. Courtenay, City Police	...	...	397
J. C. Russell, Purvis Industries R.C.	...	...	396

Lowest score to qualify for final shoot was 385.

PROOF AUTHORITIES'

WARNING

IGNORANCE of regulations laid down in The Gun Barrel Proof Acts, 1868 and 1950, on the part of the trade and private individuals, has resulted in the issue of a warding notice by The Worshipful Company of Gunmakers and The Guardians of the Birmingham Proof House.

The Proof Authorities give notice of actin against every person who does not observe the regulations. The document is dated May, 1950.

ELECTROLITIC TREATMENT

Another notice issued on the same date deals with gun barrels which have been treated electrolytically in order to secure the deposit of chromium or other metal on the interior surface. It has been ruled that barrels treated in this way must be considered to have been potentially reduced in strength and be deemed to be improved barrels under Section 110 of the Gun Barrel Act.

All such barrels are accordingly required to be submitted for proof or reproof, and on submission for proof the barrels shall be declared to have been so processed..

In the first notice, the Proof Authorities list some of the most common offences against the Gun Barrel Proof Act. These are as follows :—

Sale of Unproved Ex-Military Arms

The Ministry of Supply, who represent H.M. Government and are outside the jurisdiction of the Act, sell military arms to the trade.

There is in some directions an erroneous idea that if the Ministry can sell unproved arms to the Trade, the Trade have an equal freedom to sell to a third person within the Trade, or for Export. This has been done. This is an offence, as Section 108 makes clear. The Section covers the sale, exchange, or attempted sale or exchange or the exposure or keeping for sale or exchange or the exporting or attempted exporting or keeping for export of any unproved barrels.

Sale of Other Unproved Weapons

There is also an erroneous idea that the sale of an unproved small arm is legal provided the vendor notifies the purchaser

that the barrel is an unproved barrel. This is equally quite erroneous and renders the person who does or attempts to do so liable to penalties under Section 108.

Sale of Government Proved Ex-Military Arms

Ex-military arms are bought by the Trade and sold under the impression that the Government Proof Marks are valid. Government Proof Marks are only valid in certain circumstances, and Section 119 makes the point quite clear.

Section 119 excludes from the Act military barrels used by H.M. Forces and also barrels which have ceased to belong to the Government **provided the letter "S" is struck over or upon the broad arrow (prior to the cesser by the Government of the weapon)**. If a barrel does not bear the letter "S" but has no letter or the letter "O" it is deemed an unproved barrel. The attempted sale, etc., of any such small arm will render the person so doing liable to the penalties under Section 108.

Sale of Foreign Arms

Numbers of foreign arms, particularly from Germany, have been brought into this country. As only the official proof marks of France, Belgium, Italy and Spain are at present recognised under reciprocal agreements under the Proof Act, it is an offence to sell any arms imported from any other country unless it bears the aforementioned recognised proof marks or is submitted to proof in this country before sale.

N.B.—While the sale of unproved arms is an offence, the repairing or carrying out of work on unproved arms preparatory to submission to proof is permissible under the Act.

Rifle clubs are advised that there are numbers of small bore rifles, imported during recent years, which have never been proved. In particular this advice is offered to private owners of small arms, as, while it is not an offence to own an unproved weapon, the disposal of such, even years later, even by an auctioneer or an executor, may well result in prosecution.

In view of the foregoing, all who own or deal in small arms of any type or description, **excluding air guns and air rifles**, are strongly advised to examine them as to Proof Marks, and if necessary submit them to proof at either the London or Birmingham Proof House, preferably through a member of the Gun Trade.

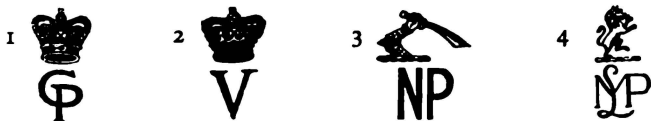
Particulars of British and Foreign Proof Marks will be given on request made to either of the Proof Houses, whose addresses

appear below.

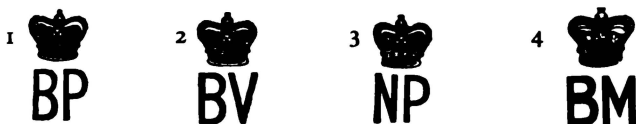
Briefly, one or more of the marks shown at the bottom of this page should appear on every English arm sold in this country.

Copies of these notices may be obtained, free of charge, from either The Worshipful Company of Gunmakers, Proof House, 48-50 Commercial Road, London, E.1, or The Guardians of the Birmingham Proof House, Proof House Hall, Banbury Street, Birmingham, 5.

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