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TRIGGER TALK

T WO FEATURES of this month's issue bring up some interesting questions.

The article on GI's handguns by George Nonte (page 26), brings to mind that during the last session of Congress, a bill was introduced which would make it mandatory that every enlisted man serving in a combat zone be issued a handgun. As far as I know, nothing ever came of this. The bill was introduced because legislators had received thousands of letters from parents whose sons in Viet Nam were asking for personal sidearms (similar to the letter printed on page 26).

Whatever the military reasons for not issuing handguns, I know that I personally felt a lot better during WWII after I had armed myself with a Mauser pistol, and used it, rather than the M1 Carbine.

The second question, too, is a personal one, and it is this: "Are all types of gun legislation-federal or local-bad?" It is a well known fact that just about every state legislature has some form of gun control legislation pending during this session. These run from the strictest registration to relatively mild forms of bills which would prohibit shooting in certain areas. The letter we publish on page 21 certainly reflects the position of a minority of shooters—at least as far as we can tell from the letters we receive on the subject. However, let us not say that the minority opinion is totally wrong, nor that the majority is totally right. In the final analysis, it will not be the large shooting clubs or the masses of "lobbying" groups who will decide whether or not we have state or federal gun legislation, and how strict or effective this legislation will be. It will be the individual gun owner who has the last word, and his decision should be based on his own personal beliefs, his own interpretation of the legislation, and his own evaluation of the need for gun controls as they exist in his own area. For without the support of the individual, none of the groups opposing antigun legislation would have any effect whatever. This is not to say that we should not oppose legislation which is both ineffective and at the same time restricts the law abiding gun owner. The question then is this: "Would you support fair, effective, and reasonable gun control legislation?"

THE COVER

The engraved Paterson Colt on this month's cover is from the personal collection of Samuel Colt, displayed at the Wadsworth Atheneum in Hartford, Connecticut. The letter is an original, announcing a showing of the new guns to interested buyers. Photo by R. L. Wilson of Connecticut.

JULY, 1967 Vol. XIII, No. 7-151

George E, von Rosen Publisher

Arthur S. Arkush Ass't to the Publisher



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CROSSFIRE

"Needle Gun"

The rifle in your article in the January, 1967, Guns intrigues me, as I saw it and I immediately thought "French." Reasons? The stock, sling swivel location, bolt handle, and hammer, (or rather cocking piece.) When I saw the chamber measured .323 or 8 mm, the feeling increased. I believe that pre-World War I German 8 mm guns were .319, but the 8 mm Lebel is .323; also the chamber somewhat resembles the later shape of the Lebel case. As for the capacity of 60 gr. powder, I thought "black powder." I may be miles away, and probably am, from the correct nationality of the rifle but it still looks French to me.

W. E. W. Muth International Falls, Minn. nial Long Range Match, to be held in honor of the Canadian Centennial Year. The match will take place on Saturday and Sunday, July 1st and 2nd, at Blair Range, 3040 East Keith Road, North Vancouver, B. C. The matches will commence at 9:30 a.m. and continue to the end of the days match. There will be three courses of fire, 300, 600, and 1,000 yards. Sighting practice sessions are run at Blair Range every Saturday morning beginning in April.

For further information and entry forms contact either James R. Paton, #206, 456 East 8th Avenue, Vancouver 10, B.C., or Randall S. Haviland, 784 S. W. Berthodl, Beaverton, Oregon.

James R. Paton Vancouver, B. C.

Canadian Centennial Matches

Through your magazine I should like to extend an invitation to the American shooters on behalf of the British Columbia Rifle Association to attend the Canadian Centen-

Mortar Collector

So the Hruska Bill banning large bore weapons deserves the support of all sportsmen! (Guns, Jan. 67) You sporting type magazines can really be merciless on the gun col-

lectors who own most of these guns, (The writer served on a mortar squad in WW II and collects mortars.) And since most of your readers are sporting types, you never say a word against deadly small bore stuff. Take the following ads for instance:

Page 57; Why would anyone but Al Capone want a 25-shot magazine for a .45

Automatic?

Page 74, middle column; Thompson submachine gun, machinist's working prints, satisfaction guaranteed (or, build your own chopper). Or, machinegun conversion, convert M-1 to full auto M-2. Or, paratrooper stocks, \$29 for carbine. (The carbine with folding stock is the most deadly and concealable small gangster-gun ever devised. Why would anyone want to own one?

I'd be tempted to cancel my subscription, but I won't because you do print an excellent magazine, and besides nothing I say or you print will make much difference in which rotten law will eventually be passed.

Jerome Mendel Plainfield, New Jersey

Long Gun Gaff

That Ol' Jay Charles writes right well and the brown paper bag stunt is almost as good as the newspaper-and-twine-wrapped long gun gaff by means of which a suitably innocent fella can unload reblued Damascusbarreled hammerless doubles on dealers if he picks a dark enough building; but what I was writin' about was Charlie and him could save alot of agony swappin' direct, 'cept they wouldn't stay friends long—first one got the chance would skin t'outher, and they both know it. How do I know? Will a hound suck eggs? Them Ol' boys is traders, son.

Al Kazan Alexandria, Va.

THE MAY ISSUE



Every month presents a new challenge to the publishers and editors of any periodical, and Guns Magazine is no exception. At each editorial conference, a group of articles undergo careful scrutiny—some are accepted, others are returned to the author

for further work, and still others

are rejected.

Early in March we were faced with making a decision on the article: "Backfire—an evaluation of the investigation into the assassination of John F. Kennedy, as related to firearms and forensic ballistics."

Four factors helped us in our decision to publish this article.

1. The author, Shelley Braverman, was a noted and respected expert in the field of forensic ballistics. I doubt very much if we would have accepted an article dealing with the assassination from anyone less qualified.

 The article dealt only with the firearms and ammunition involved, and did not attempt to cover all of the argumentative aspects of the assassination brought out by some sensationseeking reporters.

3. The article offered the first positive approach to the questions raised by

the publication of the Warren Report—written by an expert in the firearms field, expressly for those interested in guns.

4. Our role, as publishers of a periodical for those with an interest in guns, is to bring to our readers timely, informative, and responsible reporting of material which embraces their interest. That the firearms and ammunition discussed in this article were related to a shocking event in our nation's history was subordinate to the fact that they were elements within our field of journalistic endeavor.

The response to our manifestation of this challenge, from the mature, responsible readers of Guns Magazine has been most gratifying, and encourages us to continue our search for fresh, informative material which conforms to the concept of a publication about guns, for those with gun interests.—Editor





COLLECTOR'S CORNER

By ROBERT MANDEL

AVING JUST RETURNED from the National Rifle Association's annual meetings and exhibits in Washington, D. C., and having spent most of my time on "collector's row" viewing the many fine displays by various gun collectors associations throughout the states, I will devote most of this month's Collector's Corner to a report on these displays. The effort, time, and understanding that each antique gun collectors association put into setting up their individual displays could easily be seen, as each exhibit was engrossing and just as interesting as the next. The collectors groups are a credit to the NRA, and for me, the NRA without them would never have the appeal that it has.

Probably the one display that impressed everyone attending the convention most was

of the nation from 1850 to 1900. One of our country's top gun collectors associations, Ohio, outdid themselves by putting together this fine display.

Florida's Gun Collectors Assn. display of "Helmets and Handguns" was an eyecatching exhibit and very interesting. The Smoky Mountain Gun Collectors display of "Arrows to Atoms" showing the evolution of arms was done in great taste, and well recieved. "A Man and his Arms," the display of New Jersey Arms Collectors Club, showed fifty years of one man's collecting endeavors... a tribute to what can be done in the collecting field. Another fine display was exhibited by the Virginia Association of Arms Collectors. Its display of derringers, titled "Where Little Thing Mean A Lot," was a treat to see, for mounted and displayed were



Display of the Long Island Antique Gun Collectors at NRA Show

the really fine exhibit by the Long Island Antique Gun Collectors titled "The Iron Men." It commanded the most interest of any display at the meeting. Made up of approximately seven full suits of armour and a full range of helmets, axes, swords, daggers, morning stars, and just about every type of arm used by the men of iron in days of old. It was truly an exhibit worth seeing and more than worthy of winning the top award of the NRA meeting.

The Ohio Gun Collectors Assn. display consisted of antique firearms engraved by the great American engraver, L. D. Nimschke, who engraved for the top firearms companies just about every type of derringer that was ever produced by an individual or arms company, a fine display and well thought of by everyone that viewed it.

A tribute to the U. S. Naval Academy was displayed by The Maryland Arms Collectors Assn. with their presentation of "Naval Percussion Revolvers 1850 to 1865," another of the really fine displays.

As I viewed the displays at this NRA annual meeting, I could not help but wish that in a period of time when the rights of all collectors are being threatened, that every person opposed to the ownership of arms could have been with me and seen this

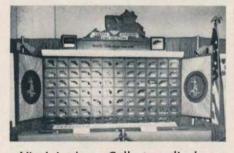
group of displays, and maybe in some small way they would be able to understand the love and feelings that went into their forming. To try and take away this love and rights seems to me unthinkable, for firearms themselves are so closely associated with our country's history, that we who collect arms have turned our homes into a shrine for



New Jersey Arms Collectors display.

American history. This heritage of collecting antique arms, when viewed from all its facets, is a great thing; and few artifacts that are connected with the founding and preserving of our liberty as a nation could and will hold a place with so many of us who have this great love and understanding. I only wish that there was some way that we could make the ones that are opposed to the ownership of arms understand this. The great exhibit at the NRA Convention could and should be a start.

I would like to advise our readers of three top collectors gun shows coming up in the next few months. There seem to be more and



Virginia Arms Collectors display.

more gun shows being set up all over the country; most are really not worth the attending, as they are filled with for the most part with military surplus, parts, and miscellaneous junk. I will try to keep you informed on the Antique Gun Shows, that I have attended and found to be of top caliber and worth attending. June 16th, 17th, and 18th the ninth Annual Gun Report National Show will be held in Tulsa, Oklahoma, one of the nations top collectors shows and a great treat to attend. Once again the great Sahara Antique Gun Show will be held in Las Vegas, Nevada, September 22nd, 23rd, and 24th: the quality show of the nation. After attending the first Connecticut Gun Guild-Hartford Antique Gun Show last year, it was easy to place this show with the top gun shows of the country-the quality of this show was undisputed by all who attended. It's held in Hartford, Connecticut, September 30th and October 1st.

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HANDLOADING BENCH

By DAVE WOLFE

Editor and Publisher of The HANDLOADER Magazine

WE'VE ACKNOWLEDGED that the modern brass cartridge case is the key to the fine ammunition we have todayand to the handloading we are able to do. But no matter how important we consider that case, it would be about as useful as the proverbial mammary glands on a male swine if it weren't for the modern, replaceable, center fire Boxer-type primer.

Your car won't run without spark plugs, and the primer is the spark plug of any conventional (and some not so conventional) firearms. Of course, here we speak of percussion-type primers that function when crushed by a firing pin. There are other types, especially those detonated by electric current, but they are for special military and industrial applications and only very rarely encountered in conjunction with sporting arms. There is a French side-by-side double that contains its own electrical system to ignite a form of electric shotshell primer, but it is far from common.

The primer of today must do several things. First and foremost it must provide sufficient flame and heat to ignite uniformly the cartridge's powder charge. Because of the many different powders and the varying quantities in which they are used, this is no simple task. In fact, variations in powder type and quantity make it necessary to have a number of different primers of varying sizes and "strength."

The primer must also be stable during storage and all the rough handling it gets in transportation and in slam-bang functioning through all types of gun actions-including some that fire as fast as 1600 rounds per minute. It must be relatively insensitive to temperature variations from the frigid poles to the hottest equatorial desert.

The primer must be safe from accidental detonation in normal handling and loading of cartridges, yet it must fire with absolute reliability when struck a proper firing pin blow. It must be so constructed that it will completely seal its own gasses and those of the main propellant charge in the cartridge case at pressures of well over 75,000 psi. It must survive drastic changes of humidity without altering its surety of func-

By today's thinking, the primer must also be so constituted chemically that it has no deleterious effect on either the arm in which it is used or the cartridge case. Admittedly this was not always so, but today we insist on it.

From the handloader's viewpoint the primer must be removed easily from a fired case, and just as easily be replaced with a fresh one: All with cheap, simple tools. Equally important, it must sell at a price we can afford.

Now, just sit and think a moment about all those requirements. They constitute a damn big order for a match-head-size assembly of metal and chemicals for which we expect to pay only a bit over three-quarters of a cent each. The next time you feel inclined to bitch a bit about the cost of primers, stop and think about all that for a moment.

Contrary to what you may have heard that "a primer is a primer, as long as it will fit the pocket," nearly a dozen different models and sizes are needed for best results in today's popular cartridges-and this doesn't include some special military requirements. Two basic diameters are required for pistol calibers, and two for rifle. And while the diameters are essentially the same, construction is not.

Pistol primers must be designed to fire reliably with relatively light firing pin blows inherent in handgun designs. This means



Photo shows a Boxer primer with three-legged anvil in place, and the Berdan primer with open cup.

lighter and softer cups. It is fortunate that pistol calibers operate at lower chamber pressures than rifle, therefore lighter construction can be tolerated. Rifle cartridges, on the other hand, operate at much higher pressures requiring stronger primer construction to contain the combustion gases. No problem, since rifle mechanisms can produce as heavy a firing pin blow as desired.

Those four "standard" rifle and pistol primers handle most types and charges of powder quite well. But, then, we have the slow-burning, large granulation powders used in large quantities in so-called magnum loads. Better ignition and combustion of them is produced when a slightly different type of primer is used. A relatively new development, this type is called a "magnum" primer. That makes eight different primers to cover the complete range of metallic cartridge reloading alone. Add to that those required for shotshells and it can easily be seen that one must be somewhat discriminating in primer choice for any given reloading project.

But how do primers work? To understand that, we'd better first take a look at how they are made. A Boxer-type primer for metallic cartridges consists of four components. Berdan types, more or less standard in Europe, but no longer used in this country, contain only three components.

A simple, shallow cup forms the primer body. Usually made of brass or some other copper alloy, the cup can be made of soft steel as was done extensively in Europe during WW II. The cup must be sturdy enough to seal off powder gases when the cartridge is fired, yet soft enough to be indented easily by the gun's firing pin. It must be elastic enough to make a tight fit in the primer pocket of the case.

Into the cup is pressed a wafer-like pellet of priming compound. This compound must be chemically stable and one that will not react adversely with the material of either the cup or the cartridge case. It must be sufficiently sensitive that when crushed against the anvil (of which more later) it will ignite uniformly, producing sufficient heat to properly ignite whatever propellant charge is being used. And that ignition must be virtually instantaneous and uniform from shot to shot.

Over the priming pellet is pressed a disc of metallic foil or waterproof paper. This disc seals out any atmospheric moisture which might otherwise be absorbed by the priming compound, which does have an affinity for moisture. In some instances, a drop of lacquer is applied to the disc to secure it in place, as well as aid in waterproofing. The application of the disc is called "foiling."

Last of all, the anvil is pressed into the open mouth of the primer cup. Anvils take many forms, but the most common of the boxer type is a three-legged cone with the legs flared outward somewhat. The legs must bear tightly enough against the inner walls of the cup to insure that the anvil remains properly in place until the primer is assembled into a case. At the same time, the top of the anvil must bear solidly against the pellet of priming compound, providing a surface against which the firing pin can crush the compound to cause ignition. Anvils are normally stamped from brass sheet, however steel has been used.

At this point we'd better clear up the difference between Boxer and Berdan primers, the latter often being encountered in foreign ammunition. The Berdan primer does not have an anvil assembled to it—the mouth of the cup is left open after foiling. The anvil per se, against which the compound is to be crushed, is formed integrally from the bottom of the primer pocket during manufacture of the cartridge case. It is normally in the form of a conical projection, and one, two, or three very small flash holes are drilled through into the inside of the case around its base.

When the Boxer primer is seated in the cartridge case, the legs of the anvil must be resting solidly on the bottom of the primer pocket. The act of seating the primer so places additional anvil pressure against the priming pellet, increasing its sensitivity. The cup must fit tightly enough in the pocket to retain this pressure.

If the anvil is not resting solidly on the bottom of the pocket when the firing pin strikes the cup, the entire primer assembly will be driven forward. Any such movement cushions the firing pin blow, resulting in less uniform crushing of the priming compound, consequently less uniform ignition and propellant combustion. This can result in less uniform bullet velocity which produces vertical stringing of shots on target. In extreme cases, a hangfire or misfire can result.

When the pellet is crushed against the anvil, friction within the compound causes

of any Boxer-type primer. It is pressed into the mouth of a brass or steel battery cup which contains a separate anvil and a hole in the bottom to direct the primer flash into the propellant charge. When the components are properly assembled, the cup and compound (called the cap) is tight in the mouth of the battery cup, the anvil is seated solidly on the bottom of the battery cup and its top bears solidly against the priming compound pellet.

The battery cup serves two purposes. It

MAKE	Small Pistol .175"d	Small Pistol Mag .175"d	Small Rifle .175"d	Small Rifle Mag .175"d	Large Pistol .210"d	Large Pistol Mag .210"d	Large Rifle .210"d	Large Rifle Mag .210"d
Alcan	SP		SR	_	LP	_	LR	_
CCI	500	550	400	450	300	350	200	250
Federal*	100	_	200		150	_	210	215
Herter	11/2		61/2	_	111	_	120	
Norma	SP	_	SR		LP	_	LR	
Remington	11/2	51/2	61/2	71/2	21/2		91/2	91/2M
RWS	SP		SR	_	LP	_	LR	
SAC	SP	_	SR	_	LP	_	LR	
Winchester	11/2	_	61/2	_	7	_	81/2	
Western	108		116		111		120	
*Color cod	ed: 100	red, 150 gre	en, 200	green, 210	red, 215	purple.		

it to ignite and burn furiously. The resulting flame, hot gases, and incandescent particles flow forward between the legs of the anvil and through the flash hole in the bottom of the primer pocket—and on into the propellant charge. The manufacturer's photographs show quite clearly the shape and volume of the unconfined flame and the paths of the incandescent particles. Inside a case they are considerably confined and focused directly into the propellant charge.

Shotshell primers function identically, but are constructed somewhat differently because of the nature of the cases in which they were originally intended to be used.

Shotshell primers were standardized to function correctly in paper cases with thin metal head reinforcements. This form of case construction was entirely adequate for the pressures produced by shotshell loads, but possessed only a fraction of the strength of brass cases used for rifle and pistol cartridges. Consequently, the case head could not withstand the pressures generated within a conventional Boxer-type primer. A reinforced type of construction was used and is still standard, called the "battery cup."

The cup and priming compound pellet of the battery cup primer is identical to that

prevents distortion of the cap upon firing, and a flange around its mouth supports the entire primer solidly against the case head at the time the firing pin strikes. In this manner the shortcomings that prevented the paper case from being used with rifle and pistol type primers have been overcome. But this battery cup type of construction consumes more time and materials, so shotshell primers cost considerably more than those for rifle and pistol use. It is worth noting that modern one-piece molded plastic shotshells possess sufficient head strength that they could very well be used with standard Boxer-type primers, thus eliminating the expense to the reloader for battery cups. Now, if we could just persuade the big boys to make those cases with a pocket to accept, perhaps, large pistol primers, and reloads would cost us half a cent less each.

Now there, we've covered briefly some of the whys and wherefores of primer construction and functioning. There is much, much more to be said regarding the actual use of primers, but ye olde editor claims he's out of space for this issue. Likely if you come back next month, you'll find that he has found room for another similar installment of some small value.

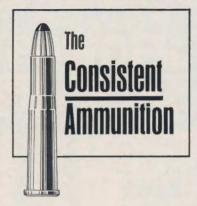
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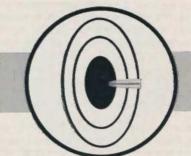
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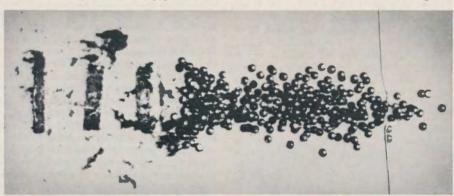
By COL. CHARLES ASKINS

HERE OF LATE there has been quite a long sustained effort made to persuade shotgunners that the 12 gauge is obsolete in favor of the 20 gauge when the latter is loaded with 3-inch magnum cases and 1½ oz. shot. The argument put forth is that the 20 shoots just as good as the 12 with loads up to 1½ oz. of shot and it kills just as far. Along with all this the 20 weighs less and it is intimated that it kicks less. These are all virtues and if true make out a highly saleable case for the smaller gun.

Wallace Coxe, who for many years was a

pellets we can conclude that the large bores are more efficient and have greater killing power than the smaller gauges." Wallace Coxe wrote this several years ago. It is just as true today as it was when he first put in to print.

The hocus-pocus that the 20 gauge magnum gun is going to kill wildfowl just as far as the 12 is pretty well shot full of holes by the statements of our authority here. You simply do not kill ducks at 60 yards with anything save big shot, sizes No. 2 and No. 4. When you attempt to pour one-and-one-fourth ounces of 4's through the



Shot charge from a 20 gauge Magnum with $1\frac{1}{2}$ " forcing cone. Some pellets are fused together and others have flat sides.

ranking ballistics engineer with DuPont has this to say in his excellent little tome, Smokeless Shotgun Powders, "The 12 gauge gun delivers approximately 25 per cent more energy than the 16 and approximately 43 per cent more energy than the 20 gauge gun." Coxe goes on to comment as follows; "There is one other feature that distinguishes the larger and smaller size gauges. A 12 gauge can handle No. 2 and No. 4 shot more effectively and efficiently than a 20 gauge. With all the smaller gauges the best results are obtained with the smaller sizes of shot because the shell length is approximately the same for the different gauges. It establishes the length of the shot column. This length is almost directly proportional to the length of the shell, whereas the weights of the shot charges are more nearly proportional to the bore diameter. Consequently when large size shot is used in the small gauges the extra length of the shot column renders the passage of the shot through the choke more difficult. As the shot size decreases in diameter the difficulty experienced by the shot column in passing the choke is reduced and there is no limiting factor regarding the smaller sizes of pellets. Because the larger bore shotguns can handle the large sizes of shot which retain a greater striking energy than smaller

.615" bore of the 20 gauge, and then jam pack the extra long shot column through the constriction of the choke, a further narrowing to a mere .590", you put so many flat sides on such a percentage of your pellets as to come out with a mighty ordinary pattern, a cloud of shot not nearly as efficient as the load from a 12 gauge. The strategy behind the attempt to sell the 20 magnum to the American shotgunner stems from two sources. The first is the desire to swing the smoothbore clan from the long-time favorite, the redoubable 12 gauge; and secondly to sell an imported 20 which is touted as a super gun.

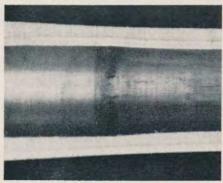
The Browning company now chambers all its superb over/under 20s to the 3-inch chamber. This is so that those owners who would like to try the powerful 1½ oz. loading may fire it if they like. For the past three seasons I have shot doves and whitewings almost altogether with a Browning. In this gun I fire the powerful Federal 3-inch sell, a loading of 1½ oz. No. 7½ highantimony shot and 3¼ drams equivalent of powder. This is a standard 12 gauge loading. In 6 lb., 10 oz. gun, with 28" barrels bored modified in the under tube and full choke in the upper, it is a kicker.

In southwestern Texas we have some of the best dove and whitewing shooting on this continent. We have a long season on the dove and the game remains in plentiful supply throughout the legal time. I shoot a great many. My average for these past three seasons has been 10 birds brought to bag for every 18.2 cartridges expended. As to yardage the 20 has a three-season kill range of 32 yards.

During the last month of the '66 season I laid the Browning aside and commenced to shoot the Remington Model 870 pump repeater, a 12 gauge with 28" tube bored modified choke. This Remington has the Hydro-Coil attached. This gizmo, now peddled by Winchester, is a recoil reduction device and a cracking good one. In this Remington I shot a mild target load, a charge of 1½ oz. No. 7½ and only 3 drams equivalent of powder. For every 10 birds brought to bag I expended 15.9 cartridges and the average range for all birds killed was 37 yards.

Despite a slightly lighter charge than that used in the 20, I was doing better with the larger bore.

At the front end of the shotshell chamber is the forcing cone. This is a funnelshaped narrow place in the barrel. When



Normal forcing cone in 20 gauge.

the crimp opens on the mouth of the cartridge casing it unfolds in the forcing cone. This permits a smooth movement of the shotload, wadding, and gases from the shell into the barrel proper. In the 20 gauge the front end of the shell chamber measures .685" while the bore just ahead is only .615". It can be readily understood that the funnel-like forcing cone is highly essential to the transferral of the shot.

If a cartridge, say the standard 2\%" 20, is fired in a 3-inch chamber, it does not do so well. What happens is that the crimp opens okay but when the shot pour out, nudged along by the five tons of pressure from the burning powder, the shot are jammed, roughed up, and mutilated in passing through the forcing cone. It pays, let me tell you, to shoot the proper cartridge!

By the same token if you get to monkeying with the cone and make it too long—it is only 9/32" in standard 20 bore guns—you can also do a lot of damage to the shotload. The same paranoia which has advocated the 20 gauge magnum over the 12 bore has also developed a forcing cone of 1½ inches. This, in effect, is no cone at all. What happens with a long taper like this is that when the wadding gets free of the case and is passing through this long loosely fitting portion, the powder, working under its 5-6 ton pressures, flows around the wadding, tips it over, and not only fuses shot pellets together because of its 3,000°



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F. temperatures, but also disrupts the charge the entire length of the gun bore.

The 1½" long tapered cone is the plaything of a single kitchen mechanic. He has persuaded one of our importers to build this rather ridiculous deviation into all their shotguns. Neither Winchester, nor Remington, nor yet Browning have anything save the standard forcing cone in their shotguns. This business of the proper length of this highly sensitive portion of the barrel has been explored lo these many years agone and the dimensions are as well established as the choke at the muzzle end.

The scattergun is, rather unfortunately, one of the most completely standardized pieces of ordnance in all the firearms realm. There is just precious little mystery about

the gun. Probably nothing is more standardized than barrel lengths. A magazine editor asked me, last year, to write him a piece on "a handy little scattergun to use around camp. A sort of meat gut-with a 20-inch barrel so it will be real handy." Now a shotgun with only 20 inches of snout is sure handy alright. But what can you do with a tube thus abbreviated? The best answer to that one is the experience of Bill Jordan, who is the NRA field rep for this end of the country. Jordan used to be a AA skeet and trap shot. He came by to spend the weekend with me last Saturday. On Sunday I took him to shoot at my local skeet club. Bill had picked up as a bargain gun a Browning Auto-5 with a 20Sportsmen, Hunters, Now A

> RAPID «

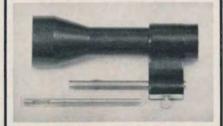


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GUN RACK

.45 DERRINGER

"Inch for inch and pound for pound the greatest fighter" is said of the smallmouth bass. The same can be said for the Intercontinental Arms Co. big .45 derringer. This over/under pistol stands in a class alone! Chambered for the .45 Long Colt cartridge, with an overall length of 5½", a pair of barrels of 3½" and a weight of 20 oz., this is the most compact power package of them all! I like it immensely.

The derringer is imported by Intercontinental, a west coast outfit, is made in Italy by Umberti of Gardone, is forged alloyed steel construction throughout. The barrels have countersunk chamber heads, the firing



pins are separately designed, spring retractable, and the hammer rests in a huge safety notch which no amount of trigger pressure will budge. The hammer spring is coiled and tempered and cocks with moderate pressure. The big derringer is a scaled up version of the original .41 Remington, but with all these modern design improvements.

The .45 Maverick, as it is called, has been fired 380 shots, all full factory loads. It shows no evidence of looseness, neither at the hinge pin nor at the latch. The recoil is not unpleasant, as the back strap is rounded and the gun rides through the web of the hand without giving hurt. Accuracy is sketchy. The upper barrel shoots 8 inches high; the lower 3 inches below point of aim. This is unavoidable due to the barrel-over-barrel design. This is a tremendously effective weapon.—Col. Charles Askins.

NEW 7 mm LOAD

The new Remington 125-gr. spire-point softpoint 7 mm bullet is the nearest thing to a varmint loading offered by any of the companies in the 7 magnum cartridge. From a Model 700 with 23-inch barrel, velocities 18 feet in front of the muzzle show an average of 3367 fps. The factory indicates 3430

fps from a 26" special barrel. At 100 yards factory velocities stand at 3080 fps: at 200 these are down to 2750, and at 300 yards are 2450 feet per second. Drop at 100 yards is 1.6"; at 200 yards, it is 6.9", and at 300 yards, 16.7 inches. Sighted in for 200 yards, a normal zero, drop at 300 yards is only 5.7" below the zero; at 400 yards, 17 inches.

Ten cartridges torn down indicate the Corelokt bullet weighs an average of 125.5 grains with differences between the ten slugs of 1.3 grains. Ten powder charges indicate an average loading of 69.62 grains of propellant. I could speculate what this powder may be but factory lots are never the same as you get over the counter, so it is better not to get into this one. Variations between the 10 rounds broken down was high, 1.2 grains, ranging from a high of 70.2 grains to an even 69 grains.

The sectional density of this new slug stands at .225 and the ballistic coefficient at .358. The Speer outfit makes a .264 bullet in 120-gr. weight of similar configuration which indicates an SD of .247 and a BC of .405. The latter figure is the more important of the two. Another 20 grains weight added to the 7 mm hikes the ballistic coefficient to .425. But you can't have everything in a light bullet and this is a feathery number.

At 200 yards from a sturdy benchrest and with perfect wind conditions, the first 5 shots from a Remington M700, Hensoldt 4X scope, and Fajen thumbhole stock, resulted in an extreme spread of 3.27 inches. Six subsequent 5-shot groups averaged 3.46 inches.—Col. Charles Askins.

DAVIDSON SPANISH-MADE 12

The Davidson Supply Co. imports the Ugartechea y Cia, Eibar, shotgun known as the Model 63B. It is a 12 gauge, with 28" barrels, a weight of 6 lb., 10 oz. chambered for our standard length 3" shells. There are two triggers finished in gold color, an auto



safety, and plain extractors. The gun locks up with two under bolts and a cross bolt above. It has been proof-fired by the Spanish Government Proofhouse, Eibar.

The Ugartechea y Cia is one of the better

shotgun makers in Eibar. Of the 62 manufacturers there some 5 or 6 who make a better high grade firearm. This gunsmaker is numbered among the better ones.

Buttstock and forend are made of a plain grade of Pyrennes walnut. Both are checkered. There is a comfortable pistol grip with a grip cap and contrasting white line spacer. The buttplate is hard rubber. The barrels on the model submitted for test were marked modified and full choke. The mike showed the modified choke as running .700" and the full as .680". Ordinarily modified choke runs from .705 to as high as .715 and full choke from a tight .690 to as high as .710 in American guns. The right hand tube throughout the unchoked portions measured .735 ahead of the conventional forcing cone and this narrowed to .725 at a point 16 inches behind the muzzle. The left hand tube, just ahead of the forcing cone, measured .730 and at a point 14 inches from the muzzle narrowed to .715. At the muzzle, the choke commenced some 4 inches behind the very snout and ran .680, as indicated.

Patterns with light field loads from the left barrel ran a good even 68 per cent to 76 per cent at 40 yards. From the left barrel (marked full choke) patterns were patchy, indicated balled shot, with holes in the pattern and erratic percentages. Three patterns averaged 62 per cent and the fourth was only improved cylinder, a percentage of 42 per cent. Six additional patterns fired averaged 53 per cent. This is what we used to refer to as quarter-choke, now called a weak (or poor) modified. This barrel is over-choked which accounts for the poor results. The Model 63B sells for \$99.95.—Col. Charles Askins.

NEW HANDGUN STOCKS

The Jay Scott pistol and revolver stocks are made of walnut and are finished with a quick-dry lacquer. The checkering is upstanding and bites into the hand as it should. The target grips for the old Colt Officers Model Match are in the traditional configuration with a substantial thumb rest, a built-in filler behind the trigger guard, and a flared butt to support the lower palm. The right-hand stock is fattened somewhat to more properly fill the cup of the palm. Fit of the stocks to the revolver was excellent. Many times custom-built grips will rock at the corners and must be bushed to give a snug fit. Not these.

The stocks, from top to bottom are too small for my hand. Judicious use of a round rasp, followed by sand paper and George Brothers stock finish soon took care of this fault.

The second pair of stocks from this new company are for the Smith & Wesson Model 52 automatic. These are also target stocks, made of a good grade of walnut and nicely checkered. There is a big shelving thumb rest, a slight bulge in the right-hand stock, and a whopping big flaired skirt at the bottom of the right stock to give support to the very bottom of the hand. These grips, unlike those for the Officers Model, are long enough for my hand.

The fit of stocks to my S&W was so snug I had to tap the grips into place with a rubber hammer: I like that. Far too many stocks, and especially these fancy-dan jobs,

miss a corner somewhere and must be shimmed with chewing gum or alfalfa to make them fit. Not these from Jay Scott.

Tested on the range, the .38 OM, felt about the same as it had with Steve Herrett's



"Shooting Star" stocks. I could see no improvement in scores. The grips on the Model 52 Smith, however, not only produced higher totals but there was less fatigue over a couple of hundred rounds fired. The S&W before had only the factory grips. These are pretty sorry if you are seriously intent on the target game. The Jay Scott walnut is really worthwhile for serious bullseye panning.—Col. Charles Askins.

EAGLE 2-in-1 POWDER MEASURE

Eagle Products Co. is a relative newcomer in handloading and is working up a full line whose latest addition is the 2-in-1 powder measure. The 2-in-1 designation refers to two metering chambers with which the measure is fitted. The larger is for heavier charges, while the smaller is intended for use with small charges of finegranulation pistol powders.

Externally, it looks like a good many other measure designs, with a single metering chamber varied by a moveable plug. It has that, but inside the large plug is another smaller one with its own adjusting stem. For normal use with large charges, the smaller plug is locked in position with its face flush with that of the larger one. The two then function as a single plug in



the usual fashion. To use the smaller chamber, the large plug is locked in the zero-charge-weight position, then the smaller plug is unlocked and adjusted in normal fashion.

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measure. A special drop tube is available for the .17; also one for shotshells.

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All things considered, the Eagle 2-in-1 measure seems to be a good addition to the Eagle line at \$24.95 from Eagle Products Co., 9666G Remer St., South El Monte, Cal. 91733.—Maj. George Nonte.

SCHUKRA ROD

In Gun Rack for February, 1967, the address for Shooter's Specialties who offer the Schukra flexible cleaning rod was incorrectly listed. The Schukra rod can be made as flexible as a pull-through for storage, or as solid as a one-piece rod for cleaning. Price is \$9.95. The correct address for Shooter's Specialties is P. O. Box 246, La Mirada, California.—Ed.

POLY-CHOKE

A shooting friend at my local skeet club contended the other day that with 3" 12 gauge Magnum shells and No. 4 shot, the Poly-Choke was no longer dependable. "It will throw full choke patterns regardless of where it is set," he claimed. A test of a Winchester Model 12, 28" barrel, equipped with the ventilated style Poly-Choke, and Winchester No. 4 shot to 1% oz, and 4¼ drams powder, produced 10 patterns at 40 yards, the device set at "Full" (for full choke), which averaged 78 per cent. At



H. W. Steane, Poly-Choke president.

"Imp. Mod." (improved modified) 10 patterns with the same loading indicated 72 per cent average. Usually we consider that improved modified will go approximately 65 per cent. This was better than full choke which is rated at 70 per cent.

The 10 patterns with the Poly-Choke set on "Mod." (modified, 60 per cent) came up with an average of 68 per cent. This was too good, really. On "Imp. Cyl." (improved cylinder) the 10 targets averaged out to 55 per cent. Again, this is simply too good. Improved cylinder ought to go about 45 per cent. Instead I was consistently getting ten per cent more, up to what we used to call quarter choke.

There is a new setting in the Ventilated Poly-Choke called "Slug." This supposed to be full cylinder. The 10 patterns at this setting were really open! Only 38 per cent. But these showed a good deal better distribution than you ordinarily get out of a straight cylinder bore. This is accounted for by the ventilated portion of the Poly-Choke which takes a lot of the disturbance out of the powder gases which tend to upset the shot charge just ahead of the muzzle. I fired an additional 5 patterns at the usual skeet range of 23 yards with the gizmo set on "Slug." These would have all broken skeet targets very consistently.

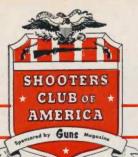
The new Poly-Choke now has a new setting called "X-Full." This is supposed to be a sort of super-duper full choke, with a constriction actually down to .680". I tested this setting and patterns ran only 68 per cent. The trouble, quite obviously, was that with this heavy charge—after all 1% ounces of No. 4's is a heluva big load—and when you try to funnel this much lead through the narrow confines of the X-Full setting you get into trouble. Poly-Choke might well have left off this one!

In summary: The Poly-Choke is as good as ever, maybe better. It is shooting tighter than ever, not because of any changes in the device, I think, but because the ammo makers these past few years have greatly improved their shells. The notion that changes in the variable choke aren't registered on the target simply ain't so.—Col. Charles Askins.

IOHNSON STOCK BLANKS

The Winslow Arms Co. purchases all its stock blanks from a single source. This is Johnson Wood Products of Iowa. A small operation, I. D. Johnson, who buys his walnut in the log, seasons it, saws it, and finally delivers the finished walnut to John Winslow, is a meticulous gent who personally looks over every blank that leaves his mill. While at the National Sporting Goods Show in Chicago last winter I watched Winslow sell one of his Emperior grade (\$3500) rifles to a West German engineer. The rifle had a superb stock from the Johnson source of supply.

I have a handsome walnut blank from I. D. Johnson. It bas a superb "sunburst" figure in the main stock and up through the small of the stock and running into the forend. The grain is straight, strong and true. I shall have Reinhart Fajen make up this blank for me to be fitted to a Remington M700 in 6.5 mm caliber. The barreled action has a special Ackley 23-inch barrel and the action has been swung over to southpaw by that old master, Barber of Portland. The rifle when finished will be a slick-ear sans iron sights. I shall put a 3X Lyman All-American on it with post reticle. The mount will be the new Conetrol, a remarkably sturdy base notable for a streamlined appearance.-Col. Charles Askins.



News from the ...

SHOOTERS CLUB OF AMERICA

Dedicated to the Constitutional Right of Every Citizen to Keep and Bear Arms

The name of the game is "rough-and-tumble" politics. The objective of the game is to choke small members of the shooting fraternity out of existence, thus reducing consumer opportunity. small members have been "controlled" out of existence, the same regulations will then force larger members to act as policing agents for the Federal Government. Adding insult to injury, the scheme as-signs those holding Federal Firearms Licenses into an "anti-crime" package!

Here is how the newest attempt on your right to own and enjoy firearms operates. During the last Congress, all anti-gun wheeling-and-dealing place in the Senate. You will recall that succeeded in getting anti-gun legislation referred to his own Senate Subcommittee. But in the House, identical bills went to the neutral Ways and Means

identical bills went to the neutral Ways and Mean's Committee, and we received objective treatment.

When Congress adjourned, the Administration turned its thoughts to the difficulties they had encountered in the House. The obvious answer to their problem was to pull the same kind of committee-switching that had been used in the Senate. Following the "Texas Tower" tragedy, some important lawmakers made their feelings clear. None other than Speaker of the House, John W. McCormick (D-Mass.); House Majority Whip, Hale Boggs (D-La.); and House Minority Leader, Gerald F. Ford (R-Mich.), released anti-gun statements. With this type of power to support anti-gun legislation, the Administration went shopping for a House counterpart of istration went shopping for a House counterpart of the Dodd Subcommittee, and found a likely prospect in the Judiciary Committee. Anti-gun legislation was simply rewritten to accomplish the desired transfer, and with the aid of powerful House officials, the gambit worked. Renamed the "State Firearms Control Assistance Act of 1967," the Judiciary Committee now has the legislation, and can give it the rubber stamp treatment along with the rest of

of special interest, is the fact that the House Judiciary Committee is headed by Emanuel Cellar. One can only presume that his introduction of the bill, and his Chairmanship of "Subcommittee Number

Five" to which the crime package has been referred for hearings, are more than mere coincidence!

Each member of the shooting fraternity has influence with one Congressman -- the one elected from his district. If he happens to be a member of Judiciary, he is a most important lawmaker. But either

way, write to your own Congressman at once!

We would like to be able to report on the regulatory authority provided in the bill, but this simply is not possible. In rewriting the legislation, the Administration has created a legal night-To be safe, all Federal licensees will have

to do whatever they are told, or pay the cost:
If any licensee violates any rule or regulation set by the Treasury Secretary, he will be fined not more than \$5,000, or imprisoned not more than five years, or both! And on top of this, should the Secretary set a rule or regulation which the licensee seeks to challenge in Court, loss of the case could be seeked to challenge in court, loss of the case could be seeked to challenge of the licensee. result in loss of his license, \$10,000 in fines, and ten years imprisonment. It would also become un-lawful for a licensee to sell handguns or firearms to a person if the licensee had "reasonable cause" to believe the purchaser to be under twenty-one for handguns, and eighteen years of age for long guns. This might seem reasonable, on the surface, but we wonder what constitutes "reasonable cause?"

It would become unlawful for a licensee to sell any firearms to any person whom the licensee has "reasonable cause" to believe is not lawfully entitled to receive or possess such firearm by reason of any state or local law, regulation, or ordinance applicable to the place of sale, delivery, or other disposition of the firearm. Again we encounter the phrase "reasonable cause," and add a new one --

"other disposition of the firearms."

The proposed new anti-gun bill contains many more restrictions, all of which are characterized by the same vagueness. Though these restrictions are aimed, initially, at sellers of firearms, the end result is to reach you, the consumer. If these regulations become law, you will feel their impact very soon. Do your part in the battle, support the S.C.A. with your membership today!

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WASHINGTON



CARL WOLFF

TESTIMONY IN THE HOUSE

The task of the shooting sportsman and his fraternity before the House Judiciary was to change an expected hostile viewpoint. The Administration's antigun bill had been rewritten during Congressional adjournment in order to refer it to Judiciary rather than the friendly committee of last year, Ways and Means.

Even before the hearings began, letters softened the new committee. There was a noticeable change among its staffers, a good way to measure sentiment. Still, the first witness to testify, the new Attorney General Ramsey Clark, quoted false data from an anti-gun book and was not challenged.

The first friendly witness, Congressman John D. Dingell (D-Mich.), set the record straight. He said: "I feel compelled to point out that there is much talk around the capital that this bill is to be rushed out of committee. . . This is not new legislation. The Senate has repeatedly, most recently in the 88th and 89th Congresses, rejected legislation substantially similar to HR 5384. The Ways and Means Committee, last Congress, rejected almost identical legislation after long and detailed consideration."

At this point, Rep. Dingell departed from his prepared testimony to further elaborate upon the rewriting of the bill to send it to Judiciary rather than Ways and Means. Chairman Emanuel Celler (D-N.Y.), informed the witness it was now before his committee. Dingell answered that it was an example of "wily bureaucrats in the Department of Justice and Treasury attempting to merchandise the legislative abomination as a cure-all and panacea for criminal acts."

The witness, former Prosecuting Attorney in Michigan, summed up this way: "Gentlemen, we can legislate until kingdom come against firearms; we can strip the law-abiding citizen of every sort of weapon he may use for sport and defense; we can place him naked and quivering, under the doubtful protection of an overworked, underpaid, and numerically too small constabulary, presently incapable of coping with the forces of crime; but we will not stop crime, nor deter criminals from their evil ways. What we will accomplish by this legislation, and its programmed successor legislation, is destruction of something very previ-



ous in our heritage—the weakening of the self-reliance of Americans, and the sapping of our national vigor and defensive capabilities as free men living in a dangerous, troubled, and predatory world."

The next witness, Congressman Bob Casey (D-Tex.), continued "If—as a ranking official stated last week—the Department of Justice has the identity of 5,000 members of the Cosa Nostra . . . If—as he stated—there is known to be a 'high-level amalgamation' between this vicious crime syndicate and two powerful trade unions . . . If—as Chief Justice Earl Warren stated to the same National Conference on Crime Control—corruption in government and business is perpetuating organized crime controlled by the same money and the same underworld power of Prohibition Days . . .

"Then I cannot help but feel that in sitting here testifying on this rather minor crime control legis-lation—I, this distinguished subcommittee, and the whole Congress have been put in the ridiculous position of swatting at gnats while elephants ravage the

countryside."

He concluded with a quotation from New York Judge Alfred J. Talley in 1924 and recently used by J. Edgar Hoover: "The demand of the hour in America is for jurors with conscience, judges with courage, and prisons which are neither country clubs nor health resorts. It is not the criminals, actual or potential, that need a neuropathic hospital; it is the people who slobber over them in an effort to find excuses for their crime."

Congressman Casey is the author of legislation, also pending before Judiciary, to set a mandatory 10-year federal prison sentence for use or possession of a firearm during commission of major crimes of violence on the first offense and a 25-year mandatory sentence for any subsequent offense. Another witness, James V. Bennett, retired head of the Bureau of Prisons, and now high paid consultant to the Department of Justice, who campaigns across the country for strict firearms controls, told the committee there was no need for this type of law as armed robbery everywhere now carries severe penalties. He further pointed out that such legislation would over-tax existing federal prisons.

What the witness did not tell the committee is that while crime is increasing by leaps and bounds the population in federal prisons is going down.

In all, about thirty witnesses appeared during review of the legislation. Expected to file remarks for the record are some one hundred more individuals. The individuals will probably include more than 30 more members of Congress. In all, nearly 50 of the 132 members of Congress are expected to voice objection. Only 5 persons, all outside Congress, are expected to testify and file statements in favor of the antigun legislation. (Continued on page 58)



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SNIPERS...ONE



SHARPSHOOTING MARINES

DA NANG, Vietnam, March 26

By JOHN ENNIS

THE COMPANY-SIZED PATROL of U. S. Marines had reached a monsoon-swollen river during a search and destroy mission nine miles south of the sprawling Da Nang airfield complex. This area was controlled by the Viet Cong. Invariably, patrols in this sector were taken under enemy fire.

The company immediately dispersed along the river bank. In the rice paddies and village across the river there was no sign of life. "No water buffalo even," observed one of the Marine rifleman. This was a telltale sign that there were VC in the area. Scouts were sent up and down the river searching for the best spot to ford. Suddenly someone shouted: "There's one!"

About 400 yards downstream a black-pajama-clad man could be seen furiously paddling a small boat away from the patrol. The company commander snapped an order to his Vietnamese interpreter. "Tell that man to stop; and come ashore!" The interpreter relayed the command in Vietnamese through a hand bull-horn. It was ignored. The boat was now out of effective M-1 range, the weapon carried by most of the men.

"Sniper up," the captain commanded. A young corporal, carrying a Model 70 Winchester with a telescopic sight attached to it, raced to the river bank. Falling to a firm prone position, he glanced at the captain.

"Put one across his bow," was the order. The sniper complied. Zap! However, the only effect this had on the man in the boat was a more concentrated paddling effort.

"Put one through the boat," said the captain. Zap! The round (Continued on page 20)

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Hand-picked Marines snap-in on the Sniper's School range during the school. Each graduate will carry "dope" about his rifle on his dog tags.



Marine snipers sight in on unsuspecting Viet Cong near the demilitarized zone. Snipers usually work about 300 yards ahead of the regular units.

SNIPERS . . .

hit the craft just above the water line. The water behind the boat churned, and the distance increased as the man tried to get out of range.

Assured that the native was no friendly fisherman, the company commander gave the sniper his last command: "Kill him!" Zap! When the body was recovered, approximately 600 yards downstream, there was a hole through the Viet Cong's neck. Each of the three shots had gone precisely where the sniper had aimed.

The Viet Cong, or "Charlie Cong" as the enemy is referred to by Marine snipers, always knew that he was relatively safe from rifle fire at a range of 600 yards or more. And, there are cases on record of VC being spotted walking around in plain sight 700 to 1,000 yards in front of the Marine's front lines.

Against one or two of the enemy, Marine mortar fire was ineffective. If the first round didn't get them they would disappear from sight. Furthermore, this could be an expensive proposition—two or three mortar rounds for one Viet Cong.

Marine ingenuity came up with the answer to the problem with one word . . . snipers. And the man to accomplish this mission was already in the Republic of Vietnam.

Veteran Marine shooter Captain Robert A. Russell, Vista, California was given the assignment. All the official paper work boiled down to simply this: Form a sniper unit.

For the granite-faced captain, whose face is the color of leather from 22 years on sun-baked rifle ranges, it was a dream come true. The rock-hard. five-foot-nine, 174-pound veteran of three wars obtained five of the best shooters on active duty in the Marine Corps to help him. They were the Boston Celtics of the shooting world. Four of them were already in Vietnam; the fifth was transferred, at the captain's request, from Okinawa. The senior NCO at the sniper's school is Msgt. George H. Hurt (Bristol, Va.). At 42, Hurt is the oldest of the sniperinstructors. A distinguished rifle and pistol marksman, he has been in the shooting business for more than 17 years. The tall, six-foot-two sergeant also handles all the sniper's administrative affairs.

It wasn't long before the first shipment of (Continued on page 48)



EDITOR'S NOTE

Mr. Dwain Fritz, writer of this letter is president of Avtron Manufacturing Inc., makers of precision chronographs. As such, he is vitally interested in firearms legislation. Whether we agree with his proposals or not, as a responsible medium of information, GUNS Magazine feels that these heretofore unpublished views

Mr. Jerome Rakusan, Editor Guns Magazine 8150 North Central Park Skokie, Illinois 60076

A fifteen-year old boy shoots from the window of a bus, killing an old man and wounding another in daylight on a main street in Cleveland, Ohio. Four-year old children kill their brothers, while a man practicing fast draw kills his wife with a .38 pistol. Each day the papers are full of similar instances, and we shooters scream the same old platitudes that were invented in a by-

As a life member of N.R.A., gun collector, member of the Ohio State Rifle Team for six years, and member of several gun clubs, I have fought gun registration and legislation with every

means at my command. Gradually, I have come to the conclusion that I have been wrong! I am sick of hearing "Guns don't kill people! People kill people!" People kill people with guns. Lots of people kill lots of people with guns!

Do we really have a RIGHT to bear arms? Or, is it a privilege to collect, own and use guns

for sport; and for the protection of our homes?

Let's get with it! We shooters are in a minority, and restrictive laws will be passed—if not today, then tomorrow, because senseless, irresponsible people will continue senseless killing with

Therefore, I propose that we shooters devote our efforts to a sincere and intensive program to design and help pass national and state legislation that will keep guns out of the hands of irre-

sponsible people and prevent their improper use.

Let us work diligently to make it at least as difficult to own and use a gun as it is to own and use a car. And while we are at it, let us try to improve our image with the public by taking the initiative and fight for good gun legislation that will correct at least part of the current abuses. Let us act like the responsible citizens we claim to be.

I offer the following suggestions: License Shooters: To hold a Shooters License, a person should pass an examination proving competence to handle a gun, be a member of a shooting club, or have an available place to shoot. Issuance of the license should be mandatory, upon passing the examination, provided the person is not a convicted felon. Require a Shooters License to own or possess any

Sure, there are many objections, problems and details to be worked out, but we are running out of time, and if we would devote half as much effort toward constructive legislation as we have spent—and will continue to spend—fighting the inevitable, we could come up with solutions to most of the objections and problems.

I further propose that all shooters should:

(a) Vigorously and actively oppose the sale and advertising of all Nazi and other Foreign souvenirs and relics.

(b) Disavow and oppose with all our abilities extremist organizations such as the "Minutemen," etc.

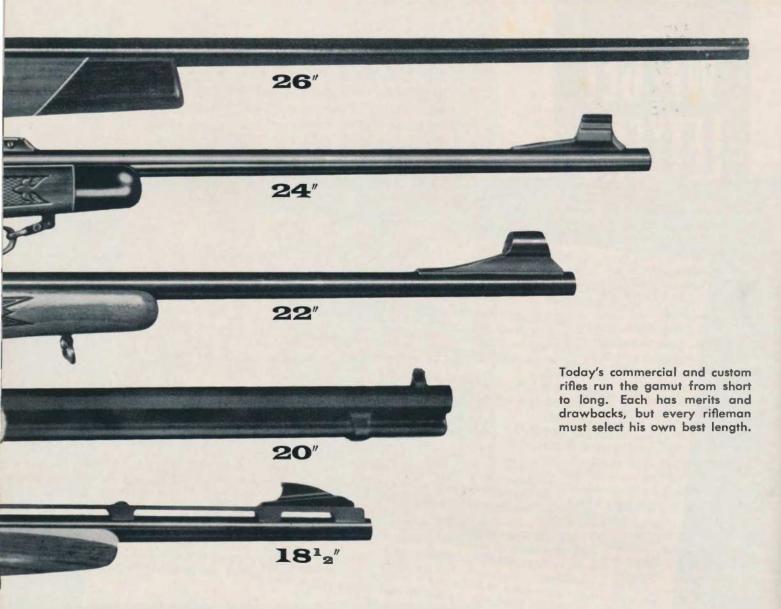
(c) Bring our pressure to bear to persuade the various gun magazines to refuse advertising which attempts to sell anti-tank weapons, bazookas, machine guns, Nazi relics and the like.

(d) Cease and desist from monopolizing radio programs discussing gun legislation with predictions of "Communist Takeover," ridiculous pleas to register rolling pins, and attempts to prove other household items dangerous. We do sound a little silly, and for the most part, the listeners don't take us seriously.

(e) Devote our efforts to cleaning up the activities that occur at the smaller, local gun shows where irregular and illegal sales and trades are commonplace.

Let us take the initiative away from the columnists and the politicians. Let us recognize the facts of the situation and promise reasonable legislation that responsible shooters can support.

Yours truly. Dwain E. Fritz







Left: Askins tests Marlin 336. Right: All of author's magnums have 23" or 24" barrels except .460 Weatherby.

WHAT IS THE RIGHT BARREL LENGTH?



Pohmo

By CHARLES ASKINS

R IFLE BARRELS have steadily grown shorter. This is accounted for by the fact that powders have been improved so that there is an equal efficiency in the shortened tube-length. Another thing is that there is quite a demand for easier handling, and this is gained by foreshortening the muzzle end. Still a third inducement is that the rifle can be made lighter if inches are whacked off the snout.

The Alcohol Tax Unit of the federal government keeps an eagle eye on gun-barrel dimensions. If the rifle drops below 16 inches, the legal beagles come around to take the measure. Marlin made their grand old lever gun with a bare one-quarter inch to spare—16½ inches. Remington, does a little better than this, the new model 600 bolt action rifle has a linear tube dimension of 18½ inches.

John Winslow, the chief tycoon of the razzle-dazzle Winslow Arms company wants to make up his fancy-dan hardware with barrels of 26 inches. Virtually all the companies use very tightly chambered heavy barrels of a full 26 inches to get the velocity figures they use in their ballistics charts and their advertising! Cartridges may develop more velocity out of the longer barrels, but any hunter who can be persuaded to go into the game fields with a 26" barrel is either a recruit, an old Indian fighter, or he aims to rest the musket over a stone fence and pot woodchucks. Certainly he isn't going to carry the gun up many mountains.

What is a sensible, useable, and altogether practical barrel length for the big game rifle? We are pretty much in agreement that 26 inches, despite its higher velocities, is not a good choice. How about 24 inches then, or maybe 22 inches? Or should we go down to 20 inches? The new Remington Model 600 with its $18\frac{1}{2}$ " tube has been quite popular. Should we, possibly, drop down to this carbine dimension?

The problem, on its face, looks like a simple one; actually it is not. There are a great many factors which have important bearing on the smart selection of the business end of the sporting ordnance. Once, in Vietnam, I had a .450 lever action with a 19½" barrel. The rifle had been made up for the dense alders of Kodiak Island, and when you must shove your way through the deepest sort of cover, with visibility cut to 50 yards and less, the chopped-off barrel is perfectly reasonable.

For almost three-quarters of a century the Model 94 lever action carbine has been more popular than any hunting arm. For the most of the time the barrel has been 20 inches; sometimes it has shrunk to 16", other times offered at 22", and in the rifle version it was regularly made with a 26-inch tube. At the carbine lengths it has proven an extremely worthwhile saddle gun, about as handy as a friendly politician. In Texas, these days, home of almost three million whitetail deer, everyone packs a rifle in a rack on their pickup truck, and the 20-inch lever gun is a prime favorite.

Rifles with barrels of 20 inches and shorter must be held to the moderate calibers; with hard loadings like the .270, the '06 and virtually all the magnums, you get hell whaled out of you with a muzzle end only twenty inches from the breech. The recoil of the hyper-velocity cartridges develops—among other unpleasant phenomena—a rocket effect. When the gases emerge at the muzzle there is a terrific rearward thrust. This is all the more violent and unpleasant the closer the muzzle is to the gunner. A rifle with a 26" barrel can be quite pleasant to shoot; the identical rifle with same loading can be a real stinker with a 20-inch pipe.

When I used to poach deer in Oklahoma as a boy, I had a Model 95 in .30-40 with a 28" barrel. I did not think it was too long. Later on, I swung off to New Mexico and had a scabbard sewed on so I could pack that long pipe on a big horse. I still did not realize that was mighty lengthly shooting iron. I remember at the same time my old man had a Savage .22 Hi-Power with a 26" barrel. The old Hoffman Arms made him a series of wildcat rifles on the magnum Mauser receiver. Each one had a 26" barrel. He'd have reared up on his hind legs and condemned John Dubiel, the rifle maker for the firm, had that plumbing been any shorter.

The military Model '73 Springfield, the old .45-70, in the rifle version had a barrel of $32\frac{1}{2}$ inches. The Mauser used by the Germans in the first world war had a barrel of 29.1" and it wasn't until they got WW-II hotted up that they adopted the M98K which has a handy 23.6" barrel. When we finally junked the '73 Springfield and adopted the Krag, it had, in the rifle model, a barrel of a full 30 inches. The '03 Springfield, selected in the year 1903, was looked upon as a dreadful (Continued on page 60)

The Winchester Single Shot

PART TWO of the history tells about the development of low wall versions and how the rifle was finally discontinued

By JAMES J. GRANT

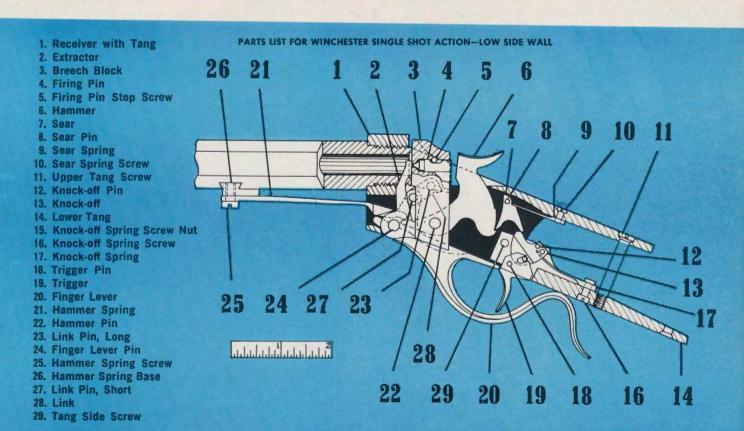
THE LOW SIDE WALL ACTION is a variation or modification of the original high side wall design. This modification of the basic action was introduced early by the factory to accommodate the buyers who wanted a low power rim or center fire cartridge in a light rifle.

I have previously stated that some high walls were made fairly early for the small shanked number one size barrels when a rifle for lower power cartridges was wanted. There is no way of ascertaining for certain just when this practice was discontinued and the low wall taking the number one barrel introduced to fill this need.

The low wall rifles are found in .22 rim fire, .22 W.R.F., .22 W.C.F., .25/20 single shot, .25/20 W.C.F., .32/20 W.C.F., .32 Ideal, .38/40 W.C.F., and .44/40 W.C.F. You may also find them in certain other mild calibers. I know I have encountered a few which were not generally offered in the model so they were made to order for a few sizes such as the .22 Extra Long Center Fire, .25/21 Stevens, etc. On this frame the side walls slope away from the line of the bore much more sharply than those of the high wall type and this feature alone makes the value of the action very high from the standpoint of loading. It is much easier to insert a cartridge into one of these than into that deep chasm of the high wall breech, especially if a telescopic sight is mounted on the rifle. Then too, the low walls permit a much surer grip on the hammer when cocking.

This rifle was almost invariably delivered in a light handy weight and length. The number one barrels were standard but upon special order, Winchester would supply Number two or three barrels. These are comparatively scarce today so evidently they did not fill many special orders for the heavier barrels.

The number one barrels were made in lengths from 24 to 30 inches and some longer ones may be found, also





Left: Two of the many low wall variations are this .22 caliber Winder musket with paneled walls and reciever sight and a thick side action with tang sight. Right: Early block (top) is strikingly different from common milled type.

special orders. The longest I have personally known of is 32 inches. Just about every variation obtainable in the high wall was also made in the low wall style.

The action, at first apparently made only in case hardened finish like the heavier model, was later supplied in blued finish.

Single set triggers are common on the low wall action, but I have never so far seen one with the Winchester double set close-coupled triggers. I have seen a very few specimens, factory made, with the Schuetzen set triggers and these are special order jobs also. There is no reason they could not be obtained with any style set trigger, if you ordered it that way, but most men wanting the Schuetzen triggers wanted a heavy barrel target rifle and the low wall just didn't fill this need unless you wanted to pay extra.

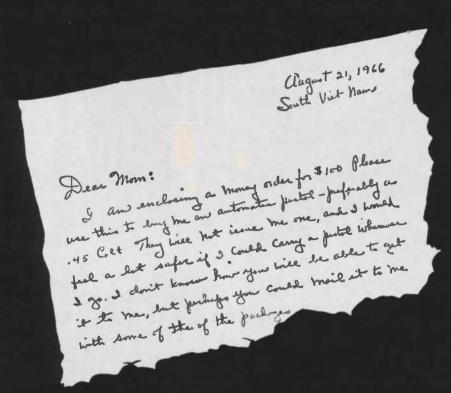
The high side wall action with coil hammer spring is found often with the regular factory interrupted thread take-down but how many low side wall rifles have you seen with this take-down? Not very many I am sure for there weren't too many made in take-down pattern. I can count on the fingers on one hand all I have seen but this naturally doesn't cover all that are around.

Again I believe this is easily explained. The low side wall made up into a light, easily portable rifle so there wasn't too much need to break it into two parts to transport

it, thus the take-down had a fairly limited sale. The same long pistol grip using a lower tang like the high wall was also available for the lighter rifle. Generally these tangs will interchange but not always, as there are differences.

The stock holding screw used in the low wall version is generally somewhat shorter than its counterpart in the high wall. When the low wall was first made, the factory supplied it with a breech block merely rounded off slightly on the top rear corners. This has given rise to the belief, erroneously held by some, that these actions have a high wall block misplaced in them. These early low wall blocks are unmistakable and are obviously not intended for use in the high wall actions. Soon, I can't say when, as minor factory changes such as these are never made note of in records, the blocks supplied were milled to more gracefully conform to the low cut sidewalls.

I have had two different old time Schuetzen barrel makers tell me they were responsible for Winchester having introduced the low side wall style of frame. Both these men claimed the factory had adopted their particular home made version of cut down high wall frames. I have always taken such claims with a mental reservation and have uncovered no evidence to cause me to change my mind. I still believe Winchester designers themselves were responsible for this frame. (Continued on page 55)



SHOULD ALL GI's CARRY A HANDGUN?

T HERE WAS A TIME, many years ago, when the one-hand gun was held in high esteem by the powers that be in military establishments all over the world. That was a time when every nation took pride in the pistol with which it armed its soldiers. That was the time when any man, whom ordnance did not supply a sidearm, was not only welcome, but encouraged, to buy the best he could afford and carry it confidently into whatever affray destiny had placed on his schedule.

It was conceded, perhaps, that the six-gun or autoloader might not necessarily kill a lot of the enemy, but it would certainly contribute a great deal to the soldier's efficiency and general well being. It was recognized that a secondary arm, holstered on the hip, gave a man a sense of security and ability to take care of himself whatever else he might be doing. And also that no matter how light and portable a rifle might be, it could not always be within immediate reach of its owner.

But such is not the case today. The pistol is for very

But such is not the case today. The pistol is for very few soldiers indeed. True, air crews get them, and so do tank drivers and staff officers. But the cannoneers who serve their pieces mightily day and night; the currier jeep driver who roars down dangerous paths; the forward radio operator with his back-breaking load; and a host of others must perform their essential duties with the enemy mere yards distant—with rifles strapped across their backs or stacked neatly just out of reach, and nary a handgun in sight.

Military leaders of today say that the pistol has won no battles—therefore, it serves no real useful purpose—so should only be issued to those men whose duties physically prevent them from carrying any other weapon. As an example of this, in our own current little war, Army authorities not only do not issue more than token quantities of pistols, they actually prohibit the soldier from taking his own personal sidearm into the combat zones.

Be that as it may, every army of the world today does have a standard sidearm. But where once every nation, no matter how large or small, had its own domestic design of which it was quite proud (regardless of its merits or lack thereof), today less than a half dozen proven models arm the majority of the world's uniformed soldiers. Even more striking is the reduction in the number of cartridges



Jong

By Maj. George C. Nonte



in use. Where before World War II nearly a score of different calibers were in use, today two different 9 mm and one 7.62 mm serve the majority of the military needs.

But for a moment, let's forget what has gone before. Let's take a good look at the makes and models of military sidearms that have either been developed and placed in service since WW II, or that have come into prominence since then.

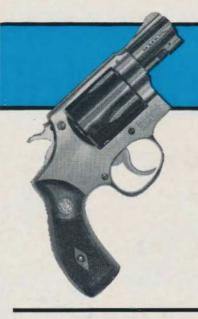
The justly-famous firm of P. Beretta, Italy, learned something from the mish-mash of assorted, under-powered pistols used by the Italian Army during WW II. Consequently, when the Italian government indicated an interest in a new, more powerful sidearm, Beretta was ready. The result was the Beretta M-1951 pistol (also sometimes known as the Model 951, and commercially as the Brigadier) chambered for the potent 9 mm Parabellum (Luger) cartridge. The gun and cartridge were adopted forthwith by the Italian government, and subsequently by the governments of Israel and Egypt.

The M-1951 is typically Beretta in appearance, with its cut-out slide top, exposed round-spur hammer, and boxy lines. Internally, though, it has borrowed the Walther P-38 locking mechanism, and to a lesser degree its dismounting system. The borrowing was well done, though, and functioning is excellent in all respects. It has single action lock work, a cross bolt safety in the frame below the hammer, and an awkward push-button magazine release in the left rear corner of the stock. Removing an empty magazine with this device is of necessity a two-handed job.

The Berretta M-1951 is excellently fitted and finished. The one I used for a couple of months gave excellent accuracy, and handled a variety of 9 mm Parabellum ammunitions without a bobble—including loadings from 100 feet per second to the hottest available. (Continued on page 62)







GUNS and

THE HANDGUN IN COMBAT

By COL. REX APPLEGATE

EDITOR'S NOTE

The following are excerpts from "Crowd and Riot Control" By Col. Rex Applegate (published by Stackpole Books, \$6.95). The material presented here represents only a small portion of the chapter on the combat use of the handgun. It is suggested that any officer or department instituting a combat shooting course read the entire book before developing the training program.

Letters

As a regular reader of Guns Magazine, I noticed that you now have a special section for police officers. I think that this is a good thing, and will help not only the policeman, but also help the citizen to better understand some of the problems of law

enforcement.

I would like to say something to all of your police readers that may help make their job just a little bit easier. I realize that there are many instances when an officer must speak "with authority," especially when confronted with a person who plays the part of a tough guy. However, I can see little need for a gruff, or even belligerent attitude when an officer is making an arrest for a minor traffic violation. Police should remember that when cries of "police brutality" arise, the average citizen will first look back to his personal encounter with the law, and if the officer was overly agressive, he may then feel that perhaps there is something to the charges.

The old saying, "Let the punish-ment fit the crime," could be para-phrased to say "Let the crime determine the attitude of the arresting

officer."

John Bolika White Plains, N.Y.

My sincere and warm congratulations for the brand new department "Guns and the Law," Col. Rex Applegate in command, highly qualified for the job!

Law enforcement is my business and I enjoy reading the entire magazine, and the new department,

naturally.

Keep up the non-plus-ultra work. For me Guns Magazine is the best, and with the new department, on top of any publication in the gun field. My special salute to Col. Applegate . . .

J. M. Francisco Whittier, Calif.

OMBAT SHOOTING with a pistol or revolver is a type of shooting that occurs not only in the military service, but also between police and criminal elements. It is neither target shooting or defensive shooting. It is offensive shooting, and is the quickest way to insure the successful conclu-

sion of a gun battle with a shooting enemy. Nearly every large police department has on hand records of shooting affrays with criminals in which an incredible number of shots were fired at close range by both parties with few if any casualties resulting. Despite this conclusive evidence of something lacking in the training programs, relatively few departments have taken steps to improve the combat efficiency of the individual officer with his sidearm. Although target shooting, beyond a certain point, will not fill such a need, many departments still try to adapt the sport of target shooting to the realities of combat.

Some departments have called the courses in the combat use of their sidearms "defensive shooting"; yet the very word "defensive" is a misnomer when applied to any type of close combat shooting where the enemy returns the fire. A pure definition of the term "defensive shooting" is: "fire returned by an individual after the enemy fires the first shot."

We must recognize that there is no such thing as defensive shooting where lives are at stake. Once a man has a pistol or revolver in his hand, it should be considered that it is there for immediate use against an enemy. There should not be any hesitation in using it if the conditions require its use. If the gun is in the hand, it should be there for the purpose of shooting. If this seems to be too strong a statement, it should be remembered that a gun in the hand implies that the trigger will be pulled-if the mere presence of the weapon is not enough to stop the criminal. If this implication were not understood by the criminal, there would be no reason for the appearance of the weapon in the officer's hand.

Three basic differences exist between combat firing and target shooting. close combat work, the sights will not ordinarily be used, due to lack of time, darkness or poor light conditions, enemy fire, or other considerations. To shoot without sights, consider the frame of the gun merely as an extension of the hand, and the barrel as an extension of the forefinger. If, when looking at an object, you instinctively raise your hand, point your finger toward the object, and sight along your finger, you will find that the

forefinger is pointing at it accurately.

The basic position for all combat firing is with the body in an aggressive forward crouch. When a man is in combat or subject to enemy fire, he will instinctively crouch. No one will have to tell him to assume a crouching position when he is being fired upon or expects to be fired upon. In practice, however, he will have to be forced to assume this basic firing position. The crouch he assumes should be natural, with the knees flexed, and the trunk bent forward aggressively from the hips. Many shooters, when firing from a crouch, neglect to put one foot in front of the other in a natural manner. They are inclined to put their feet in a straddle-trench position which, although seemingly more ideal in practice, will not be instinctive or normal in combat.

The grip on the weapon in actual combat, when firing, is extremely tight and convulsive, and double action is always used when a revolver is carried. The extremely tight grip used in combat has a decided effect upon the

the LAW

accurate application of the weapon in a fire fight. This due to different pointing qualities of various weapons when gripped convulsively.

The .45 Colt automatic has pointing qualities unlike those of any other weapon, and it is because of these qualities that inaccuracies often result in combat. With the .45 auto, the combination of the convulsive grip and the structural design causes the barrel to point down when it is forcefully shoved out at the target, as it will be in combat when used by an untrained combat shooter. When the handgun user carries his pistol at any degree of raised pistol position, which is a habit he acquired on the target range, and he is suddenly confronted with a target at close quarters, his natural reaction is to shove the weapon at the target and pull the trigger. When he does this with a .45 auto, the barrel points down and a miss usually results, sometimes even at a distance of less than 10 feet.



Any shooter can test this fact for himself by grasping the .45 convulsively, holding it in a raised pistol position, picking out a target a short distance away, closing his eyes, and shoving the pistol forcefully in the direction of the target. Upon opening his eyes, he will see that the barrel is pointing down at a decided angle. This structural effect of the .45 can be counteracted in two ways. By equipping the gun with an adapter which will cause it to point straight; or by developing a slight upward cocking of the wrist to compensate for barrel slant.

Neither of the above expedients will be necessary if the weapon is carried pointing toward the ground at about a 45 degree angle from the body. Then, if the shooter will have his arm extended and will raise the weapon to a level with his eyes and fire it, he will do it accurately, without having to compensate in any manner for the gun type.

The usual police weapon, the .38 Colt or S&W revolvers, when tested with the convulsive grip, raised pistol, shoving (Continued on page 68)



New Products

Numrich Arms, West Hurley, N.Y., recently introduced a semi-automatic version of the famous Thompson Submachine gun. Outward appearance is virtually unchanged, as only alteration has been to internal parts.

A new movie, "Arms of The Law," has been produced by the National Rifle Association to encourage police marksmanship and help bring this training story to local citizen groups. The film features recruit and in-service training at the Northern Virginia Police Academy. Copies of the film may be obtained by writing: Steve Hines, Office of Public Affairs, National Rifle Association, 1600 Rhode Island Avenue, N.W., Washington, D.C. 20036.

G-66 Silicone Gun Mitt from Jet-Aer provides an easy and quick way to care for firearms. Displacing moisture and preventing rust, fingerprints, and



salt water corrosion, the mitt cleans, polishes, and protects all metal surfaces. In a no-mess, slip-on style, the mitt is packed in a reusable snap lock poly bag and retails for just \$1.39 at fine sporting goods stores everywhere.

AIR GUNS FROM RED CHINA









By JOE CHUTE and BILL VAN ROOY

Note the close inletting and even polish on this Model "61" air rifle.

FEW SHOOTERS in the U.S. have an opportunity to see or test firearms from behind the Iron Curtain, although some sporting arms have found their way into the hands of U.S. gun writers. However, the chances of getting a close look at guns from behind the Bamboo Curtain are a lot slimmer. Since Canada has some trade relations with countries not on the U.S. trade list, we would like to give U.S. shooters the benefit of our experiences.

The cost of shooting an air rifle or pistol can be extremely low, but the cost of a satisfactorily accurate air weapon compares with powder weapons. Quality counts. A rifle bridging the gap between the \$130 pellet rifle deluxe and the lowly BB has been hard to find in Canada. Now, however, an interesting air pistol and rifle of the Diana pattern which fill the bill both as to quality and low cost have appeared on the Canadian market. They are the products of a Shanghai factory and bear the "I" Brand label.

Both rifle and pistol show extraordinary quality for the price. Both are direct copies of basic European designs but have a strange oriental overcast in appearance due to the shaping of the stock.

Machine work is of excellent quality, with milled parts used where indicated. The stampings are of heavy gauge steel, well finished. Stock work is very good and exhibits signs of handwork where close fit is needed. In particular, the inletting of the pistol stock is intricate and must be well done or the pistol would be shaken apart by the fall of the heavy piston propelled by the strong main spring. The rear sight of the rifle is of military tangent pattern. The tangent leaf is milled from solid stock and the notch carefully and cleanly cut. The front blade is of corresponding tapered post design. Although some slop is present in the rear sight of the pistol, the basic design is simple, strong, and effective.

We gave some thought to setting up a comparative

method for checking penetration. Diablo pellets are light and easily deformed, dispersing energy by collapsing on themselves rather than by pushing deep holes. However, we found that a simple baffle served our purpose-3x4" file cards in groups of three, separated by 1/4" centers.

Penetration at 15 Ft.

Rifle Model "61": 51 cards Pistol "I" Brand: 18 cards

Webley Premier Pistol: 15 cards (used for comparison)

We could only estimate the velocity. Although our tests would indicate a greater difference between the two guns, W.H.B. Smith in his excellent book Gas, Air & Spring Guns of the World gives 400 fps as representative for this pattern of rifle and 300 fps for the pistol.

Air guns of the Diana pattern require a special technique to shoot accurately. The dipping recoil of the piston occurs before the pellet has left the barrel, and care must be taken to assure extreme uniformity in hold and trigger release. We never mastered the pistol properly, but then we are lousy pistol shots. The rifle grouped well at 15 ft. with various brands of low cost pellets; average 10 shot groups of 1/2" centers were fired from a sitting position.

Although the design of these air guns from Mainland China is not unusual, the quality of manufacture is significant. These are not toys but serious training arms. The rifle in particular, with its military sights, would be an excellent military trainer.

Machined parts are used for long life. The quality of rifling and exterior polish is well above average for the price—and of course the price is the crux of the matter.

We believe the largest U.S. market is closed to items from Communist China. However, it appears that sporting equipment of this quality will find ready acceptance in countries without such an import restriction.

Rifle Model "61"

Mechanism Type: Air and spring powered syringe barrel

cocker, decant locked

.177"-4.5 MM. Caliber:

Weight: 5 lb. 153/4" Barrel Length: 387/8" Over-All Length:

Stock: Wood; lacquer finish; pull 137/8" Sights: Rear sight-tangent; U-notch Front-flat-top post; adj. for w.

141/4" Sight Radius:

Rifling: 12 groove, shallow \$12.95-\$16.95 Price:

Pistol "I" Brand

Mechanism Type: Air and spring powered syringe barrel

cocker, decant locked

.177"-4.5 MM. Caliber:

Weight: 2 lb. 63/4" Barrel Length: 125/8" Over-All Length:

Wood; lacquer finish; checkered Stock: Sights: Rear sight-U-notch adj. for w. & e.

Front sight-square blade

Sight Radius: 111/2"

Rifling: 12 groove, shallow \$12.95-\$16.95 Price:



New Rifles From the West

Champlin-Haskins is a new firm with a new action and some fresh ideas for custom rifles



Les Broman

By LES BOWMAN

HERE IN THE UNITED STATES, gun designers, with few exceptions, have never fared well in having new designs accepted by our large factories or investors. Many of the best of them have been more or less rebuffed, and discouraged by lack of local interest, they finally offer their product in a foreign country for developing. Browning is one example of this. However, each year there are a number of new designs and inventions brought out by eager and enthusiastic designers, and although some of them may have a great deal of merit, very few ever reach the market, in any quantity. The large gun companies all have their own designers and are busy working on new improvements and designs of their own. Changes they may make are done to produce more sales or to reduce production costs.

In the past couple of years I have heard of, and looked at, several new rifle designs. Some had no merit at all and many were extremely costly to make. In view of the fact that the latest United States arms companies' designs, such as the 700 Series Remington, the new Model 70 Series Winchester, the Weatherby Mark V, etc., if not actually the finest rifle actions ever brought out, certainly are among the best, it is hard to conceive of a new one with enough merit to warrant production.

The word "new," as used in most advertising of rifles today means only another rifle that is assembled of existing barrels, actions, and stocks and are marketed by that particular company. Usually the actions used are Mausertype actions, of old or new style, sometimes improved for looks, the barrel is made by a speciality barrel company and the stock is a stock profile shaped by a commercial stock company. These items are assembled and finished



by the company advertising the rifle for sale. However, in this case my usage of the words, "new rifle design," designates a truly new action.

Actually most all of the bolt action centerfire rifles used or made in the United States have really been copies of the old reliable Mauser action. Most of the actions now coming in from foregin countries are still just improved Mauser types. It is interesting to note that the buying public seems to be rapidly swinging to the new original American designs that are proving to be safer and stronger, as well as being simpler to make, and costing less.

Remington made great improvements on the bolt action with their 721-22 Series. Roy Weatherby followed with his Mark V and Winchester with the new Model 70, and there are still others. Each of these actions, while having some similarity to the Mauser, are all much improved and all have their better points. All of them are better than anything formerly used and the fact that they can be made for much less money than the old types is very much in their favor.

Quite recently two new action designs have come to my attention. Both have features of merit. Whether either of these new actions will surpass the new designs already on the market will not be known until they have received some actual hard use and a lot of real testing.

I visited one of these just recently, the Ranger Arms Company, of Gainesville, Texas, and have written a report on it. The other action is still somewhat of an experimental stage, although it has been used considerably, on the range and in the field.

This last one is the idea and product of a newly formed company, the Champlin- (Continued on page 53)



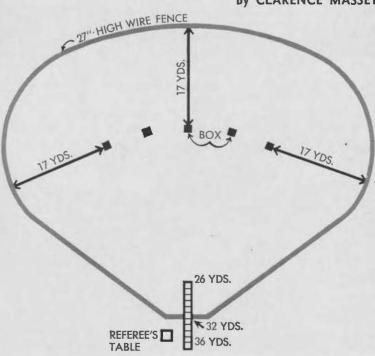
The author talks over some details of the new action with Douglas Champlin, the president of Champlin-Haskins.

THOSE FASCINATING FLYERS



SHOOTING LIVE PIGEONS IS A TRICKY AND REFRESHING CHANGE FROM CLAYS

By CLARENCE MASSEY



A pigeon ring's minimum dimensions are fairly standard, though overall dimensions will vary.

TODAY'S CLAY TARGET busters shoot long consecutive strings of targets, sometimes running into three or four hundred clays in one day. In the event of a tie score, the shooter may have to fire at hundreds of additional targets after the completion of the scheduled event in order to settle the tie. A clay target shooter must learn to shoot like a machine for shot, after shot, after shot.

I once knew a fine young shooter tied for first place in a trapshoot with 100 straight. 300 targets later the tie was decided and the crestfallen trapshooter lost the match by one target. He told me afterwards he had tired as he neared his 400th clay bird and believed this caused him to miss the lone target.

Some trap and skeet shooters have left the game after a few years of clay target shooting and subsequently turned to non-shooting recreational activities. Others have rediscovered the original trapshooting sport; live pigeon or "flyer" shooting.

Live pigeon shooting for sport was practiced by elegant, top-hatted gentlemen of England during the early 19th century. Old woodcuts depict scenes at a gun club with stylishly dressed gentlemen shooting at pigeons released from a series of small boxes in the center of a large, low-fenced ring. The setting is strikingly similar to modern pigeon rings. As you may know, this early form of pigeon shooting was the forerunner of trapshooting as we know it today.

In 1832 a group of avid shooters in England formed a shooting club known as the "High Hats." They earned this distinctive name through their unique method of shooting live pigeons. A shooter placed a live pigeon under his high hat when it was his turn to shoot. When the shooter was ready to fire, he had to doff his hat and allow the pigeon to fly. Then he quickly replaced the hat on his head and tried to shoot down the fleeing bird. This could be a messy but sporting way to shoot live birds. Fortunately, top hats are no longer in style among the shooting fraternity.

Flyer shooting is practiced in the United States today by a small but enthusiastic group of shooters. During the past few years the sport has gained popularity as more shooters tire of the somewhat monotonous clay target games. Shooting live pigeons in a ring is so fascinating that a shooter seldom confines his shooting to clay targets after a few sessions with the flyers. Live birds in a pigeon ring are, as many a shooter has discovered, completely unpredictable. The wild erratic flight of a startled pigeon has baffled some of the best shotgun handlers in the country.

Live pigeon shooting has been looked upon with disfavor by the non-shooting public and is outlawed in some states. This is a little difficult to understand since the currently popular hunting club with its "put and take" kind of bird hunting is little different than shooting flyers in a pigeon ring. Pigeons are a universal nuisance in any large metropolis and city authorities are constantly searching for more effective ways to eliminate the pests. It would seem that the use of these birds as targets would be welcomed.

In spite of adverse public opinion, there are still legal places to shoot in the United States. Flyer shoots are currently held in Indiana, Illinois, Wisconsin, Kentucky, Florida, and Nevada, to mention just a few. Undoubtedly, there are more. Confirmed pigeon shooters flock to these matches and sometimes 100 or more contestants are entered in the event. Large competitive live pigeon shoots are also held in Europe and Mexico.

There are three basic types of flyer shooting practiced in North America today. The most common method, and the one used at most large shoots, is by the use of boxed birds. The birds are released from small individual boxes in the center of a low-fenced ring. The bird flies voluntarily and the shooter must drop his target within the confines of the fenced area.

Another method is through the use of a machine which throws the bird forcefully into the air for thirty or forty feet. This machine-thrown bird is usually used for small "fun" shoots and I have never seen it used in a large match.

The third method is practiced with the use of a human "thrower" and is referred to as a "Valencian Style" shoot. In this type of shoot, the thrower stands ten or fifteen feet in front of the shooter and at the shooter's command, throws the bird as far and as fast as he is able. In Mexico, muscular Jai alai players are often used to throw the birds. These men are professionals and they have quite an assortment of "tricks" to make the bird fly erratically. They will pluck a few strategic wing feathers, make several false motions before they throw, sometimes suddenly throw the bird in back of them and generally try to confuse the shooter. Needless to say, they can make some pretty wild throws with an already wild pigeon. This style shoot is often conducted in Mexico. I have shot in all three types of pigeon shoots and believe the Valencian style shoot is the most challenging to your shooting skill. As in all sports where the human element can drastically change the contestant's chance of making a good score, the "thrower" is sometimes looked upon with suspicion. This may account for a preference for boxed birds in the large

shoots. When a bird flies of its own accord, no one can blame another man for his tough target.

I will go into more detail about the boxed bird method of pigeon shooting since it is the most common type of flyer shooting practiced in the United States. Attempts have been made to standardize the rules for the shoots and also the size and shape of the pigeon ring. However, I find they still vary from one shoot to another. Consequently you may find some pigeon rings that will vary somewhat



in different dimensions from the following.

The fence forming a pigeon ring is made of chicken wire and is about 27" high. A 4-inch wooden railing is at the top of the fence. This railing and the wooden posts supporting the fence are always painted white. This is so they will encourage him to try to get over the top rail. Wounded birds will often fly low to the ground until they approach the fence. Then they will make a last effort to fly over the white top rail. If they succeed, it is a "lost" bird for the shooter.

The ring is usually an oval about 60 yards in width and 50 yards in depth. The center box is located 17 yards from the back fence. The boxes are arranged in a curve parallel to the curve of the fence. The box on either end of the line is also 17 yards from the side fence. This means the bird must always fly a minimum of 17 yards to get over the fence.

Pigeon rings vary in the number of boxes they contain. They run from a minimum of five to as many as nine boxes in one ring. The box on each end of the line, however, is always in the same spot. A large number of boxes means they will be spaced closer together. In a five box ring, the boxes will be about 20 feet apart. In a seven box ring, they would be about 13 feet apart.

Since the flyers are shot in groups of five birds, it is sometimes a problem to keep at least two or three loaded boxes in the ring to confront the shooter each time he calls for his target. In boxes which are loaded from above the ground, there must be a few extra loaded boxes. This is the reason for the seven, eight, or nine box rings. Some boxes are reloaded as (Continued on page 50)

THE BULLET'S FLIGHT



A look back at the book by Franklin W. Mann. First published in 1909, it provided the ballistic knowledge on which is based the excellence of today's smallarms ammunition. Editorial comments by:



E. B. MANN

TN HIS publisher's introduction to the 1942 edition of "The Bullet's Flight," Herman P. Dean called it "the outstanding contribution to scientific ballistics in the Twentieth Century." Since the century was then less than half elapsed, this might seem to be peering rather far into the future. Rocketry and space flight in the ensuing quarter-century have brought ballistic science into areas and, without meaning to pun, to heights not dreamed of in 1942 and certainly not dreamed of in 1916, when Dr. Franklin Mann's life work ended. But if we limit "ballistics" to that of small arms, as this book's title does, then Dean's appraisal is not yet disproved. Dr. Mann did not solve all of the mysteries

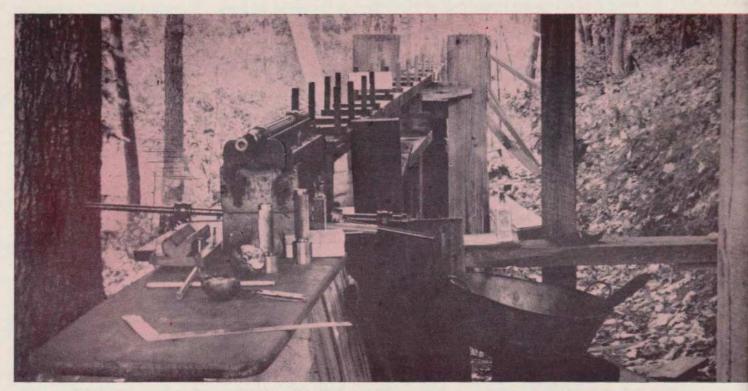
of bullet behavior, but neither has any one else done so; and his book is still, after nearly half a century, a classic in its field, thoroughly scholarly, yet with a readability too seldom found in the reports of scientific research.

Intentionally or not, the opening sentences of Mann's "Preface" to this book provide, in the memory of a boy, a psychological blueprint of the man to be:

"During the year 1868, when twelve years of age, I came into possession of the family rifle, a .44 caliber, powder and ball affair, with 41-inch octagon barrel and weighing twelve pounds. Not being satisfied with the way it performed . . . experiments were immediately commenced to improve its shooting at 35 yards; beyond that distance its inaccuracy was too great to present any inducements."

He tells next how he spent 14 hours of a "cold Thanksgiving day—one of the only two holidays in the year for me" at work on that rifle. Indicative as this is of Mann's lifelong interest in bullet accuracy, it is even more indicative of the persistence, the refusal to accept failure, which characterized his lifelong research.

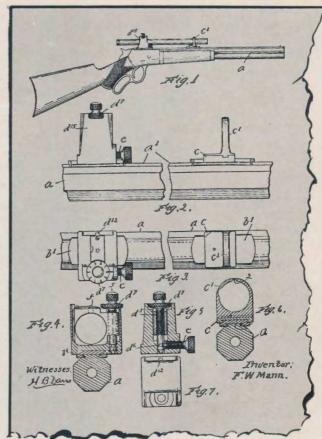
But the boy in that century-ago farm workshop was far from ready for ballistic research. He attended the village school nearest the family homestead; was graduated from there to the High



Mann barrel in V-rest. Gadgets on bench are firing mechanisms which screw into special barrels. Posts ahead of barrel hold test targets.







Left: Three of Mann's rifles and his shooting pole. Above: Mann patent for telescope mount.

School in Walpole, Massachusetts. In spare time, he worked diligently but without much success to make that old rifle "group." The very hopelessness of the task was a challenge.

Next came four years in the science department of Cornell University, and graduation with the Bachelor of Science degree.

"One of his favorite ideas at the time was the scheme of making a top that would spin absolutely true and remain standing until motion ceased... He (produced) a top that would spin three-quarters of an hour. In Prof. Anthony's laboratory under glass the top spun two hours and fifty-seven minutes... Prof. Moler (attests) the truth of this statement, as indicative of young Mann's speculative scientific tastes."

Mann next attended the Medical School of Boston University and, after internship in Massachusetts Homeopathic Hospital, was awarded his degree as Doctor of Medicine. He practiced for four years; married; became the father of two daughters. During this period, Mann devoted considerable time to the study of heart action, with results that proved valuable in the diagnosis of cardiac problems.

But his own heart was still in the workshop. He was more interested in the mechanics of metal and motion than in the human machinery, and in 1887 he entered "the machine business at Milford, Massachusetts." In 1888 he invented, of all things, the Mann Green Bone Cutter for cutting animal bones into food for poultry. The device was an immediate success. By 1893, age 37, Mann "had become a leader in an industry of his own creation, had won an honorable reputation, was financially secure for the rest of his life." Now there was time (and money for

equipment) to solve the problem that had haunted him since boyhood, the problem with which he had wrestled mentally and to which he had devoted endless spare-time experimentation even during the intervening years of education and business effort: Given uniform conditions, why do bullets vary from shot to shot in their points of impact on a target?

Early experiments had suggested that inaccuracy might be caused by the blast of escaping gases (muzzle blast) striking and deflecting, even deforming, the bullet after it was free from the bore. A solution might be to cut longitudinal slots back from the muzzle through which the gas could escape. But this necessarily accurate slotting of a barrel would require equipment and skills beyond the reach of a teenage boy. Instead, Mann had worked on schemes for making bullets of perfect shape, and on means for seating

BULLET'S FLIGHT

those bullets, undeformed, accurately concentric with the bore of that old rifle.

Over the years, bullets of many kinds were tried: bullets of soft lead, bullets hardened with alloys, jacketed bullets, bullets with spherical bases so that they might have "no sharp edges" against which the gas could work. Other rifles were tried, including one in which young Mann himself cut a tapered chamber, hoping that this would insure positioning the bullets "true with the axis of the bore." Many barrels were tried: commercial barrels, barrels made specially for him by many makers, including the legendary Pope. He ordered and tested barrels with different riflings; barrels ranging in length from 41" down to such fantastic minimums as 3/16ths of an inch -the extremely short barrels being used to discover why bullets were deformed at their bases-deformation that caused differences in wind resistance, in balance, in centers of gravity, and hence in accuracy.

"The Bullet's Flight" is not a book that lends itself to condensation. You cannot snip an excerpt here ("This was the problem") and another there ("This was the solution"). What would seem at first to be a single problem, relatively simple, would divide, on closer examination, to many problems, some too complex to be explored in one lifetime. Solutions were like jury verdicts, based on the evidence presented. Failures were common; and this is a scientist's notebook, recording the tests made, the findings, the deductions, the failures as well as triumphs. Oddly enough, the book has a human touch, a simplicity, a transmission of the writer's interest that inspires interest in the reader. But one must read the tests to understand the problems and evaluate the conclusions.

Some results contradicted long-standing beliefs—for instance, the belief (still held) that long barrels are essential to accuracy. Mann reports two in-



Dr. Franklin W. Mann "Far ahead of his time."

Dr. Mann's "Shooting Gibraltar." So named because of its heavy iron bed, laid in cement. On top of this was his test barrel on a "V" rest.

stances of exactly opposite results:

After accidentally ringing this 30-inch barrel and cutting 10 inches from the muzzle to clear the defect (leaving a barrel length of only 20 inches) . . . the shorter barrel made an improvement in groups, and six years later W. E. Mann still finds this one of his most accurate rifles."

And, in another instance: "When this barrel was ordered it was the longest furnished by the Winchester people, and at present its length is only 18 inches beyond the chamber. Tests were made and enough shooting has been done with this short barrel to make certain that its groups are as small or smaller than during its 36-inch days."

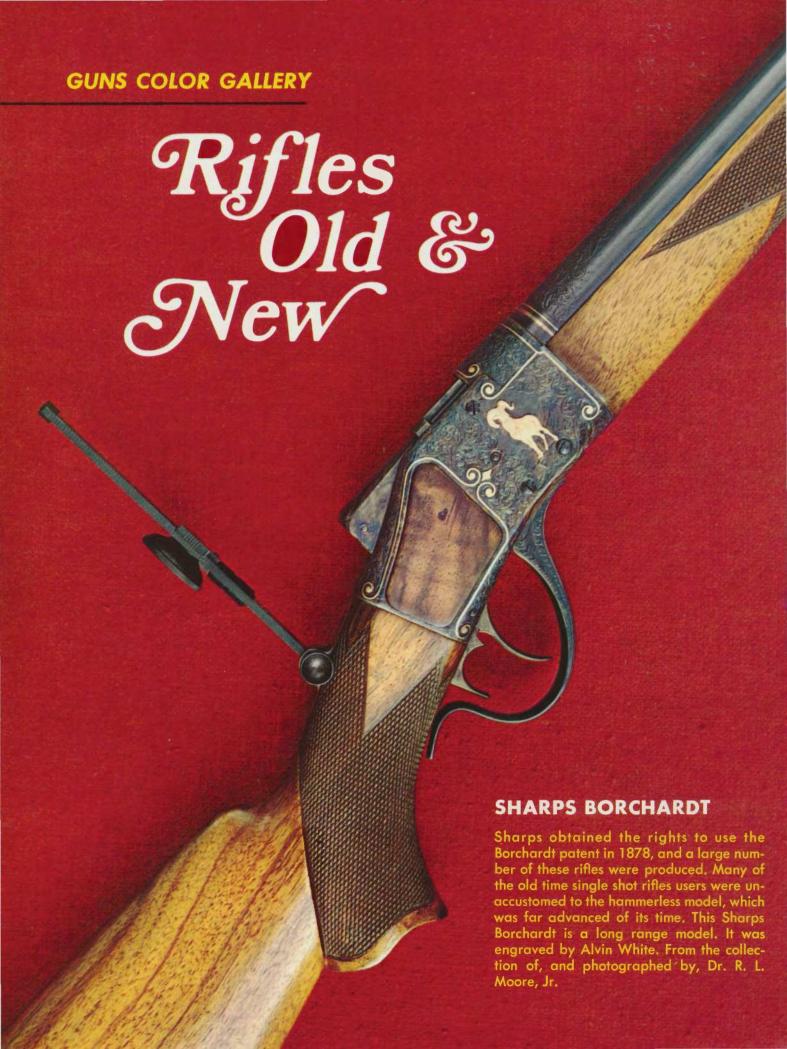
A major problem within the major problem was to attain the uniformity of conditions from shot to shot that were obviously essential to any measurement of accuracy. This required absolute uniformity in the positioning of the barrel, and Mann tried rests of countless varieties, in every possible combination of positions with relation to the barrels. It required also absolute uniformity of wind (or calm), and of light conditions. Out of Mann's search for "uniformity" came some of his bestknown developments-notably his "Gibraltar machine rest and shooting pier," and his 100 yard "enclosed trajectory" range. Out of it, too, came some bits of wry humor:

"As all riflemen know that the barrel recoils about one-tenth of an inch before the bullet leaves the muzzle" (Mann writes, crediting "all riflemen" with greater knowledge than would be assumed by this writer!), "they will readily recognize the desirability of a front brace which will properly care for this sliding motion."

Mann spent prodigally of both time and money in achieving such a brace, arriving finally at such a device. Then:

"After all our devising and experimenting, . . . Dr. Skinner steps in with a simple block of wood, screwed to the rear end of the butt stock, which applies to double rest target work with wedge, and eliminates all our front brace business. In his shooting with this butt brace the barrel simply rests in a wooden V placed six inches from the muzzle."

But Mann's "Shooting Gibraltar" was an (Cont'd on page 67)





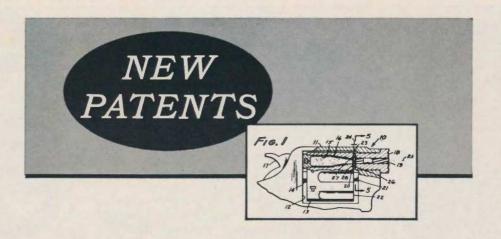


Few will question the popularity of the Weatherby big game rifles. And now Roy Weatherby has produced a rimfire rifle with all of the appeal of his famous Weatherby Magnums. This is a full-sized rifle with the look, feel, and handling qualities of a big gun. Basically a semi-automatic, the Weatherby Mark XXII Deluxe has a single shot selector, sliding tang safety, and a select grade walnut stock with Monte Carlo comb. A Classic gun should have a classic scope, and this one carries the new Weatherby Mark XXII, a fitting companion. Photo courtesy Weatherby, Inc.

Mannlicher-Schönauer

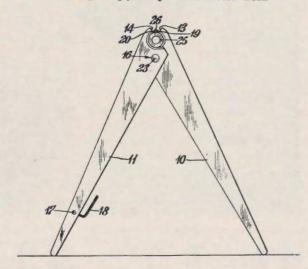
The Mannlicher-Schoenauer has long been a favorite of sportsmen from the arctic to the tropics. Produced by the world famous Steyr-Daimler-Puch A.G. of Steyr Austria, these rifles have long been noted for their glass-smooth actions, and clean, conservative lines. Stoeger Arms is the sole importer, and offers models from \$225 to \$600, in calibers from .243 to .458 Magnum. The most notable features of the Mannlicher-Schoenauer are the swept-back bolt handle, rotary drum magazine, and the general appearance of being a product of men who take pride in their craftsmanship. Photo courtesy of Stoeger Arms Corporation.





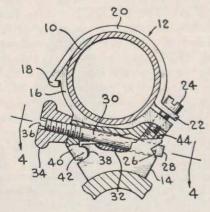
A removably affixable gun rest comprising a pair of leg members having upper and lower ends, said leg members having on the upper ends thereof opposite symmetrically curved jaws capable of seating a gun barrel therebetween; pivot means for pivotally connecting said leg members to each other; spring means urging the upper ends of said leg members inwardly toward one another, for clasping said gun barrel and maintaining said rest secured thereto; and a brace member; one of said leg members consisting of two substantially identical parallel upright units fixedly and equidistantly spaced from each other at the point of pivotal connection by the other leg member and at a point substantially removed therefrom by said brace member.

3,235,998
GUN REST
William T. Hadley, New York, N.Y., assignor to Ten
Ring Mfg. Corp., a corporation of New York



1. A mounting assembly for a telescopic sight, comprising, a base adapted to be secured to a rifle, a telescope clamp including a block, interfitting non-planar surfaces on the block and base serving to locate the block vertically and horizontally with respect to the base, abutting surfaces on the block and base allowing relative sliding motion between the block and base as the interfitting surfaces are brought into engagement, and means connecting the block to the base and exerting a force on the block holding the interfitting surfaces in engagement and the abutting surfaces in engagement.

3,295,811
MOUNT FOR RIFLESCOPE
Harry L. Giwosky, Milwaukee, Wis., assignor to Realist, Inc., Menomonee Falls, Wis., a corporation of Delaware



To get a copy of patent, send the number and 50¢ to the Commissioner of Patents, Washington 25, D.C. To communicate with an inventor or assignee, if the address given is insufficient, send a letter to him in care of the Commissioner mentioning the patent number.



Reloading the .380

By RON TERRELL

THE MINIMUM CALIBER serious handgunners recommend for self-defense is the .380. Those who bother to look at this pint-sized cartridge are justified in their evaluation. Lined up next to the .38 Special, .357 Magnum, .41 Magnum, or .45 Auto, this short 9 mm will have to take the back seat on the power bus. Before completely discarding this cartridge, however, a closer look at this midget .38 brings something of a surprise.

For one thing, this cartridge is chambered in some mighty handy guns. Pistols chambered for the .380 include the Walther PPK, Llama's copy of the GI .45, and Browning's compact contribution. For self-defense use, the PPK is ahead on the speed scale due to its double action on the first round. Its prejudice as to fodder will more or less remove it from serious consideration for the handloader, however. Llama's close copy of the G.I. .45 automatic would probably be more highly thought of if it didn't shoot loose so easily. For all around handiness and functioning, Browning's little beauty is hard to beat. It handles well, can be brought into play quickly, and isn't too finicky about what is pushed down its tube.

A look at a ballistics chart shows that factory loaded 95-grain jacketed bullets leave the muzzle of a .380 at 955 feet per second, providing 190 foot pounds of energy. Chronographing this load in my Browning showed a





reduction of 64 fps for a muzzle velocity of only 891 fps and 167 foot pounds of energy. Agreed, that isn't too impressive. Now, let's take another look but this time with the Jurras 110 grain Hollow Point jacketed bullet. Pushed out of the 3 7/16 inch barrel of my Browning, this pill was chronographed at 967 fps. Energy was increased to 225 foot pounds. This is only 10 foot pounds less energy than the factory loaded 200 grain .38 Special Police load. The big story behind this loading in the .380 is the destructive force this hollow point bullet generates. Fired into a dirt bank, this bullet mushroomed to about .65 caliber and weighed 97 grains. A two-pound coffee can filled with water was literally flattened out when it was hit by this bullet at a distance of fifteen feet from the muzzle. For the record, 4.0 grains of Unique powder ignited by a Federal 100 small pistol primer provided the push for this bullet. This load was near maximum in my pistol so play it safe by starting with at least a grain of powder below this mark and working up very slowly.

Lee Jurras, head man at Jurras Bullet Co., Shelbyville, Ind., recently stated that his line of bullets would not be available to handloaders until the gilding metal shortage lets up enough to allow greater production again. His production of commercial and remanufactured ammunition in various calibers requires that he keep a supply for his own needs. When these bullets become available again they should be tried by every handloader who has a .38 caliber handgun. Actually, the diameter of this bullet is .3565 so it will work equally well in the various 9 mm and .38 caliber guns.

Those who prefer the shocking power of a semi-wadcutter bullet have an excellent design available in Lyman's 358345 bullet that weighs in at 115 grains. A problem encountered by handloaders using a full or semi-wadcutter bullet in an automatic pistol is whether the darn thing will function reliably or not. Some automatic pistols simply will not accept anything except round nosed bullets. Fortunately for me, my particular Browning accepted everything I tried in it. This particular bullet was sized to .356 diameter and weighed 118 grains with my lead mixture. A load of 4.0 grains of Unique powder gave this bullet a velocity of 962 fps and 241 foot pounds of energy. The expansion of this bullet was excellent, miking out at .787 and retaining 116 grains of its weight. With results like this, the .380 comes into its own as a dependable defense weapon.

Still another bullet design available for use in the .380 is the 125 grain bullet specificially designed for the various 9 mm pistols. While this bullet is too heavy to get the velocity some might wish, its greater weight puts it into the "to be seriously considered" category. This particular bullet is made commercially available by Markell Incorporated of San Francisco, California. Anyone wishing to test this bullet out in his .380, 9 mm, or .38 Special can pick up a box of 100 of these cast and lubricated bullets at a very modest price. If he likes its performance he can buy Lyman's 356402 bullet mould and produce his own. Other bullet designs in varying weights are available but the results obtained with those just mentioned are representative of what a handloader can

accomplish with judicious selection of bullet weights and powders.

In the course of these tests on the .380, only Bullseye and Unique powders were used. Both powders performed satisfactorily but the purpose of these tests was to determine if the .380 could be made into a more effective defense weapon and Unique was the only powder capable of producing enough velocity with all bullet weights to improve on the factory loadings. All loads listed here were chronographed with the new portable chronograph produced by B-Square Company of Ft. Worth, Texas. The first screen was set up a measured three feet from the muzzle with the second screen located two and a half feet beyond that. Temperature at the time these loads were chronographed was 72°.

One look at the various .380 pistols makes it quite obvious that these are defense weapons-not target weapons. If it were not for the natural pointing ability of the Browning and other .380 pistols, they would immediately be cast aside on the basis of sights alone. Sights on these weapons are kept at a minimum. My Browning has a very slight projection at the muzzle end that serves as a front sight and an elongated groove that supposedly guides your eye to the front sight and target. In spite of these apparently inadequate sights, it was discovered that any object four inches in diameter was not safe any closer than twenty-five yards providing a two-handed hold was used.

The compact size of the .380 pistols make them ideal as hide-out weapons for the man wanting to appear unarmed. These weapons can be carried in secret (Continued on page 52)



Using his Browning .380, the author tested several bullets including the 95-grain jacketed bullet from Remington's factory load, a 110-grain hollow point from Lee Jurras, a 118-grain semiwadcutter, and Markell's 9 mm bullet.



PULL!

By DICK MILLER

ONTINENTAL TRAP SCORES are creeping upward. Time was, and not long ago, that if you put a score in the high nineties on the board, you could sit back and wait to collect all the hardware. That's what was in Sgt. Lou Pardon's mind (and on the minds of many of his fellow shooters) back in February on a cold, overcast, snowy day at Ent Rod & Gun Club in Colorado. The good sergeant fired a sparkling 98 in the first squad of a registered shoot, and retreated to the clubhouse where he received congratulations from his compadres for winning the event. At that stage, it seemed that it was only necessary to go through with the formalities of running off the rest of the day's entries, then the sergeant could take his prizes and leave gracefully. Only, that wasn't the way it turned out!

Just two squads later, Pat Sloan racked up a perfect hundred, and the clubhouse was really abuzz. Here was history in the making. This was only the second time in the history of a good club that a shooter had broken the perfect century on the Continental range. Pat Sloan was in, and Sgt. Pardon could be pardoned a rueful second place. But, the story does not end here. The weather turned worse, and a nasty blizzard developed.

Another squad came in off the line with red noses, numb fingers, and these scores: Don Voight had added another one hundred straight, John Bickett and John Shoemaker had dropped just one target each, for 99s, while Bob Padgett and Claude Treece had tied Lou Pardon with ninety-eights. This was a 494x500 squad, which at this writing looks like a new national record for a squad shooting shoulder to shoulder. And, Lou Pardon, whose star was so bright early in the day, had been tied by two shooters, and beaten by four others.

All of which seems to indicate that no matter how good a score you shoot, and in what game, it is not wise to tabulate your juvenile poultry before the proper process of incubation has been fully realized. . . .

As this magazine hits the newsstands. there is more big news in the making at the Ent Rod and Gun Club. The Colorado Springs Skeet Club is hosting a fabulous Pike's Peak Open at Ent, all in the shadow of Pike's Peak. This great event, which I hope to attend, features \$1400 in trophies, a free barbecue on Friday night (shoot dates June 17-18), luncheon and style show for the ladies on Saturday, and some brand new ranges in operation. Here's a chance to combine a vacation in fabulous Colorado with some real hospitality and stellar shoot-

ing at the Pike's Peak Open.

Note to J. Daner (Speedy) Durbin: I accept your invitation if at all possible, and, eleven months between letters is not really such a long time. Didn't I owe you one for eleven years? Speedy's annual epistle (eleven months is mighty close to annual) tells of a sure-fire way to cement good relationships between hunter-shooters and farmers. Daner and two other Colorado gunners enjoyed some fine pheasant shooting in Kansas and great hospitality last pheasant season. To repay their hosts, they extended an invitation for some skeet gunning. Three carloads accepted, none of whom had ever shot skeet and who, after tasting the fun at Ent, allowed as how that skeet was the greatest thing to come along since the drop seat on long underwear. And, relations between Colorado pheasant hunters and Kansas farmers are at a new high in cordiality. There is a moral here, for all readers, and it comes out very close to the Golden Rule.

. . . Continuing the man-bites-dog tone of this month's PULL! column, the Aronimink Gun Club (Pa.) hosted a Cy Melikian Handicap Bowl Shoot. Len Rowlands won the handicap portion after a nine-way deadlock, and the high gun prize went to H. L. Beyers, Jr. The Ladies high gun winnerwho else?-Mrs. Cy Melikian.

The Melikians figured in another manbites-dog result at Newton Square's Aronimink Gun Club event. The winner of one weekly event—Cy Melikian, Jr.; runner-up for high gun—Cy Melikian, Sr.

Then-how about this family shooting feat! William E. Frost captured a 16-yard Men's trophy at the Torresdale-Frankford club; winner of the Ladies' trophy, his daughter, Mrs. William E. Remmey, and with an identical score!

Another Miller, C. K. Miller, from Boyertown, Pennsylvania, likes to shoot. On one recent Sunday, he popped over to the West Chester Gun Club, and won the match with a score of 98x100. Just to make a full day, he picked up the trophy from West Chester, then dropped in on a Upper Perkiomen Sportsmen's Club match at Red Hill, where he posted a 99, good for another first place trophy.

My Pennsylvania correspondent (and #1 son) picked up another item from the Upper Perkiomen Sportsmen's club. This one might be labeled "it can happen to the best of us." Bill Hunsberger is one of the top trapgunners in the East, and in the country, for that matter. But, he ran a 99 straight at Red Hill, then dropped the last bird, sparing him a shoot-off with Warren Fentzloff of Washington, N. J., and J. P. Young, of Bethlehem, Pennsylvania. Bill's wife, Jean, saved some of the family honor for that day by winning the Ladies event with a 96, and giving the Hunsbergers the couple trophy for their combined 195x200.

Just for news, Austin A. Dorr captured the Paul Holloway Testimonial Trapshoot at Pine Valley Gun Club, Berlin, New Jersey, with a sparkling 99. Col. W. C. Anthony was runner-up, at 98.

Col. Anthony had his day in the next regular event, when he shattered one hundred targets, to turn back a field of 66 hopefuls. Francis McCollough topped an Atlantic City Gun Club combined 100 16-yard and 100 handicap event, with 182x200 of the mixed distance targets. Another Atlantic City Gun Club winner was Herb Jones, of Fawn Grove, Pa., when he cracked 197 of 200 16-yard targets. High gun for the two day event, featuring 40 mixed targets, was David Robbins of Port Norris, N. J., with 383 of the 400 combined targets.

The Hunsbergers, Bill and Jean, from Catasqua, Pennsylvania, had another good day, this time at the Roxborough Gun Club. Bill did not drop a target in a 50-bird 16yard event. Eight gunners did drop one target, one of them being Jean Hunsberger. . . .

Of more than passing interest to trapgunners is an item in a recent issue of TRAP & FIELD noting that Roy Rogers "King of the Cowboys," had fired a near-perfect 99 to win a Class B 16-yard event at the Redlands, California, T&SR Club. Rogers, for years one of the film colony's best and most avid clay target fans, bas returned to the game after

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a layoff of several years due to an operation on his spine in the neck area. We welcome a great competitor and great guy back to a great game.

In my February, 1967, PULL! column, I editorialized at some length on the fabulous High Overall score of 982x1000 posted by 27yard shooter Dan Orlich, from Reno, Nevada, in the 1966 Grand American. My intention was to give considerable credit to the consistent shooting required to take home the High Overall trophy from any Grand American, and to offset in a small way the much greater publicity given the winner of one day's event, the 100-target handicap championship, from the weeklong national trap tournament. It is not my intention to take anything away from the Handicap winner, who more than earns his trophy, but I did hope to make it clear to the casual reader of trapshooting feats the real significance of the lesser-publicized High overall trophy.

Part of the February column read like this "It must be considered that the shooter who is good enough to hang in there for three days on the 16-yard targets, has pushed himself back and back some more on the handicap line, and that after acquiring the long yardage, must shoot well for three days at handicap, then master a new game on the last day, shooting at a pair of targets instead of singles. Orlich's 982 looks like a formidable score. It may be around for a while."

A sharp-eved reader from Baltimore, Maryland, who is obviously also a trap shooter, dropped us a note saying, "Please inform Mr. Miller that when you shoot 16-yard tar-

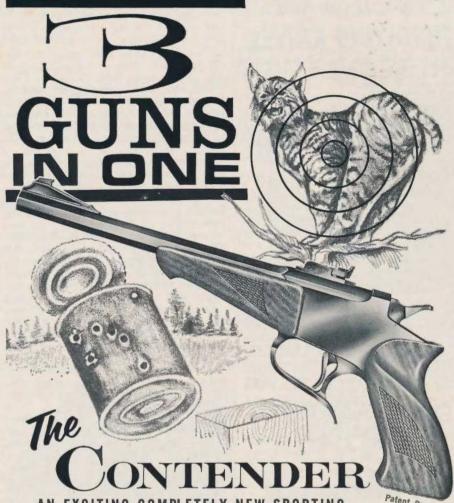
gets, you do not get yardage.'

My best answer to our reader is probably to confess that I was guilty of sloppy writing, or at least of trying to condense too much into too little. It is true that the three days of 16-yard shooting during Grand week would not gain the shooter increased handicap yardage during the handicap days which follow.

But, it is also true that consistently high scores in 16-yard events do affect the handicap assignment of a shooter. There are a number of long-yardage handicap shooters, of the caliber who might be expected to be in competition for High Overall trophies, whose handicap yardage derives more from their 16-yard scores over the years than from their winning efforts in handicap events. No winner of the Grand American Handicap has ever repeated his Grand victory, where on the other hand perhaps a dozen shooters have accounted for most of the High Overall championships during the last 44 years, since 1923. All of these men, no matter what their handicap performances in a given year might earn them in yardage, will shoot from long yardage because of their 16-yard (and doubles) performances.

So, there is a relationship between 16-yard score and handicap yardage, which may not directly affect the average Grand contestant, but it does certainly add glitter to the accomplishment of the great shooters who come away with a High Overall trophy after a week of shooting one thousand tournament targets, divided between

16-yard, handicap, and doubles.



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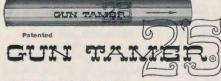
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SNIPER!

(Continued from page 20)

Winchesters and 8 power scopes arrived. Pooling their considerable knowledge the Marines put together a training syllabus. The snipers themselves would be picked from some 40,000 Marines on duty in Vietnam.

However, although the captain and his five men were qualified marksmanship instructors, they themselves had never done any sniping. So, following a "snapping in" period with the Winchester and scope, the instructors went hunting . . . Viet Cong.

From their home base at Da Nang they traveled 55 miles south to the sand and scrub-covered slopes of Chu Lai. Then, 45 miles north of Da Nang to the plains and mountains surrounding the Hue/Phu Bai Marine area.

For endless hours the six men trained themselves in the art of sniping. Working in pairs to afford a 360 degree range of view, they stalked Old Charley. They found that mental discipline was of the most importance. Under the cover of darkness the teams would move into a pre-arranged position, one where there had been previous sightings of Viet Cong movements.

Two men, by themselves, armed only with bolt action rifles and right smack in Old Charley's backyard. Any movement would disclose their position. They spoke, when necessary, in a whisper. They didn't smoke. Sometimes they waited as long as 13 hours without a sighting. It was frustrating, but they learned.

And there were rewarding moments.

A Marine unit at Hue/Phu Bai spotted two armed Viet Cong walking in plain sight, 700-800 yards in front of their lines—out of range of the M-14 rifle. From their observation point the VC could direct mortar fire on the Marine position.

If, on the other hand, the Marines called in their own mortars, they knew that if the first round wasn't a direct hit the enemy would disappear. The Marines waited a day to see if the two VC would establish a pattern. Sure enough, they showed up the following morning.

The Phu Bai Marines made a call south to Da Nang. The following morning the two vain VC made their casual appearance. Two sniper-instructors brought the crosshairs of their scopes on the black pajama'd pair.

Zap! Zap! Two dead Viet Cong.

When the sniper-instructors felt fully qualified to start teaching—and then could speak from experience—they requested volunteers from each of the Marine infantry units in the Republic of Vietnam. Just to be qualified for the school a Marine had to be handpicked by his commanding officer, a proven combat veteran and an expert rifleman (shooting a minimum score of 220x250 the last time he had fired for record.)

The three-day training period, decided upon by the sniper-instructors, was a dawn-to-dusk ordeal of schooling and shooting. On the first day, after the rifles and scopes were issued, the future snipers were welcomed aboard and their mission was explained.

Then, in rapid fire succession, they were taught safety precautions, mental discipline, nomenclature of the Winchester, telescopic sight and adjustments, sling adjustments and positions, trigger control, aiming and range determination, effects of weather, care and cleaning of the weapon and scope, sniper log and use of range card, use of binoculars and technique of observation. That brought the first day to a close.

On the second day, the instructor included prone and sitting snapping-in, demonstrations of sniper firing by the instructors, a review and critique of all the afore mentioned subjects and then individual snapping-in.

The third day was devoted entirel, to rifle practice as the men became accustomed to their individual weapons. They would keep the same rifle as long as they were "incountry." The course was so demanding, and the rifle range so remote, that noon chow consisted of a couple of cans of cold Crations for the students and instructors during the three-day training period.

Although the Marines are the first branch of the U. S. forces in Vietnam to establish an authentic sniper unit, the art itself is ancient. There is, for example, one case on record where a soldier's unit had completely surrounded a fortified city and had laid seige to it. Almost disinterestedly he watched his own artillery burl fire bombs into the city.

Safe in the knowledge that he was out of range of the enemy's weapons, he didn't bother to conceal himself. However, each time an enemy soldier showed himself, the exposed man was able, with his personal weapon, to take careful aim and pick him off

The year: 1214. The place: Hungary. The soldier was a cavalryman of the Mongel horde of Ogadai Khakhan, the son of Genhis Khan. His weapon was a horn-strengthened, double-curved bow and arrow with a long, light shaft.

It was during World War I that snipers, as we know them today, came into being. But it was the enemy that introduced snipers, not the Allies.

One was a young German soldier by the name of John Unertl, a man who truly knew his business. He's still in it, in a way. The sights used by the Marine snipers in Vietnam are Unertl-made scopes.

Following "the war to end all wars" little thought was given to the sniper. They came back in a blaze of glory at the outbreak of the Second World War. Unfortunately, they came back in the form of Japanese and German soldiers.

In the island-hopping campaigns in the South Pacific, Japanese snipers lashed to the tops of gently swaying palms, took a terrible toll in American lives. In Marine Corps areas of operation, the Marines answered with their own snipers. During World War II the Corps had a scout-sniper school at Camp Lejeune, N. C.

And now it's a new breed of Leathernecks in Vietnam who are bringing the old word "sniper" back into the public eye. And it's the responsibility of Capt. Russell and his small band of professionals to form this elite

"Eventually," said MSgt. Hurt, "I'd like to see a platoon of snipers used as a blocking force." This would mean that on a company or battalion-size search and clear mission, the sniper platoon would be placed directly in the VC's avenue of escape. Forty expert riflemen armed with sniper rifles and telescopic sights could decimate any enemy unit, according to Hurt.

However, being a sniper isn't all shooting and glory. It's tough, dirty, hard work. And "hunt" doesn't necessarily produce a every "hunt" doesn't necessarily produce a "kill." There are cases on record where sniper teams have moved into Charley's backyard at 3 a.m. and waited motionless for 12-13 hours; two men alone, in Viet Cong territory where a "friendly" farmer in the rice paddies could very well be a moonlighting VC. A wisp of smoke from a cigarette could cost the team their lives. It's nerve-wracking work. Yet, not one sniper has turned in his rifle. However, the American Marines are not the only service to revive the "sniper corps."

Recently, a North Vietnamese officer, who commanded an elite Viet Cong sniper platoon, surrendered himself to a village chief about 60 miles north of Da Nang.

The officer, a 35 year old lieutenant, carried with him a Russian made sniper rifle and scope. Word of his surrender reached Major Russell . . . and the two men were brought together.

Through an interpreter, the Viet Cong officer told the major that his company had been formed in North Vietnam. They had been operating in the south for approximately nine weeks. The company, according to the lieutenant, consists of three, 30-men platoons and a company headquarters of an additional 30 men.

"He was very cooperative," said Maj. Russell. "He told me that, with the exception of their officers-who are assigned to the company—each man is a volunteer. Their company is commanded by a junior captain."

"When I asked why they volunteered, he said that it was because their families received extra rice and farm land. His family is still in North Vietnam."

The prisoner disclosed that the average age of the North Vietnamese sniper was between 19 and 22. All of them are armed with the Russian 7.62 caliber rifle and a three-and-one-half powered scope. "Their scope," said the Marine major, "enables them to get a good sighting even at night, if the moon's bright enough.'

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"He told me that their training was for a period of three months. The first two were devoted to firing the standard rifle, and the last month for training with the sniper rifle with the scope. They spent eight hours a day snapping in. However, they were allowed to fire only three rounds of live ammunition every five days. They practiced at ranges up to 1,000 yards on man-sized paper targets."

The lieutenant added that throughout their training in the north, they were subjected to constant testing, to measure their progress and morale. If a man's morale was low, he was immediately transferred. He freely volunteered the information that although their pay was low (20 piasters a month), their morale was high because they were considered elite troops.

Their 30-man sniper platoons are further broken down into three 10-man squads. And, since they are elite troops, each squad is protected by a Viet Cong guerrilla platoon. The squads stay widely dispersed. Each is separated by a three day march. Each sniper was also trained to be his own armorer. "They also received extensive training in camouflage and movement," the major added. "Shooting at moving targets is confined to large targets such as trucks and helicopters.

Their prime targets are NCO's, officers, and radiomen." Their average range is 600 to 700 meters.

The communist officer claimed that his platoon had killed several South Vietnamese soldiers, but had not been able to kill the most sought after treasure, a U. S. Marine.

An unknown author, writing about the neglected art of sniping back in 1946 said that, "This kind of man (the sniper) is going to be hard to find, but if we can find him and 999 more, plus a few replacements, and give them the proper training, they should be able to kill 100 enemy soliders in a four month campaign . . . and that would be a total of 100,000 enemy dead . . . which is far better than any one division has been able to do at many times the cost."

The Marine sniper platoons will try to prove in Vietnam that the unknown writer knew what he was talking about.

(B)

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FASCINATING FLYERS

(Continued from page 35)

soon as they are emptied. This is done from a pit dug under the pigeon ring. In this type of ring, five boxes are all that is necessary since the trap boy in the pit keeps all five boxes loaded at all times.

The shooter stands upon a cement walk which is marked off in handicap yardages of 26 yards to 36 yards from the center box. The average shooter stands at about the 29 yard or 30 yard marker. The fence intersects the cement walk at the 32-yard line so the shooter may or may not be standing within the fenced ring: It will depend upon his handicap. Most shoots use a sliding handicap. For example, if a shooter kills all five of his birds, he must move back a yard to shoot at his next five birds. If he misses one or more, he shoots his next five birds one yard closer. Thus, if a shooter is doing well, his handicap becomes greater as his score mounts and the pressure increases.

A "race" is usually an event of 25 birds shot at in one day. Since the shooter fires at five birds each time he enters the pigeon ring, he is "up" for his turn five times during the day. The large tournaments usually program a four-day match consisting of 25 birds each day with daily prizes and a grand prize for the highest total for the 100 birds.

One shooter is on the cement walk at a time and he is allowed two shells in his gun. He may hold his gun in any safe position he desires when he calls for the target. Most gunners put the gun to their shoulder and hold on the center box, again following the pattern of trapshooters. When the shooter is ready for his target, he calls, "Trapper ready?"

"Trapper ready," replies the referee (the man controlling the release of the bird). This is the method used to be absolutely certain the shooter is ready to shoot and the referee is ready to release the bird instantly.

"Pull!" calls the shooter. The referee immediately presses a button controlling an electric current to a solenoid on one of the boxes. The box springs open and the startled pigeon takes off for parts unknown. The shooter must drop the bird within the confines of the fenced area. He may do it with one shot or he may fire both shots. It makes no difference so far as his score is concerned. Most experienced flyer shooters fire both shots even though the bird appears to be dead. The reason for this is because once in awhile, an apparently dead bird will suddenly come to life and fly out of the ring, leaving an unprepared and frustrated shooter muttering to himself. Since substantial money prizes are involved in most shoots, it doesn't pay to chance the loss of a bird by conserving your second shot.

A trap boy is assigned to each pigeon

ring and it is his duty to pick up dead birds after the shooter has finished his series of five birds. The referee watches each bird as it is shot and if there is any doubt about the bird's ability to fly out of the ring, he will order the trap boy to pick up the bird immediately. The trap boy must run directly towards the bird and attempt to catch it with his hands. If he cannot do so and the bird escapes over the fence, it is scored as a "lost" bird. So "chips" won't count as they do in the clay target games. You must hit your bird hard enough so he cannot get out of the ring. If the referee does not call for the trap boy to retrieve the bird, the shooter may ask for an immediate retrieve of the bird. This is up to the judgment of the shooter. If he so desires, he may ask for an immediate retrieve of each bird. Trained retriever dogs are used in some shoots to pick up the dead or wounded birds.

One of the most difficult things to learn about shooting boxed birds in a pigeon ring, is when to fire that second shot. Sometimes, if you miss cleanly on your first shot, it is imperative that you fire the second shot immediately (if not sooner) before the fast flying bird clears the beckoning fence. Another time, a shooter may knock the bird down with his first shot and the bird will flop about on the ground or make erratic hops about the ring. A hasty second shot in this situation can cause an embarrassing miss. A wise shooter will hold his second shot for a moment or two until he can get a "dead bead" on the wounded bird. I have seen shooters become a little too anxious to finish off a crippled bird and fire at the flopping target too soon. The bird often stops jumping around at the sound of the shot, stands up, shakes himself and calmly flies out of the ring while the exasperated shooter stands helplessly by, holding his

empty gun.

Occasionally a bird will refuse to fly when the box pops open. This bird is known in the game as a "sitter" and is dreaded by flyer shooters. These birds are an irksome problem and will unnerve some of the best pigeon shooters in the country. The rules state that the pigeon is the shooter's responsibility and if the bird does not fly, the shooter must wait for a required five seconds or until the referee calls, "No bird." If the bird flies anytime before this call, the shooter must drop it in the ring or suffer a "lost" bird. The shooter may, at his option, kill the bird on the ground. In such a case, the bird will not count as a target and the shooter must shoot at another bird. If the shooter fires at the bird on the ground and for some inexplicable reason, should miss it or allow it to escape from the ring, it is scored as a "lost" bird. To be a legal target,



Write for catalog.

the bird must be off and clear of the ground when the first shot is fired. The required five-second wait for a "sitter" has a tendency to cause some gunners to relax their shooting position and often results in a miss on an apparently easy bird. I can assure you, it is a most frustrating way to suffer a "lost"

There have been many ingenious boxes constructed to force the pigeon to fly the moment the box is sprung open. Some boxes are supplied with a jet of air pressure coming from a flexible rubber hose which flops about the bird's feet while emitting a pressured stream of air. Others use a device in the base of the box which catapults the bird a foot or two into the air. I have yet to see a box that is completely satisfactory. Some metal boxes lay flat on the ground after opening. All four sides and top are flat on the ground leaving the shooter an unobstructed view of the bird. These are perhaps the best type because, with the old solid boxes, a bird will occasionally be hidden behind the box. Every effort is made to make the bird fly at once. Some boxes are equipped with balls or a tin can which rolls toward the bird when the box opens. Trap boys stand ready to throw balls at the bird if it does not fly at once. In spite of all this, an occasional bird will merely sidestep the missiles and refuse to fly.

Over and under shotguns are most popular in the flyer ring. Once in awhile an automatic shotgun will be used but they are not often seen because of occasional malfunctions that can cost a shooter an important bird. Even rarer is the pump shotgun. Sometimes a new shooter will use a pump gun because he is accustomed to it. Unless he is a rare shooter indeed, he will have a shell hang up once in awhile and a costly "lost" bird could be the result.

Pigeon shooters are a rather fussy breed of sportsmen and they use a variety of fine over and under shotguns. Beretta, Browning, Remington, Kriegoff, and Merkel are some of the famous gun manufactures represented in the flyer ring. The discontinued Remington Model 32 is one of the more popular guns. These guns, however, are quite hard to find and the price is apt to be high. Kriegoff of Germany has put out a model that is considered to be an exact copy of the famous old Remington Model 32 and these new guns are frequently used. Brownings are well represented and the Beretta is becoming more popular, especially in the better grades. A few of the quite expensive Winchester Model 21 shotguns are seen but the side by side does not have the appeal to flyer shooters that is enjoyed by the over and under guns.

Most flyer shooters use a modified choke in their first barrel and full choke in the second barrel. This is another reason for not using an automatic or pump shotgun. Since the first shot at flyers is usually fired very quickly, a tight, full choke for both shots could be considered a disadvantage.

Flyer shooters generally prefer a moderately short barrel. Since the shooter is often required to make a fast swing sharply to the right or to the left, a long barrel can be a little slow in starting. If you should happen to get a bird from one of the end boxes and the bird is a strong, fast flyer heading straight for the side fence, you will need all the speed you can muster in your swing to catch him before he is gone.

The standard pigeon load is 31/4 drams (equiv.) of powder, 11/4 oz. of No. 71/2 or No. 8 shot. Some shoots allow the use of the standard 3\%-1\% oz. high base load but still limit the maximum shot size to No. 71/2. A few of the more avid shooters use a special pigeon load manufactured in Italy. These are excellent loads and contain nickel coated shot. They are packed ten shells to a box instead of the usual twenty-five shells contained in American-made shotgun shell boxes. They are considerably more expensive than American shells but the devotees of flyer shooting will stop at nothing to add a bird or two to their score. As in all forms of competitive shooting, each shooter has his own opinion as to what brand or shot size to use in his favorite pigeon gun. Flyer shooters are no different in this respect.

Some shooters shy away from live pigeon shooting because of an imagined high cost compared with skeet or trap shooting. In spite of the higher price of the targets (birds), the overall cost will not run the average shooter much, if any, more than is incurred by an enthusiastic trapshooter. Live birds usually cost from \$1.00 to \$1.25 each. Now this sounds expensive until you remember that you will only shoot 25 birds during the day and you will not shoot over two boxes of shotgun shells for the entire day's shooting. Compare this with the two or three hundred targets you will fire at in the average clay target match. A round of 25 clay targets is disposed of in just a few minutes but the shooting of 25 flyers fills most of the day. In my opinion, flyer shoot-

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ing is a much more thrilling sport than any of the clay target games. Many of the most enthusiastic flyer shooters are formerly well known trapshooters. They look to flyer shooting as a new and exciting challenge to their shooting ability.

Shooting for money is as much a part of flyer shooting as it is in trapshooting. There are many optional purses in flyer shooting and they follow the same general pattern as in trapshooting. Depending upon confidence in your shooting ability and your pocketbook, you may gamble several times your entry fee by entering optional purses in flyer shooting.

Many top echelon clay target husters become just another average shooter in the pigeon ring. The expert live bird shooter must be able to change his timing of shots in an instant. This is sometimes a little difficult for a champion clay target shooter that has learned to shoot in a steady machine-like rhythm. One bird may call for two extremely fast shots while the next bird may be a leisurely flyer that the gunner can pick off easily with one shot. Or the bird may sit on the ground for a moment or two and then suddenly take off like a cartwheeling bullet over the fence and out of the ring. Still another bird may start off in a normal flight but suddenly change directions and become an elusive, twisting, turning target.

A windy day can make a twisting bird an almost impossible target. I once had a bird spring from the trap with a sudden twisting motion that carried him high over the center of the ring. I missed the bird clean with my first shot and try as I might, I couldn't get lined up on it for the second shot until it had spiraled high into the air. Then as the bird changed directions, I fired and hit the bird dead center. I was pleased for a moment until I followed the path of the dead bird to the ground. A moderately stiff breeze was blowing and because of the altitude gained by the bird and the wind, my dead bird slanted downward and hit the ground just outside the fence. I had been just a little slow with my second shot and it cost me a "lost" bird.

The average good clay target shot can make a pretty respectable score on his first try at live birds. Most experienced shooters start right off with a score of 20, 21, or 22 but his score is apt to remain right there for quite a spell until he masters the little tricks of the game and kills his first 25 straight. In a string of 25 birds, you are almost certain to draw one or two wild "screamers" that are difficult or impossible to hit and drop within the prescribed ring. Ten or fifteen relatively easy birds will sometimes set you up for a fast, twisting, and dodging target that will keep you muttering for several days.

So if you find the once exciting games of trap and skeet a little dull and would like to get away from the monotonous grind of shooting hundreds of clay targets in a match and then shooting perhaps another hundred in a long shootoff, why not visit one of the flyer shoots? Some of the flyer shoots schedules are listed in the Amateur Trapshooting Association's magazine "Trap & Field." I'll guarantee you will find it to be an exciting shooting sport.

RELOADING THE .380

(Continued from page 45)

quite easily without a holster. Tucking my Browning butt foreward inside my waistband just behind my right hipbone has proven to be the ideal way to carry it completely concealed yet instantly accessible. A hip pocket is also convenient and fast. The relative light weight of these weapons makes them ideal for a woman to slip in her purse or

In summary, the .380 does not compare with the magnums on the market as a defense weapon. However, by handloading this stubby cartridge with a slightly heavier and better designed bullet, it becomes quite effective as a man stopper. This additional power, coupled with its compact size and weight, should cause those who

LOADS AND COMMENTS

Powder:	ight: 118 gro Amount:	Muzzle Vel:	Energy:
Bullseye	2.0 grs	765 fps	153 lbs.
Bullseye	2.2 grs.	803 fps	167 lbs.
Bullseye	2.4 grs.	843 fps	183 lbs.
Unique	3.4 grs.	897 fps	211 lbs.
Unique	3.7 grs.	947 fps	236 lbs.
Unique	4.0 grs.	962 fps	240 lbs.

Comments:
Mild and pleasant; fair expansion.
Mild; Good expansion
Warm but no signs of excessive pressure. Expansion is very good.
Warm but safe; Expansion is very good.
Appears safe but slight primer cratering; Expansion is very good.

Primer cratering. Possibly safe for emergency use only. Wise to back off to 3.8 grs. Expansion is outstanding—mikes to better than .75 cal.

jacket pocket. The moderate recoil of this cartridge will allow even the most gun-shy woman to fire it without flinching. As far as the noise level is concerned, the bark of the .380 is only slightly more than .32 ACP, the caliber most commonly chosen by women to have under a pillow or in a purse.

have looked down their noses at the .380 to change their minds. They might find that the advantages of its light weight, concealibility, and natural pointing qualities set it apart from similar "compacts" to the point of filling a very definite niche in the defense handgun category.

CHAMPLIN - HASKINS

(Continued from page 33)

Haskins Firearms, Inc., of Enid, Oklahoma. The owners of this new arms company invited me to visit their place of business, meet their personnel, and inspect several of their rifles.

This new company plans on building a complete rifle. With the exception of bored and rifled barrel blanks made by Sharon, and a Canjar single-stage trigger, the complete rifle is made and finished in their own shops. Instead of a production rifle at low cost, their aim is to make what will be regarded as a complete custom quality gun.

The large gun factories plan on producing hundreds or thousands of guns a month, but Champlin-Haskins are only thinking of making 25 to 35 finished rifles a month. Prices are planned to start at \$500.00 per rifle and go up from there. The customer will have a nearly unlimited choice of innovations and extras that he may have added to his gun.

This new company, Champlin-Haskins, has designed and quite thoroughly tested their own action. The action is flat bottomed, with the recoil lug machined on, much like the Winchester Model 70 or the Mauser. There is still a great deal of argument among gun men as to which type of action, round or flat bottomed, beds easier or better and holds tighter in the stock. Like most other United States produced actions, this one is milled from 4320 bar stock steel. heat treated and normalized after rough machining. All parts are X-rayed and magnafluxed after finishing.

The bolt is a large diameter one, having three long ribs that serve as guides in the receiver. These are interrupted near the holt head so that the front three act as independent lugs solidly locking the bolt at the front end, while the rear of these large ribs form lugs to lock the bolt in the receiver at the rear. This actually makes six locking lugs. By locking both at front and rear the whole action becomes very rigid and is expected to add to accuracy potential.

The bolt face is deeply recessed and protects the head of the case. The extractor on the standard action is much like the new Winchester Model 70. The firing pin cocks two-thirds on bolt opening and the last onethird on bolt closing. The rear of the bolt is covered by a hood a great deal like the Weatherby. Adequate side ports in receiver and bolt allow for gas escape in the event of a ruptured case or primer. The bolt head provides additional protection for the shooter's eyes, besides streamlining the action. The top receiver shape is octagon, rather than round, with a flat surface on the top, drilled and tapped for scope mounts. This shape is quite pleasing to the eye. In fact, one of the primary aims of this new company seems to be to make every effort to manufacture a complete rifle that is good looking as it is useful. So far, no investment castings are used. All action and bolt parts, even the bolt shroud, are milled out of steel and heat treated where necessary. All parts are highly polished and the outside finish is fine bluing on all steel parts, including barrels. A thumb-operated safety is located on the right side of the receiver near the bolt shroud on right hand actions. As left hand actions will also be offered, this safety is then located on the left side.

Present actions are standard .30-06 case length with magazines long enough to take bullets set well out, as in custom loadings. These actions handle all new short case magnum cartridges. Chamberings will be for most any caliber the customer requests.

One new innovation that may be offered, as an extra on special ordered rifles, will be their new compound extractor. This will require special machining on the receiver when it is built. This item may be especially interesting to hunters of large and dangerous game. This is quite a clever idea. To augment the usual extractor, another one is installed directly opposite the first one. This means that on initial camming, the combined extractors fit nearly around the whole head of the case, not just on one side. As the case is extracted and just before the ejector goes into play, the compound extractor automatically retracts and lets the extractor throw the case clear. This extractor worked very well during my examination of it and looks as though it has considerable merit.

Sharon barrel blanks are used. All turning is done by Champlin-Haskins, Barrels offered

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will be in weights selected by the customer, and will be supplied in tapered round, tapered octogon, and tapered round with a milled-on full length rib. Prices will vary according to the barrel chosen. There will be open sights on the milled rib type as standard equipment. On the others they will be optional. A large amount of skilled hand labor goes into the making of such barrels.

Two general stock designs have been adopted. One is a thumb hole type while the other is a well-shaped standard grip with roll over comb. General design of each will appeal to many people. A third design under consideration is of a severely plain but excellently shaped Monte Carlo comb, with a fine slender grip and select grain pattern stock. The first two mentioned will feature the latest Pachmayr recoil pads but the last one will come out with either a solid or trap butt plate of Biesen design.

All stocks are made from select blanks using their pattern in their own wood shop. An 8-spindle profile machine of late type roughs out the blanks. Hand checkering is featured on all stocks. Checkering style and lines per inch are chosen by the customer. Prices will vary accordingly. I examined a sample rifle with an exceedingly fine shaped grip, Monte Carlo comb and 28-line checkering that really pleased me. There was no inlays or other decorative lines to detract from the clean efficient looks of this stock. It had a Biesen steel butt plate, and for calibers of .270 down this type would really be right. For higher recoil calibers I would prefer a rubber butt plate. The forearm of this stock

was of sufficient size without being bulky. It allowed for a good grip and it would be easy to carry in a saddle scabbard. Checkering was slightly recessed similar to Al Biesen's work, with borderless patterns. The diamonds were sharp and clean and never over ran. If this is a sample of what they can turn out they will have many takers.

They have a few test guns going out to a few selected gunmen and hunters. When I was there they were just stocking one for Elmer Keith. I think it was a .338 caliber. It had quite a number of his own "druthers" built into it. They assured me they would have one coming off the line right soon for me to use and do some testing with. I hope to be able to give a full report on some field tests by summer. My choice of cartridge chambering for it was either .270 Winchester or 7 mm Remington Magnum. One thing I would like to really try out is the machined-on rib. I am most anxious to see if this style rib will affect groups as the barrel warms up and if so, how much.

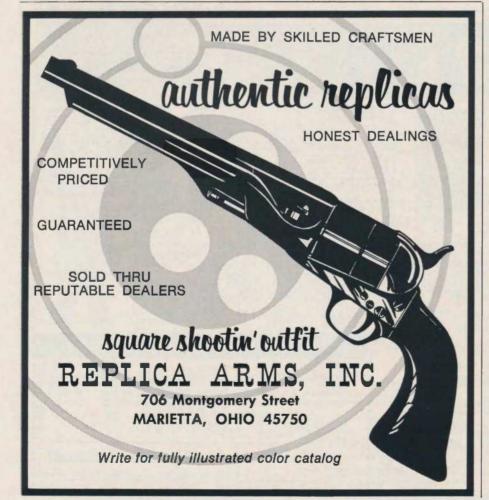
Complete rifles weigh from seven to nine pounds, depending on the style and wood used. They are buying the trigger assembly, the tested and well-proven Canjar. A fully (3-way) adjustable, single stage Canjar trigger will be used. This we already know can hardly be bettered by anyone. Two distinct types of trigger guard will be available. One of these, a very elaborate type, is now installed on the thumbhole stocked rifles. The other has rounder corners, is more streamlined and more pleasing to the eye, to my way of thinking. However, we all do not like the same designs and perhaps the beautifully decorated and elaborate rifles will sell equally as well as the plain ones. I am sure they will perform as well, plain or exotic.

A hinged floor plate with easy working release located inside the trigger guard, releases cartridges from the three cartridge ca-

pacity magazine.

Although orders are being accepted and the rifles for these are now being produced, I did not talk delivery schedules with the company. I would rather assume it would be around one to two months, from time of order to delivery date. They do plan on having in stock a few finished rifles for immediate delivery. However, I do not believe this rifle company will ever produce guns in large quantities. It is essentially a custom gun, with many innovations individuals will want and will pay extra for. The financial success of the company will depend largely on the sales department.

Champlin-Haskins seems to be a going concern. It is quite adequately financed and well staffed. Douglas Champlin is president; Jerry Haskins is general manager and vice president. Both are shooters and gun enthusiasts. Their address is 2931 North Fourth Street, Enid, Oklahoma,



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WINCHESTER SINGLE SHOT

(Continued from page 25)

sible for this frame as we know it.

A few years back, one did run across an occasional high wall frame which had its right side wall cut or milled away to facilitate loading under a low-mounted telescopic sight. I have in the past seen two or three with such mutilated high wall frames, the barrels of which bore H. M. Pope's name stamping. The story with these rifles was that Pope himself had milled the right side walls away when he installed his barrel. If that is the case, and I doubt it very much, Mr. Pope was an extremely careless workman to so weaken a vital supporting member of the action.

It is true many of the older gunsmiths and barrel makers did slightly alter the Winchester action, mainly the high walls, to obviate the annoying characteristic of the block dropping slightly after the lever is closed.

Some Schuetzen barrel makers claimed it was not possible to make one of their barrels perform satisfactorily on the Winchester action due to this feature of the unaltered parts. These same gunsmiths claimed the Ballard, Stevens .44%, and Sharps-Borchardt actions superior to that of the Winchester for a fine target rifle.

Peterson and Schoyen preferred the Ballard while A. O. Zischang, the Syracuse, New York, barrel maker, preferred the Borchardt. Of course you will find barrels by these famous men on actions other than those mentioned as they were in the business of making and selling barrels and naturally catered more or less to the customer's wishes in these matters.

I possess a fine Hartford Pope M/L .33/40 barrel which I believe to have been mounted on the Winchester action it is attached to by old Harry himself, and the action is unaltered in regard to the slight dropping after closing the block feature.

The low side wall sectional drawing illustrates the flat spring type of action. This is done to contrast with the coil spring high side wall shown in sectional form previously. Please note this flat under barrel hammerlever spring type was the early form used on both high and low side wall actions, and the coil hammer spring versions of high and low side wall actions came along later.

There are one or two parts which differ from the coil spring style but these should be obvious from a study of the two drawings.

In the main, the parts of both style actions carry identical parts numbers. The only difference being the lever plunger and lever plunger pin of the coil spring, versus the flat spring base and its screw, (25) and (26).

Today Winchester actions, particularly the high wall style, are rather hard to come by though the low wall varities are quite plentiful yet. There have been so many of the old original rifles dismantled to obtain the action for a foundation upon which to build a varmint rifle, that the supply seems very low.

I know of two or three gunsmiths who rebarreled hundreds of these when the .22 Hornet, .22/3000 Lovel, and .218 Bee cartridges were popular. At that time Winchester single shot rifles were fairly common and since quite a lot of them had barrels in obsolete calibers, they were obtainable at low prices. About then the going price for plain actions was from \$8.00 to \$12.00 a piece while set trigger varieties brought a little more, about \$15.00 to \$20.00. Consequently they made up in to cheap varmint jobs and were very popular.

The vast number of cheap bolt actions which flooded the country after World War II helped take the pressure off the demand for single shot actions and just in time too.

The demand for more and more horsepower in varmint cartridges, as in automobiles, more or less rules out the utilization of a single shot action as a foundation. Then too, most of the bot cartidges were being built on rimless cases and while the Winchester can be adapted to handle the rimless cases by a good gunsmith, it is not the easiest thing in the world to do. To set the record straight for the late comer, Winchester did supply some high side walls for the .30-06 cartridge which, as you know, is a rimless case. There are also a few rifles around made at the factory for other rimless sizes.

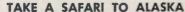
I believe it is safe to say the Winchester has been our most popular single shot action for a foundation for the following reasons:

1. Its abundance made it easy to obtain, There were more of these actions manufactured in their several variations than any other single shot with the exception of the side hammer Sharps.

2. As the Winchester was in production up into the twenties and parts were available from the factory up into the early forties, it was easy to convert to other calibers without the necessity of making parts by hand as was the case in other actions.

3. The actions, with few exceptions, have





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CENTURY ARMS, INC. Dept. G 3 Federal Street, St. Albans, Vermont ample strength to contain the cartridges adapted to them.

4. Finally, it is an easy action to work upon and most gunsmiths prefer it for that reason.

I have mentioned the weakness of the butt stock fastening method used by the factory and when an action is restocked an alternate method should be used, especially if a deluxe varmint or target rifle is desired. A stock bolt should be installed and there are several ways to do this; most stockers have their own methods. The tangs can be shortened somewhat, especially the lower, and block brazed or screw fastened to the underside of the top tang. If this method is used, a long screw should still be used to connect the upper and lower tangs. Instead of this screw, some smiths install a block fitting the space between upper and lower tangs exactly, securing this block with screws to the tangs, and thread the stock bolt into this block from the rear. When the wood is carefully fitted to the tangs and frame, this makes an extremely rigid assembly, one that will stay put. It is possible to get a good close pistol grip when the lower tang is shortened just behind the knock-off spring. One point about fitting the forestock should be stressed here. It is accepted by most expert gunstock makers that a single shot forend may be precisely inletted for the barrel or may be semi or full floating on that barrel whichever is preferred. but it must have some clearance at the rear end and not bear at any point on the metal where the wood mortises into the front end of the frame. For some reason the piece will

hold its zero much more faithfully if a slight clearance is provided here.

When the action is to be used for a modern cartridge of any strength, it is advisable to have the breech block bushed and a new spring-loaded small firing pin installed. The last blocks supplied by the factory for these actions had fairly small end firing pins, but even these are too large for certain hot cartridges. For the small rifle primer cartridges, frings pins with ends of about 0.0625 may be used, and with cartridges using large rifle primers the diameter may be increased



Low side wall takedown action.

slightly and this is better than the smaller pin for such sizes.

If your breech block lacks a gas escape vent in its top, this should also be installed when having it modernized. Some men also prefer to have additional vents extending from the firing pin bore to the sides of the breech block.

When we speak of the strength of the Winchester action, we are speaking of a widely varying element. I am sure that if you have waded this far into my discussion of the system you know now that in reality the Winchester Single Shot action is several different actions. To say that Winchester actions are all stronger than other single shot actions is obviously untrue.

To illustrate my point, the earliest frames were thick side wall type, the type generally accepted to be the stronger style. However, these were case hardened in color and while it made them more durable, it also made these walls more brittle if the hardening went a little too deep. Now not all these were brittle but the possibility exists and must be taken into account when evaluating the comparative strength.

On the other extreme we have the late, thick wall high side version which was made in blued finish of proof steel and so marked at the factory. These are naturally the strongest frames we have and incidentally about the most scarce ones too.

In between these extremes are several varities varying in strength, the weakest being the case hardened thin or paneled wall frames. Next strongest are the paneled thin walls of original blued finish. Some late versions of these were also made of Winchester proof or nickel steel and are proof marked with the Winchester proof mark on the top of the barrel housing portion.

Many of these were supplied with barrels of high intensity steel (also Winchester proof marked) for large powerful cartridges such as the .30/40 Krag, .30-06, .405 W.C.F., .50/110 W.C.F., etc. These frames possess great



strength also and will support cartridges developing fairly high pressures. Two Winchester single shot frames of high side wall pattern, which should not be used for particularly large or hot cartridges, are (1) the thin walled frame with a small size barrel shank thread such as the #1 size and (2) the late .22 rim fire musket frames. These latter, while made in blued finish by the factory, are generally considered by some gunsmiths to be a little soft and will stretch some. This would naturally affect the head space and this is generally frowned upon in the best rifle circles. So you see what is generally regarded as one action by the public is in reality a collection of several actions which vary considerably in strength, and finish of the frame.

To list them in order of strength begining with the strongest, we have:

- 1. Thick wall high side in blued finish.
- 2. Thin wall high side with blued finish.
- 3. Thick wall high side with case hardened finish.
- 4. Thin wall high side with case hardened finish.
- 5. Thin wall high side musket, blued finish (Winder musket).
- 6. Thin wall high side with #1 barrel opening.
 - 7. Low side wall action.

At one time Winchester would reheat treat case hardened frames, refinish and blue them. The frame thus treated became strong enough to hold most any modern varmint cartridge of rimmed type.

If you have an action the frame of which is nicely color hardened it is certainly much better looking than any blued finish and will no doubt be quite strong enough for a reasonable load, so why not use it in that original finish?

The low side wall action is considered by most gunsmiths to be strong enough only for modern cartridges such as the .22 Hornet and .218 Bee. This limitation applies whether the frame is of original blued or of case hardened finish, there is no distinction made here since the cut away side walls, sloping back and downward much more rapidly than those of the high side wall frame, obviously do not support the breech block sufficiently for more powerful loads.

Winchester discontinued manufacture of riflles built on the single shot action in 1920 and in the early thirties sold all the actions remaining at the factory to the R. F. Sedgley Company of Philadelphia. Sedgley barreled and stocked these actions and delivered some very fine appearing and shooting rifles in .22 Hornet and .22/3000 R2 Lovell calibers. These cartridges were very popular throughout the country about that time. All the R. F. Sedgley Winchester rifles I have seen were very well made and finely finished throughout. Most of these were built on the thick high side wall type action. In case I haven't mentioned it before, these frames were 0.030" thick compared with 0.025 for the thin or paneled frame.

Some of these thick wall actions, mostly take-down versions and apparently the last of the new, unused frames, made at the factory were sold by a dealer in California shortly after the end of World War II. His source of these actions, some of which were incomplete, though new and unused, was apparently the remainder of those sold to Sedgley which had not been used up in building the R. F. Sedgley single shot sporters.

Thus the famous Winchester single shot came to an end, finally in 1920, as far as factory production is concerned though it is still very much in existence today.

Many men have voiced the opinion that if Winchester had retained all the jigs, dies, and fixtures used in the making of the action parts and had stored them instead of destroying them, they might have ultimately gone back into production of the action!

I have an idea this opinion may not be too far wrong at that, but to recreate all the necessary tools to make them again would not be warranted in view of the certain limited sales potential of such an action today. However, if the action were redesigned, and certain desirable features added such as a secure stock recess at the rear and a stock bolt to tie butt stock and frame together, as well as a Bordhardt type breech block and hammer-striker, optional set triggers, and a top tang safety, and powerful extractor system capable of handling rimmed or rimless cases, and the whole made of heat-treated modern steels; then we would have an action!







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OUR MAN IN WASHINGTON

(Continued from page 17)

During the course of the public review of the legislation a noticeable shift became apparent. Judiciary is at this writing looking for a compromise. Sources inside the committee indicate the Republican members are for substituting a Sen. Hruska-type bill. Democrats want to amend the Administration's bill. Indications are that the committee will be looking long and hard before sending any bill toward the House of Representatives.

When the committee does report out a bill, it will go to the committee on Rules. This is the committee which decides what bills the House will consider. For this reason, readers should expect several so-called "safe streets bills," including an anti-gun legislation, to be reported at one time. With anti-gun legislation being only part of crime package, there will be less chance that an anti-gun bill will be, instead of going to the House, again referred or re-referred to Ways and Means because of that committee's having jurisdiction last Congress. Or, it could be that Judiciary will make the anti-gun legislation part of a single, all-encompassing crime package of only one bill.

It should be remembered that while members of the committee are swaying toward the shooter's viewpoint, the Chairman is still Emanuel Celler of Brooklyn, N. Y. Supporters of the legislation are banking on big city Congressmen to push their measure through the House. Sending the legislation to Rep. Celler was only one of many tricks. The same type of committee-switching took place in the Senate last session.

Undoubtedly more hanky-panky is planned. Speaking of more hanky-panky, wonder what Chairman Celler would do if the Administration were to rewrite some of the other legislation now pending before Judiciary so as to get it referred to some other committee! If the anti-gun legislation does not get to Ways and Means a Pandora's box will open. After all, one good double-cross deserves another.

On the other hand, Rep. Celler, as anti-gun as he appears to be, is one of the most respected members of Congress. The question is, how far will he allow his chairmanship to be used? Already the Administration's high-handed tactics of shifting committees has made members of Ways and Means hostile to other LBJ "Great Society" legislation.



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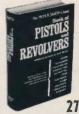
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WHAT BARREL LENGTH?

(Continued from page 23)

sawed-off. It commenced life with a 24" tube and this was chopped back to 23.7 inches when we converted to the 150 gr. bullet.

The M-1 rifle of World War II has a 24" barrel, but its successor, the M-14 goes only 22 inches. The still newer M-16, the pip-squeak that fires the .223 cartridges, has only 20 inches of chamber and rifling.

The manufacturers these days steadily shorten barrels. All the Brownings, from their .222 to the .458 elephant gun have barrels of either 22 or 24 inches. Marlin used to make the old 336 lever gun with a 16¼" barrel but this has now been stretched to an even 20 inches. Remington offers the Model 600 bolt action in 18½" barrel. The Model 700 bolt actions run 22" and 24", with 26" tubes in the .375 and the .458. Ruger offers the autoloading carbine in 18½ inches but their very latest, the single shot may be had in barrels of 22", 24" or 26 inches.

Winchester builds the standard M70 bolt action with 22" or 24" tubes, and an interesting deviation here is that the big .458 African is now available with 22" barrel only; when it came along a dozen years ago it could be had only with 26-inch. The economy copy of the M70, known as the M670, has some odd dimensions. It is offered with a 19-inch barrel; or if you want something more conventional, a 22" or 24".

Weatherby, the original builder of magnum rifles, sticks to 24 inches for most of his ordnance. Only the .340, the .378 and the .460 tubes are made 26 inches in length.

It is an almost universal practice to publish all ballistics data based on firings from a 26 inch barrel. And not only from this stretched-out number but also from a meticulously made barrel with an especially tight chamber. When the buyer looks over the velocities of his proposed new hardware and is impressed by the figures, he may be in for some surprises; especially if he has selected one of these new choppers with an 181/2" barrel. Some calibers shed velocity like the go-go gals shed their tops. A most notable example is the .264 Magnum. With its original 26" barrel it was a real hotrock. With the regular 140 gr. bullet it was good for 3200 fps, the company contended. When some of the more enterprising fraternity members started whittling the tube down to useable dimensions, they wound up with a gun that would only deliver 2900 fps. This got it down considerably below what the old .270 had been doing since 1926.

The Speer outfit, makers of some of our best bullets, run a whale of a good testing lab, and they have put a great many rifles and factory loads over the jumps. What they reveal when the factory fires with those specially made 26-inch test barrels and what Charley Bayhorse gets when he shoots his 22-inch factory-issue prize is quite a bit different. One .243 Winchester Model 88, with 100-gr factory hulls in the standard 22 inch barrel, showed only 2893 fps; the published velocity is 3070 fps. With another M88, this time in .284 caliber the 22 inch barrel averaged 3067 fps with the 125 gr. bullet. The ballistic chart shows 3200 fps.

The point I am making is that it is sure fine to have a short handy rifle, but you pay for it; and through the nose. You lose on the score of velocity, on the count of comph, and you shorten your surefire killing range by a trajectory which tends to get a lot more arc in it.

A rifle with a too-short barrel will not hold steady; it does not matter whether you shoot from the prone, the sitting, or the offhand, the statement stands. A rifle, hanging dead on the mark, must have a certain amount of muzzle preponderance to behave. That is the reason our most expert rifle shooters-the free rifle clan-use barrels of 27 to 30 inches. Not only must the hunting rifle barrel have a certain linear dimension but it also must not he built too thinly. A waspish barrel, though it may have good length, can still be a poor one because of its lack of weight. It will be readily understood from the foregoing that there has to be some compromise here. All of us want a gun that is going to shoot close but certainly no one wants to take to the field with a free rifle.

Of course, if the game is going to be at 75 yards and under, then the inability of the rifle to hold steady isn't of much concern. Muskets like the Ruger .44 carbine and the military M-1 carbine (and all its civilian made versions) are 75 yard guns, and if the barrel is under 20 inches and wavers like a bullfighter's sword matters little.

For the more serious game-taking, however, with shots at 200 to 400 yards, and many times offhand, the barrel had better be pretty thoughtfully selected. For shots at elk, pronghorn, or caribou; for long range attempts on sheep, and grizzly where the game is spooky and the long opportunity is all that offers; for mule deer in the open country and across broad canyons, these and

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many other gameland offerings lay a premium on the goodness of the barrel.

I like the 24 inch tube on the high-powered rifle, I think 20 inches is too short, and anything less than 20 inches is absymal stupidity. I have many reservations about the 22" barrel. It is simply too short. If it is to make up into a really workable hunting arm it must be heavy, or fairly so, and just show me the manufacturer these days who, when he builds a 22-incher, does not come off with a piece of pipe as skinny as a Powers model and not nearly as useable.

A 24-inch barrel in those calibers which can best be classified as near the all-around or all-purpose rifle; calibers like the 7 mm magnum, the .300 Win. Magnum, the .308 Norma Magnum, and the .300 Weatherby, want to run 1.150" diameter at the breech and .550" at the muzzle with a total weight in the neighborhood of 21/2 to 3 pounds. I lean to the heavier heft if I can have my druthers. For the brown bear, grizzly, and polar bruin rifle, the tube can still remain at 24 inches but can be a mite bigger and heavier. I like then a barrel that will weigh 31/4 to 31/2 pounds.

I sometimes compromise on the 24 inch length but seldom vary from the heft. I have Parker Ackley make many barrels for me at a length of 23 inches. I will not have a 22-incher but compromise on 23 inches, this I think probably represents notion more than anything else. But it has grown to be a habit with me, that 23 inch snout.

I have a very old Model 725 Remington in .458 caliber. I have had this rifle up and down the Tana River in the NFD for elephant many times. When it came from Ilion it had a 26" bbl., and in the end of the tube were a lot of boles that were supposed to jet off the steam and keep the muzzle from rising. The rifle has a barrel that is far too heavy. It is built as massively as the Weatherby .460. This makes it balance beautifully, and when fired offhand it steadies like a fine free rifle. After one safari I got out the hacksaw and took 3 inches of metal off the belching end. The rifle has since killed old tuskers just as dead, and for working through the heavy cover where the very best bulls bush up it is infinitely more handy.

I do not think there is any all-around barrel length because hunting conditions vary so greatly. The game offers long shots and short ones: one critter must be taken running and the next can be bashed in from ambuscade; still a third must be killed in a twinkling and to go into action the gunner must fall off his horse and literally shoot as his feet strike the ground. There are rifles that are so short-ranged and so ineffective that barrels down to the legal limit set by the federals is okay and others that need, verily, a barrel extension so you can get all the soup out of them. These and other factors have important bearing on barrel length. With all this to consider, any hard and fast figures on tube dimensions would necessarily have to be qualified. For all thatand certainly it is a compromise-a rifle barrel for the high intensity cartridge, the kind of a musket used to shoot medium to bigger critters, ought to run 24 inches. Or, if you use the custom barrel, then 23 inches.



GUNSMITHING TIPS

By WILLIAM SCHUMAKER

REAR GUARD SCREW BUSHINGS

Much painstaking work, plus the cost of a new blank, goes into the job of retiring that ugly oil-soaked military gunstock. Yet frequently that hoped-for better accuracy not only fails to accompany the beautification program, but takes a discouraging and unpredicted turn for the worse.

Provided basic strain-free metal to wood contact has been established at rear of the recoil lug and the area behind it on through to the receiver tang, attention should be directed to a small metal collar known as the rear guard screw bushing. Although actually nothing more than a spacer between the action tang and rear of the magazine trigger guard unit, within it lie many accuracy related mysteries, which average gun owners and even some gunsmiths are not totally familiar with.

Most military rifles such as Springfields and M-98 Mausers originally had rear guard screw bushings. Usually these are eliminated during restocking in spite of the fact that their absence may account for mediocre performance. To re-install, a flat end punch of corresponding diameter is used to drive out the original bush-

In order to easily slide it into place in the new stock, the rear guard screw hole must be opened slightly larger than bushing diameter. This should be done before the action is inletted to full depth of just a few thousandths from joining the magazine trigger guard assembly. The wood contacted by action tang and around guard screw hole under trigger guard should show firm compression simultaneously as the tang and trigger guard cinch up against the guard screw bushing.

At this stage, remove bushing from stock, coat inside of stock bushing hole

with epoxy glue and reinsert, being careful not to get epoxy inside the bushing. Place action and trigger guard unit in stock, tighten guard screws and allow to harden overnight. The bushing which was slightly floating, is now glassed into perfect alignment and establishes constant strainfree spacing.

Mausers having military thumb hole cut-outs for clip loading are subject to bending strain at this point. Such



Position of guard screw bushing.

variations result in shifting zero at the whims of weather and the guard screw tightener's muscles. This factor, that of bending the action by the misjudged power of the screw during cinch-up, is virtually eliminated by use of the guard screw bushing.

Few commercial center fire rifles utilize the guard screw bushing, but neither do they have action-weakening thumb hole cut-outs. However, there is by nature of design always less metal bulk and strength on the extractor-ejection side of bolt actions. If you desire perfection, incorporate the guard screw bushing installation with accrurizing tune-ups and restocking.





GI's HANDGUNS

(Continued from page 27)

In 1935, John M. Browning completed his last pistol design. It was produced prior to WW II, as what we now know as the 9 mm Browning Hi-Power. Many hundreds of thousands of this gun were produced by both Fabrique Nationale and the John Englis Co. of Canada during WW II. The Hi-Power made such an impression during the War that it has since been adopted by more Western nations than any other single model. It is the standard military sidearm in at least a half dozen nations, and has been purchased in at least reasonable quantity by the majority of the Western nations.

Outstanding features of the Hi-Power are its 13 shot, staggered dual-column magazine, and its superb reliability. The locking system is developed directly from that of the

and also functions as the disconnector.

The Browning Hi-Power, or as it is called in Belgium, *Grande Puissance*, is finely made, very reliable with all types of 9 mm Parabellum ammunition, and more than accurate enough for military use. Little more need be said.

Next on the list, alphabetically speaking, is the Czechoslovakian CZ M-52 pistol. It is chambered for a Czech loading of the 7.62 mm Soviet pistol and suhmachine gun cartridge. At 1600 fps, it is the highest velocity pistol/cartridge combination in military use. The design is native Czechoslovak, and unique in that it locks barrel to slide by means of two vertical roller bearings. The rollers, situated in cutouts in the barrel, are cammed in and out of slide recesses by a

(for a military arm), I have not had the opportunity to fire one. Those who have tell me that muzzle blast and recoil are a bit severe, but that functioning and accuracy are good.

The French went through WW II and the years immediately following with pistols and submachine guns chambered for a diminutive 7.65 mm Long cartridge, totally inadequate for military purposes by accepted standards. The French propensity for insistence upon purely French products (except, of course, for those items they could get free) was no doubt responsible for the use of this cartridge long after its shortcomings were most painfully evident. The earlier M-1935 series of French pistols were based on Petter patents which were essentially minor improvements on the M1911 Colt/Browning design. The French M-1950 pistol, adopted in that year, is really nothing more than a slightly enlarged version of the 1935 series, chambered for the standard 9 mm Parabellum cartridge. The few samples of this pistol

TODAY'S MILITARY PISTOLS

Make & Model	Caliber	Origin	Operation	Magazine	Barrel Length	O/A Lngth	Weight	Prin. Country
Beretta M1951	9mm Para.	Italy	Recoil, Walther rising block sys- tem. Single action	8-round single col. box	4.51"	8.00"	1.93 lb.	italy, UAR, Israel
Browning/FN H.P. (G.P.)	9mm Para,	Belguim	Recoil, Browning 1935 rising barrel system. Single action	13-round stagger dbl. cal. box	4.75"	8.00"	1.90 lb.	Belgium, Britain, Common- wealth, Canada, Denmark, Free China, Dominican Re- public-others to lesser degree
CZ M-52	7/62mm Pistol type P	Czech.	Recoil, original roller system similar to MG-42 Single action	8-round single col. box	4.71"	8.25"	2.12 lb.	Czechoslovakia
French M1950	9mm Para.	France	Recoil, Petter/ Browning swinging barrel link system single action	9-round single col. box	4.40"	7.60"	1.80 lb.	France
Makarov (PM)	9mm Makarov	U.S.S.R.	Blowback-modi- fied copy of Walther PP double action	8-round single col. box	3.83"	6.34"	1.56 lb	U.S.S.R., E. Ger., other Soviet satellites to some degree
Nambu Type 57	9mm Para. (.45 ACP)	Japan	Recoil-modified copy of Browning/ Colt M-1911 single action	8-round single col. box	4.60"	7.80"	2.12 lb.	Japan
SIG M49 (SP 47/8)	9mm Para.	Switzer- land	Recoil-modified Petter/Browning rising barrel with cam Single action	8-round single col. box	4.75"	8.50"	2.14 lb.	Switzerland, Denmark
Stechkin (APS)	9mm Mokarov	U.S.S.R.	Blowback-en- larged, modified copy of Walther PP. Selective fire	20-round stagger double col. box	5.00"	8.85"	1.70 lb.	U.S.S.R., E. Ger., other Soviet satellites to some degree
Walther P1 (P-38)	9mm Para.	Germany	Recoil-original rising block sys- tem, Double action	8-round single col. box	4.90"	8.60"	2.10 lb.	W. Germany, Austria

Colt/Browning M-1911, substituting an inclined ramp for the swinging link. The barrel bushing and recoil spring plug have also been dispensed with. The lock work also differs from previous Brownings in that a bar within the slide connects trigger to sear

separate member. The M-52 features a three position safety, which in its upper position locks bammer and sear, yet allows the slide to be drawn rearward to clear the chamber.

While I have examined M-52 pistols, and found them to be of excellent fit and finish

COLT OBRA that I have examined and fired showed reasonably good workmanship and functioned reliably. Functioning is virtually identical to that of the US M-1911 .45 caliber pistol.

(Continued on page 64)



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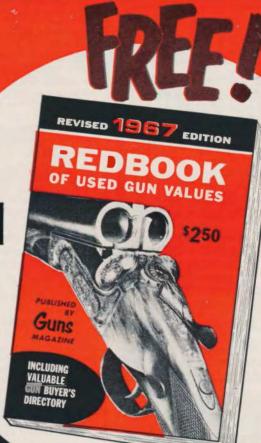


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This is far and away the best pistol design yet produced by France. Not particularly handsome, it is reliable and chambered for a powerful, effective cartridge.

Immediately following WW II, the Soviet Union replaced its powerful 7.62 mm rifle cartridge with one much smaller-and producing considerably less power and recoil. A decade later saw the high velocity, Browning-type 7.62 mm TTM33 pistol discarded also. Replacing it is the 9 mm Makarov (PM) double-action, semi-automatic pistol. Here again, the Soviets have gone to a far less powerful cartridge. The 9 mm Makarov utilizes a case nearly identical to that of the 9 mm Parabellum, but measuring .05" shorter. It also uses a lighter bullet at less velocity. While slightly changed in outward appearance, the Makarov pistol is purely a slightly heavier copy of the pre-war Walther PP. It is a straight-blowback, unlocked breech design with double-action lock work.

The Makarov shows good workmanship, and has no reason to be less accurate or less reliable than the well-known Walther PP/PPK series.

Companion to the Makarov is the Stechkin machine pistol (APS), chambered for the same cartridge. Larger and heavier than the Makarov, with a 20-shot staggered-column magazine, the Stechkin is issued in a wood holster that doubles as a shoulder stock a'la 96 Mauser. While not identical internally to the Makarov, the Stechkin is quite similar. A selector lever is fitted on the left rear of the slide and may be positioned for either semi- or full-automatic fire. The selector's third (bottom) position is "safe." In semi-automatic fire, with shoulder stock attached, consistent hits are claimed on man-sized targets at 100 to 150 vards. Undoubtedly, the effective range on fullautomatic is only a fraction of that, considering the 750 round per minute cyclic rate.

Little is known of the battlefield reliability of the Stechkin, but the Soviets are not known for adopting unproved designs. I think it is safe to assume that the Stechkin will do a good job within the tactical limitations imposed upon it.

Though little has been said about Japanese military arms development since WW II, the JGSDF now has in use the 9 mm type 57 Nambu automatic pistol. Externally this gun appears to be a copy of the US M-1911 .45 caliber automatic. However, the grip safety has been eliminated, and the magazine release moved to the bottom of the grip. Otherwise, it remains essentially a copy of the Colt/Browning. The type 57 is chambered for the 9 mm Parabellum cartridge, and is also reportedly made in .45 ACP caliber. It is reported to be of good finish and workmanship, and possessing the inherent reliability of the gun from which it was copied.

Probably the most expensive and finely-finished military pistol in the world today is the SIG-Neuhausen M-49 (SP-47/8) used by the Swiss Army. The Petter patents, improving on the M-1911 Browning design, were further developed in the late 1930's by SIG, culminating in the 44/16 (16-round magazine) and 44/8 (8-round magazine) pistols in 1944. Further development resulted in the M49 which is now standard in the Swiss and Danish armies. The M49 is chambered for the standard 9 mm Parabellum cartridge, and will handle any standard commercial or military load.

Of extremely fine finish and fitted very closely and carefully, the M49 functions perfectly and shoots with great accuracy under good conditions. However, it is doubtful that this close fitting would allow reliable functioning if mud or wind-blown sand were present. Be that as it may, it is a beautiful piece of work.

During WW II the Walther P-38 (adopted in 1938) achieved considerable prominence as the official German sidearm. After the war it was again placed in production at the new Carl Walther plant in Ulm, W. Germany, and eventually adopted again as the P.1 by the West German army. While certainly not possessing all the fabulous attributes given it by wartime propaganda, it is really an excellent service pistol.

Workmanship on the new guns is excellent and those I shot proved to be quite reliable. Today it is being actively promoted in foreign markets and has already been adopted as the standard Austrian military sidearm. Doubtless it will show up in other military establishments in the future.

Those are the post-WW II military pistols that have for all practical purposes replaced the scores of designs and calibers that were in use when war clouds began gathering over central Europe in the late 1930's. As in other areas of military equipment, unofficial standardization progresses rapidly on both sides of the Iron Curtain. Naturally, many thousands of the older models remain in use by the armed forces of smaller nations. Also it would appear that the major powers still have a few warehouses full of the older models stashed away for possible future use. It is significant, I think that of all the major powers of the world, only the United States clings doggedly to a pre-WW I pistol and cartridge. Many arguments have been put forward in support of this action. but I can't think of a one of them that really holds a great deal of water.

Though the world seems plentifully sup-



1330-A Laura Lane, Lake Bluff, Ill. 60044

plied with modern, powerful, military sidearms-particularly in view of the de-emphasis of the military pistol-development has continued. Three relatively new guns are certainly worthy of mention because of their potential value as military sidearms.

The Smith & Wesson M-39, designed specifically for U.S. Army trials some fifteen years ago, seems to me to be the ideal military sidearm. It is chambered for the 9 mm Parabellum cartridge, points and handles quite well, and is several ounces lighter than any of the standard guns we've already mentioned. Basically, it is a combination of an advanced form of John Browning's 1911 and 1935 locking system, and a variation of the Walther double action lock work. In addition to being the lightest in weight of the many other 9 mm Parabellum pistols, it is the most compact of them all. In firing several thousand rounds through different examples of this model, I have yet to encounter a single malfunction. And its accuracy is more than adequate for any military field use.

A much more recent development is the French MAB P-15. This pistol utilizes a unique rotating-barrel locking system combined with conventional construction and lockwork, and a 15-round, staggered, doublecolumn magazine. With a round in the chamber, it becomes a 16-round handgun. It, too, is chambered for the 9 mm Parabellum cartridge. Lockwork is single action, with an exposed hammer and conventional safety. The several examples of this model that I have examined exhibited excellent workmanship and functioned quite reliably, as well as produced excellent accuracy. slightly modified version, the P-8, with an 8-shot magazine is also available.

Last of the new sidearms with which we are passingly familiar, exists only in prototype form at the present. It is the .45 caliber NAACO "Brigadier," developed by North American Arms Corp. of Canada. Basically, this is a .45 caliber version of the Browning Hi-Power. The cartridge for which it is chambered reportedly develops considerably more velocity and energy than the .45 ACP cartridge standard in the United States. With the current trend being toward lighter, rather than heavier, pistols and cartridges, it does not seem likely that this particular gun will have much of a future.

Thus exists the military pistol situation of today. There is no lack of fine guns, nor is there a lack of good powerful cartridges for them. The only lack seems to be of foresight among these beribboned and bemedalled gentlemen who decide what the soldier is issued or permitted to carry.

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Panel of Experts

Because of the heavy influx of questions, it has become necessary to limit the number of questions submitted in one letter to two. Your questions must be submitted on separate sheets of paper, must carry full name and address, and your Shooters Club of America membership number. If you are not a member of the Shooters Club of America, send a dollar bill with each question. Questions lacking either number or money cannot be answered. If you want a personal answer, enclose a stamped, self-addressed envelope for each question.

Remington Derringer

I recently found an over and under derringer which I believe is a Remington. When I found it, it was completely fused and pitted with rust. The only markings distinguishable are "C. Ilion, N.Y." and the serial number # 200. How old is this gun and is it of any value?

M. D. Love Ajo, Arizona

The Remington Double Derringer was patented in 1865. Made in .41 rimfire caliber, it was manufactured from 1866 until 1935. Over 150,000 were made in this period. Collector's value for one in good to better condition would be about \$60, and they will bring more if in fine to new condition.—R.M.

Low Numbered Springfield

I own a 1903 Springfield No. 560,478. It is a low number, single heat treated rifle. I have read that the receivers are brittle and dangerous and cannot take today's factorymade .30-06 ammo because of its pressure. I also have read that they are safe. My rifle is in good shape and I have been using it for the past four years with factory-made .30-06. My questions are these: Have these rifles been proof-tested before being released by the Army, and if so, what was the pressure of the proof-test load, and how many rounds are used on each gun tested? What is the approximate pressure of today's factory-made .30-06? What is the safe maximum pressure of the receiver according to the manufacturer (Springfield Armory) or in your own opinion?

J. C. Ficella Uniondale, N. Y.

If you have a Springfield Armory-make Springfield No. 560,478, it is a "low-number" gun and should not be fired. As far as I am concerned, it is safe only for conversion into a floor-lamp.

Before answering your questions about pressures, please understand that pressure alone is not the issue here; we are concerned with a type of steel that is erratic, brittle, and subject to metal fatigue. These receivers could let go under a relatively low-pressure load that peaks quickly after withstanding

relatively high pressure loads of more progressive burning powders.

Originally Springfields were tested at 70,000 pounds; this was raised to 75,000, but the primary concern at the time was the strength of the barrels. Variety and condition of ammo requires acceptance of at least 55,000 pounds in use.

Personally, I wouldn't shoot the best Springfield ever made; why should you risk your head by shooting the worst?—s.B.

Action for .250 Savage

I would appreciate any suggestions on what action to use in barreling for the .250 Savage. I plan to use a medium weight 24 inch barrel. Therefore a small and light action plus good appearance would be desirable. Would the action only be available to gunsmiths?

You might question my choice of .250 Savage. I now have a lever action in that caliber and for hunting in Pennsylvania with receiver sights, it is plenty potent.

R. M. Altman, Jr. Willoughby, Ohio

A small, light action plus good appearance for the Savage .250-3000 caliber would be the Sako L-579. While it is just a little too long for the cartridge, it ordinarily feeds well without the clumsy magazine blocking and follower shortening that is required when using actions such as the FN and 98 Mausers.

It is all steel, has a hinged floor plate, a good trigger and safety, and comes nicely finished and blued. Demand seems to exceed the supply, but they are available to individuals as well as gunsmiths. Latest price in Gopher Shooters Supply catalog of Faribault, Minn., is shown at \$79.95.—w.s.

Sheffield Bowie

I have a Sheffield Bowie knife that has been in my family for over 100 years. I do not know exactly how much longer, but it belonged to my grandfather who died in 1933 at the age of 94. I will try to give you an accurate description of the knife.

The knife is 12% inches overall. Width of the blade at hilt is 1% inches. Width of the blade at widest point is 11/2 inches. Length of blade is 8-13/16 inches. Thickness of blade at hilt is 5/32 inches. The handle is of ivory bound at the hilt with a silver band with an embossed floral design. The band is a half inch wide. Length of the handle is 3-13/16 inches not including the silver cap which is missing. The hilt is also silver and is 21/2 inches wide. The main cutting edge extends from a half inch below the hilt to the point. The other cutting edge extends from the point back toward the hilt for four inches. At this point it starts to widen out for 21/4 inches to where it is the same thickness as at the hilt. The hilt also has quarter inch diameter knobs at each end. The handle has a silver plate % by 1-5% inches on one

Markings on the blade are as follows. On the thick part of the blade just below the hilt is stamped "James Rogers & Co./

(Continued on page 75)



BULLET'S FLIGHT

(Continued from page 38)

entirely different story: "During the fall of 1901 (we constructed) a machine rest and shooting pier . V-rest, concentric actions, (and a 100yard muslin-covered trajectory tunnel)

. . which Dr. Skinner christened 'a shooting Gibraltar.'

"The pier . . . was built of gravel and Portland cement, standing 26 inches above ground and extending below its surface 40 inches into a gravel bank that showed no signs of having been disturbed since the glacial period. A heavy iron bed, well ribbed underneath, was made to cover the top of this pier and, besides being laid in cement, was bolted with 5/8" stay bolts extending 14 inches into the masonry. The iron brackets and V-rest (the V-rest being for barrels only, sans butts and with Mann 'firers' replacing standard actions) were heavily bolted to this bedplate . . .

"This heavy cast-iron V-rest was machined above and below and on its sides in a modern planer, and allows the concentric rings on the rifle barrel to find an easy position, giving the barrel perfect freedom to recoil backward . . . or to rotate without changing its line of fire by a hair . . .

"The concentric rings on telescope and on barrels were turned to the same diameter . . . bringing its line of sight ... and line of fire or center of bore into one and the same place at shooting stand and target . . .

"This is not an adjustable machine rest, but one having line of fire and line of sight identical from month to month, always ready for immediate use, is a marked advantage. This V-rest . . . takes the buckle all out of a barrel, for the heavier the charge the higher it prints, very different from the normal muzzle and shoulder rest. The rotation tests from this rest indicates whether dealing with a well-straightened bore or otherwise."

One of the rarest things in the world, Mann discovered, is a truly straight rifle barrel; i.e., a barrel with an exactly straight bore. A barrel rotated in his V-rest, fired at progressive points in the rotation, would produce a circle of bullet holes on the target, the size of the circle indicative of the error in boring. Many of the circles so formed were less than complimentary to their makers, even though a "slant" boring does not necessarily probibit accuracy from a barrel permanently positioned in its action and stock,

A platform was extended many yards beyond the "Gibraltar" rest, and holders were attached to it in which sheets of paper, set

at 2" intervals or less, would record not only the curve of the bullet's trajectory but also the evidence of tip as variations in the bullet's center of gravity produced a spiral rotation. In some tests, these sheets of paper were placed only 1/4" apart, and only two or three shots could be fired in a day, due to the time required for placing the sheets.

As must have been anticipated by readers who remembered that a bullet, too, is a spinning object, Mann's early experiments with long-spinning tops now led to extensive search for bullets that would spin on their points without tilting. A bullet that spirals in its spin during its muzzle-to-target trajectory cuts a "tunnel" in the air equal, not to its own diameter but to the diameter of its spiral. Such a bullet meets more air resistance, loses both velocity and energy faster, hence prints lower on the target; and each variation in degree of tilt produces its own deviation from perfect accuracy. The closely spaced paper sheets enabled Mann to record and measure these degrees of tilt, and compare them with their effects on point of impact. It was these tests which proved that certain bullets, notably sharp-pointed Spitzer types), although provably tipped on departure from the muzzle, tended to "straighten" later in their flight and thus produced tighter groups than would have been expected.

Mann never solved the intricately overlapping problems that add up to the overall problem he originally attacked-the problem of perfect accuracy. But he did, by patient and meticulous research, discover what many of those problems are, thereby providing guidelines for future studies toward better bullet performance, better barrels, and better average rifle accuracy.

And he did also, in this book set forth these problems and the procedures used in their study, in terms that are understandable, even interesting, to the non-scientist. Reading "The Bullet's Flight" will give the layman a far better understanding of the vastly intricate factors that lie between a bullet's introduction into rifle chamber, and its perfect arrival at the target. It may even give you a somewhat greater tolerance for those still-unexplained "failures" of certain shots to produce expected results, or of "identical" bullets to perform identically. When you learn, as Mann did, how many factors affect a bullet's flight-down to and including the spin of the earth on which we stand-it is easier to understand that perfect accuracy is an achievement to be sought, that is being sought daily in countless experiments, but one that will probably never be achieved. The perfect bullet in perfect flight from the perfect harrel is a dream as distant and as difficult to reach as are the stars!



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IMPEX COMPANY Escanaba, Michigan 49829

CORRECTION

Due to a typesetting error, Walter Craig's advertisement in the June GUNS contained an incorrect price. The 5-Gun Pistol Case for \$10.95 should have been priced at \$19.95.



Black Beauty

HANDGUN IN COMBAT

(Continued from page 29)

method, point more squarely at the target, and the barrel remains more nearly parallel to the ground. These guns will point satisfactorily if not shoved too forcefully toward the target. This does not mean, however, that they should be fired in combat by the raised pistol, shoving method. When the gun arm is shoved forcefully toward the front, the structure of the arm itself and the effect of the momentum on the wrist, when the arm becomes fully extended, will cause the wrist to drop and the barrel of the gun to point downward—regardless of the structural design of the weapon.

Because one of the basic fundamentals of combat firing is shooting with the weapon grasped convulsively, the position of the wrist will exercise great influence upon accuracy. At the time the trigger is pulled, whether it be a single shot or a burst, the wrist must bein a straight locked position and should not be flexed or cocked.

The best all-around method for combat firing without the aid of sights is as follows: the body is in a forward crouch; the feet in a natural position, permitting another step forward. To fire the weapon, the shooter will grip the weapon convulsively and with a straight locked wrist and elbow (pivot point being the shoulder joint), raise the

weapon from the ready position to a level with the eyes, and fire.

The weapon should be carried in the ready position, with an extended arm pointing downward at about a 45 degree angle from the body. This does not mean that it will always be carried with a convulsive grip and the arm rigidly extended. It will ordinarily be carried with the hand and arm relaxed and the elbow slightly flexed; but in all cases, the arm and elbow should be well out in front of the shooter. From this natural, relaxed carrying position it is very easy to assume the straight-arm, locked-wrist position before or while raising the weapon for firing.

The basic position, with the gun held in body center and the wrist slightly flexed to the right, should be maintained throughout the early training stage. Later, as proficiency develops, the shooter will adopt his own particular ready position, which may not carry the weapon as near to body center as the ideal. However, if he still gets the weapon up to the firing position so that it is in line with the eyes and the target, and if he is making hits, no correction will be needed.

The individual who shoots in this manner is directly facing the target and firing in the direction his body is pointing. Whenever the



Drawing shows the ready position with the body crouched, and arm pointed down at 45 degree angle.

shooter is forced to fire at a target which is not directly at his front, he need only wheel his body so that he is directly facing the target; and fire. In other words, the body points the weapon, and as long as the same relationship between the weapon, the body center, and the eyes is maintained, accuracy will result.





METAL MATCH is a brand new way to carry fire in your pocket. With a list of qualities that make it sound like a Boy Scout, it's better than a Boy Scout when it comes to starting fires. Metal Match is safe, compact, clean and easy to use. It's water-proof, fire-proof, and long-lasting. Metal Match appears to be no more than a 2½ by ¼ inch steel rod suspended on a key chain. However, by using any sharp object—a rock, broken glass, knife, etc.—a person can scrape small particles from the Match onto any good tinder and with a more rapid stroke force a



spray of sparks from the Match to ignite the particles and tinder. The sparks from the Match produce a temperature of 2800°F, yet there is no danger in carrying the Match in your pocket, glove compartment, tackle box, survival kit, etc. The Metal Match will not burn under any situation when in its solid form. Tested, it finally melted at 1800°F, but still did not spark or ignite. Metal Match will not break if dropped or thrown and it is almost impossible to break by accident. At fine sporting goods dealers everywhere.



CONVERSE/HODGMAN has added a brand new three quarter length duck hunting parka to their line and have come up with an answer for the hunter who demands complete protection from the elements without sacrificing comfort. Two layers of cloth with a layer of rubber between assures hunters of 100 per cent waterproof protection. There are two deep, roomy pockets, and the flannel-lined parka hood has an easy-handling elastic draw string. Other protective features include a full-length double zipper and adjustable snap fasteners. The new parka is roomy and styled with raglan sleeves for freedom of action for the gunner. Sizes of the parka are small, medium, large, and extra large and it comes in a Dead Grass color for more shooting chances. The new parka lists at about \$20 and is available at fine sporting goods stores everywhere.

SHOPPING

GUN GLOVE is an amazing new product that keeps your valuable guns from rusting. Simply apply the easy-to-use paste and wait just a couple of minutes while Gun Glove dries. Your gun is then completely protected from rust. It will not collect dust or stain clothing. Gun Glove stays on your gun, allowing you to handle it daily if you desire and store it safely. This amazing new product makes the use of coated cloths obsolete,



replaces wasteful and expensive sprays, and is more effective. Inexpensive, one jar of Gun Glove contains application for 50 guns. Costs just \$2.00 from H. M. Whetstone & Co., Dept. G-7, 282 St. George Street, St. Augustine, Florida.

CARBINE SCOPE MOUNTS from Numrich Arms are designed to fit all M-1 Carbines, whether original GI or commercially manufactured. Rugged steel construction insures the shooter of dependable and consistant accuracy once the gun is sighted in. The rings are standard one-inch to fit most every scope. This is the only carbine mount currently on the market that puts the scope directly over the bore, rather than offset. A special deflector lays the fired cases in a neat pile at the



shooter's side. Simple to install, there's only one hole to drill and tap. Price is just \$6.95, and Numrich will supply the necessary 20 drill and 10/32 tap at the nominal price of \$1.00 for those who do not have the proper equipment. Write today for the free catalog sheet of the entire line of carbine accessories to Numrich Arms Corporation, Dept. G-7, West Hurley, New York.

CANADIAN HONKER decoys are brand new this year from Canadian Decoys. Jumbo size, these field decoys can be assembled and set up in moments. They are printed in lifelike color and detail on a rigid cardboard and come die cut, ready to assemble. Bodies are one piece and contoured like live sentinel



or feeding geese. The head inserts into the body, the lower part of which forms a sharp stake for inserting into the ground and standing the decoy upright. There are six feeders and six sentinels in a set, which is priced at \$9.95 postpaid from Canadian Decoys, Dept. G-7, Box 66, Rosemont, Minn.



WOODS ARCTIC PARKA is 100 per cent down filled for complete comfort in any weather. A prime example of the master craftsmanship that goes into every Woods product, the Arctic Parka is ruggedly sewn to last and will withstand plenty of service and rough use. This is the garment worn by the Alaskan State Police. The outer cover is rugged shelter tent canvas on both coat and hood. The lining is nylon for increased wearability. Woods famous Everlive choice waterfowl down fill gives comfort without weight in a wide range of temperatures. Concealed storm cuffs and a draw string at the waist mean a comfortable snug fit. The Woods Arctic Parka is an ideal choice for hunters, campers, ice fishermen, or anyone engaged in outdoor activities where warmth and lightness are essential factors. Priced at just \$52.00, this is just one of many fine garments available from Woods Bag and Canvas Co., Ltd., Dept. G-7, 16 Lake Street, Ogdensburg, New York.

WY ITE Guns

LIGHT STICK, the new design in flashlights, is an unusual and handy companion whether you're hunting, camping, traveling, or just walking the dog at night. It is convenient because you can carry it three ways: In the hand like a regular flashlight, by the finger ring on the bottom, or clipped to your



belt or pocket for hand-free use. It hangs, stands on end, or lays flat without rolling. In any position the headpiece turns more than 90 degrees. Light Stick's unusual design gives 73 per cent brighter light yet gives 150 per cent more burning life. An extra bulb comes right inside the headpiece for ready use. The Light Stick is made of rugged metal with unbreakable lens cap and burns for seven hours on four regular D flashlight batteries. Just \$6.00 postpaid from Norm Thompson Outfitter, Dept. G-7, 1805 N. W. Thurman, Portland, Oregon.

SCHRADE WALDEN'S new Uncle Henry knife is hand-crafted in the United States with stainless steel blades to the finest cutlery standards, and is guaranteed against loss for one full year. If it is lost, the company supplies another free. The blades are handhoned to scalpel sharpness from special anal-



ysis steel and are sharp enough to shave with and strong enough to skin a deer. The lining is solid, fine-milled brass and the bolsters are solid nickel silver, Look for Schrade Walden's Uncle Henry knife at fine sporting goods and bardware stores everywhere. OPTIC SCOPE CAPS from Southwest Cutlery protect your favorite rifle scope from possible damage, scratches, dust, and moisture. Simply slip them on over each end of the scope and forget them. Made of the finest optical glass for unexcelled clarity of vision, they are also available with filter lenses. They are the best insurance you can have against your scope's fogging up or



being scratched. A must for competition shooters and hunters, Optic Scope Caps are available for all popular scopes in clear at \$3.25 a pair, or with filter lenses at \$4.95 a pair, from Southwest Cutlery & Manufacturing, Dept. G-7, 1309 Olympic Blvd., Montebello, Calif.



SPRAY PRODUCTS has introduced a new synthetic graphite lubricant, CG-10, which has thousands of applications. Formulated under strict laboratory control, CG-10 is a pure synthetic graphite dispersed in a solvent carrier which provides a uniform, dry lubricating film and is greaseless and nonabrasive. Because it is compatible with other lubricants, CG-10 also acts as a wetting agent for oils and greases to increase their lubricating properties. Available in 12-oz. spray cans and bulk containers, the new dry film lubricant has a storage life of more than two years and can be used in applications where temperatures range from -100°F. to over 1000°F. For further information write Spray Products Corporation, Industrial Division G-6, P. O. Box 1988, Camden, New JerWINCHESTER'S new Model 150 lever action .22 rifle has a touch of the Old West in its design. The gun's operating lever, designed after the classic levers of the Models '66, '73, and '94, complements the typically western straight grip. Equipped with carbine barrel band and sling swivels, the Model 150



has a walnut-finished American hardwood stock and forearm, plus bead-post front and adjustable rear sights. The new model handles 21 Short, 17 Long, or 15 Long Rifle .22 rim fire cartridges interchangeably. The suggested retail price of the Model 150 is \$53.95 and it is available at all Winchester dealers.



EAGLE PRODUCTS new shotshell Speed Press is a new precision engineered shotshell speed press that does just about everything but load your gun. Designed for 12, 16, and 20 gauge shells in either paper or plastic, Eagle's Speed Press is reinforced and manufactured to last a lifetime of rugged use. All critical friction points are treated with exclusive super Permalube, providing a permanent lubrication and corrosion protection. See your Eagle dealer for the finest in reloading equipment.



PARKER-HALE lightweight trigger guard assembly is a lightened, streamlined version of the original Mauser classic. This modern trigger guard assembly allows the magazine to be emptied quickly and easily. Rugged construction is of lightweight alloy with a corrosion-proof anodized finish. This new Parker-Hale trigger guard assembly is custom crafted in the tradition of British gunnaking and will be a worthy addition to any rifle. Only \$6.50, the Parker-Hale trigger guard is available from Service Armament, Dept. G-7, 689 Bergen Blvd., Ridgefield, New Jersey.

BRAND NEW priming tool from Raymar Industries features automatic feed and adjustable primer seating depth. Fill the exclusive circular magazine in seconds and you can load over 100 primers without interruption.



No feed levers are necessary since primers automatically move into proper position. The primer seating depth is controlled to the exact depth, through a simple adjustment, while a locking device assures uniform operation every time. The adjustment also allows for seating by "feel," if desired. Accommodating both large and small rifle primers, the Raymar priming tool will occupy just a small portion of your bench while it quickly and smoothly primes cases in any caliber you select. Simple, reliable, and compact, this new priming tool is just \$23.95 from Raymar Industries, Inc., Dept. G-7, 5856 So. Logan Court, Littleton, Colorado.



DYNAMO Compact motorcycle by Benelli is one of the most exciting cycles ever to come along. Lightweight with collapsible handlebars, the Dynamo can be stowed in your car trunk, boat, airplane, or practically anywhere. The Dynamo is the same size as a mini-bike but that's where the comparison ends. Equipped with a 4-speed, 50 cc engine, the Dynamo is capable of speeds over 50 mph. A soft double seat plus a true suspension system smooths out the roughest roads for you and your partner. The handlebars fold down for storage in such limited spaces as an auto trunk. The fenders are corrosion-proof stainless steel, and the one gallon tank and toolbox are chromeplated. Other features include electric horn, hydraulic shocks, sealed beam headlight, dual wheel internal expanding brakes, folding footpegs, Pirelli tires, and scrambler type muffler. The weight is 98 lbs. and the average mileage is 150 mpg. Priced at only \$289.00 FOB Philadelphia, the Dynamo is available in Candy Red, Candy Blue, or Marine White. For further information write Cosmopolitan Motors, Dept. G-7, 5521 Wayne Ave., Philadelphia, Pa.

SHOPPING

AVTRON has just released a new model chronograph, the T333C, especially designed for those interested in professional applications. Completely transistorized, this new professional model counter chronograph comes equipped for use with either expendable screens or photo-electric screens and will operate on internal batteries, 12-volt car batteries, or with 115-volt AC power. The T333C uses true digital computor techniques,



utilizing a crystal controlled oscillator as a time base, and displaying the elapsed time directly in hundredths of milliseconds that it takes for the projectile to break two screens. The time readout is direct, with no switching, addition, etc., required to read the elapsed time. For further information on the T333C, write Avtron Manufacturing Inc., Dept. G-7, 10409 Meech Avenue, Cleveland, Ohio.



JUST ONE of a bevy of new tools from Karl A. Neise, Inc., is the Helios 0-1" micrometer, with features including: 0 to one inch range, reading in .0001"; oversize carbide faced spindle and anvil; slant marking at each .100" for error free readings; oversize friction thimble for better "feel"; insulated frame, and simple lever locking, permitting onehanded operation. Furnished free with this micrometer is a "Neo-ball," measuring .200" to permit the additional measuring of curved surfaces. If required, an optional speeder is available at no additional charge. Price of the Helios micrometer is \$18.50 in a fitted case. Other new, high quality precision measuring instruments from Neise include the Opto-Mike Optical Direct Measurement Bore Gauge, the patented Short Rack Dial Caliper, and bases of every variety including magnetic, granite, and steel comparator stands. Write for the new "For Good Measure" brochure from Karl A. Neise, Dept. G-7, 56-02 Roosevelt Avenue, Woodside, New

ALL ANGLE VISE has been recently added to the Palmgren line. The new No. 45V 4½-inch vise provides quick, easy set-ups for difficult angle milling, grinding, checking and layout operations. Providing 360° rotation, 360° base swivel, and 0° to 90 vertical



angle adjustments, this new Palmgren vise has a multitude of shop uses. Now in production for immediate delivery, the No. 45V is just one of many fine products described in the free Palmgren catalog. To get your copy, simply write Palmgren Steel Products, Dept. G-7, 8383 South Chicago Avenue, Chicago, Illinois.

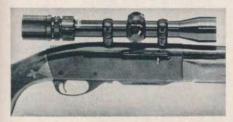
BEAN'S POPLIN CRUISER is a handsomely designed shirtweight jacket for warm weather sports and casual wear. It's made of high count, combed cotton poplin with a soft, sueded finish that is wind resistant and Zelan treated to repel water. It can be either hand washed or dry cleaned. Two-way sports col-



lar, shirt style sleeves, and four pleated pockets make Bean's poplin cruiser as handsome as it is comfortable. The back has a doubled yoke and the body length is about 29 inches. In traditional tan, with your choice of small, medium, large, or extra large sizes, the price is just \$8.95 postpaid from L. L. Bean, Inc., Freeport, Maine.

WYITTE Guns

BUSHNELL'S new Universal Riflescope Mount puts an end to scope mounting problems with a single mount that fits any rifle, regardless of action type. By replacing conventional bases with strong chrome molybdenum steel studs, Bushnell's new Universal Mount has twice the strength of conventional mounts and more latitude for eye protection. Gone too are problems of matching the contour of the rifle receiver and the possible slippage between mount base and receiver.



Mounting a one inch tube riflescope becomes an at-home project on any rifle having standard 6-48 threaded scope mounting holes, since almost without exception, rifles are factory drilled and tapped. If not, Bushnell's Universal Mount may be mounted after drilling and tapping only two holes, instead of the customary four. Using the predrilled holes in the receiver, the shooter can choose from not one but four scope locations. Backward or forward movement of the scope permits the selection of the maximum eve relief suited to the individual's normal sighting position. Complete with a set of one inch split rings, three studs, Lok-tite, a hexagonal wrench, and detailed instructions, Bushnell's new Universal Mount retails for only \$14.95 at sporting goods dealers everywhere.



THE G-66 Insect Repellent Towelette is a saturated paper towelette packaged in its own individual foil container, 12 foil packs to a bag. Ideal for hunting and fishing trips, it will provide hours of complete protection against mosquitoes, fleas, chiggers, ticks, and most other biting insects. Retailing at only 89¢, they come in a reusable poly bag at all fine sporting goods stores.

ANOTHER FINE addition to the top-rated line of Tradewinds firearms is the Series 600 Varmint rifle, available in your choice of popular varmint calibers and with double set triggers as standard equipment. The fine custom fitting of all parts, the exceptional quality of materials, and the elegant finish of both wood and metal, reflect the painstaking care with which these rifles are made. It features a smooth operating bolt action and a new type of breech closure, specially designed for high power cartridges. The construction ensures consistant cartridge locking action and smooth operation. A recessed bolt face encloses the cartridge base, while two large locking lugs lock into the receiver,



offering the maximum of security to the shooter. The streamlined cocking piece recesses completely inside the rear of the receiver. The action is drilled and tapped for standard scope mounts. The detachable clip magazine is locked in place by a conveniently located catch in the forward area of the trigger guard housing. The select grade European walnut stock is highly polished and protectively oiled, with hand checkered pistol grip and forend. Priced at \$162.50, the Tradewinds 600 is available in .222 Remington, .222 Rem. Magnum, and .22-250 Remington from Tradewinds, Inc., Dept. G-7, P. O. Box 1191, Tacoma, Wash.



AIR FORCE serge pants for the sportsman give him tops in warmth, wear, and freedom of action. These brand new, all wool, surplus serge pants feature double padded seat, reinforced knees, and snug knit cuffs for a perfect seal against cold. The original cost to the government was \$19.00 per pair; they're yours for only \$6.95 postpaid in sizes 28 to 42 satisfaction guaranteed. California residents add 4 per cent sales tax when ordering from Gun Room, Dept. J, 1150 East Garvey, West Covina, Calif.

GERRY Mountainer Jacket features a smooth windproof outer covering over the prime northern goose down insulated quilting. With only two pounds of weight in the whole jacket, there is still 1½ inches of warm, soft insulation. The Mountaineer packs into a 360 cubic inch waterproof bag



for carrying. Made of all nylon fabrics, with knit cuffs and zipper pockets, the Gerry Mountaineer is available in small, medium, large, and extra large, in blue, green, and red for just \$43.50 plus postage for two pounds. Write Gerry, Dept. G-7, Box 910, Boulder, Colorado.



FROSTS KNIVES from Mora, Sweden, have a combination blade composed of a high-carbon blade sandwiched between two layers of soft steel. The result is a knife with unusual strength plus a razor sharp cutting edge. Sportsmen and professionals alike appreciate the high-quality craftsmanship and durability of Frosts knives. They come complete with a top quality sheath and are available in several specialized designs, as well as in all-purpose models. For further details and prices on a knife that will last the rest of your life, write EURAMCO, Dept. G-7, 3821 Oakton Street, Skokie, Illinois.



STILL THE MOST POPULAR double barrel shotgun in America, Stevens Model 311 continues to be an outstanding value. Sturdy construction, solid lockup, excellent balance, and superior shooting qualities have made this the favorite gun in the arsenals of many thousands of shooters. Large volume production coupled with stringent quality control permits the inclusion of many refinements found only on much higher priced guns. Available in 12, 16, 20, and .410 gauges, with your choice of popular barrel lengths and chokes at just \$81.50 at your Savage dealers.

POINT BLANK

(Continued from page 11)

inch barrel. Realizing the tube was meant only for buckshot, a riot gun, and for use by the Police, he had Lyman add one of their variable choke devices. This lengthened the barrel by some inches.

The first round of skeet he broke 19 targets. He usually runs 'em clean. The second round he got up to 21 targets. He then swung over to the new Franchi over/ under 12 gauge which I was testing. On his next 50 targets he dropped two birds for a 48 score. The Franchi has 26" barrels.

Regardless of the magazine editor who wanted me to boom a "handy camp gun with 20-inch barrel," you can write it down that shotguns with snozzles of this dimension are only good for 20 yards. Skeet is shot at an average distance of 23-25 yards and Jordan, a good marksman, could not cut the mustard with his abhreviated auto-

Guns in the 12, 16 and 20 gauge categories cannot be depended upon if the barrels are shorter than 26 inches. An even better length is 28 inches. The English, who fancy themselves at hotrock shotgunners, frequently use 12's with 25-inch barrels. I shot a Lewis in Africa one time with only 24" barrels: It was a sorry gun. The 25incher is OK for very close rising birds like, say, the pen-raised bobwhites that have to be kicked to make 'em fly, or if a feller could get the job he might ride the Wells-Fargo stage with such a gun. But for the serious business of shooting our uplands game and our wildfowl the gun had best run to more tube length, like 26 or 28, or even as much as 30 inches—the latter for ducks and geese.

Other quaint notions are fostered. Among these the contention that the double barrel side-by-side shotgun is enjoying a renaissance, a comeback as it were, and the shotgunning fraternity, man and boy, are laying aside their pump repeaters and taking the oldest smoothbore to their hosoms. This is a multi-gun clan, the American contingent, make no mistake about that. There is a noisy little minority that makes quite a bit of talk about the old two-barreled number but their prattle is just like the small boy who whistles in the dark. It keeps them from being so afraid.

The side-by-side shotgun is not popular. It will never be again. There is a limited manufacture in this country and some volume of importation from the Continent. The double has seen its day, its race is run, its goose is cooked. The coming shotgun in this country—a fact obvious to the objective observer these past 30 years—is the repeater. It used to be the slide-action repeater was ahead of the auto-loader. Today this is a balance which is shifting in favor of the automatic. The third gun behind these multi-guns is the over/under. It has steadily risen in popularity since the end of WW-II and this increased usage continues. Eventually the superposed will completely displace the old side-by-side.

9mm SUPER

There is a new auto pistol cartridge, the 9 mm Super. Developed by Armory, Inc., the up-and-coming west coast outfit who took over the C-H reloading firm (also makers of the hot new hi-sidewall rifle), the cartridge has been made up on a neckeddown .45 ACP. The splendid .45 auto case has been given a bottle-neck down to 9 mm. There is a miscellany of bullets available, these running from the brand new Speer jacketed 125 grain with softpoint, through the Norma 158-gr., the Alcan 116-gr, Remington 130-grain, and a special number from Armory at 125 grains.

The 9 mm Super is fired in the .45 pistol by the simple expedient of replacing the barrel with a .38 Super tube. This .38 barrel must be rechambered to the 9mm/.45 conversion. This is a simple chore for any competent gunsmith. Armory provides the dies not only for reforming .45 brass but also for loading. Powders tested include Herco, the shotgun powder, and the old reliable Bullseye.

The Colt .38 Super barrel indicates 1 turn in 16 inches, left-hand, and shows a diameter across the lands of .348, and across the grooves of .355 to .356. The depth of grooves is .0035". With a 130-gr. factory loading it delivers 1280 fps from the 5" These are good ballistics. How

much better is the new 9 mm Super? With the 116-gr. Alcan bullet the new 9 mm/.45 from the selfsame tube turns up 1356 fps. With the new Armory design bullet at 125 grain, MV is 1310 fps. With the standard 130-gr. Remington velocities indicate at 1330 fps. Better velocities are indicated for the heavier Remington slug by the fact that it runs a full .3551" while the Armory bullet is a trifle under bore diameter. It measures .3542. If it was brought up to bore diameter undoubtedly velocities would be stepped up.

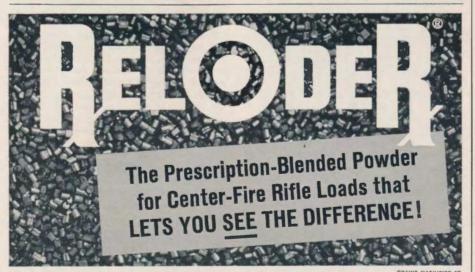
Powder charges have been deliberately omitted. Armory is developing loading data and so am I. Until this is firmed up no mention will be made of powders nor yet weights. Suffice to note the necked-down .45 ACP casing will hold 24.2 grains weight of water; by comparison the 9 mm Luger case will hold only 14.4 grains weight.

The interesting new cartridge is right now developing velocities on a par with the 9 mm of World War II. At that time U.S. manufacture 9mm ammo with 115-gr. bullets developed 1354 fps MV. The Canadians did better; their 114.5-gr. bullet traveled at 1478 fps, and the Italians had a 114-gr. bullet at 1473 fps. The Germans loaded a variety of 9 mm. Their 99-gr. bullet hit 1482; their 91.8-gr. bullet went 1505 fps, and had a 123.5 gr. at 1296. These velocities were all from barrels longer than our 5" and this has considerable influence. With continued cut-and-try the new 9 mm Super, especially with those bullets of somewhat lighter weight should produce velocities in the 1450 to 1500 fps range.



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XS67-1 HERCULES

QUESTIONS & ANSWERS

(Continued from page 66)

Celebrated/Make Sheffield." At a point two inches below the hilt and on the side of the blade which has the half cutting edge is a stamping. The stamping is an oval with the words "Cast Steel" on the top and below is "Bo" which seems to be spaced correctly for the words "Bowie Knife."

The scabbard is of leather with silver top and tip. The leather shows age with wrinkles and small cracks. The blade has two or three very small nicks that are about 1/64 inch or less deep.

I would appreciate your opinion of the collector's value of this knife.

J. Warren Magee Georgetown, Calif.

As a collector of Bowie knives and Naval dirks for many years, it is a great treat for me to have a question on a knife for a change. Your Rogers Bowie looks to be a fine one, and I would love to talk you out of it for my collection. I would guess that the collector's value should be from \$100 to \$175. It's a shame that the top cap is missing, but this could be replaced.—R.M.

.22 Jet to .22 Magnum

Can a .22 Jet be converted into a .22 rimfire Magnum? Does the barrel have to be changed along with the cylinder and if so, how much of a job would it be and how expensive? Also, is a .22 rimfire Magnum as long as a .22 Jet?

Bill Bailey Dixon, Illinois

The .22 Jet can be converted to .22 Magnum rimfire at the Smith & Wesson factory. Contact them directly. Since the .22 Jet uses .222 diameter bullets and the magnum rimfires are .224, a new barrel would probably be required, as well as a new cylinder. The factory would give you exact cost after inspecting your gun. They have been very accommodating in the past on these types of conversions, but due to the war, this work might be slowed considerably or even temporarily halted.

The .22 Magnum rimfire cartridge is about 5/16 inch shorter then the .22 Jet. Cost-wise, it would be worthwhile to shop around and see if you could trade your Jet for a .22 Magnum rimfire, or perhaps sell it outright and buy what you want,—w.s.

Topper Groups

I own an H&R Model 158 Topper rifle in .30-30 caliber. This is a single shot with a shotgun type action. The best accuracy, with a 2.8x scope, I can get is about a 12 inch group at 200 yards. I am an experienced handloader and I have tried various loads using

F M-2 & M-1 CARBINES, GARANDS,
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R lead to the Foreign & American hard-to-find Rifles, Shotyums & Pistols—
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Speer 130 gr. HP, 165 gr. Spitzer, and 100 gr. plinkers. All bullets and loads give about the same group size.

Is the poor accuracy due to the looseness of the action or the light weight barrel and can anything be done to improve it?

J. R. Stirnkorb Cincinnati, Ohio

It is extremely difficult to say what might be causing the wide groups with the H&R Topper you own. Frankly, neither the gun nor the cartridge were intended for 200-yard shooting. The two Toppers I have has both shot groups well under four inches, so it seems reasonable to expect yours should do as well. Without actually examining the gun I really cannot tell you anymore.—D.W.

French Modele 1892

Perhaps your panel of experts can help me identify the gun described below. It is a six-shot revolver with the general outline of the Webley, blued finish, wooden grips which are rather slender and round in shape. The cylinder turns clockwise and each chamber is numbered. The barrel is about six inches, round on the bottom, while the top is semi-hexigon. The firing pin is attached to the hammer and has a swivel. The cylinder tips out to the right. The gun is well built and solid, and has the following marks: Right

side of frame, in script, "Mre d'Armes Pt. Etienne;" rear of cylinder has a large "E" with a crown above; top of barrel, "Mle 1892;" right plane of barrel, both in circles, "P" and "L." What is apparently a serial number, F23466, is stamped on the right side of the frame. The lanyard swivel is attached to the end of the grip.

Please give me what information you can on this gun.

Harold E. Samson Lacona, New York

Your description fits that of the French 8 mm Modele d'Ordnance 1892 revolver. This revolver was issued and used by the French as late as WW II. It is chambered for an 8 mm rimmed cartridge which is still manufactured and encountered in French, as well as formerly French, possessions all over the world. It is a sturdy, well-made and reliable gun.—S.B.





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GUN ENGRAVING REVIEW

by E. C. Prudhomme (Gun Engraving Review Publ., Shreveport, La., 1961. \$21.95)

This is the second printing of this excellent book, and this edition is bound with hard covers and includes 16 full color plates of some of the finest examples of the gun engravers' arts. The first printing of this book was limited in numbers, and copies have long ago become collector's items. With this new printing, all who enjoy guns will be able to have a collection of hundreds of examples of truly fine decorated firearms. If the book contained only photographs it would be well worth the price, but there are also biographies of our country's leading engravers, articles on gun engraving for the beginner, and throughout the book are suggestions for determining what is good engraving and what is not .- I.R.

KING FISHER: His Life and Times By O. C. Fisher with J. C. Dykes (Univ. of Oklahoma, "Western Frontier Library," 1966, \$2.00)

Thinking of western gunmen we are prone, sometimes, to categorize them as "good guys" or "bad guys"-white hats, or black. We forget, in so doing that some were both. Members of "The Dalton Gang" were first peace officers, then bandits; and Emmett Dalton, after serving more than 14 years in the penitentiary for his sins, became a respected peace officer again. John Wesley Hardin, call him "bad" in his beginnings or (more in line with current thinking) call him merely "a product of his environment", certainly tried to be "good guy" after serving his time in prison. Even Billy the Kid was a legitimately sworn peace officer before he became the West's most wanted outlaw. And King Fisher, friend and consort with badmen, many times indicated for crimes himself, emerged as a substantial citizen and an effective, highly respected lawman. Here is his story, carefully research, readably written, obviously essential to any library of western gunfighting Americana.-E.B.M.

THE WILD TURKEY

By A. W. Schorger (University of Oklahoma Press, 1966. \$10.00)

It is rare indeed that a book as scholarly as this one turns out to be as readable as this one. My own pre-Schorger interest in the wild turkey was strictly limited to (a) his challenge as one of the most illusive of game trophies, and (b) his flavor after proper culinary preparation. Do you know how fast a turkey can run? (Schorger documents speeds of 15 to 18 miles per hour, and up to 30 in short spurts.) How fast he can fly? (Up to 60 miles per hour, says Schorger.) How often they drink? (Usually, twice a day; morning and evening.) Did you know that turkeys lived in what is now the United States at least as early as A.D. 250? Did you know that the turkey is almost immune to the bites of insect parasites? (He gets 'em, all right; they just don't seem to hurt him!)

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HISTORY OF WINCHESTER FIREARMS 1866-1966

By George R. Watrous (Winchester-Western Press, 275 Winchester Ave., New Haven, Conn., 06504. 1966. \$10.00)

This is the third edition of George Watrous' "Winchester Rifles and Shotguns," first issued in 1943, revised and republished in 1950, now further revised, brought up to date, and published in a deluxe slip-boxed edition and offered (for the first time) for general sale. Watrous worked for Winchester-Western from 1910 to 1946, and publication dates of the three editions of this book are indicative of the duration and depth of his research, now condensed into this authoritative, company-sponsored history of Winchester arms development. An ornament to any library, and certainly a "must" for any student of firearms history. A fine gift item, too, for any lucky gun enthusiast.—E.B.M.

BARON VON STEUBEN

By Joseph R. Riling (Ray Riling Arms Books Co., 6844 Gorsten St., Philadelphia, Pa., 19119. 1966. \$12.50)

"Baron Von Steuben And His Regulations For the Order And Discipline of the Troops of the United States" (to give the book its full title,) is a little gem of book-making, made more attractive to book collectors by its limited (2000 copy) edition. This is a basic reference work on the founding of the U. S. military establishment. Reproduced here are original documents, profusely illustrated, of prime importance to students of American history, the American Revolution, American military history, and-for gun enthusiasts: authentic data on the loading,

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priming, firing, and handling of Revolutionary-war firearms. A fairly high price for a relatively small book, but worth it.—E.B.M.

WESTERN AMERICA:

Not gun books, but eminently worthy of note by students of western history and lore, are the following four titles by University of Oklahoma Press and one by William Morrow & Company:

WHEN BUFFALO RAN

By George B. Grinnell (Oklahoma, 1966. \$2.00)

The story of a Plains Indian boy, Wikis, and how he grew to manhood. J. Frank Dobie called it "noble and beautifully simple."

ORIGINAL JOURNALS OF HENRY SMITH TURNER, With Stephen Watts Keary to New Mexico and California, 1846 By D. L. Clarke

(Oklahoma 1967. \$5.00)

Ranges from factual observations of terrain, water and forage, Indian encounters, and the progress this important expedition, to sensitive personal reflections intended only for his wife's reading. Fascinating!

EXPLORING THE NORTHWEST TERRITORY

By T. H. McDonald (Oklahoma, 1967, \$4.95)

Volume 50 in The American Exploration

and Travel Series. Sir Alexander McKenzie's journal of a voyage by bark canoe from Lake Athabasca to the Pacific Ocean in the summer of 1789.

THE TREATY OF MEDICINE LODGE

By Douglas C. Jones (Oklahoma, 1966. \$5.95)

The Treaty of Medicine Lodge, Oct. 21, 1867, did not end the Plains wars; it merely marked the beginning of new phase. But the newspaper stories by reporters from most of the nation's largest papers, all telling the same story but from widely varying viewpoints, provide a lesson not only in American history but in how much to believe of news reporting!

GOLD FEVER

By George W. Groh (Wm. Morrow, 1966. \$5.95)

The cover blurb says, "A True Account, Both Hoorifying and Hilarious, of the Art of Healing (so-called) During the California Gold Rush!" Read it; then try to brief a better description!-E.B.M.

SHOTGUNS AND SHOOTING

By E. S. McCawley, Jr. (D. Van Nostrand Co., Inc., Princeton, N.J., 1965. \$5.95)

Author McCawley, who labors as public relations manager of Remington Arms,

knows whereof he speaks. Ted is an addicted trap shooter, is a top skeet gun, and between sessions at the traps, he hunts. From this experience comes this fine book, a book that, although designed for the beginner, will also offer much valuable material to the veteran shooter and hunter. The following topics are covered: types of actions, chokes and gauges, trap and skeet, stock design, decoys and calling, plus tips on how to hit birds and a fairly complete glossary. A number of other subjects are covered too, such as hunting dogs. The meat of the book is the author's ability to put his knowledge into statements that can be understood easily, without the technical jargon-which is meaningless to most shooters. This book as one of the best books on the smoothbore that I have seen in some years.

HELMETS AND HEADDRESS OF THE IMPERIAL GERMAN ARMY

By Col. Robert H. Rankin (N. Flayderman & Co., RFD #2, Squash Hollow, New Milford, Conn., 1965. \$9.50)

This is the first and only comprehensive study about the German military helmet. Besides the history of the helmet, Col. Rankin included a great deal of valuable information about military units, a dictionary of military terms, and this volume will prove invaluable in identifying German military helmets. Best of all, pictures and drawings are excellent, making this book the sort of volume that not only serves as reference, but also makes it enjoyable reading.

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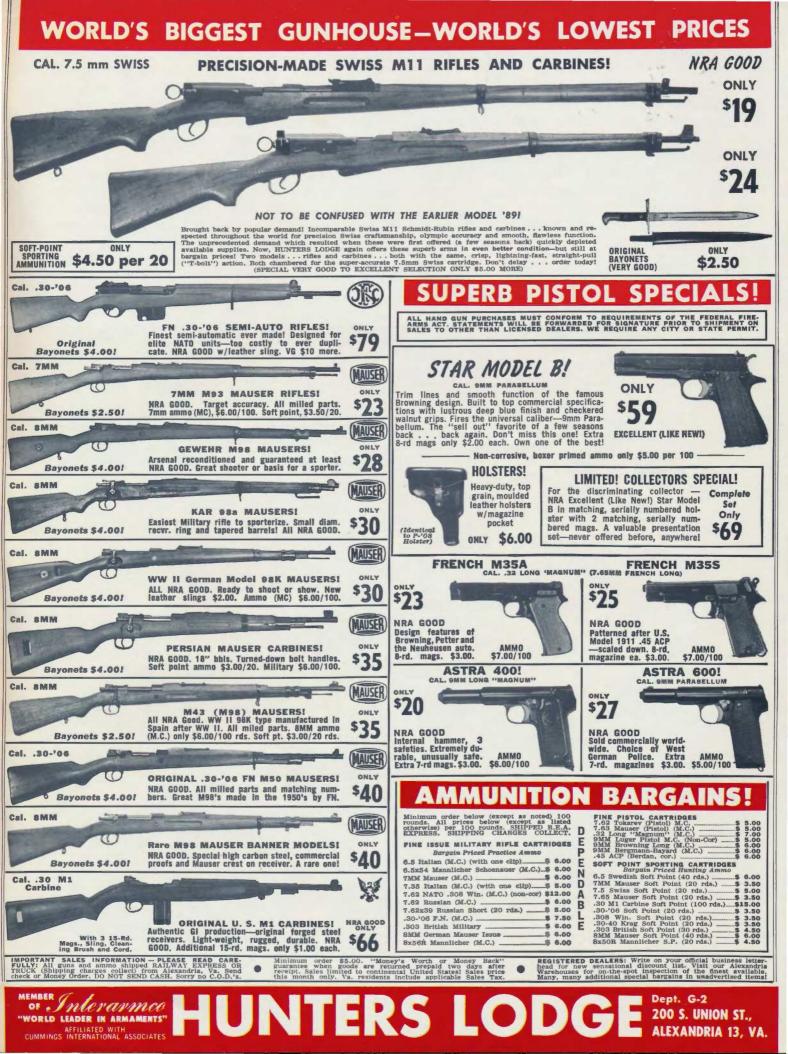
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