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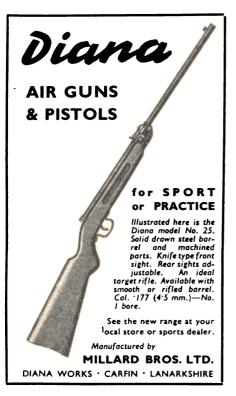
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# THE MARKSMAN

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#### **COVER PICTURE**

Herb Parsons, Winchester-Western exhibition shooter and one of the world's finest marksmen, gives technical advice during the filming of "Winchester 73."

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# Editorial

Since the beginnings of the human race, there is evidence to show that knocking down a target from a distance has been one of man's favourite pastimes. Whether the game came first and the resultant skills were then applied to the task of filling the pot, or whether hunger drove the first men to aiming their missiles at various contemporary creatures, we shall probably never know.

It is sure, however, that in these islands there once lived men who used slings to cast stones, and that later bows were fashioned which were capable of sending arrows swishing into distant targets. Such weapons were soon manipulated in the ancient and ever-popular art of war.

#### Introduction of the Gun

It was not until the fourteenth century that we find any records of the gun in Europe, but about the middle of the fifteenth century soldiers were carrying long metal tubes which, by means of an explosion at one end, were induced to propel a missile with considerable force from the other.

Then, as the years passed by, came the matchlock, the wheel-lock, the flint-lock, and finally the percussion weapons from which all modern guns and

rifles have been developed.

At one time in our history, no one who had anything to lose could afford to venture far afield without his pistols, and proficiency with these arms was an accomplishment that provided a reasonably satisfactory insurance against the plunder of possessions or the loss of life itself.

But changes came, and public opinion gradually outlawed the forces of

internal violence and eventually provided the means to stamp it out.

There came a day when there were no more highwaymen to hang at Tyburn.

#### No Longer a Scourge

The armed robber, although he never entirely disappeared, was no longer

the scourge of society, and guns were used for war and for sport.

In other parts of the world this relative security of the person and property did not develop so quickly. In the United States of America, for instance, a nation of pioneers fought westwards through hostile Indian country, maintaining law and order with firearms well into the era of the revolving pistol and the repeating fifle.

In this country the lawful use of firearms is severely restricted, and a form of conservatism of one sort or another seems to have crept into many shooting

circles.

There are traditions of shooting—military and sporting—which tend to restrict the sport and to introduce a mass of conventions, rules and regulations, which, together with official restrictions and the expense of every kind of weapon and ammunition, tends to keep away the budding sportsman.

Shooting, as a sport, develops control over mind and body, an attribute which is desirable as an end in itself. As a preparation for the defence of this

country it needs no advertisement.



# Shooting Elephant a Hundred Years Ago

## By CAPTAIN LEO A. MILLIGAN

The illustration on the left shows a smooth four-bore percussionaction muzzle-loader used by African Dutch elephant hunters of one hundred years ago. It fired a four-ounce lead ball with a charge of one handful (approximately twenty drachms) of coarse black powder. The stock and powder chamber were reinforced with the inside skin of an elephant's ear which shrunk on as it dried.

ELEPHANT hunters to-day, whether out for trophy or for profit, arrive at the hunting grounds armed with the latest in big-game rifles. These beautifully precisioned weapons are designed to discharge a bullet propelled by an explosive charge—the very acme of ballistic science—which will hit the elephant like the hammer of Thor. The shock of impact is terrific, the effect is paralysing.

Moreover, the hunter has studied the anatomy of the elephant; he has learnt the three most vital spots on its vulnerable body, the forehead and earhole for shots at the brain and behind the forelegs for shots at the heart. With a telescopic sight, at one or two hundred yards range, he can pick out the elephant with the biggest pair of tusks and let him have it.

#### Heavy Recoil

Compare all this with the African Dutch elephant hunter of a hundred years ago. His weapon was a smooth 4-bore percussion action muzzle-loader, which fired a four-ounce ball with a charge of one handful—approximately twenty drachms—of coarse black powder. It was the hunter, and

not the elephant, who received a blow like the hammer of Thor, for this elephant-gun delivered a fearsome "kick." The stock and power chamber of this weapon were reinforced with the inside skin of an elephant's ear placed on while green, and which, when dried, shrunk, holding the lock, stock and barrel in a grip as if it had been placed on by hydraulic pressure.

#### Double Load

The late Frederick C. Selous, who did most of his early elephant shooting with a pair of these guns, said that he never fully recovered from the punishment they had dealt him and that once he had had the misfortune to fire one that had inadvertently been double loaded. The percussion cap had misfired and in the flurry of the chase he had handed the gun to his bearer, who, thinking it had been fired, had promptly loaded it again with another handful of powder and another four-ounce ball. Just imagine two handfuls of powder and two four-ounce balls in a 4-bore gun!

Selous pressed the trigger on this double charge and the recoil following the explosion lifted him clean off his feet, turning him right about in the air to fall on his face, the gun flying backwards some yards. The gun remained intact, but Selous had his face and shoulder damaged. In spite of it he had great faith in this weapon, which he had first seen used by the professional Dutch and native hunters before adopting it himself, and was reluctant at a later date to change over to a modern breech-loading rifle. In three seasons, he killed 78 elephants with it, all but one while on foot, and said he had never used, or seen used, a rifle that killed better than this old muzzle-loader.

#### Duck Guns

These guns, which were in general use by the professional Dutch elephant hunters of a hundred years ago, were never intended for big game. They were, in fact, smoothbore duck guns of the commonest description, weighing twelve and a half pounds and made specially for the export trade. They were inexpensive weapors, costing Selous only £6 each after having been transported six hundred miles up country by bullock wagon from Cape Town.

Roualeyn Gordon-Cumming, Unlike who hunted the African elephant on horseback in the 1840s, and who fired a great many rounds into each kill, Selous, hunting on foot, had killed more than once with a single shot from his 4-bore. Three shots was his average, although five or seven were sometimes required. His favourite aim was for the point of the shoulder, which usually brought the tusker crashing to the ground, or a broadside shot into the shoulder-blade. His favourite frontal shot was the centre of the chest, and when in running pursuit a diagonal shot through the flank in the direction of the opposite The head shot he mostly used shoulder. to give the fallen tusker the quietus. All shots were delivered at close range, from eight to twenty yards.

Selous records only one disappointment. He had dispatched a bull with a good pair of tusks after a long chase. Night had fallen, and his party were too exhausted to chop out the tusks and decided to rest and do so at dawn. Next morning there was no sign of the fallen tusker; he had recovered and walked off during the night and was never seen again, although all next day was spent in trying to track him. He had received five four-ounce bullets in the body and two in the back of the head. Such stories have helped to keep alive the legend of the elephants' cemetery.

Selous had adopted the technique of the African Dutch hunter; there were no better hunters, and their experience dated back years before he was born. preferred to leave their ponies in camp and track down the quarry on foot, approaching up-wind and getting as close as ten yards The chest, point of the before taking aim. shoulder and the shoulder-blade were the vital spots to the Dutchman when he was lucky enough to get a standing shot, and the flanks if the elephant was moving away from him. Often one shot brought the tusker down; at other times the elephant would make off at a run and the hunter would have to run after it and keep hammering away until it slowed up and There were times when the hunters became exhausted with running and had to abandon the chase until they recovered.

#### Ivory and Food

In addition to the prize of a pair of ivory tusks, the elephant provided food for both the hunter and his camp followers. They loved to feast on fat elephant meat. The heart was the delicacy reserved for the hunter, who sliced and grilled it on a stick over the camp fire. Other dishes were made of the tender meat of the trunk and the foot, and a special tit-bit could be cut from the eye cavity. The nerve of the tusk was a choice morsel enjoyed by the camp followers only, as most white hunters did not favour it.

So, from the moment it was sighted, the elephant provided the hunter with an exciting chase, the psychological thrill of the kill, a prize of a valuable pair of tusks and fresh meat for himself and his retinue.

### NORTHERN IRELAND ASSOCIATION

A T THE annual open small-bore meeting of the Northern Ireland Rifle Association, W. Jacklin won the Burns Cup and the Association gold badge for the "A" Class aggregate. Mr. Jacklin is a member of the Lancashire club, Lytham St. Anne's. In the team shooting, Dublin won the Largs Cup for the second year in

succession with a score of 1,182 out of 1,200. The runners-up were "X.B." with 1,169, and Omagh were third with 1,155 points.

Omagh won the Short and Harland Trophy for disk breaking at 50 yards, shooting against six other teams. The "X.B." "A" team were second.

# News from all Quarters

THE National Cadet Rifle meeting will be held at Bisley on September 30th and October 1st.

At the Hampshire County (small-bore) meeting held at the R.N. ranges Tipnor, Portsmouth, E. U. Bull of Bournemouth won the Individual Championship and the N.S.R.A. County Silver medal with 892 points of a possible 900. A. F. Fox, also of Bournemouth, made the same score and the championship was decided by the best score at the longest range. The Class "A" aggregate was won by A. Coxon of Portsmouth City R.C. with a record score of 893. Mr. Coxon was not eligible for the championship as he lives outside the county.

The team championship and the Pane-Galwey silver trophy was won by Bourne-

mouth and District R.C.

Major R. A. Fulton won the Active Militia Match at the 69th annual prize meeting of the Province of Quebec Rifle Association held at the Mount Bruno ranges near Montreal. The winner's score was 136 points, and another British marksman, Major W. H. Magney, finished second with 135 points.

After Grimsby had beaten Hull in a full-bore rifle-shooting contest it was found that no one knew the whereabouts of the prize—the Humberstone Cup.

Crowle Rifle Club won the county trophy (the Limberd Cup) at the Worcestershire association's shoot at Tyddesley Wood, with a score of 625 points. The 62nd (Malvern) R.C. were runners-up. In the Individual (Service) match, R. Smith, Malvern, was first after a snapshooting tie-shoot with U. L. Brigden, Malvern. These two competitors each scored 86, and J. I. Thomas, Crowle R.C., was third with 85.

#### Clay-Pigeon Champion

More than eighty competitors, including sixteen international clay-pigeon shots took part in the 18th Sporting Championship of Great Britain at the West London shooting grounds, Northolt, Middlesex. The championship was won by T. E. Furman of Oxhill, near Kineton, who, with a score of 95 "kills" out of 100, equalled last year's record.

Diggle Rifle Club beat Huddersfield by twenty-four points in a match at Brockholes.

#### Gloucestershire Win

For the third consecutive time, Gloucestershire won the triangular (small-bore) match for the Three Counties Challenge Bowl. The other teams were Worcestershire and Herefordshire. The best individual score was made by W. Lewis of Gloucestershire with 297 points.

The Young Soldiers' Trophy was won by the Rifle Brigade team at the B.A.O.R. Small-Arms meeting in North-West Germany.

In the Garuagh area Ulster Special Constabulary inter-district rifle shooting competition at Moneydig range, Kilrea were the winners with a score of 378.

T. Crowe, Shucknell Hill, Hereford, won the North Herefordshire Cup at the annual clay-pigeon shoot at Wigmore. The novice shoot was won by fifteen-year-old R. C. Thompson.

The Army small-bore rifle match for 1950, organised by the N.S.R.A., was won by No. 9 Central Workshops, R.E.M.E. The School of Infantry Tactical Wing was placed second.

#### Small-Bore Champion

The Borough of Wandsworth R.C. won the teams of eight Championship of Britain for small-bore rifles. H. R. Hammond, captain of the club, is British small-bore individual champion.

Aircraftsman Hallworth (R.A.F.) won the grand aggregate silver medal at the first of the two annual shoots held at Bromeswell range under the auspices of the Suffolk County Rifle Association. Only rifles "as issued" were permitted.

#### Sussex Championship

The Sutton Gold Cup competition for the small-bore rifle Outdoor Individual championship of Sussex was won by J. W. Harrison, Brighton Electricity, after a tie with M. E. Cox, East Worthing R.C., in which both marksmen scored 393 points. The competition was shot at the annual prize meeting of the Sussex County association at Hampden Park, Eastbourne.

A team of Canadian marksmen, shooting against British and U.S. teams, won the Canada match at the Connaught Rifle Ranges, Ontario. The team scored 1,147 points. Britain was second with 1,137 points and America was third with 1,100.

#### **British Successes**

At Ottawa, the Empire Trophy was won by the British team, shooting in the Dominion of Canada Rifle Association meeting. The Canadian team scored 650 points against Britain's 681. Alan H. Moorshead, of Middlesex, England, won the Governor-General's gold medal.

#### Police Winner

After a tie-shoot, Constable C. Vizard, Wiltshire Constabulary, won the County Challenge Cup at King's Play Down, Devizes. Captain Galloway, School of Infantry, Warminster, was second. Constable Vizard also won the Constabulary Cup.

Perthshire (small-bore) individual cham-

pionship was won by N. Burgess (Newburgh).

Portsmouth Passenger Transport team won the shield competed for by passenger transport clubs in the Portsmouth area. Southdown Motors R.C. were second.

For the second year in succession, the inter-battery competition for Territorials from Wellingborough and Kettering was won by "R" Battery of the 585 (M) L.A.A. S/L. Regiment, R.A. (T.A.).

At the Somerset County Rifle Association meeting, the Lord Lieutenant Cup was won by W. F. B. Higman, after a tieshoot with G. Maxwell-Hyslop. The N.R.A. medal went to A. Anderson after another tie-shoot. E. Hemmings was second.

#### Women Qualify

For the first time, two women qualified for the final trials for the Dewar international postal shooting match. They are Mrs. W. M. Hyde of Salisbury and Mrs. A. B. Culf of Manchester.

Major W. Scott, of Cowden, won the championship at a clay pigeon shoot at Edenbridge. The shoot was organised by the British Field Sports Society, Edenbridge, and Oxted Show Society, and the Old Surrey and Burstow Hunt.



Competitors firing at Pakefield in the full-bore match between Lowestoft Division of the East Suffolk Constabulary and Norfolk County Police. Lowestoft won the match.

## Clay-Bird **Shooting**

By E. M. GINN

A controversial article for clay-pigeon enthusiasts and for those who may be thinking of taking up the sport.

CLAY-bird shooting appeals instantly to the majority of riflemen who decide to try it. It introduces the elements of movement and speed—missing in target shooting—and it calls for instant decisions and quick reflexes. Age does not matter, and gun shooting will not spoil your performances with a rifle—the opposite, in fact, is true.

The sport is clean and healthy and does not result in death or injury to any living

There is, of course, one big snag expense.

Making it Popular

Before clay-bird shooting can become really popular :-

(1) It must be made as cheap as possible.

The rules must be made as simple as (2)

possible. (3) The owner of a standard game gun must be put on equal terms with the man who shoots with a special claybird gun.

I will try to amplify these points.

Down-the-line shooting, as already explained in a previous issue of THE MARKSMAN, consists of shooting at "going away" birds from a distance of sixteen yards behind the trap.

As the rules now stand two shots are allowed at each bird, the system of scoring being either "kills to count" which means that whether you kill with your first or your second barrel your score is the same; or "points system" in which two points are given for a kill with the first barrel and one point for a kill with the second barrel.

Now in order to secure a dense pattern to make a kill at "down-the-line" distances, it is almost essential that your barrel should be bored with what is known as "full-choke." The ordinary game gun (owned by thousands of sportsmen who have never shot at clays) is bored full-choke left barrel and modified-cylinder right barrel. This is the usual and standard game boring. Many owners of such guns will attend a meeting and find at once that their right barrel is useless and that they are badly handicapped against a man who can afford to buy a special gun with both barrels bored "full-choke." As a direct

consequence they do not attend further meetings and are lost to the sport.

The rules of "down-the-line" shooting should be at once amended and simplified to read as follows.

"In all 'down-the-line' shooting only one shot is allowed at each bird."

I am fully aware that to allow two shots at one bird is a legacy from game shooting, but let us at least be logical. "Down-theline" shooting as at present practised in this country is a sport in itself; it has no connection at all with game shooting.

You are allowed to mount the gun (gun up) and to call "pull" for your bird. you wish to justify the use of two shots at one bird you must: (1) walk up your bird; (2) start gun down; (3) employ silent rise, i.e., you must not be aware of the exact moment the bird will leave the

If the rules were amended to read as above, it would encourage the man armed with the ordinary game gun and at once place him on equal terms with the man with the special gun.

Then again there is the matter of expense. Cartridges cost money and many people object to entering a competition in which they have to be prepared to shoot two cartridges at one bird, to stand any

chance at all of gaining an award.

Clay-bird shooting is one of the national sports of America where it is termed "Trap Shooting" to distinguish "down-the-line" from skeet. It has many thousands of adherents and in America the rule for "down-the-line" shooting is, and has always been, "one shot, one bird."

#### Looking Ahead

I know there will be opposition from the members of the old school who, after all, are the mainstay of the sport over here and who have trained themselves to rely upon a second-barrel kill, but the future of the sport does not lie in the hands of these few wealthy enthusiasts. It lies in the hands of the many thousands of ordinary game shots and users of standard game guns whom we wish to attract to clay-bird shooting and to hold their interest in the sport.

Many of these want to shoot at clays but cannot afford a special gun or to waste

So much for "down-the-line" shooting. Then we have skeet, which was also outlined in THE MARKSMAN.

A single round of skeet uses up twenty cartridges—more if you have a few "no birds." It consists of fourteen single shots and three doubles. Skeet could be made cheaper, more competitive and more interesting if a round was limited to fourteen, or even ten shots, all doubles.

# Shotgun Training for Modern Warfare A. J. FOSTER

In certain parts of the world the ability to shoot straight and to shoot quickly has become important, and it is an accomplishment which may prove useful to anyone at any time. During the Second World War the shotgun was used to train gunners of the R.A.F. Should this method of improving marksmanship be extended to cover a wider field? Mr. Foster thinks so, and he gives his reasons here.

WHILE agreeing the rifle shooting as most clubmen know it to-day is a fine means of training men in the art of marksmanship, I have long been of the opinion that training of equal value, if not more value, could be given by the use of the shotgun when it comes to preparation for modern warfare. Although valuable assistance was given to air-gunners in the last war, I do not think that half enough use was made of the shotgun-trained man. Practically all clay-pigeon shots are game shots, and the majority spend most of their shooting days rough shooting. This is the nearest approach to big-game shooting most of us can get in this country, and big-game shooting is probably the finest training for warfare—apart from the real thing, of course.

#### Similar Type of Shooting

Modern warfare is fast-moving, with unexpected hold-ups and attacks; it is largely a matter of automatic weapons using a cone of fire, the effect being similar to a charge of shot from a shotgun. Most attacks take place at night or in the early morning when accurate fire, as the club rifleman knows it, is not possible. Now supposing that after a man had learned the rudiments of marksmanship, he carried on training with a shotgun. Practically any type would do, though the singlebarrel automatic type would be best. this he would have a weapon that would be nearest approach to the type of weapon he is most likely to use, and with its spread of shot it would give a similar type of shooting (that is, the cone of fire from an automatic weapon). A few shots from an autoshotgun would give a similar effect to a burst from an auto-rifle or machine-gun.

A man trained on the lines of shotgun shooting would be able, when proficient, to whip up his gun from any position, and in a split second hit any target within range, whether it was in the air or on the ground, moving or stationary. Also he would be used to handling a weapon with fairly heavy recoil. The change-over from this

type of training to the real thing would be accomplished much more easily than at present. Though the training with the shotgun would have to be at short range it would not effect the soldier when he started using a longer-ranging weapon. Modern army auto-weapons have a reasonably flat trajectory so far as a man would be expected to shoot in the type of action we are discussing. In any case, a man trained to put a charge of shot into an object at forty or fifty yards would be quite capable of putting a cone of fire into or around an object at 200 yards or 300 yards.

One of the biggest advantages of the shotgun type of training would be that it could be carried out in any small field without danger and it would be much more interesting to the trainee as the targets would be so varied. Men trained in this way would be invaluable in combating attacks by airborne troops and they could also operate against low-flying aircraft.

To do the job properly a special weapon should be designed. What is really wanted is something on the lines of the American carbine, but of higher velocity with a larger magazine and fully automatic.

#### Ideal Weapon

The ideal weapon to my mind would be of about .250 to .270 calibre and weighing 7½ lb. to 8½ lb., with a full magazine of twenty to thirty rounds. The velocity would have to be in the region of 3,000 feet per second to obtain a flat trajectory for 300 yards or so. Built with a shotgun balance, that is with the weight kept well between the hands, it would be a most useful weapon in modern warfare. With all this uncertainty in the air and wars and rumours of wars, Government grants should be made at once to clay-pigeon clubs so that training might start right away. It should not be very difficult to draw up a training programme, and I am sure that every clay-bird shot would give the scheme his whole-hearted support.

# THE SPORTING **CHAMPIONSHIP**

### A report of this year's meeting by A. J. FOSTER

AT the eighteenth Annual Sporting Championship of Great Britain, T. E. Furman of Oxhill, Warwickshire, won the championship and The Daily Telegraph trophy with a score of 95 out of a possible 100 points.

The Championship course was in five

stages as follows :-

(1) Ten birds walked-up (six singles and two pairs).

(2) Twenty-five driven grouse (five singles and ten pairs).

(3) Twenty pheasants from a 70-ft. tower (ten singles and five pairs).
(4) Twenty rocketing pheasants from a

90-ft. tower (twenty singles).
(5) Twenty-five driven partridges (five

singles and ten pairs).

The event was shot on the "kills to count" system, that is, two shots may be fired at any single bird, either shot to count. In doubles, one shot only may be fired at each bird.

Twenty-one competitors made possible scores at various stages, but no-one succeeded in doing so at the driven grouse stage. At one time it appeared that Mr. Furman would manage it, but he missed

with his last shot.

The ladies' championship (and Lucas Challenge Cup) was won by Lady Hill-wood, and a special feature of the meeting was the high standard of shooting reached in the colts' event (for competitors between 14 and 18 years of age) which was won by K. Stenton.

The Walkers Parker Challenge Bowl, for shooters who had not previously won a prize at an open meeting, was won by J. A. Baigent.

The meeting was held at the West London Shooting Grounds, by permission of Messrs. R. N. and G. F. Richmond Watson.



[Photo: Sport and General

The champion takes a shot.

Full results were :—

Sporting Championship: (1) T. E. Furman, 95; (2) P. E. Hazledrine (Stockport), 92; (3) F. Cooper (Bath), 92; (4) E. A. Clarke (Stowmarket), 91.

Ladies' Championship: (1) Lady Hill-

wood, 27; (2) Miss J. Horsfall, 27. Colts' Championship: (1) K. Stenton,

42; (2) W. G. White, 40.
Walkers Parker Challenge Bowl: (1)
J. A. Baigent, 91; (2) R. Hirons, 88; (3) Major T. G. Baxendon, 86.

For the fifth year in succession, Wroughton Legion Rifle Club have won the championship of the British Legion (Group III) Air Rifle League.

The Grant Currie Challenge Cup for rifle shooting was won this year by the 6th Sussex Cadet Regiment, R.A. (Hove).

### READERS' LETTERS

Letters on any subject connected with shooting are welcomed. The views expressed by readers are not necessarily those of the Editor.

#### All-Round Rifle

I was very interested to read the article on big-game rifles by Lt.-Col. Stockley, but was surprised that he made no special mention of the .375 Magnum rifle. this weapon with its three weights of bullet -235 g., 270 g. and 300 g.—and velocities of 2,800 f.p.s., 2,650 f.p.s. and 2,500 f.p.s. respectively, is the nearest approach to the all-round rifle that has yet been built.

Another point: he says he can get off four aimed shots faster from a magazine rifle than from a double, but does not mention how fast he can get off the second shot, using a double. I should have thought the second shot would be the one that counted most if one happened to wound a dangerous animal at close quarters with the first!

Is it not also a fact that a magazine rifle cannot be built to handle as quickly as a double?

> "Big Jack," Harrow,

Middlesex.

#### A Very Rare Model

The Collier rifle, which is shown in the illustration of my article in your last issue, is in the collection of Mr. W. Keith Neal, of Warminster, Wilts. Unfortunately, mention of this fact was omitted in the caption.

It is an extremely rare military model. The absence of any serial number indicates, no doubt, that it was made as a demonstration specimen.

The butt furnishings closely resemble those of the Baker rifle, and it takes the regulation musket socket bayonet of the period. The 30-gauge barrel is smooth at the breech end, with the rifling gradually gaining depth towards the muzzle.

An interesting feature is the "drum" pattern of priming magazine, with which it In view of its simple and robust construction, Collier probably considered this magazine more suitable for a Service weapon than the pattern found on the majority of his arms.

> S. B. HAW, Sidcup, Kent.



Does any reader own, or have access to, a specimen of the single-action Webley percussion revolver shown in the above photograph?

If so, I should be very glad to have the following details:—

- (1) Marked "Webley" or with retailers name?
- RAMMER; detached type or attached type?
- RIFLING; poly-groove, three-groove, or variant? (3)
- BARREL; secured by hinge and crossbolt, screwed into cylinder pin, or variant?
- (5) Serial number?
- (6) Bore or calibre ?
- (7) Barrel length?
- (8) Proof marks?

A. TAYLERSON.

18 Furzefield Road, Reigate, 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.

#### Archery?

Might I suggest a few words about archery? After all, the original "marksman" shot with a long-bow.

> E. J. Burton, Cheltenham.

### A REAL MINIATURE

### By L. WESLEY

THE smallest automatic pistol ever produced on a commercial scale is the fascinating little "Kolibri" (humming bird).

An idea of its extreme smallness can be had from the illustration which shows the weapon together with a standard-sized cigarette.

Actual measurements are : length, 2 %-in.; height, 1 18-in. It weighs 2½

ounces.

The model shown was made about 1908 and bears both Austrian and English proof marks. It operates in exactly the same way as a full-size automatic, the fired shells being ejected through the opening shown on the right side of the pistol. When the slide is drawn back, by hand, for the first shot, the reverse end of the firing pin projects from the rear, giving visible indication that the pistol is cocked (see illustration).

A single-shot model was also produced which was almost identical in size, but very slightly different in shape and had a

hinged tip-down barrel.

Both were beautifully made and had a blued finish, the automatic being provided with a safety catch.

Cartridges for use in both the "Kolibri" automatic and single-shot pistols are truly works of art. The cartridge case is of brass, and a centre-fire cap, the size of an ordinary pinhead, provides the ignition. The bullet comprises a nickel jacket filled with lead, and weighs approximately 2½ grains. The charge of powder weighs 1½ grains. Diameter of the bullet is 2.7 millimetres. The cartridges were packed in tiny tin boxes of twelve.

The pistol magazine holds six rounds. As for performance, it is difficult to give any exact data because no ammunition has been manufactured for many years.

Existing shells are unreliable owing to the decomposition of the cap primer. At a recent test, four boxes of ammuni-

At a recent test, four boxes of ammunition were tried and only four rounds were fully effective. These four bullets penetrated a 1-in.-thick deal board at a range of ten feet, and the report was considerable.



The "Kolibri" miniature automatic pistol in its case. The size of this beautifully made little weapon may be judged from the illustration on the opposite page.



Here, the "Kolibri" is shown with a standard-sized cigarette. One round of ammunition is placed on a farthing for comparison.

# FIRE-ARM PHRASES

A RECENTLY-POPULAR dance tune had the refrain "Lock, Stock and Barrel." Believe it or not, the context made it only too clear that the lyric writer thought the lock was the kind that secures a door, the stock referred to shares in a company, and the barrel was the sort that contains a more or less desirable fluid.

The enormity of his error needs no emphasis in this place, but it does serve to remind one of a number of interesting expressions which originated in times when people were more generally familiar with fire-arms than they are now. Some are almost forgotten, others, like "lock, stock and barrel," are losing their proper meaning.

It is sometimes said, for example, that a thing which miscarried "went off at half-cock." But the point about the half-cock setting is that the weapon will not go off until the hammer has been drawn back a little farther to the full-cock position. Its particular use was once to enable a

fire-arm to be carried safely although both loaded and primed; it allowed the hammer of a flint-lock to be pulled back out of the way and held securely, so enabling the pan to be primed and closed.

Incidentally, if you want an expression to convey the idea of a false start, or something which makes a promising beginning and then peters out, what is better than 'just a flash in the pan'? That again refers to the flint-lock. It derives from the occasions (apparently not rare) when the priming in the external pan was ignited by the spark from the flint, but failed to set off the charge in the barrel. There was a "flash in the pan" but no discharge of the piece.

Our grandparents sometimes spoke of something as being "silver mounted and gold inlaid," when we should probably call it a de luxe model. This seems to be another fire-arm phrase, presumably referring to those exquisite examples of the old gunsmith's art which have one or more narrow bands of gold inlay round the barrel near the breech, and richly ornamented silver embellishments like the lions' heads in high relief on the butts of a pair of pistols in my possession.

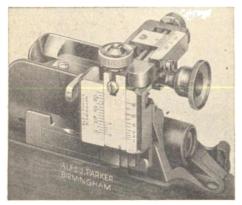
There must be many more of these expressions, now forgotten or used only in some corrupt sense. G. P. Kendall.

### ALFRED J. PARKER

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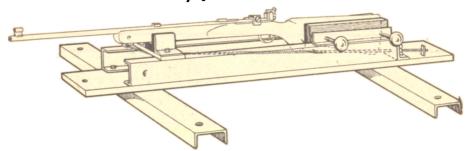


Spare time for Britain in the

Territorial Army

## Making a Machine Rest

By J. B. LESLIE



THE usual discussions had been going on in the clubhouse regarding the merits of different types of rifle, bedding, English and American ammunition, etc. We all had our own ideas on the subject and most of us had been trying to improve our scores by alterations to the rifle which involved using solid, mastic or electrical bedding.

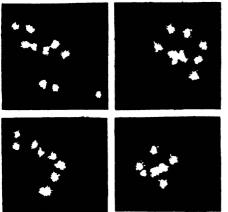


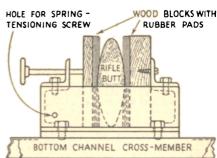
Fig 1. Winchester 52, EZXS ammunition.

Then the question of our own errors cropped up and we wondered if we could make a machine rest which, while holding the rifle steady, would give the barrel and stock similar stresses to those given when firing was carried out in the usual manner.

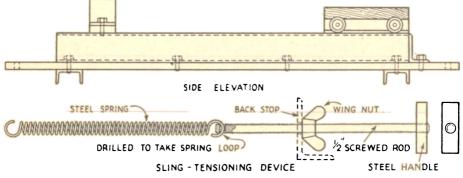
In other words, we wanted a rifle test and not a barrel test. With such a piece of equipment we could test our rifles with different beddings and different barreltensions until we found the best to suit the individual rifle.

#### A Simple Design

I tried to design a suitable rest. Most of my efforts contained large lumps of metal and springs which would probably have worked all right but which were



BACK ELEVATION



beyond our means. I eventually settled on a very simple design in which the butt of the rifle is held in a rubber-padded vice, and the fore-end is laid on a rubber-padded rest with the sling pulling it down into it by spring tension. This, I decided, was as near as I could get to the human hold, and we have found the rest to be most successful and useful.

The materials used were those easily obtained by myself, but variations could be made according to availability.

#### Different Results

Surprisingly different results can be obtained by altering the barrel-tennion by barrel-band or by electrical bedding.

barrel-band or by electrical bedding.
Incidentally, I find the latter most satisfactory and particularly easy to adjust for different tests. Once you have found the right tension you can adjust it correctly in a few moments and be sure that your gun is shooting at its best.

Fig. 1 shows groups shot with my Winchester 52 with EZXS ammunition.

Top left is a 10-shot group fired at 100-yd. with the electrical bedder set with six clicks up (one click being equal to 0.00025-in.); bottom left, twelve clicks up; top right, sixteen clicks up; and bottom right, twenty clicks up.

You will notice that the group improves as the tension is increased on the barrel up to twenty clicks. Above that tension the groups began to spread again.

#### Heavy Metal

Now for the construction of the rest. First, the heavier the metal the better—so don't be afraid of weight. As mentioned above, the rest illustrated is made from metal to which I had access at a low cost. I will give the dimensions that I used.

The baseplate is  $\frac{1}{2}$ -in. thick by 4-ft. long

by 8-in. wide.

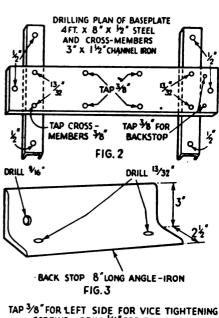
The two cross-members and the two main side-members are each 3-in. by 1½-in. channel. The backstop is made from a piece of 3-in. by 2½-in. angle. Remaining materials are: two pieces of 1½-in. angle, 9-in. long; one piece 3-in. by ¾-in. steel, 8-in. long; two pieces of 3-in. by 2½-in. angle, 3-in. long.

#### The Baseplate

Mark out the baseplate as shown in Fig. 2, and drill and tap out the holes required. Mark the two side-members by laying them on a flat surface with the baseplate on top of them. Then fit them in place by means of \{\right\}-in. set screws.

Lay the baseplate on the two bottom cross-members, mark the holes in these and drill and tap. The backstop and the two short pieces of angle should be drilled

(Continued on page 123)

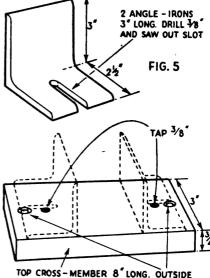


TAP 3/8" FOR LEFT SIDE FOR VICE TIGHTENIN SCREWS. DRILL 14" FOR RIGHT SIDE

DRILL 19/32"

TWO — SIDE ANGLE - IRONS 2" LONG 112" X 112" X 14"

2 ANGLE - IRONS



HOLES COUNTERSUNK FOR \$48" SCREWS

FIG. 6

## ALL-AROUND UPLAND GAUGE

### By ELMER KEITH

Fy permission of "The American Rifleman"

The author is well-known to American sportsmen as a writer on hunting rifles and loads, and as one of the men who introduced duplex loading to users of modern rifles. He has had a vast amount of experience both in the employ of the U.S. Government and working for himself, in experimental work with firearms. Elmer Keith first made his reputation in the gunfield as a phenomenal game shot. He lives on a ranch at North Fork, Idaho, in the heart of that state's best big-game country.

I CAN still remember when the 10-bore was considered the all-around shotgun for everything. Then the 12-bore took over. It became, and has been for thirty years, the all-around gauge.

Times change; maybe we change also, and certainly we are not as strong and rugged a race as we were forty years ago. The boring of shotguns has not improved much in this time, nor has Fred Kimble's first choke-bored gun been improved on in patterns. However, in the matter of shotgun ammunition, we have made great strides. Companies have improved shotgun ammunition until there is little comparison between the best shot shell of forty years ago and our present fine loads. Despite popular advertising, as near as I can learn, our old Remington Arrow, U.S. Ajax, and Winchester Leader shot shells of the past, actually developed higher pressures than our present progressive-powder heavy duck loads.

To-day, our standard 12-bore, one and

one-quarter-ounce load will out-pattern and outshoot from every possible angle our old one and one-quarter ounce 10-bore load of thirty to forty years ago. Likewise our modern one and five-eighths-ounce 10-bore and magnum 12-bore loads are far longer ranged, far more deadly than anything we formerly used in a 10-bore gun. To-day, our 16-bore gun with best heavy loads will usually put more shot in a thirty-inch circle at forty yards than any 12-bore would thirty years ago with the same one and one-eighth-ounce loads. Some may question these statements, but let them do enough pattern work (and it really is work) and they will learn. Formerly the one and one-eighth-ounce charge was standard in the 12-bore, while the 16 had to get along with seven-eighths to one ounce of shot. Then the 16-bore was loaded with one to one and one-eighth ounces. To-day our present heavy 16bore loads are really superior to our old one and one-eighth-ounce 12-bore loads,





and our present heavy 12-bore loads will outshoot the old one and one-quarter-ounce 10-bore load; and so it goes.

Just before the last war Remington pioneered with a folded crimp, eliminating that cursed top wad that so often spread the shot charge after it emerged from the Western and Winchester and muzzle. Peters all followed suit. Federal Cartridge Company also developed a frangible top wad that blew to atoms when fired, thus improving their patterns. This one improvement has had a great deal to do with increasing the effectiveness of all modern shot shells. Pattern percentages jumped.

Now all companies are further improving performance by new over-powder wads. Western-Winchester have a new lubricated, oversize wad, in the form of an inverted cup, over the powder. This absolutely seals all gas out of the shot charge. have further improved this loading by adding a heavy white wad over this lubricated wad. This white wad is made of a highly compressible material with myriads of tiny air cells. It compresses to oneeighth its normal thickness when fired. These soft compressible wads cushion the shot charge when fired and enable it to be pushed through the forcing cone and into the barrel proper with a minimum of shot deformation. Likewise, the system of lubricated wax-impregnated over-powder wads gives the bore a good lubricating at every shot. As a result the bore of the gun forward of the forcing cone stays clean and often no leading appears at all after a box of shells has been fired. It's a well-known fact that the forcing cone has always deformed more shot anything else in modern shot shells or Unfortunately, longer, more tapered forcing cones would mean longer reamers and higher costs of guns. would also necessitate larger or more readily expanded over-powder wads than we have had in the past, to completely seal off all pushing gas.

#### **Great Advances**

To-day the latest shot shells are so far ahead of our loadings of even ten years ago, as to leave no basis for comparison. we used to handload shot shells years ago to get the most out of our guns, it is largely a waste of time to-day. The loading companies will usually beat badly your best efforts in shot-shell loading. the new loads, patterns that I have run indicate that in many guns percentages are up 10 and often 15 per cent. over the older loadings. The answer is less shot balling from escaping gas, less shot deformation in the forcing cone and from leaded barrels, and, last but not least, a total absence of an over-shot wad that usually bucked the atmosphere until it was pushed back through the pattern by air resistance.

All of these factors add up to the point that to-day's 16-bore is a better gun than our old 12-bore, and our old 12-bore with modern loads now beats our old one and one-quarter-ounce 10-bore loads. Our present magnum 10- and 12-bore guns are now passe guns and only needed for difficult long-range shooting. Likewise, our modern standard one and one-quarter-ounce 12-bore becomes more of a duck gun than an upland gun.

#### A Good 16-Bore

For a great many years one and one-eighth ounces of shot have been considered ideal for most upland shooting. This load can now be had in a 16-bore gun that will actually out-pattern the same load we formerly used in the 12-bore. I have seen a really good 16-bore actually put more shot in the thirty-inch pattern circle at forty yards than many 12-bore guns with the same boring. Why, I don't pretend to know, but the facts were there. The gun is an Ithaca No. 5 double with all extras, built to order for Major Charles Askins, Sr., who is probably one of the

greatest shotgun ballisticians of our time. Both barrels are thirty inches, full choke. Five shots at forty yards with Western Super-X folded-crimp loads of one and one-eighth-ounces of No. 4 shot averaged 92 per cent. The lowest pattern counted 90 per cent. and the highest 95 per cent. Five shots with Peters loading of No. 5 shot, with folded crimp, averaged 86 per cent.

With the new Western load of No. 5 shot, the poorest pattern showed 134 pellets and the best pattern 141 in the thirty-inch circle at forty yards from the muzzle. With the Peters loads, I failed to centre my patterns on three targets of narrow pattern paper so a few pellets were lost on one side of each of these. Still the poorest pattern counted 153 pellets and the best counted 177 pellets of No. 5 shot.

circle at forty yards to average 80 per cent., and by the same token it should average around 162 pellets of No. 5 shot to give an 80 per cent. pattern.

When extremely open bores are used for very short range or skeet shooting, then the open-bored 12 with one and one-quarter-ounces should have the edge on the best 16-bore ever produced when big patterns are wanted which will maintain a killing density. But when choked guns, from modified to full, are used for more distant shooting, I can see little if any advantage in the 12-bore over the best 16-bores for average upland work. the best guns and loads, and both the 12 and 16 giving the same pattern percentages, the 12-bore has not over two or at most three yards longer killing range. 12-bore gun must weigh at least a full

#### Equal Performance

Other strings I subsequently ran showed equal performance and proved this was no myth. So we see what can be done with a really good full-choked \$16-bore when using loadings which have folded crimp and no top wads. Not many standard 12-bore guns will equal that performance, even with one and one-quarter-ounces of shot. A 12-bore gun with one and one-quarter-ounces of shot must put around 132 pellets in the thirty-inch





pound more than the 16 and, for this reason alone, is probably two or three yards slower in getting on the target than the lighter 16-gauge. It may run even more at the end of a hard day when the user has loaded game pockets.

With the 16-bore we can have a gun at least a pound lighter, and ammunition that is not only lighter in weight but considerably less bulky. We can mount the gun, get on our birds faster, and kill them a couple of yards closer to the gun. Also we can come in at night less tired than if we packed a heavy gun all day.

#### **Enormous Charges**

Looking back over the years, my first fowling-piece was a Model 1854 brassmounted, smooth-bore musket made by E. Remington and Sons. I used enormous charges of both shot and powder in that ancient piece and when I did get a sideswipe at a flock of passing fowl within forty yards, I usually did pretty well. But at other times single birds flew through my patterns. The old musket kicked like the devil since I used heavy doses of black powder, then a long wad of newspaper, a heavy shot charge, and more newsprint, often tamping both shot and powder before I learned better. Getting tired of having the nipple get wet in a hard rain and having the old Bannerman musket-caps misfire, I put in most of an entire school vacation working for the National Biscuit Foundry at Helena, Montana, to earn enough money for a new Ithaca No. 3 16-bore with thirtyinch full-choked barrels and standard I shot that gun for seventeen years, using it on everything from ruffed and blue and sage grouse to sharptails, all kinds of ducks, and the big white Montana jack I never could see where any man I hunted with did better with a 12-bore.

#### No Good for Geese

Later I used the old Peters Ideal shell with one and one-eighth-ounces of shot in that gun and got excellent results on everything but geese. My shot only rattled on the feathers of the geese at seventy yards. Still later I reloaded for it, with three drams of bulk Du Pont and one and one-quarter-ounces of No. 5 shot. After finally getting my over-powder wad column the right thickness for the heavier shot charge so I could properly crimp the loads, it did wonderful work on all upland game as well as ducks. Allah only knows what the pressures were, but the gun digested them perfectly and after seventeen years was still as sound and tight as the day Ithaca made it for me. Later when Western brought out their Super-X loads, I obtained a case of them with No. 6 shot, again one and one-eighth-ounces. These

seemed to perform just as well as my handloads. One fall when hunting out of Durkee, Oregon, I killed seventeen straight Chinese pheasants with that little full-choked 16, without a single miss. Three doubles were included in the seven-I have never done as well since with any gun.

At that time I had a chunky 1,200-pound jugheaded saddle horse that I used exclusively for hunting. He could swim like a beaver, and walk five miles an hour over any good trail all day long, but he could not run fast enough to catch a sick calf. Nevertheless, he was the best hunting horse I ever owned or broke. He would stand all day if you dropped his reins, and loved to hunt birds as well as I did. used to climb the slopes of Lookout Mountain after blue grouse. In time I trained him until, at the first roar of rising birds, he would swing his head to the right of their flight, then drop his head and hold still as a mouse while I shot from the saddle.

#### Shooting from the Saddle

Having spent more of my early life in the saddle than on foot, I seemed to shoot just as well so long as the birds flew to my left so I could swing with them. Many times I made doubles on the big blue grouse with that old Ithaca 16 from Shorty's back. If I only shot once at a single, or the birds got too far for the second barrel, then Shorty would shiver and tremble slightly while he waited for the second shot. From the way he would prick his ears, I am certain he often smelled the birds before they rose. He carried his tail cocked off to the left habitually and was the last herse anyone would pick for the saddle. His mother was a little Indian cayuse and his dad was either a Percheron or else she was careless, as he was one homely looking jughead. For all that, I wish I had Shorty and similar hunting again; but the horse, those days, and the birds are gone for ever.

Before you purchase your upland gun, look well into the merits of the 16-bore. It can be had in any style or design you want, pump or automatic or double. a single-barrel gun, you can have it fitted with a Poly-choke or a Cutts or Weaver choke and have any desired degree of choke. Also, with all three you can have a compensator if you wish. Personally I like only double guns and do not like any compensator, for the vents seem to throw the muzzle-blast back in my ears and make them ache; so I personally prefer recoil to any and all compensators. If you like a double, you can have one barrel bored more open than the other or both alike. That depends on locality and personal

preference.

Use No. 8 shot for quail and No. 7½ for doves. For the larger grouse and ducks I doubt if anything is better in the 16-bore than No. 6, except for long-range work on very large fowl when 5's or, if the gun throws them well, even 4's may give some slight advantage out at fifty-five to sixty yards from full-choked guns. From openbored or quarter-choke guns, it is better to use fine shot as such borings are for close-range work anyway.

Get the pattern first, then get it with as

heavy a shot as you can.

With modern folded-crimp loads with their new lubricated cushioning overpowder wads, there is no earthly reason why the companies cannot give us one and one-quarter-ounce 16-bore loads. Then we could use the little gun for even difficult long-range work. Recoil would be heavier, but modern guns will handle the load in a two and three-quarter-inch case easily. It is a killing load. I know that from experience.

# Notes on Deerstalking

By A. M. TURNBULL

For centuries men have hunted the red deer of Scotland. Here the author discusses the best methods to use to-day.

IN THIS article I do not propose to deal with the actual art of deerstalking, which can itself cover a wide field, but to confine myself to what might be called the preliminaries of the sport. Nor do I pretend to instruct, but rather to revive memories of those who have had experience of stalking and, perhaps, to interest those who have not.

The red deer of Scotland have been pursued by man since prehistoric times. At first, because they provided a source of food and clothing, later because of the excellent sport they gave and, in more recent times, a mixture of both, but chiefly for food. The stag has been killed by many weapons, ranging from the stone axe to the high-velocity small-bore rifle bullet.

Incidentally, some few years ago I was most interested when a stalker friend of mine told me of an occasion in his youth, when, in the interests of silence he shot a stag with a bow and arrow. The shot was taken at a range of some twenty yards from the cover of a low wall. The stag was



struck in the ribs and ran two hundred yards before falling dead. My friend was surprised to find that the flight of a heavy arrow is very far from being silent.

No doubt many deer were killed with arrows but the hunters must have spent many weary hours waiting on the deer feeding close enough to ensure a kill. Great drives were occasionally held in the hills when dogs and arrows did the execulater, the rifle) the hunter's chances improved, but very slowly. It was not until well into the nineteenth century that rifles began to give satisfactory results. A great interest in deerstalking arose about the middle of the century and with it, a demand for continual improvement in firearms. Round about 1870 the Express rifle made its appearance. Up to this point, most of the rifles used for stalking were of approximately .500 bore and were frequently muzzle-loaders. All rifles which was usually very heavy, being in the region of 400 grains. Nevertheless, our ancestors used those weapons to excellent effect, in spite of the rainbow-like trajectory. In common with the present generation, they wanted higher velocities to cancel out the great demand made on their powers of estimating distance.

The Express rifle was a big step forward as it tended to decrease the bore while the velocities were increased. But as the bullets continued to be made of lead (sometimes with a little tin added), the bullet itself put the limit to which the



velocity could be increased. Once the critical velocity was passed the bullet would not follow the rifling and became highly inaccurate. Some of those Express rifles gave very satisfactory results and their groups would not disgrace many of the match rifles used to-day. During the latter part of the century, rifles of .400 or .450 bores reached a high peak of excellence, and much time and money was spent on their development.

#### An Old Rifle

Marksmen of to-day may be interested to know that a gunsmith friend of mine has a .500 bore match rifle which was made in the early 1870s and which had been fitted with hand-made aperture sights. Both front and back were fitted with traversing gear, the fore-sight was a large ring and the back-sight was fitted with a spirit level. It did excellent work at the 1,000-yd. range and won the Championship of Scotland.

With the coming of the twentieth century the high-velocity small-bore military cartridge arrived. This was soon adapted to sporting purposes and laid the foundations of the cartridges we use to-day. large-bore rifle and the Express became as obsolete as the bow and arrow. were succeeded by the .256 Mannlicher-Schonauer and the .275 Rigby Mauser, while the blunt-nosed .303 also attained some popularity. At first, deerstalkers viewed those rifles with some suspicion, feeling that the small bullet could not kill so well as the older but heavier one. However, experience soon showed that the high-velocity soft-nosed bullet could kill a stag with even greater certainty than the Express, and it had the added advantages of flatter trajectory, less noise, diminished recoil and the use of smokeless powder. The small-bore rifle had arrived in the forest to stay.

Considerable shock is required to kill

a red deer, and, should the first shot not strike a vital part, a deer's tenacity of life is exceptional. Consequently, it is essential to use a type of bullet that will give the greatest shocking power. Many devices have been tried in the attempt to produce a bullet that will kill instantly, or at least anchor the unfortunate animal until it can be painlessly dispatched. Bullets which have been used include hollow points, exposed soft-lead tips, copper tips, spitzer points, etc., and the search still goes on. Really high velocity appears to be part of the answer but that brings other problems in its wake. I am well aware that, under exceptional circumstances, a stag can be killed with a rim-fire .22 bullet, but, with such a low energy behind it, such a very small bullet should never be fired at deer, red, fallow, or even roe.

The risk of only wounding the animal is vastly greater than the chance of killing and it is needless cruelty to attempt their use on such game.

#### Modern Weapons

The rifles which I have mentioned, together with their modern ammunition, are perfectly adequate for the purpose of killing a stag and I believe I am safe in saying that the majority of deer killed in Scotland to-day fall to either the Mannlicher or the .303. In the latter, the 215-gr. and the 174-gr. bullets function well in their soft-nosed form. Just prior to the last war I got a supply of .303 150-gr. copper-tipped cartridges for testing but didn't use them in my own rifle as they called for considerable changes in the sighting. These cartridges were ultimately used in a B.S.A. with suitable sighting and they performed most excellently on the hinds. I don't know whether it was because of their 2,700 f.p.s. velocity or the sharp-point copper tip, but not a single animal was lost which had been struck by these bullets.

A stalker friend remarked that they would be "grand for lions"!

When a sportsman fires at a stag he shoots to kill it where it stands, or runs, as the case may be. How is the shot to be placed in that vital area?

By two means.

Either the stalker is an excellent judge of distance and extremely expert in his shooting, in which case he may take his shot from almost any reasonable range he may choose. Or else he stalks his quarry properly and spares himself nothing in order to make use of the last possible yard of cover and finally takes his shot from as close to the animal as is humanly possible. I am frequently asked, "At what range do you shoot your deer?" and my answer is

always the same—"As near to the animal as I can get the muzzle of my rifle."

#### Extreme Ranges

I do not regard the deer as heaven-sent targets, and the shot is only the climax to the problems and pleasures of stalking. We often hear of kills being made at extreme ranges, but less often do we hear of the misses, or even worse, the woundings of those reckless shots. Surely it is far better to let an animal go which will live to fight another day than to risk what is known to be a half possible shot and send him away wounded—most likely to die a miserable death?

Horatio Ross, one of the outstanding stalkers of the past century, gave it as his considered opinion that a stag which was over 150-yd. away should never be fired at, advice which is as sound to-day as it was then. Admittedly, the power of our present-day weapons far exceeds that of the weapons in Ross's day, but are we to say that we shoot better now than they did?

I wonder.

#### **Shooting Conditions**

There are days when we go to the range and lie down at the 200 yards. Everything is right: good light, little wind, a comfortable lie, no mirage, and the sights stand out jet black against the target. We proceed to put ten shots in the bull and feel it is all too easy. And so it is—on occasion.

We shoot again the next day. This time there is lots of mirage and glare, a shifty wind and rapidly changing light. Somehow the group has stretched to nearer twenty inches. All very trying, but we comfort ourselves by saying that conditions are really bad; we'll try again when they

improve.

The same thing happens when on the hill after deer, but with added disadvantages. The shot may have to be taken from a most uncomfortable position and perhaps in a great hurry for the deer may have picked up the stalkers and are about to make off. The sun may be shining in the shooter's face and that can be very awkward. The shot is taken at 250 yards, which was estimated at 180, but the first shot is a counter, not a sighter, and is most likely a miss with nothing to show where it went.

That first shot may also be the last for the day, and it is brought home to the shooter that there is a considerable difference between shooting at a target and shooting under natural conditions.

What, then, is to be done to help the stalker to put his shot where it will be most effective? I would suggest that the rifle first be tested at the target under favourable conditions, at ranges of 100, 200 and 300

yards. This will show how it will group at those ranges and also check on whether the sight markings coincide with the actual ranges. I mention the 300 yards range for perhaps a shot may have to be taken at that range in exceptional circumstances—such as trying to stop a wounded beast from crossing the march, or when failing light will prevent a closer approach to a wounded animal. Having carefully checked the shooting and being satisfied with it, the stalker should never bother the target again except for an occasional checking shot.

#### Practise

Instead, he should go to the hill and practise as much as he possibly can in all weathers, by shooting at stones and small rocks at all ranges and angles and by carefully checking his range estimation. must, of course, use the same ammuntion as will be employed against the deer. Only thus can he hope to gain proficiency and, even more important, confidence. man will only take the trouble to find out what his rifle can do, and what he can do with it, he will have gone far to ensure success when he goes to the hill to stalk In actual practice, many successful stalkers, after sighting in at 150 yards, never alter their sights from the beginning of the season to the end, but make any necessary allowances by holding slightly low or high as circumstances demand.

#### Well Protected

In their native habitat the deer are well protected by their coloration, and the use of a telescope is essential in order to find them. When the animals are in large herds they may be picked up easily but when in small numbers, or running singly, it may be impossible to see them in time unless a really good telescope is used. It should have a wide field with good definition and not of too great a magnification. I would suggest 25x as a maximum. My own telescope is 20x which gives an advantage in poor light. This is important when one remembers that while the stalking season for stags lasts from the end of





The King's Hundred. A photograph taken at Bisley this year of the hundred

August until October 15, the season for the hinds covers a much longer period—from

November until February.

There are many types of rifle sights but the most common on stalking rifles are those of the wide-V rear-sight and clearbead fore-sight. Quite good definition is obtained with them and they can be rapidly brought on their target, but I find that most of the beads cover a very large area of the animal and there is difficulty in getting an exact setting. Some of the better-quality rifles were fitted with a bar rear-sight which is also very good, but I don't see many of them to-day. sight is a plain bar of metal with an inverted V of ivory, or some similar substance, inserted. The foresight is aligned with the top of the white material.

This gives good results, particularly in

bad light.

Aperture sights have been used for a long time and, given a suitably large rear aperture, are of very real help to those whose eyes find it difficult to accommodate the open sights.

#### Telescopic Sights

While telescope sights have been made and used in this country for a long time, it is only within comparatively recent years that they have been used in increasing numbers in our deer forests. From their inception there has been considerable antipathy towards their use on deer, it being asserted that they made the shooting too easy and that stalkers were being encouraged to scamp their work and to take long shots. If the latter accusation was true then surely that was the fault of the individual and not of the sight. Personally, I favour the use of the telescope

When I shoot at an animal I do so with the intention of hitting him in a vital place so that his end will be both instantaneous and painless. And as the scope is a definite aid to that end I do not consider its use unsporting.

Wide Field

To be of maximum use, the sight must have a wide field (that is, 40 feet at 100 yards), have excellent definition and a good

eye relief.

Many a rifleman's forehead has a crescent engraved on it through being a little too close while shooting hurriedly. A magnification of 2½x or 3x is ample and anything much higher is a decided handicap. own telescope sight is an Aldis 3x which is satisfactory in every respect. The wide field, 45 feet, permits of easy use when shooting at running animals. The advantages of definition are naturally most marked when shots have to be taken in very poor light.

Contrary to general belief, the telescope sight can be used in almost any weather, and only twice in the last twelve years have I had to resort to the aperture sight. each of these occasions thick mist precluded the use of the glass. Except when in use, the lenses are covered by loose-fitting leather caps held in place by stout elastic. Stalking rifles are frequently carried in their cases on the hill, but, unless the weather is really foul, I prefer to leave the case at home and use a leather muzzle-cover



marksmen who qualified for the final stage of His Majesty the King's Prize.

as well as the scope caps.

What is required for To sum up. successful use against the red deer is a rifle, varying between the calibres mentioned, used in conjunction with suitable ammunition. As the rifle has to be carried by someone (and I prefer to carry my own), let it be of a weight that will not be found exhausting by the end of the day, for many of the days are long. I might even mention that some of the hills are steep. A rifle weighing about 7 lb. should have a heavy enough barrel to ensure accurate shooting. Adding the weight of the telescope sight and fittings, the overall weight should be under 8½ lb. which is ample for anyone to use or to carry.

In conclusion, a story with a moral.

Very recently a gentleman turned up at his stalker's bothy to have a day on the hill when it was discovered that the gentleman's rifle had been brought with him but that the bolt had been left at home, some fifteen miles distant. (I wish I had seen The stalker offered to lend their faces!) him his rifle. It was an old converted military weapon.

The gentleman eyed it with some disfavour and asked, "Does this thing shoot?"

"Shoot," exclaimed the stalker, "just you hold it straight and you canna miss!"

There being no option, the rifle was used and three stags were got that day. The rifle had been held straight.

May we follow that example!

#### MAKING A MACHINE REST (continued from page 114).

as in Figs. 3 and 4, and the \frac{3}{4}-in. by 3-in. steel plate should be drilled and tapped as in Fig. 5. Lay the backstop in position and mark out the two holes required, drill and tap 1-in.

Do the same with the two side angleirons and the top cross-member, and screw in place. Drill and slot the 3-in. by 2½-in. by 3-in. angle-irons (Fig. 5). The 9-in. by 6-in. by 2-in. wood block can The two screws now be screwed in place. for tightening the vice are made from -in. studding with wheels attached.

The tensioning device is made up from 1-in. studding and the spring should be a strong one to give 30- to 40-lb. pull, as this is doing all the work at the front end. The movable side-pieces are there only to take care of the different widths of fore-end, and not to hold the fore-end.

The rest is now ready to fix down at the 100-yd. firing point. A good concrete foundation is required and the rest should be placed in position before the concrete sets, so that the cross-members are firmly embedded. At the other end of the range, I suggest a movable target-frame as you cannot alter the elevation of the rifle to be tested except by wood blocks put in under the heel of the rifle, and I think you will find it easier to move the target up or down as required.

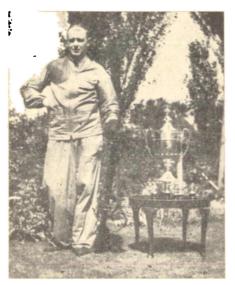
# "The Marksman" Small-Bore Competitions

THE standard of shooting in both competitions was very high, and in the Through-the-Ranges event (open), C. J. Hyde (Salisbury R.C.) had to score a possible (300 x 300) to beat J. R. Williams (St. Nicholas R.C.) and G. A. J. Jones (Walthamstow Ensign R.C.) who both scored 299.

In the short-range competition (open to those with an average of 97.5 and under), L. Courtenay (City of London Police) was the winner with 399 out of a possible 400. His nearest rivals were R. G. Mould (Mount Pleasant R.C.) and L. S. Purvis (Purvis Industries R.C., Midlothian), both of whom scored 397. Mr. Purvis is to be congratulated on a very fine showing as he also scored 298 in the Through-the-Ranges competition, only just failing to qualify for another award.

#### Consistency

The success of Mr. Hyde, that well-known international marksman, will come as no surprise in shooting circles He has the great virtue of consistency. He started to shoot as a lad in his 'teens, but when he was twenty he went abroad and this put



C. J. Hyde, Through-the-Ranges winner, with the Royal Society of St. George Challenge Trophy.

an end to his target shooting activities for some time. However, in 1937, armed with a B.S.A. 12/15, and (as he tells us) with match experience nil, he started again to learn the hard way. In 1942 came the major success of the Royal Society of St. George Challenge Trophy which carried with it the English short-range championship.

Then, in 1946, there was the event of his first National open meeting at Ham and Petersham, and a tie for first place in the British long-range championship with V. H. Gilbert of Twickenham who won by one point in the shoot-off for the

trophy.

At Bisley in 1949, Mr. Hyde won the News of the World Cup in a Through-the-Ranges shoot. He has shot in the Dewar international team for the past five years, and once in the Wakefield Monument Trophy against Sweden in 1948. In 1947 he was a member of the British team which competed in the World Championship matches at Stockholm, and he has also shot in seven Home Countries international matches.

To-day he uses a Winchester 52 rifle fitted with a Johnson barrel, and Remington Target Master ammunition.

#### Short-Range Winner

The short-range winner, L. Courtenay, started shooting when he was eleven years old. Using a converted rifle with open sights he put up a card on a village range in West Sussex and was glad to hit the card four times in ten shots. But this was only a beginning.

In 1928 he joined the City Police Rifle Club (formed forty years ago with its first range in the Tower of London) and since then has become a member of the Wimbledon Park and Embankment rifle clubs. Mr. Courtenay has won several competitions (including the Silver Rose Bowl, 1944, in the Salute the Soldier competition) and has shot for the County of London team for several years and for the winning English Police international team which beat the Scots at Fort William in 1947. He has won the club championship once and has twice been runner-up since 1946.

This year, he says, has been his best with a County League average (metric cards) of 99.5. He was third in the British Short-Range Championship and News of the World trophy, and also tied for

43rd place in the All-England Dewar trials. The improvement in his shooting, he considers, is due to the recent purchase of a Winchester 52, and also to Western Super Match Mk. II ammunition which he uses when he can get it.

#### The Runners-Up

Second in the short-range competition, R. G. Mould, Secretary of Mount Pleasant Rifle Club, obtained 397 points, with 27



R. G. Mould, Mount Pleasant R.C.

inner cartons, to him above place L. S. Purvis who scored the same number of points but with only 25 inner cartons.

Mr. Mould, who is also Secretary of the 28th C.O.L. H/G. rifle club, has won a number of prizes since club he took up smallbore shooting in He uses a

1947. B.S.A. 12/15 rifle with a Balsa-wood pistol grip packed out on the right-hand side to fill the palm of the trigger hand. He uses I.C.I. Rifle Club ammunition.

#### J. R. Williams

J. R. Williams, second in the Throughthe-Ranges competition, attended his first open meeting in 1947 and in that year was chosen to shoot for Kent in the B.S.A. and County Cup competitions. Since then he has shot regularly for Kent. This year he has been re-classified to "A" class under the N.S.R.A. classification system.

His rifle he describes as a "home-built affair" which took about six months to build and shape in his spare time. It is in the "free-rifle" style with a thumb-hole grip and is fitted with a 1929 "Vickers Special" barrel and action. After continuous experiments with the bedding the rifle was tried out at Bisley this year and



L. Courtenay, short-range winner

produced a 9x "possible" at 100 yards in its first competition and 399 x 400 in the Mrs. Goodlake Challenge Cup "Dewar Course" shoot—a score which made Mr. Williams runner-up to Ron Middleton, a fellow club member, who won the event with 400.

L. Purvis, who did well in both competitions, shoots from the left shoulder as a result of incapacity of the right eye. started shooting with a B.S.A. 12/15, but changed to a Barnett 10x fitted with a light barrel. Mrs. Purvis, who is also a keen shot, has taken over this second rifle, and Mr. Purvis now uses a 10x with heavy barrel.

Through-the-Ranges

IST PRIZE: Voucher (£3) and plaque C. J. Hyde, Salisbury, 300 (23x). 2ND PRIZE: Voucher (£2)

J. R. Williams, St. Nicholas, 299 (18x).

3RD PRIZE: Voucher (£1)

G. A. J. Jones, Walthamstow Ensign, 299 (17x).

Short Range

IST PRIZE: Voucher (£3) and plaque

.. Courtenay, City of London Police, 399 (32x).

2ND PRIZE: Medal

R. G. Mould, Mount Pleasant, 397 (27x).

3RD PRIZE: Medal

L. S. Purvis, Purvis Industries, 397 (25x).

Plaques and medals were supplied by John Pinches (Medallists) Ltd., and by Alfred Roden and Son, Ltd.

## "WINCHESTER 73"

Men of the Old West fought, stole and gambled to get possession of a rare "One of One Thousand" Winchester Model 73. Here's how Hollywood got three, and how Winchester craftsmen upheld a boast of long standing.



IN Hollywood, where there always are more job-seekers than jobs, "understudies" or "stand-ins" for the stars ordinarily are easy to find. Recently, however, the producers of one picture had more difficulty in getting understudies than in obtaining the star. And, ironically, the understudies that were so hard to find probably will not even appear in the film.

The star, in this instance, for the first time in cinema history, is not a flesh-and-blood actor but a rifle which plays the title role in "Winchester 73" opposite James

Stewart.

Finding a perfect rifle of the Model 73, which was named for the year 1873 when it was introduced, was easy enough. A total of 720,610 rifles of this model were made from 1873 to 1924. This was one of the most famous of all rifles of its time, and was known to plainsmen and shooters as "the rifle that won the West." Yet there was just one particular variety of this historic rifle that Universal-International Producer Aaron Rosenberg and Director Anthony Mann wanted.

It was one of the rare "One of One Thousand" Model 73's. As the name implies, it was the most accurate of every thousand of this model produced. It was the one rifle that every Westerner of the time wanted but which few had the good luck to own. The story of "Winchester 73" is a chronicle of some of the many men who risked anything to own a

"One of One Thousand."

There was one of the historic "One of One Thousand" Model 73's in the famous gun museum of the Winchester Repeating Arms Company Division of Olin Industries Inc., in New Haven, Connecticut. The guns in this great museum are maintained in apple-pie condition to aid the company's gun designers. The museum never loaned

its guns to outsiders. They were only for the use of the company's own designers, but Bill Gordon, Universal-International's public relations expert, made a special trip all the way from the West Coast to change Winchester's mind. He came back to Hollywood with the prized rifle.

When Gordon got back to Hollywood, studio officials suddenly realized that one rifle wasn't enough. What if the prized rifle was lost or stolen during the course of production? They began to visualize hundreds of thousand of dollars worth of



Making the "One of One Thousand." A finelyfigured block of American walnut is selected for the stock. Craftsman Oscar Ludwig ensures that only the choicest part is used.

Right: The rough blank has now been cut to shape by Oscar Ludwig, and in this picture with the receiver (which is the metal part that contains the action and "receives" the cartridges), he carefully marks the blank for the next operation.

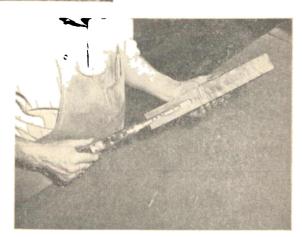
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Left: Here Ludwig is shown grooving the rough blank to take the feet of the receiver preparatory to inletting. This is a delicate operation requiring extreme skill and long experience in gun wood-working. If the fit is not exact to one-thousandth-of-an-inch the eventual accuracy of the finished gun will be affected.

Right: The receiver is now fitted to the stock—not the receiver that is used eventually but a "slave" receiver which gets its name from the fact that it is used merely to hold the stock as it undergoes various hand operations.

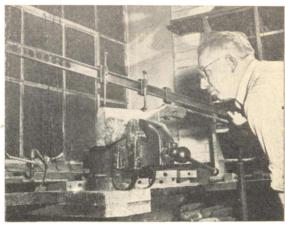


#### The Marksman



Left: Now begins the shaping of the stock. A spokeshave is used for the first rough strokes. Notice how the "slave" receiver is used to keep the stock steady. If the real receiver were used it would not be much use after this treatment.

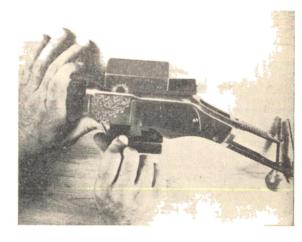
Right: Now the craftsman uses a measuring-stick. This measures the distance out of the horizontal of the stock as compared with the line of the barrel. Technically this distance is referred to as the "drop" at the "heel" (end of the butt) and "comb" (the point where the stock begins to swell out to its full width). Some marksmen prefer larger or smaller distances, but rifles are usually produced to fixed standards predetermined by average convenience.





Left: For checquering, a special grooved cutter is used to produce the characteristic pattern of crosshatching on the stock. To produce an even pattern requires a steady hand and skilled judgment, and is a much more difficult operation than it looks.

New John Kusmit takes a hand—one of the factory's most talented young engravers. Using a diamondhard cutter, he executes a scroll pattern into the metal of the receiver. He works from his own design to suit the peculiarities of each gun, and after roughly marking the pattern his is an entirely first-time result. One slip and the receiver is ruined.



lost shooting time with expensive contracts running on day after day awaiting a replica to be manufactured if their only Model 73 was lost.

The studio might have started a nationwide search for other Model 73's to use as understudies or stand-bys, but Winchester experts told them that while they might possibly find several rifles, it was likely that they would not look exactly like their prized museum specimen.

#### Very Rare

Producer Rosenberg knew that "One of One Thousand" rifles were rare and much sought after, but he didn't know how rare they really were. Winchester introduced the "One of One Thousand" in 1875, just two years after the Model 73 was introduced. Altogether only 124 "One of One Thousand" rifles were manufactured! Just 124 out of 720,610! Really one in 6,000!

At the time of the rifle match in the film, July 4th, 1876, only 26 had been made, including one for Alfonso XII, King of Spain. But their fame had already spread.

If you're curious, the "Winchester 73" is a lever-action repeating rifle, the third model that Oliver F. Winchester introduced, the second to bear his name, and the one that made the company worldfamous. A 15-shot repeater in 44-40 calibre, it soon became so popular that Samuel Colt chambered his equally famous Frontier Model six-shooter to the same calibre so the ammunition could be used in both rifle and revolver. If you're an enthusiast you know this famous rifle was also made in several other calibres, but it was the 44-40 that was most widely used and that's the calibre of Universal-International's rifle.

Producer Aaron Rosenberg found out that Winchester stopped making the Model 73 in 1924, fifty-one years after it had been introduced. Knowing that automobile companies usually stop making spare parts about ten years after a model is discontinued, he felt that his chance of having Winchester make up two stand-by rifles was just about zero.

What Producer Rosenberg didn't know was that until just a few years before World War II, Winchester actually made good its boast that it would supply spare parts for every rifle and gun it ever made.

Rosenberg happened to meet Jimmy Stewart at the "Brown Derby" and was complaining about his difficulty in finding the stand-by rifles. It was a lucky meeting, because Jimmy Stewart remembered that as a boy his father had told him Winchester could supply parts for any gun they made. Jimmy's father, Alex Stewart, runs a hardware store in Indiana, Pennsylvania. The Stewart store is the J. M. Stewart and Company, "The Big Warehouse, Hardware Merchants Since 1853," and of course, has been a Winchester dealer for many decades.

Being somewhat out of touch with his father's business, now that he's in motion pictures, Jimmy didn't know that Winchester had stopped supplying extra parts for obsolete guns, but he suggested to Rosenberg that he just ask Winchester to pick out enough parts and whip up a couple of spares. Just like that.

#### Last Two Barrels

Rosenberg thought it was a wonderful idea and passed on the word to Winchester. Winchester then produced its "Catalog of Component Parts," and as expected, found it still had a few parts for the Model 73—luckily two barrels, the *last* two, in fact—but not enough parts to make two rifles.

If Hollywood was going to make a motion picture about one of their most famous

rifles, Winchester executives decided that the least they could do was to get busy and make two new 75-year-old Model 73's, come what may. They called in some of their master gun-makers who turn out the world's finest sporting guns, and put them to work in late 1949.

After assembling the few parts still in stock, veteran Winchester gunsmiths had to make a number of parts by hand, produce beautiful new ornamented walnut stocks, assemble the guns, and then test them.

In the opening sequences of "Winchester 73" the authentic "One of One Thousand" rifle is the prize in a shooting match. Gold plates engraved with the following were made and imbedded into the walnut stocks of the original gun and the replicas.

FIRST PRIZE
CENTENNIAL RIFLE SHOOT
Won by
(space left for winner's name)
DODGE CITY, KANSAS

July 4th, 1876
In addition, the vital words "One of One Thousand" were engraved on the

top of the barrels just ahead of the receiver.

These difficult tasks were relatively simple for gun-makers whose products supply American sportsmen in peace and American troops in war, but the final tests were still to come. These were the accuracy tests.

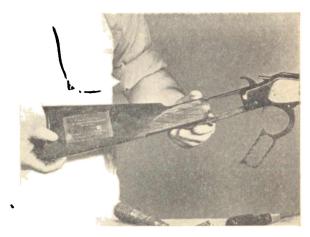
Winchester had stipulated in its agreement with the studio that unless the two stand-in Model 73's were up to "One of One Thousand" accuracy, it would not release them even for stand-by use in the picture.

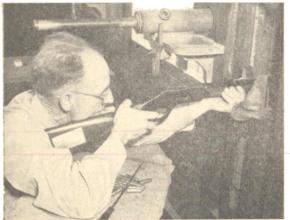
Accuracy Tests

It was no wonder that when the two rifles went to the accuracy range they were accompanied by the heads of the research, rifle and cartridge divisions along with a dozen or so interested executives, many of whom had never seen the famous Model 73 fired.

Jack Lacy, Winchester's top gun tester, is accustomed to audiences, and as the holder of the United States Marksman Medal, is one of the country's top shooters.

Having fitted the receiver action together, complete with the rearsights, now comes the stock which has already been fitted with heel plate and a special engraved presentation plate.





All types of machine-assisted methods have been tried in testing the finished rifle but none is so satisfactory as a crack marksman using the rifle with the normal aids to good shooting. Here, Jack Lacy, Winchester's ace gun-tester takes the first shot at a test target, in the course of sight-adjustments for extreme accuracy before the rifle is released.

But when the two stand-by rifles rolled in to him along with many of the company's top brass, he knew that these were not ordinary rifles and that he was on his mettle.

As a targeter it's Jack Lacy's job to "graduate" the company's most accurate rifles. When he gets them they have been assembled and he must set the sights so that the rifles shoot where they're aimed. Jack shoots so well, that when a rifle misses the bull's eye, it's the rifle's fault, and Jack adjusts sights and fires until the rifle shoots straight.

As in the case of most rifles that Jack targets, it took just two "sighter" shots to get it into the bull and three more to make certain the rifle would stay in the bull. Then to get the real measure of the rifles' accuracy, Jack fired another group of five shots at one hundred yards. None of these was more than 13 inches apart! Both

rifles tested equally well. They were actually "One of One Thousand" accuracy.

That was real black powder accuracy 75 years ago and fully up to the standard of the famous "One of One Thousand." Even to-day that's wonderful shooting.

Satisfied that its stand-by rifles were guns any shooter would like to own, Winchester boxed them and rushed them air express to Hollywood. These two rifles may never appear in the picture. Eventually they'll go back to the Winchester museum along with the real "One of One Thousand" Model 73.

To-day Universal has three rifles which look exactly alike and probably not even a gun expert could tell them apart.

The National Rifle Association of Washington, D.C., is co-operating in a nation-wide search to find all of the "One of One Thousand" Models 72 which are still in existence.

# Placing the Bullet

### By LT.-COL. C. H. STOCKLEY

In big-game hunting, when the moment arrives for the kill, the practised hunter will know just where to put his shot. A mistake at this stage may mean a wounded animal and a long-exhausting pursuit. It may also be dangerous.

THE main sport of big-game hunting is not in the shot but in the approach to a position from which the shot will almost certainly ensure a clean kill. Equally, with driven game the range must be reduced and the skill of the beaters will consist in putting the animal past the gun at a pace and range which will make the shot an easy one.

Before the rifle is taken out for use on a live target it is essential for the hunter to have had much practice with the sighting, balance and trigger pull. There is nothing worse in the way of ruining a day's sport than having to follow a wounded animal for long hours and weary miles, with the knowledge nagging at one all the time that the poor beast is suffering agonies as a result of a badly-placed shot.

#### A Definite Spot

The first principle of taking a shot is that it should be aimed at a definite spot on the quarry and not taken at a range which gives an indefinite mass at which to shoot, and such spots and the angles at which to aim should be well studied to avoid unfortunate incidents involving wounded beasts and sometimes the loss of an animal.

#### Steady Constriction

The actual pressing of the trigger should be carried out by a steady constriction of the whole hand, so that the firer hardly knows eactly when the rifle is going off. "Snatching" is fatal, and accounts for most wounded beasts and nearly all misses. Anybody who wobbles over more than three inches of the target should give up shooting at live targets until practice makes him steady.

The animal hunted should carry a good trophy, that is it should be fully mature and of the male sex, except in the case of carnivora, when such conditions should be

aimed at but are not always ascertainable. There are also some antelopes (e.g., oryx) whose females carry horns of length as great as those of the male.

#### Careful Examination

Thus, on getting up to within range of the quarry, probably in stalking about 150 yards, if there is a herd all males should be carefully gone over with the glasses so that the finest may be picked out and his position examined to select the placing of the shot.

It may be that he is presenting his tailend to the sportsman, in which case patience must be used to wait for a change of position. This, if the wind is right, which is probable or the herd would have already bolted, not only involves no danger of a stampede but can be used to settle the sportsman into a comfortable position, perhaps get a rest for the rifle, and above all, calm the irregular breathing which may have been engendered by a climb or a long crawl.

#### Range Estimation

With modern rifles there is little to do in the way of estimating range, the trajectory being so flat that practice will have already shown that there is no more than two inches change necessary in elevation between 100 and 150 yards.

Wait until the old male turns slightly so as to show himself almost facing or half on, the latter either away from or towards the gun. If away from the gun the bullet can be placed just behind the last rib and slightly below the bulge of the side to rake forward; if he is facing forward put it on the point of the shoulder.

#### Keep Shots Low

In any case it should rake right through heart and lungs. It is essential to remember to keep one's shots low, for one placed a little above the heart may pass through above the lungs and behind the shoulder without breaking a big bone, and in no way crippling the quarry.

If facing quarter on, the bullet should go low into the hollow where chest joins shoulder, and will then break up the big blood vessels of the body cavity.

If the herd is slightly alarmed, possibly a slight change of wind having brought a suspicious taint, and their heads are up, it does not mean that they will necessarily bolt immediately. If the desired buck is covered by another, or standing quite wrong, their first move will probably give an excellent chance, for they are certain to stop for a last look round.

#### Wild Oxen

The heart and big blood-vessels always lie a good deal lower than the novice thinks, and with dangerous game passing across one's front, or standing broadside on, the centre of the shoulder blade is the right target, for it will cripple the beast and go on into the chest cavity. This is particularly so with wild oxen, with which the first shot is of the greatest importance, and anchoring the game is the object. Their weight is too great to allow them to go off on three legs, as many smaller animals can do, while a finishing shot is easy and put in within a few seconds.

Head shots are rarely advisable except with elephant or hippopotamus in the water, and when taken must be at very close range, twenty to thirty yards. If the elephant is moving his head, patience is again necessary unless the heart shot can be taken behind the point of the shoulder and a great deal lower than in other beasts.

#### Head Shot

F The aiming point for a head shot from the side is half-way between the ear and the eye, with allowances for the angle at which the head is held. From dead in front aim for the centre of the hollow between the base of the trunk and the forehead bump. When the target is dead in front and a bull raises his trunk in suspicion to try the wind, a shot low down in the chest is fatal, though no heart or chest shot is usually fatal immediately. A



Impala. A strange taint on the breeze and the big head is standing wrong. Wait for him to turn. If they move on they will stop again for another look.

bull may go anything from 200 to 1,000 yards.

It is essential, when an animal is hit, to fire at it steadily as long as it shows signs of life, and those which fall very suddenly should be approached with care as the bullet may merely have grazed the spine and recovery may be as sudden as the apparent death. A bullet across the front of the brain may result in the animal falling and then rolling about bellowing or roaring. Recovery is probable and its results can be unpleasant. This is particularly the case with elephants and buffalo, when a side headshot has been taken in thick cover at short range.

#### Careful First Shot

Charging animals should be very rare, their number being brought down to almost nil by a careful first shot knocking all idea of attack out of the beast. But it may happen, and when it does the lower edge of the chin is the place to aim for. If using a double-barrel rifle the second bullet should be kept for very close quarters. Buffalo offer an opportunity for the "toreador" shot between the shoulders as they put down their horns for action after coming in with head up and nose poked out forward.

All the old elephant-hunters agree that a charging elephant can be turned by a bullet through the base of the trunk.

Tiger will pull up at the end of a charge before seizing their man, and then offer the best opportunity for a second bullet.

#### Most Dangerous of All

Leopards are the most dangerous of all wounded animals, and invariably charge home and cannot be turned. They can hide in almost no cover at all, so that I once almost put my boot on one (fortunately unwounded) which bolted from under it in foot-high grass.

If in thick forest and you have to run, invariably do so at right angles to the animal's advance and leave any path you may be standing on, for a charging animal will, more often than not, carry straight on along it. This does not apply to Indian or African buffalo or to tsine in Burma, all of which will hunt a man.

Charges by unwounded animals are rare, usually being by cows with small young-



Bull elephant. Practised hunters agree that a charging animal can be stopped with a bullet through the base of the trunk.

sters come on suddenly in bush, or if by a bull, by one previously wounded by some village hunter.

Every animal should be treated as possibly dangerous when wounded. I have known three fatalities through sambar stags, and have had a narrow escape from an oryx. One of these fine antelope flicked his horn right through the forearm of a Somali with me who had run in to finish him. Even a blackbuck can kill a man, and a "tame" Arabian gazelle at Aden killed two small boys (of about ten and twelve years) in a couple of minutes. Do not worry about making extra holes in a skin, but about the integrity of your own.

#### What to Avoid

Use rifles and bullets which are up to their work, and use "soft-nosed splits" only when hunting in country where it is most desirable that the bullet breaks up immediately on impact—such as blackbuck shooting in cultivated areas or deer hunting in forest where other men are known to be about. For ordinary hunting, solid and soft-nosed bullets are good enough for every job, and fancy makes sold in shops whose employees know nothing whatever about big game should be avoided.

It cannot be sufficiently emphasised that the first shot is the one which counts, and a thorough knowledge of one's rifle, a careful approach to within clean killing range, and steady shooting all go to make real sport, the saving of pain to the quarry, and the acquisition of good trophies.



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, London, W.8.

# TRIBAL RIFLES

## By RICHARD OUNSWORTH

A strange assortment of weapons, modern and antique, came into the hands of the British authorities on the Indian frontiers. Richard Ounsworth writes of the days when the confiscation and destruction of such weapons was his concern.

NE OF the results of the withdrawal of the British from India has been the ending of the sporadic warfare which for so many years necessitated considerable British forces on the frontier. Although much unrest still exists it is no longer the British soldier who is killed or wounded in frontier skirmishes.

Many of the weapons used by the tribesmen and produced in frontier factories were remarkably efficient, a very close copy of the British Service rifle. The Pass factories made rifles which were sold to tribesmen for use against the British. In their time they even manufactured a few field guns, firing both solid shot and high explosive.

It used to be my job in Rawalpindi, the largest Punjab town near the frontier, to supervise the destruction of tribal arms after their capture by the army and the civil police. Every few months a consignment was collected; they were laid out in neat rows in the armoury. I once picked up a rifle which appeared to be a perfectly ordinary Service .303. Looking closely at the proof marks beneath the bolt I noticed something odd; the metal bore the customary initial of the Sovereign and the year of manufacture, but this one bore the marks, "V.R. 1914." As Queen Victoria died in 1901 this gave it away as a tribal rifle. The tribesmen were a bit hazy on their dates.

#### Treasured Possessions

There were scores of weapons for destruction. They had been the treasured possessions of the tribesmen; a blood-thirsty lot, they earned undying fame in their villages if they sniped some unfortunate Briton. Another rifle for destruction bore the correct initial of the Sovereign, but the Imperial crown was upside down. At first sight these weapons appeared to be perfectly ordinary specimens, indistinguishable from British rifles, save for their small faults.

Many of the guns and rifles which came in for destruction were museum specimens, held together by wire, even string. Several of the more ancient specimens were finely worked and would have gladdened the heart of a collector. Stocks inlaid with mother-of-pearl and silver, many had delicately chased barrels. Numerous revolvers were sent for break-up, including some of European manufacture.

Before weighing the arms they were checked against lists sent to the arsenal with each batch; weighing followed, this being carried out in bulk, after which they were placed, muzzle inwards in a massive brick incinerator. This method followed the accidental wounding of a man when a round exploded in the fire.

#### **Burnt and Crushed**

All weapons were unloaded when first captured and again checked before burning. Occasionally a jammed bolt prevented the withdrawal of a round; a few which were already "up the spout" generally went off, but without damage to personnel. When all woodwork had been destroyed the fire was extinguished and the metal residue again weighed. The final stage was the crushing of the arms under a power hammer at a pressure of many tons to the square inch.

Not until the barrels were flat as ribbon was the destruction considered complete. It was an elaborate ritual, but in India there were many hands into which illegal arms might stray, perhaps with fatal results for some unlucky police officer or soldier.

Destroying these weapons frequently I learned something of their story. There were several factories in tribal territory where arms were manufactured quite openly. Much of the workmanship was excellent, but the soft steel of the barrels gave them a limited life. A thriving business in arms stealing existed, and it was not uncommon to find an illegal rifle with parts of British manufacture; quite often the barrel and stock would be tribal made with a British bolt.

At one time the tribesmen had no answer to the accurate and long range rifles of the British-Indian armies, their matchlock jezails and flintlocks being hopelessly outranged by modern weapons. This was

changed when a flourishing business was built up by gun-runners, who operated through Afghanistan and the Persian Gulf, until the latter channel was stopped by the Navy in the early years of this century. However, before it ceased a large number of accurate weapons found their way into tribal hands.

#### Raids

Rifle thieves were always on the watch for British arms and from time to time a gang would scale the wire of a compound with ladders; after waylaying and knocking out the patrol the thieves escaped with their rifles. In frontier districts it was customary for sentries to have their arms chained to their bodies, the chains being a normal Ordnance issue. Before modern rifles were as common in the territory as they later became a British Lee Metford would fetch £50, the equivalent of four years income for a Pathan tribesman.

The poorer Pathans could not afford a British rifle, but they generally managed to obtain a Pass-made weapon for about £10. These arms were produced quite openly in the Kohat Pass and although methods of manufacture were primitive in the extreme the finished products were ex-

cellently finished off.

Although the life of these arms was limited their owners were very sparing of ammunition. It seems incredible that the authorities allowed the factories to flourish

under their noses, but the only explanation would appear to be that if they were abolished in the Pass they would spring up again deep in tribal territory where they were less accessible to the British.

Many of the workmen in the hill factories were artificers from the Punjab; they proved most ingenious at turning out delicate breech mechanisms and the many components which are usually considered the prerogative of a well-equipped modern factory.

#### Rusty Nails

The antique weapons which many tribesmen still favoured used practically anything as ammunition. Smooth-bore guns fired rusty nails, pebbles, broken glass and anything designed to inflict on the victim as much damage as possible. I knew a fellow whose friend had been killed beside him, hit by a home-made missile consisting of the tightly rolled lid of a bully beef tin. Such ammunition inflicted dreadful wounds, but the tribesmen had never heard of the Rules of War.

Shortly before the last war an Afridi headman entered a new field of endeavour by turning out excellent counterfeit Afghan rupees, an enterprise on which the British frowned for political reasons. To-day there are no British troops for the tribal warriors to engage, but they still have their age-old feuds which interfere with

the family life of the hill tribes.

# HAVE YOU EVER OWNED AN AIR-GUN?

### By EDWARD STOKES

An air-gun can be a child's toy. It can also be a deadly weapon. Here the author writes of the types he has used over a period of forty years.

AIR-GUNS! These are magic words to those of us of middle-age and beyond, bringing back memories of carefree boyhood days when we had our first shiny "Daisy" (at the terrific cost of two shillings and sixpence) which fired round B.B. shot dropped down the muzzle: at about sixpence a thousand.

What a thrill when we made that old tom cat jump off the garden wall far quicker than he had jumped on, or, as a change from live targets, bombarded Mrs. Smith's corrugated shed at long range from some cunning hide-out, and then crept stealthily away.

And later, our first "Gem" No. I breech-loader with the blued-steel barrel which cost ten shillings and sixpence, and fired hollow-backed slugs at ninepence a thousand, and, more wonderful still, tufted

steel darts at two for a penny. Happy

days!

How, as time went on, we longed to possess the awe-inspiring all-black new "Musketeer" air-gun (in sizes I, 2 and 3) produced by the makers of those hollow-back slugs, Lane Bros., which at a cost of thirty-five shillings was entirely beyond our means.

#### Weird-Looking Things

And those profusely illustrated air-gun catalogues, issued by a score of Birmingham firms, obtained and pored over in secret, with the longing for what could not be, to obtain the one which cost the most and, therefore, must be the best—always excepting those weird-looking things with no triggers or guards and an ugly, thick barrel, or those looking like walking sticks. They were all described as "silent pneumatics," like the new type of bicycle tyre, and pumped up with air, and, more ridiculous still, fired round lead bullets made in moulds, the same as those we made for our catapults.

These we viewed with distrust as being suitable only for assassins or sinister men with beards, who in any case must either

be pro-Boers or anarchists.

Little did we realise that these unsavoury looking specimens were the most formidable type of air-weapon ever to be produced, or that they would be the subject of an article in the first issue of a new shooting journal called THE MARKSMAN, in July of the year 1950.

As the years sped on there were rumours of a new idea for air-guns; a thing called "rifling"; spiral grooves in the barrel (like those in the Lee-Metfords and the Mausers which our soldiers and the Boers used in South Africa) which made the bullet spin and go very straight.

in and go very straight.

#### Two New Types

And at last rumour became a reality and about 1905 two new types called air rifles were shown in the catalogues, one short overall but with a long barrel and with no sign of the usual cylinder, the other very long, dark and lean looking, with what appeared to be a second shorter barrel underneath with a cranked muzzle (impossible).

The first was the "Britannia" (Cox's patent) with cylinder in the butt; the second was the "Lincoln" B.S.A., underlever and fixed barrel with rotating

breech-plug and full pistol grip.

Both had rifled barrels and fired queer

looking bullets with wasp waists.

We tried the queer looking new bullets in our air-guns; they were a dismal failure. Of course they were—in smooth bore barrels. But when one of the new B.S.A. rifles appeared in our village and we saw the owner (a retired Army officer) knocking small mustard tins off a gate top at 50-yd., and killing starlings at 70-yd. we looked upon him as a second Buffalo Bill. What a man! What a gun! And what a longing to have one like it.

The B.S.A. had come to stay and quickly became world-famous but the Britannia was not so successful (it was a breakdown type), although a very good weapon.

Those few years from 1900 to 1905 saw the greatest development in springoperated air-guns which has ever taken place. The succeeding forty-five have brought very little improvement.

All the early types of breech-loader were smooth-bore with breakdown barrels, in some cases made in three sizes, known as Nos. 1, 2 and 3, the No. 1 size being the

most popular and successful.

#### Reasonably Accurate

They fired hollow-backed slugs which would penetrate a 3/8" white-deal board at 10-yd. in the case of the full-sized weapons and their effective range for killing small birds was about 35-yd.

They were reasonably accurate and the slugs kept point forward during flight.

In these early types the breech joint usually became a source of trouble, allowing an escape of air on discharge which in time seriously affected power, but eventually this was largely overcome and some of the later types of breakdown, notably those of German make, had close-fitting and rigid actions.

Rifled barrels gradually took the place of smooth bore in the case of the full-sized weapons, and elevating rear sights of various types appeared, following the example of the Lincoln B.S.A.—the first air rifle to be provided with this novelty.

Mention should be made of the great variety of air-guns and air rifles produced by German firms both before and after the First World War, far exceeding those of Britain and the United States, and of excellent quality.

#### Inexpensive Shooting

The spring-operated air rifle offers to the vast majority of those interested in small-bore shooting (and particularly to the younger generation) by far the most economical means of attaining proficiency under a variety of conditions which would not be practicable with the .22 cartridge rifle. The cost of pellets even to-day is such that an almost unlimited amount of shooting can be indulged in without undue expense, particularly with the small .177 calibre.

At this point it may be well to state that

there are three distinct types of air rifle, as this fact is not generally known. First there is, or was, the very powerful pneumatic or pump-up type, described in the first issue of THE MARKSMAN, which fired spherical bullets of large calibre, by means of highly compressed air (up to 500 lb. per sq. in.) contained in a reservoir at the rear and introduced by means of a hand-operated pump, one charging being sufficient for about twenty shots before velocity very noticeably decreased.

#### Lethal Weapons

These were truly lethal weapons, capable of penetrating a one-inch deal plank at 50-yd., but naturally they lacked consistency in velocity, and could not always be relied upon to hold the air very long at high pressure.

They were in general use from about 1860 to 1905 when they were rapidly superseded by the spring-operated weapon, which was much cheaper and more suitable for use in restricted areas, although much

less powerful.

Then there were the self-contained pump-guns operated by a pump with a lever handle attached to the underside of the barrel. Full compression usually was obtained in about ten strokes, and the maximum power, in the case of the modern type, was no more than that of the full-size spring air rifle. The American "Crosman" is a typical example.

It is understood that a few specimens of old pattern were more powerful, firing a spherical bullet of large calibre from a smooth-bore barrel, but I am not person-

ally acquainted with these.

The modern American type fires the standard .22 calibre pellet. This type lacks consistency in velocity, which depends upon the number of pump strokes made: also there is no certainty of the air being held at full pressure for any considerable length of time.

However, if scientific knowledge and mechanical ingenuity could devise a system whereby air leakage is definitely overcome and full compression is obtained by a single stroke of the pump lever, then this type would be the ideal air weapon. All pump-up guns have a smoothness on discharge which spring air weapons do not possess, on account of the vibration caused by the release of the very strong mainspring.

#### Spring-Operated Type

Thirdly, there is the spring-operated type which has been in general use for over fifty years and has given pleasure to countless thousands, young and middle-aged alike.

The main components are the piston

and spring contained within the cylinder, and there are many smaller components, all of which are necessary for the proper working of the whole. A true appreciation of the variety of these can only be realised by viewing a weapon entirely taken down, but some idea may be gained by a study of a sectional diagram indicating by numbers the various parts.

In the case of the spring air rifle, the air chamber is occupied by the piston, with the front portion of the main-spring inside it until the action of "cocking" is carried out, either by the barrel or the lever as the

case may be.

This causes the piston to be thrust back and held by the trigger sear, with the spring now compressed and the air chamber clear but containing no compressed air until the moment of discharge.

When this occurs the spring causes the piston to rush forward through the chamber, compressing the air which it contains. This acts on the only point for escape, namely, the base of the pellet in the breech.

It is astonishing to find so many users of air rifles who are under the impression that the act of compressing the spring also compresses the air: nothing is further from the truth.

And yet the writer has frequently heard the opinion expressed, and by adults too, that certain rifles are not so powerful as others of the same make because "they let the air leak if kept cocked too long."

#### Simple and Consistent

The great advantage possessed by the best types of spring-operated weapons, apart from accuracy, is consistency in velocity and simplicity in operation.

With regard to velocity, this consistency is due to the fact that the spring of any individual weapon does not vary in its power of propulsion with succeeding shots, although after long use it naturally becomes somewhat weaker. When this happens it can easily be replaced by a new one at small cost.

The amount of power generated by the spring is truly remarkable when it is borne in mind that the internal diameter of the cylinder, even in the case of the full-sized weapon, is not much more than one inch and the length of the air chamber only about four inches.

Yet in this small space, air at normal pressure is so rapidly and highly compressed by the action of the piston that it will drive a tiny pellet of .177 calibre with sufficient force to penetrate a 5/8" deal plank at ten yards or bring down a small bird at seventy yards.

The waisted pellet, specially designed for rifled barrels only, was a wonderful

invention which has stood the test of time and has remained unchanged for 45 years.

Its principle of rotation by the rifling (so far as the more popular smaller calibre of .177-in. is concerned) by engagement with the base rim only, is almost unique, as practically all types of cartridge bullets are engaged for nearly half their length.

Yet so finely formed is the rifling of a good-quality .177 air rifle that the tiny pellet rotates as truly on its longer axis as does the bullet of the service rifle or big-

game weapon.

The reason for its peculiar shape is the vital necessity for the minimum of friction in its passage through the bore.

This standard calibre of .177 is by far the smallest bore of any rifled arm, and yet its tiny projectile is the only one of the whole range of small arms which is actuated by the rifling in exactly the same manner as the shell of the largest naval or land gun: that is to say, by its base rim only. The one variation is that in the case of the big gun's steel shell, its base rim is composed of copper or similar soft metal known as the driving band.

Each of these projectiles, one so small and the other so huge, pass through the bore without any contact with the rifling excepting at the vital base rim, although in each case the clearance is infinitely small.

## THE ARMY AND ITS RIFLE

### By ERIC PHILIPS

Is the rifle still an important weapon in the conditions of war as we know it to-day? Mr. Phillips thinks it is. Here he provides a brief historical sketch of its use as the Army's premier weapon.

SHOOTING enthusiasts will have noted with satisfaction, and doubtless some relief, that the British Army is giving again a good measure of attention to the rifle, which still is, more than any other, the personal weapon of the soldier of all arms and combatant services.

Proficiency with small arms has been a matter of importance and pride with the fighting men of this country in all ages since the British and Welsh archers showed what could be done with the longbow and the arrow properly used against superior numbers and armour at Crecy and at Agincourt.

In modern times this proficiency began to be most widely developed in the great movement for national defence in 1859, when an invasion from the Continent seemed possible and Tennyson wrote his rallying poem, "Riflemen, form!" and new volunteer rifle corps and civilian rifle clubs sprang up throughout the land.

A leading article in *The Times* of May 14th, 1859, observed: "Once more we are to adopt a national arm, to take it up with a will and teach ourselves and our children its use and to make it our trusted and familiar weapon, until the British rifle shall become as renowned and as formidable as the English longbow."

The British rifle, changing in type and improving in power and accuracy through the years, in due course achieved that predicted renown, though not until its users had learned certain hard and painful lessons at the hands of the sharpshooting Boers in South Africa. As a result of that surprising war the British Army's methods of what was still called "musketry" training were thoroughly revised. purpose of the training was to be, according to the Musketry Regulations published by the War Office in 1909, "to render the individual soldier proficient in the use of small arms; to make him acquainted with the capabilities of the weapon with which he is armed, and to give him confidence in its power and accuracy. Musketry training should also qualify officers and non-commissioned officers to direct and control fire under service conditions . . . .

So faithfully was this purpose kept in mind and so well was the training carried out that British military small-arms proficiency reached its zenith, in the wonderful mastery of the S.M.L.E. rifle attained by the Regular soldiers of that incredible British Expeditionary Force which went to France to fight the Germans in 1914. Their rapid fire rate of twelve to fifteen properly aimed shots a minute,

produced in emergencies by infantry and dismounted cavalry alike, astonished the enemy, and soldiers generally around the world; it has since become legendary.

The source and fount of the old Army's rifle training was, of course, the School of Musketry, Hythe, which since its return after a war-time sojourn with the National Rifle Association at Bisley Camp has been reconstituted as the Small-Arms Wing of the School of Infantry. Incidentally, it was the initiative and eventual action of a number of volunteer officers attending a course at Hythe in 1859 which led to the forming of the National Rifle Association.

Skill with the rifle was highly regarded in the old Regular Army, and the crossed-rifles badge on the sleeve denoting the supreme classification, "Marksman," carried much prestige. The badge was by no means unknown among Territorials.

Shooting in competitions for personal prizes and team trophies was among the chief recreational activities of Regular soldiers, apart from the routine qualifying and classification practices done on the miniature and the full open ranges during the musketry training year. Many of the Territorial soldiers also shooting enthusiasts. The Army Rifle Association was formed, and in due course the Territorial Army Rifle Association, co-ordinate these Service shooting activities. There were team competitions involving both marching and shooting, notably that for the Daily Telegraph Cup, which were open to Regulars and Territorials on level terms and provided excellent training and much strenuous enjoyment year after year.

#### Standard Lowered

The dilution, as it were, of the first-class shots of the Army through the gigantic expansions of that service during the two Great Wars naturally lowered the general standard of marksmanship for the time After 1918 this standard certainly to a large extent recovered; but in the last war the remarkable increase in the variety of small arms, especially light automatic weapons; the constant preoccupation with the problem of evolving means to destroy tanks, and the multiplication of subjects generally for soldiers to study largely diminished the Army's long-standing interest in the rifle.

There were battle-experienced infantrymen who came to swear by the Thompson (the "Tommy") sub-machine gun, or even the primitive-looking Sten, as a better personal weapon than the tried and trusty Lee Enfield magazine rifle, and admittedly, for section leaders in battle, particularly street fighting or other close action, the shorter, handier gun with its ready auto-

matic stream of bullets seemed to be the answer. The "hosing" method of fire from the hip, too, was quick and untroublesome, and the vast waste of ammunition involved in it could not be expected to be of much concern to the firer of the gun.

One way and another the rifle, even the new No. 4 type with improved sights which superseded at last the grand old S.M.L.E., became more and more neglected, and by the time the war was over had lost much of its old prestige. But not quite hopelessly. The Home Guard all along had set a lot of store by skill with the rifle and range practice with it was thought at least as important in their training as practice with the several other weapons in the Home Guard armoury. interest had resulted in the forming of many new Home Guard rifle clubs which elected to carry on in peace time, while civilian clubs all over the country were eagerly awaiting the chance to start shooting "for fun" again. So also were the many young riflemen in schools. The first postwar Bisley meeting in 1946, favoured with at least glorious weather was in all the difficult circumstances largely successful, and the meetings there since have attracted more and more competitors from many parts of the world.

#### This Year's Bisley

The Army's revived interest was strikingly shown at the Army Rifle Association's meeting at Bisley this year, when some 800 entries were registered, compared with 430 for the meeting in 1949. Field Marshal Sir William Slim, Chief of the Imperial General Staff, has demonstrated his personal desire to see the rifle restored to a high place if not to its old pre-eminence among the Army's weapons by accepting the Presidency of the A.R.A. this year.

In the view of the War Office authorities to-day the rifle, properly used, is still the most economical killing agent available to the soldier, and skill with the rifle is the foundation of skill in the use of all other small arms. Because of the increasing complexity of the soldier's training there must be less time than formerly to be devoted to rifle practice, but as much as possible will be given and the rifle will have its place with the Bren and the Sten guns in the annual course in shooting. Competition shooting has full official encouragement and Commands and Districts have a good deal of latitude for the arrangement of competitive meetings and shoots. Free ammunition is supplied for the A.R.A.'s central meeting at Bisley, and free travelling warrants also for competitors there from the Regular Army. So the Army has not altogether given up its rifle yet!

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#### Altear Shoot

There were full-bore and small-bore events at an Altcar meeting organised by the 82nd H.G. Rifle Club. The small-bore championship was shared by J. L. Brown and W. T. Dean who each scored 296 out of 300. Warrant-Officer Sperring, R.A.F., Kirkham, was full-bore champion with 128 points out of 140.

The ladies' match was won by Miss Mabel Merriton, of Manchester, with 390 out of 400. Mrs. W. T. Dean was

runner-up with 380 points.

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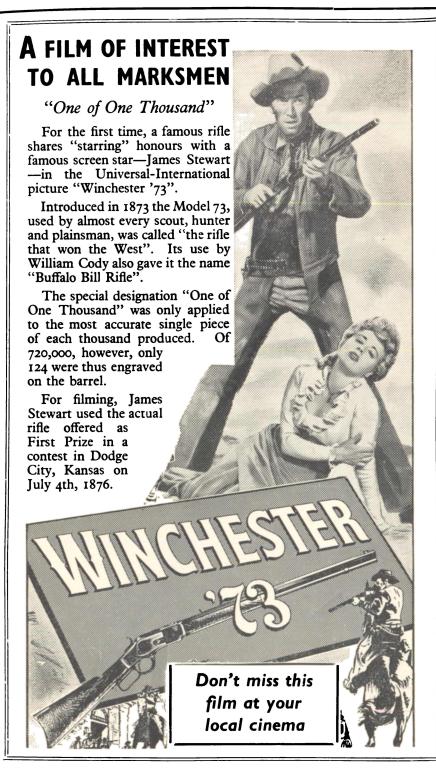
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