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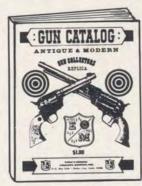
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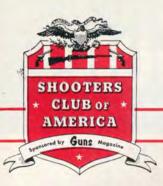


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Japanese Matchlock Pistol

This pistol, circa 1750 shows typical brass spring lock, Magnolia wood stock, barrel attached with bamboo pegs. Maker's name, in silver, reads, "Nago-Yoshi Shige-Tada maker living in Yama Shiro-Kuni." The two Tsuba (sword guards) date from the period. Photo by William G. Richards of New Orleans.



News from the ...

SHOOTERS CLUB OF AMERICA

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

ANTI-HUNTING GROUPS STRIKE AT SPORTSMAN

This time of year many hunters plan for the fall season. It is also the time of year when our anti-firearms friends switch to their anti-hunting propaganda. They have concocted strange pictures of nature, that go like this; in the beginning there was Walt Disney, and Disney said "make me some animals in my own image". And lo, there was Bambi, and Bambi's Mom and Dad, and there was Thumper and Flower and all manner of cute and cuddly creatures. Those big-eyed English speaking animals, followed by the Dumbos and singing mice, to say nothing of the real moving pictures of animals doing human type things. All these cuddly creatures would naturally, unless killed by the cruel red-eyed hunter, live forever. Not only on the screen but in the hearts and minds of a lot of grown people who ought to know better.

The sinister firearms owner is pictured as the only true beast in the garden. And the beastliest of all is the hunter, for not only does he kill things for mere sport, but he is on the verge of bringing all wildlife to complete extinction.

Not long ago one of the anti-firearms groups issued a Bill of Rights for Animals. They have also issued bumper stickers which say "Animals Have Rights Too". Among the rights was "Freedom from Fear". Now if the animals whose rights were being championed were domestic dogs, cats, horses and so forth, which are in daily contact with human beings and liable to be abused, this would make sense. But what animal in the wild can possibly be free from fear? Fear is a part of nature. Without a sense of fear how would a mouse or deer, or for that matter an elephant survive in nature? And when a lion, or eagle or fox catches its dinner, don't you think its prey feels fear as it is eaten?

The idea that something which involves killing could be enjoyed is apparently what anti-firearms people cannot stomach. Since most of those who oppose hunting eat cows, pigs, calves, (cute little baby cows), sheep, chickens, ducks, turkeys, etc, in great quantities. And since most of them wear clothes and shoes made of skins, and have furniture, car seats, rugs, etc made of skins, they cannot be against killing per se. But when that killing is done on a one-to-one basis, as when a man shoots an elk, it becomes immoral. You might say this is illogical, and you would be 100% correct.

Most of the people who go hunting do it because they like being close to nature. They enjoy the experience of getting up well before dawn and waiting in the icy quiet of a duck blind for the light and first flight. For millions of years our grandfathers spent all their time hunting. A good kill meant the survival of himself and his family. It also meant the eventual survival of his great, great, great grandson (that's us). A good bag of game was the highest thrill and joy for 100% of mankind for a million years. Today we enjoy trying to call the ducks into range, and if we do this right and the ducks come over, we enjoy our success like the 100,000 father-son generations before us. Later, when the duck is roasted or broiled, we enjoy eating it. Yes, we killed it ourself, but does anyone imagine that the duck you buy frozen and wrapped in plastic wasn't killed? The hunter is involving himself with nature, not setting himself apart, as most of us are set apart by our phoney plastic civilization. Instead of letting the butchers in slaughter-houses supply all our meat, we get a few pieces ourself every year to renew the ancient wellsprings of our past. Most hunters only get a few animals each year. It is the experience of being in the woods and trying to recall ancient skills only dimly remembered that is the pleasure of the hunt.

Some of the anti-hunting groups are very funny. Many of the genuine ecology wildlife problems of today arise NOT because of hunting but because of simple overpopulation. One of the big anti-hunting groups is run by a Catholic organization which has successfully promoted anti-abortion and anti-birth control legislation. It's a strange strange world we live in, fellow reader. Can anyone really blame us for wanting to get away in the woods and forget the whole mess for a few days?

The anti-firearms and anti-hunting groups will not listen to reason or logic. They have their own fixed set of ideas and are only interested in their own propaganda. The only way we can protect ourself is to promote the right information in Congress. To do this we need as many members as possible. Help the SHOOTERS CLUB OF AMERICA promote the truth.

Fill out the self addressed and stamped card opposite this page and mail it today.

Col. Edward Becker

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CONTEST WINNERS

THE FOLLOWING contest winners in our monthly free gun drawing have been verified:

December, Black Forest Rifle . . . Everet Ileff, Seattle Wash.

January, Dixie Kentucky Rifle . . . Frank Petronik, Minneapolis, Minn.

February, Armalite Rifle . . . Phillip Branford, New Orleans, La.

March, Replica Arms Pistol . . . Frank Petcik, Minneapolis, Minn.

GUNS ANNUAL CONTEST

The following winners were chosen from our contest in the 1972 issue of GUNS ANNUAL:

Hawes Pistol . . Harold Menges, Atlanta

Weatherby . . Evert Will, Miami Black Forest . . Robert Iliff, Boston H&R Rifle . . Pat Morgenthaler, Philadelphia

* * *

THE AMERICAN public in general is becoming aware of a fact that all of the gun owners knew long ago; that anti-gun legislation will not reduce crime. They (the public) were conned into supporting the Gun Control Act of 1968, thinking that this would be the answer. The public in hundreds of cities, counties and states were conned into supporting anti-gun bills, believing them to be the answer. Well, they got their laws, and along with them, a continued increase in the crime rate. Lincoln said: You can fool some of the people some of the time, but you can't fool all of the people all of the time.

Yet, we have, today, Senator Adlai Stevenson III saying: "There is an elementary, easy step toward reducing crime..." This "easy" step is his Federal handgun registration bill. You would think by now that these supposedly learned fellows would know better!

THE COVER

Two brand new shotguns bearing the famous name Weatherby are featured in this issue. Col. Askins reports on them on page 40. Cover photo courtesy Weatherby, Inc.

AUGUST, 1972

Vol. XVIII, No. 2-08 George E. von Rosen Publisher



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The 1972 Winchester Model 64A combines style with honest craftsmanship and the traditional quality you get from solid steel, real walnut, and no shortcuts.



We're proud to reintroduce this old favorite.

The Winchester Model 64 is just too good to stay retired. Too many deer hunters remember with pleasure the lean, handsome appearance of this fine lever action rifle, and its accurate performance afield. That's why we had to bring it back in 1972, made just the way you want it.

New improved lever linkage: We've cut a new curved camming slot in the lever so that your new Model 64A opens and closes more easily, and makes the extra shots happen as fast as you need 'em. And if you need a lot, the tube magazine under the 64A's

24" Proof Steel barrel holds five 30-30's.

Pistol grip stock: Made from solid American walnut, the dark tones of the satin finished stock are a pleasure every Winchester buff will want to see. The stock features a contoured pistol grip



and a fluted comb. The butt plate is marked "Winchester Repeating Arms", because the Model 64A is part of a long tradition that men who know guns will understand.

Detachable swivels: If you're the kind of deer hunter who likes to use a carrying strap or rifle sling we make steel sling swivels standard equipment. We also made the swivels to detach in a hurry. It's a small extra, but it's the kind of professional finishing touch you expect from Winchester.



Twenty-four inch barrel: Barrels for 64As are made on custom machines that forge cold, chrome molybdenum steel into 24 inches of precision-rifled strength and

accuracy. Taking game means placing your shot accurately. With a Winchester Proof Steel barrel, your Model 64A is every bit as good as you are.

New loading port cover: The one-piece loading port cover is designed to work smoothly and precisely under all conditions. Both the cover and the receiver use a new rich blueing process developed by Winchester. We invite your close inspection.

Re-designed fore-end: Solid American walnut, the Model 64A fore-end is a rounded style for fast-



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Our Mistake

In examining the June 1972 edition of your magazine, I regretted to find that the contents page and page 22 credit me with being the author of an article about Bolivia.

The author of this article was Mr. James B. Hughes of Houston, Texas. Mr. Hughes did the research, got the photographs and provided several drafts of this article. As you may be aware, Mr. Hughes is well known as the author of the celebrated History of Mexican Military Cartridge Arms and is a noted authority on South American Ordnance, far exceeding my own limited abilities in the field of authorship and technical knowledge.

I would, therefore, be greatly obliged if you would prominently publish an acknowledgement of the actual authorship of the article and I deeply regret any confusion which may have arisen as a result of my having been the person who delivered this article to your Editorial Offices.

Leslie E. Field Chicago, Illinois

Watch Your Language!

I just read the article entitled "Watch Your Language" by E. B. Mann and got a real charge out of it. However, I'd like to throw in my two cent's worth.

To begin with, I take exception to the terms "gun nut" and "gun crank." A gun nut is a wierdo who locks himself in a room with his rare one-ofa-kind gun and makes love to it. A gun crank is the firing mechanism of a Gatling.

Also, what about the definition of "Gun?" When I was in the Army, I was taught the difference between my rifle and my gun . . ., one was for fighting, the other for fun. Also, I learned that a rifle or pistol was a weapon, a piece, a firearm, or, as when I was at Ft. Hood, a shootin'

arn. A gun was a crew-served weapon, such as a machine gun, or, as on a tank, a main gun. It do get complicated, don't it?

Then there is the historical field, with its own vocabulary. Is a wall gun something you fire from a wall or something that you hang on a wall just to look at? And how about names . . . for example, is a Bren gun a gun made at Bren, invented by Bren, or used to shoot Bren? Was Brown Bess a nickname for Queen Elizabeth the First? And there are the designations: What is a P-38... a German pistol, a World War 2 airplane, or a G.I. can opener? Let's be specific. Some people might get the idea that a bull gun is used to shoot bulls . . . and there's enough bull-shooting in our sport already. And enough from me.

> Ted Robins Reno, Nevada

Apartment Shoot-Out

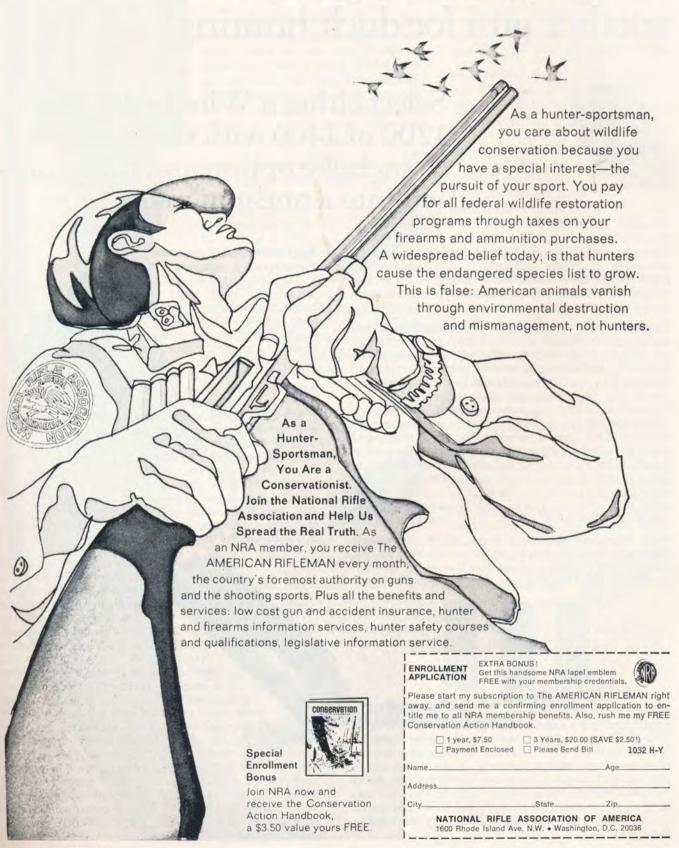
In answer to Walter E. Baker, the reason that I bought the first issues of Guns some time back is precisely that there were real live pictures of honest-to-goodness guns on the front of our magazine. When a man has a gun, he needs to fear neither man nor beast.

When the apartment manager (female) first knew that I had a rifle, she was too squeamish to even touch it. Just recently I got a \$30 six shot .22 revolver. She is just about ready to go with her husband and I to a local pistol range to learn how to shoot it. It may keep all of us alive before this mess is over with. Let's have more pictures of those wonderful, beautiful, man-handled guns on the front page and everywhere else in your magazine.

Homer Fulton Los Angeles, Calif.

GUNS • AUGUST 1972

Hunters Care About Wildlife Conservation



When you get comfortable with one smooth-pointing, easy-swinging shotgun for upland shooting, why change to another gun for duck hunting?

Select either a Winchester Model 1200 or 1400 with the exclusive Winchoke option and turn yourself into a one-gun man.

Changing shotgun sports traditionally has required the sportsman to change shotguns . . . and sometimes to keep several to match all his interests. Find out how Winchester Winchoke sets a pattern for versatile smooth bore performance, with just one gun.

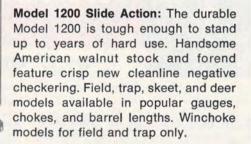
Traditional shotgun choke . . . one choke equals one shotgun: Shotgunners know that most shotgun barrels are slightly constricted or "choked" at the muzzle to achieve a particular type of shot pattern. For close-in shooting you want an open-bored gun with little or no choke. You have to pick up another gun for best performance at 16-yard trap, or moderate range hunting (improved modified or modified choke). You'd want yet another with a full choked barrel for long range shooting of larger game or high-flying wildfowl. You can own a lot of fine shotguns for each different sport. But unless you can afford to have them all custom matched for weight, balance, feel, and swing, you literally have to learn all over again each time you switch guns. Because each separate shotgun fits, feels, swings, and points differently.

What have manufacturers done about changeable chokes? Winchester offers fully interchangeable barrels, with different chokes... even deer barrels... for most Model 1200 and 1400 shotguns. That helps, but it doesn't

equal keeping the exact weight, feel, balance, and point of the same gun. Other manufacturers offer variable-type choke units, but heretofore most variable chokes have been large enough to create a bulge at the end of your shotgun barrel, even if they permitted the use of the same shotgun for a variety of sports. How can you have a single handsome shotgun that looks and points the way you want, however you change the choke? Enter Winchoke.

What is Winchoke? Winchester Winchokes are lightweight, 2"-long, threaded choke tubes machined from chrome molybdenum steel. Each is an interchangeable shotgun muzzle, precisionbored to a specific choke. For Winchester Winchoke Model 1200 and 1400 field guns, we offer three Winchoke tubes, bored separately for improved cylinder for close-in shooting, modified choke for medium range patterns, and full choke for long range pattern. All three are shipped with each gun, with the modified choke tube installed. Together, they amount to an inexpensive cabinet-full of shotguns you can carry in your pocket, allowing you to change your pattern to suit your changing sport . . . with the same gun. Winchokes fit tight, pattern right, and shoot where you point 'em. There is no unsightly muzzle bulge. And you get the unbeatable value of 3 shotguns for the price of one.

How do Winchokes work? To change shot patterns to suit your sport, simply unscrew the Winchoke tube in your gun with the handy spanner wrench that comes with each Winchoke set. It takes only seconds. Replace it with the Winchoke tube of your choice, screw it in snugly, and you're ready to go. Winchokes will not shoot loose, and will hold their choke as if they were an integral part of your shotgun barrel. Most important, you get a Winchester you can use for virtually every shotgun field sport, or even claybirds, too . . . all in one sleek, handsome shotgun that never gives away a thing in looks or performance. Available on 12, 16 or 20 gauge Winchoke Model 1200 or 1400 field guns with 26" or 28" barrels. Winchoke Model 1200 and 1400 Trap guns also available with full, improved modified, and modified Winchokes, wrench included.



Twin action slide bars: Two steel action slide bars on every Model 1200 give

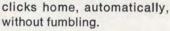
you a slick, smooth action that's so fast you have to try it to believe it. The Model 1200 stays right with you for follow-up shots.



Model 1400 Mark II Shotgun: Substantially less apparent recoil in a ruggedly built, gas operated autoloader, with models available in 12, 16 and 20 gauge . . . plus left-hand models in field, trap, and skeet guns, in 12 gauge only.

Push button release: You load the Model 1400 just by dropping a shell into the ejection port at

the side of the receiver.
Push the button underthe gun.
The action



Less noticeable recoil: The Model 1400 gas system stretches out the recoil you feel over a longer period of time than shotguns with a solidly locked breech. You get more of a push than a "kick". Keep your eyes open for the Model 1400 Mark II next time you visit your Winchester dealer.

Front locking rotating bolt: Model 1200 and 1400 bolts are made from heat-treated chrome molybdenum steel, with four oversize locking lugs. The rotating bolt turns and locks into the chrome moly steel barrel extension when you close the action for fast, smooth, secure performance.

Winchester Proof Steel barrel: Every Model 1200 and 1400 comes with a Winchester Proof Steel barrel, precision-machined from fine gun steel for a lifetime of shooting. The Winchester Proof Mark on the barrel and receiver means you can't buy a Model 1200 or 1400 we haven't tested for ourselves.

Rust proof receiver: Model 1200s and 1400s feature the same front-locking, rotating bolt. It's made from chrome molybdenum steel ... the same kind of gun steel most experts believe best for the finest shotguns. Because of its inherent strength, we precision-machined our receivers from heat treated aluminum.

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HANDLOADING

BY C. GEORGE CHARLES

I T'S NOT too early in those shotgun-only areas to be thinking about what ammunition you'll use on your annual deer hunt this year. Some states simply specify shotguns only and place no limitations on ammunition. Others allow only slug loads, yet a few specify only shot, and certain sizes, at that.

Where not prohibited, the rifled slug—or other heavy solid slug of similar performance—is far and away the first choice. In properly sighted and targeted guns of conventional boring, most such ammunition is accurate enough for deer at 50 yards or so. In so-called slug-barrels, accuracy is usually better—and 5" groups have often been reported at 100 yards. The average, of course, isn't all that good. But, if you assemble your slug loads with thought and care, they'll do well on deer to around 75 yards.

First, though, make certain you'll be able to utilize the gun/load accuracy. That means good sights; at least a bead or post front, and an open adjustable rear. Better yet, an aperture receiver unit such as the Williams Fool Proof; and at the top of the heap, a 1-X or low-power scope. Be advised that without good sights and proper zeroing, you'll likely wind up with an empty freezer, no matter how good the ammunition. The average bird gun with only its bead foresight may not place slugs within 2 feet of point of aim, and close groups are generally impossible. And, of course, the 12bore is by far the best. It is the most powerful, and generally the most accurate because of its larger projec-

The conventional rifled slug is the usual handloading choice, simply because of availability and familiarity. You can make your own with the Lyman mold and swaging die set—or buy them from purveyors of cast bullets. These slugs are made of very soft lead, and by virtue of the deep hollow in the base, their walls are thin and easily deformed. Deformation near

the base reduces accuracy. This deformation may derive from rough handling before or during reloading, or it may result from firing. Another detriment to accuracy is lodging of any foreign material (usually wad fragments) in the base cavity to throw the slug off balance. So, it is essential to use care and see that slug bases remain perfectly round before and during loading.

Deformation during firing can be

prevented—or at least reduced—by placing one or two thick nitro card wads between the slug and the filler wads. These hard card wads support the soft base during violent acceleration, so it remains clean and round. Card wads also prevent filler wads

from being driven willy-nilly into the base cavity. Chunks of wad driven in there not only deform the base, but throw the slug out of balance.

Some people report improved results by filling the base cavity completely full of grease or vegetable shortening, then using hard card wads. But the grease apparently doesn't always help. Try it both ways to learn which you favor.

However, don't use too much card wad here. One .200"-thick wad will often be enough-perhaps only a single .135" thickness will do the job. In any event, don't use more than two .200" wads. To do so will cut down too much on the springy filler wad. That filler wad is necessary to absorb the initial acceleration shock in firing. Without it, even the card wads won't prevent very bad slug base deformation-and accuracy will be non-existent. Best results are obtained with just enough hard card to prevent base deformation, plus all the filler wad that will fit. Use waxed composition or cork filler wads for the shock absorbing capability. Use low-base-wad cases so there will be room for plenty of filler wad after the essential slug, card wad, and powder are in place.

A good solid rolled crimp is essential—and that means using new or top-condition cases, whether they be paper or plastic. It may be advisable to re-wax paper case mouths, and even to re-crimp both plastic and paper after a few hours "rest period."

If you want waterproof slug loads, let a drop of thinned clear lacquer run in around the primer. Then, run melted paraffin wax in around the slug after final crimping.

Powder choice is simple with slugs. Don't try to be different, or try to use some propellant simply because you have it on hand. Instead, follow the recommendations of the powder maker—his testing has been far more thorough and precise than anything you might do. Slug loads are heavy loads, and that means a hefty charge of a slow-burning powder like Hercules Herco or Blue Dot, or comparable other makes. Just follow the recommendations and don't try to second-guess the nation's top ballistic laboratories.

As for buckshot loads, I'm partial to the larger sizes because of their greater individual pellet energy. Because of this, the 12-pellet load of 00 buck seems best. Triple-0 is favored by some, but its fewer 9 pellets reduces hit probability substantially. Buck needs all the help it can get to reduce pellet deformation, so always use a plastic shot wrapper of good thickness. Also use as much filler wad as possible, and use the springiest you can find—cork is ideal.

Pellet deformation can be reduced further by filling all between-pellet spaces snugly with a fairly soft gran-

ular plastic such as polyethelene. It's no easy thing to do, but perseverance will pay off. The material can probably be obtained through any large plastics supply house, but in a pinch, fine plastic sawdust will do. Large buckshot can't be measured, but must be counted out and placed manually in the case in neat layers. Position the first layer, add plastic, then repeat. Use a still but frangible over-shot card wad (Alcan or Federal B-wad) and a heavy roll crimp. The remark already made about crimping and waterproofing apply equally here. Powder choice likewise.

There are numerous other types and designs of slugs available today. Probably best known is the Brenneke with its wide spiral ribs, conical point, soid base, and attached wad column. It is available from Stoeger Arms, through its dealers. Another is the Vitt slug of vaguely similar construction; and there is the Miller slug with its point slots or cuts to promote expansion. Another is the steel, spoolshape Blondeau, and there is the 12/.50 caliber discarding-sabot design by MB1.

Of the above, all require special loading techniques and different data-supplied by the maker. You should follow the recommendations for best results. The main thing, though, is to load up a few rounds now, tune up your deer-intended smoothbore, and get in some practice. Spend a couple weekends at this and you're likely to bring home the venison come fall.



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SEPTEMBER a year ago I called a referendum in these pages, inviting as many of you as wished to write in and express your druthers on forthcoming subject matter, to let me know what areas of handgunning interest the column should emphasize, and what topics on the other hand would likely be greeted with a universal yawn. Some of you took a wry view of this modest experiment in participatory democracy. One chap noted, "What a mistake to ask for advice! It will come forth in superabundance, all bad." Another simply commenced his letter, "Well, you asked for it." I did indeed, and have been well pleased with the results. The volume of letters which the September issue sparked-and a few are still coming in as this is written in January-was about as I had hoped: few enough that I could acknowledge each letter personally, if briefly, and ample enough to give me an idea of who all is out there, and a feeling for the concensus of the community.

As for the composition of the readership, we heard from locations as remote as Belgium, to the east, and Viet Nam to the west, and from most places in between. Most of you didn't elaborate on your personal backgrounds, but since I had launched the column with an unsolicited swipe at some of our self-anointed social superiors, singling out skeet shooters, prone riflemen, chess champs, and professors of Byzantine history for illustrative purposes, it was promptly brought to my attention that there is quite a gaggle of chess buffs who read this column regularly, as well as two honest-to-heaven professors of Byzantine history who are handgunners of purest ray. One of them, a gracious and courtly gentleman, judging from his letter, wrote, "I am not a skeet shooter or a 300-meter rifleman; but I am a chess player and a Byzantine

(or Late Roman) historian, and I have loved guns, especially handguns, as long as I can remember. . . . Except for wheel-locks, I have fired just about every kind of handgun ever produced for sale in quantity."

Our other authority on Byzantium wrote, "At the moment I own twelve handguns, all top quality pieces, and I usually shoot up several hundred rounds a week, mostly centerfire. I reload for seven handgun calibers, and I have twice recently won my class in local combat pistol competitions."

So the next time I set up a row of straw men to kick over in a zesty lead paragraph, I'll jolly well have to put other labels on them.

Aside from chess buffs and professors, we heard from college students, soldiers, and from quite a number of police officers, as well as from a couple of guys who I suspect are tool and die makers. Most of you who wrote in appear more literate and articulate than the national average would have led one to expect, though one reader predicted that if I don't learn to restrain my exhuberant vocabulary, many shooters will pass over the handgun column in despair as being quite unintelligible, or turn for solace to competing publications which limit themselves to words of seven letters or less

As for subject matter, the requests were, as expected, wide ranging and often mutually contradictory. Several of you were kind enough to drop a note saying merely that you had enjoyed the column in the past and were confident you would continue to enjoy it in the future, no matter the subject, "as long as you don't write about the sex life of the ladybug or women's lib," as one reader put it, and I promised not to. Otherwise, the game was all over the field and I have some three pages of tightly scrawled notes

summarizing the specific requests and general drift of each letter. From a study of this, I can see that the guys who are ardent students of mechanical esoterica are cancelled by an equal contingent who view it more as tedious trivia, and the black powder buffs are neatly balanced by a coterie who insist they will contentedly read about virtually anything except black powder. When all these tradeoffs are made—indeed, even before—several fairly clear lines of consensus are evident.

The clearest concerns the style of shooting the readership favors, and with near unanimity, it is practical, defensive, "combat," if you prefer. As one chap put it very succinctly, "My basic interest is in the handgun as a personal defense weapon-its most fundamental use, you might say." Hunting or field shooting ran a very distant second, about on a par with plinking, while classic target shooting was requested only once or twice, and then almost as an aside or a footnote. The interest in combat shooting is a pervasive one, and englobes a multiplicity of aspects both practical and philosophical: courses of fire, techniques, training doctrine, guns, loads, rigs, etc. If the referendum is any sort of a representative sample, the column could park itself right here and satisfy easily 80% of you all the time.

Another rather interesting facet is that semi-autos seem to arouse far greater interest than revolvers. I don't mean that a hoard of you all wrote in simply to say, "I crave reading matter on self loaders," although some guys did. It was more a general feeling that came across; the mechanical buffs fasten onto the self-feeders because of the ingenuity and diversity of their design, while the combat practitioners simply feel that the auto is the more efficient weapon, or as the case may be, feel it more appropriate for their sport, since the object of the game is to parallel reality as closely as possible. In any event, nobody wrote in to say, "I want to read about revolvers."

Another strong demand was for hard-hitting evaluation articles, not necessarily of new products, but of any currently available handgun to see exactly how fit it is for the job it was meant to perform, and by process of elimination to determine which modern pistols or revolvers are best for each handgunning task. And most readers would like holsters to be given the same scrutiny.

Down another rung is a substantial minority who would like us to get (Continued on page 50)

A Better Way of Looking at Things



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POINT BLANK

By COL. CHARLES ASKINS

T FIRST glance it would look like A the iron sight is about as obsolete as blanket Indians, coal oil lamps and five-cent beer. The tyro shooting man. if he is a reader of the cane-pole & coon-chasing periodicals must think he has been had if he buys a new shooting iron that isn't equipped with the glass sight. The iron sight which continues to be standard equipment on the over-the-counter firearm may not be as glamorous as the new-fangled scope sight but the facts are many times it serves the better.

It has been common practice during the century past to offer the standard rifle with an open rear and bead front sight. Both made of iron and both quite simple to manufacture and just as uncomplicated of use. Now there is a rising trend to offer more of the better models with a scope attached, but it will be quite a while, you may be sure, before this applies straight across the board. The telescopic sight increases the tariff a good deal and since a lot of buyers first look at the price tag before they consider the refinements, the manufacturers are going to continue to install the simplest sights they can devise.

While the scope sight has made tremendous strides in popularity since the end of WW 2 there are still a good many shooters who do not want the somewhat complicated and fragile gadget and are happy with the more simple iron sights.

Just how good are these sights? Iron sights are divided into two types or kinds. The first of these is the open rear sight which has a notch in the rear and a bead in front. The second has an aperture or peep in the rear and the selfsame bead in front. The open sight comes in several variations, the first of these is a flat-top with a notch which may be in the shape of a U or a V. The second is a semi-flattop which slopes from the outer extremities to the notch. Still a third style is the semi-buckhorn; and the full buckhorn. On handguns there is still another open notch. It is the

Patridge, named after E. E. Patridge who invented it 75 years ago. I has parallel sides and a flat bottom. The sight in front is a post which fits this rear notch.

Of these several types, the best is the flat-top rear. It is better because the gunner may see his game over the top of the sight. The semi-flattop, semi-buckhorn and full buckhorn all hide the animal, in part and are objectional for this reason. The shape of the notch is important, too, and the best style is the notch which is Ushaped. It accepts the bead front sight with good clarity and permits not only faster shots but more accurate ones.

Once an aperture rear sight was tried on the handgun. It was a dismal failure for the peep had to be made so big that the pistol then had no accuracy. An aperture held at arm's length as you must do with the pistol is utterly hopeless. The same truth applies in great part to scope sights placed on handguns. They are largely impracti-

The front sight may be a bead, or a post, or a barleycorn or a Rocky Mountain by type. Of these the bead is by far the most useable. The post is quite alright-as a matter of fact is best-on the handgun but it does not work too well on the hunting rifle. It is OK on the target rifle if it is not too wide, but for the game fields it is pretty dismal. The barleycorn and the Rocky Mountain front sights are wider at the base than at the top and are notable for a sketchy degree of accuracy. On some target rifles there is an aperture front sight. This aperture is meant to precisely ring the bullseye and coupled with an aperture rear sight work exceedingly well, but this type of front has no part of the hunting rifle.

For the game fields the best choice is a bead front sight. When the rifle comes from the manufacturer, whether centerfire or rim, the front bead will be of iron and it is a hard thing to see. The diameter is usually either 1/16 inches or 3/2 inches, with the former more common. If the gunner can have a choice, the best front bead should be of gold. It seems to stand rugged handling just as well as iron and it is much easier to see. There are other front beads, some of them of ivory, others of a variety of plastics, running through such exotic colorations as red, orange, white and at times a combination of these, but all are somewhat fragile.

Redfield makes a good front sight for the hunting rifle which is called the Sourdough. It is post type and faced with gold and mounted in a ramp. It is probably more sturdy than any bead because of its design and can also be had for pistols. It used to be that pistols were made with bead front sights but this is no longer true. Now virtually all pistols have posttype front sights. These may be undercut to eliminate sun glare or may be sloped forward to facilitate a quick draw from the holster. When viewed in the shooting position the perspective is always the same. For accurate work with the handgun this is the best combo that can be found.

Rear sights of aperture or peep type can be divided into two classes. Those for hunting and those for either hunting or target shooting. The latter are among some of the most precise gadgetry offered today's marksman. These are manufactured with all the care, precision and attention to detail of a fine Swiss watch. Many of them are quite as useable on the hunting rifle as on the finest target arm.

The aperture rear sight is a better bargain than the open rear sight and from the standpoint of accuracy it pushes the scope sight very strongly. The aperture is mounted nearer the eye than the open rear and besides being easier to see it increases sighting radius which is an adjunct to more precise results. By its very optical principle it contributes to a more precise alignment. The run-of-themill hunting rifle will group into about 5 inches at 100 yards with open sights. The same rifle with a good peep sight on behind will place all its shots into a circle half that size. In other words the aperture sight is twice as good as the open rear.

Generalizing, the open sight is limited to 100 yards and under—mostly under—and is notable for being perhaps the fastest sight of all. The aperture sight, on the other hand, has no limitation of range and while it is not quite as fast as the open sights the difference is so minute as to scarcely be worth consideration.

There are two kinds of aperture sights, as has been noted, the more rudimentary for hunting and a much more refined version for target work. The former is capable of adjustment for both elevation and deflection but these adjustments may be pretty crude. The sights are mounted either on the tang or the receiver of the rifle and are thus mounted close to the eye where alignment can be made with rapidity. The second type of peep, the target breed, is receiver-mounted and is adjustable by micro-click movements in both the vertical and horizontal directions. These adjustments are as fine as 1/4 inch at 100 yards and once the sight has been gotten into zero it can be positively locked. Such sights as these, at least many of them, may be used for hunting as well as fine target work. These sights represent the highest development of the sight maker's art.

As between the scope sight and the finest of the aperture micrometered rear sights there is scant difference in the precision with which the really skilled marksman will fire. A rifle which is capable of shooting one-inch groups at 100 yards in the hands of a skilled gunner will deliver these groups whether equipped with the glass sight or the peep. It is only at the longer ranges, from 300 yards on outward that the optical sight is the distinctly better.

Target handguns are equipped with micrometered click-adjusting rear sights. The movements, because of the shortness of the sighting radius are not as fine as those on the rifle. The best of these sights is movable to about ½ inch at 50 yards. The locking arrangement is quite positive, a most essential element of the sight due to the recoil of the pistol. The front sight is a post, an outline which has a flat top and straight sides which are parallel to each other. The best width is one-eighth inch.

Many trapshots change the sights on their shotguns. This is more often accomplished by the addition of a raised ventilated rib with the sights affixed to it. In the haste of the shooting movement the bead or beads is seldom seen by the gunner. If, however, he has a raised rib he does see it. The sights, tiny as they are, are seen but only superficially.

While we think that a gold bead is best for the rifle we almost invariably place an ivory (actually white plastic) bead on the scatter gun. It has become popular to put two sights on the shotgun. The forward bead runs to a diameter of ½2 inch and the rear usually measures ¾2 of an inch. With the two sights on the gun the hazard of cross-aligning is pretty well eliminated. The two sights are worthwhile on any smooth bore whether skeet, trap or field gun. So is the raised ventilated rib.

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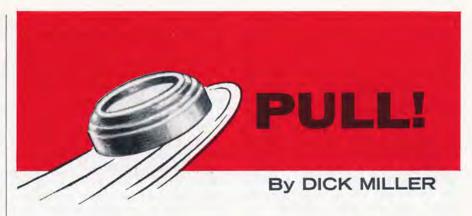
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W HY DOES a trapshooter reach a plateau from which there is seemingly no ascent? This was a question posed to me last week by a perplexed shooter. He is no novice, and has been around the game for several years. His scores are not bad, but not good enough to suit him, and don't seem to be getting any better.

All of us who have been around shooting for any length of time have seen two general types of shooters. One is the competitor whose scores zoom upward like a rocket. He may start on minimum yardage or in a low class at the first of the year, and end on 27 yards or in Class AA by the end of that year.

We read of shooters who win trophies in the Grand or in state or regional shoots during their first year. or after only one year of competition. One of the reasons that we read about and know about these gunners is that they are the exception to the rule, and because they are the exception to the rule, are more newsworthy. We don't read much or hear about the second type of shooter, which includes perhaps 98 percent of us. The second class of shooters are the ones who slowly gets better over the years, and who may have to endure several plateaus over the years during which they seem to shoot well but aren't getting much better.

I have more empathy with and understanding for the second type of shooter because that was the story of my life. I didn't win much or make much of a splash in the first several years. Then I began a slow climb in which I won a yard or earned a yard each year, and moved up a class every year or two, but never more than one yard per year, and never more than one class per year.

After watching a lot of shooters over the years, I'm always prepared to predict that a shooter who has seemed to reach a plateau is just about ready to move up. Only the time and place can't be predicted.

During my early years of trap, I endured with poor grace one year in which I was stymied. I wasn't getting any worse, but I sure wasn't getting any better. It happened that most of my shooting that year was at a convenient small two-trap club, at which I always shot good scores on one trap, and lousy scores on the other. I mentioned this to an industry representative one day, which prompted him to check the club's trap settings. The one trap which was giving me fits was not correctly set, in fact, the rep told me it was a miracle that anyone shot a decent score over that trap. After the trap was re-set, I jumped quickly to a higher plateau. So, if you are in a plateau situation, it may be for external reasons, and you may leap to a new high the first time you shoot a few rounds at a different club, with different trap settings, background, wind conditions, etc.

The shooter who posed the plaintive question to me about his trap scores owns about five different trap guns, and shoots them all. I told him frankly that this more than anything else might be his problem. Because I was in the retail gun business when I started shooting trap, it was very easy for me to try a new gun every week, or at least very frequently. After two or three years of this approach, one of the oldest and most respected shooters in the game of trap took me aside and told me that if I ever expected to be good at this game, I should pick one gun, and learn to shoot it, no matter how long that took. I took his advice, and it worked. I would have never won trophies and Ford Purses in the Grand shooting a strange gun every week or so. Every new shooter should try as many guns as he can during the first years of his career, but there must come a day when he picks one gun and shoots it so much that it becomes an extension of him, My friend may very well jump to a higher plateau the day he decides which one of those five guns is the one he will

learn to shoot. For most of that great ninety-eight percent group, movement upward from a plateau will be in direct ratio of tolerance for tournament and, crowd pressure.

The only way to get tournament experience is to shoot in more tournaments. Some of us master tournament pressure quickly. For the rest of us, progress comes in small doses over a longer period of time. How much of a plateau, and the duration of a plateau may also be keyed to the squads with whom a shooter is familiar. All of us have seen a shooter who isn't apparently making much progress, but one day he is thrown in with a hot squad. He picks up the timing, rhythm, and skills of the hot squad and "shoots way over his head." What really happens is that he is not "shooting way over his head." He always had the ability, but it took the tournamentwise squad to bring it out.

For an example close to home, my wife was once petrified to find that she was to shoot in a squad with four All-Americans. What happened? She shot the highest score of the squad, and shot better in every event after that experience. Here we have an example of that great intangible-confidence. All that stands between many shooters moving upward from a plateau is the confidence that they can do it. When that day comes, no one can predict, but it will come, in almost every case. Another plateau producing element is the amount of and attitude toward practice shooting. Early in the game I learned that practice shooting as such was next to useless for me. I played around, goofed off, and developed bad habits in any round which I regarded as simply practice. I had to shoot every round, practice or tournament, as if it were for a championship in the Grand American.

This caused one of my friends to comment one day that he never saw a man shoot so hard just to win a bottle of Coke. But, as a result, I shot better in the bigger tournaments than I did in the little ones, and that is not hard to take. It's also more rewarding. Too many shooters are two different people in practice and in tournaments. In practice, they are relaxed, hold the gun loosely, don't check it as tightly, and don't concentrate on breaking every target. When a tournament begins, they cheek the gun harder, hold it more tightly, and bear down on each shot. They in fact become a different person, and in truth don't shoot at the same spots.

In explanation of the comment to the effect that this shooter is not (Continued on page 50)

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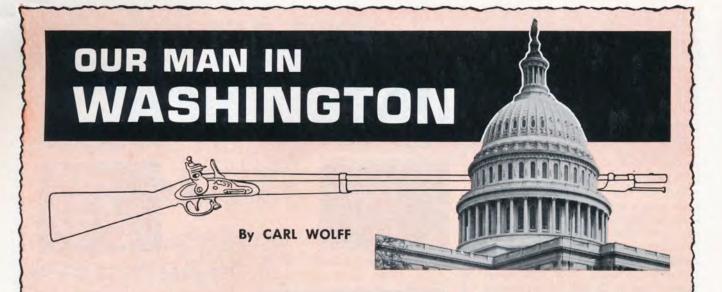


- 20. FIVE Indian Head Cents in presentation case. Minted from 1859 to 1909. Just \$2.50.
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- FOOL YOUR FRIENDS WITH THIS ONE. I DON'T BELIEVE YOU OR THEY EVEN ON CLOSE CHECKING CAN TELL THEM FROM THE REAL THING. Absolutely perfect replicas of the tiny little (now almost impossible to find at any price) California Gold Tokens. Five different dates nicely cased (if they were the control of the cont

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My Guarantee

If for any reason you are not completely happy simply start your purchase back within three days after you receive it in same condition as when it left here. I will insure for you, but I have no control over a shipment after it leaves here, so I will not be responsible for loss or damage in transit. If damage is noted on delivery make immediate claim with the delivering carrier.



There is a kind of madness sweeping through the State legislatures across the country; it is called "sock it to the out-of-state hunters." This Guns contributor has learned officials of the Federal Government here in Washington are coming under increased pressure to put an end to this legal high-jacking.

As things now stand, State Governments have the right to set charges for hunting licenses, other than migratory waterfowl. This is true even on Federal land and they also are permitted to discriminate against out-of-state hunters where hunting permits are limited.

The Federal action can take two forms, neither of which the State Governments will like. One, set guidelines for license fees if States are to continue to receive Federal wildlife restoration funds. Two, the Federal Government take possession of all wildlife on Federal property and issue a Federal hunting license.

Wildlife funds are derived from the 11 percent excise tax on sporting arms and ammunition. States receive amounts based on a formula using the State's area and the number of its hunting license holders. Under these restoration programs, States initiate projects and are reimbursed up to 75 percent of their cost. Projects which qualify include acquisition of land for wildlife and public use, such as camping, improvement of wildlife habitat, development of facilities for sportsmen, and research to aid in wildlife management. States collected \$30,800,000 in 1970 for which figures

are available.

The second choice, that of the Federal Government taking over the management of game on its land will be even less appealing to State Governments. In some of the western states, where out-of-state hunters are gouged the most, the Federal Government owns as much as 80 percent of the available hunting grounds. Here in the East, hunters are already required to buy a Federal stamp in order to hunt National Forest Lands. Most sportsmen are familiar with the "deer shooting" that took place in New Mexico a couple of years back. The Federal game people shot a number of deer in a research project without consulting State officials. A lot of national organizations defended that State's objection to the shooting. New Mexico could not get the same amount of support today. A stern warning has already gone out to the State Game Commissioners this past winter. Meeting out west, the Commissioners were told that they were killing the goose that was laying the golden eggs.

Professional guides are known to be very unhappy about the discrimination against their clients, the vast majority of whom are from out of state. Other potent groups are also reviewing the situation. These include local chambers of commerce and national organizations which speak for the tourist, travel, and transportation industries. In the words of one wildlife giant, who is a member of Congress, "The rural areas don't have the political clout they once had." (Clout is defined as repu- (Continued on page 48)

A handcrafted scope costs more than it did in 1946.

About \$4.95 more.

The original K4 cost \$45. It was some scope. Big one-inch steel tube. Achromatic optics. Click adjustments. The works.

It quickly became the world's best-selling hunting scope. It still is. Because we never stopped making it better.

Covered adjustments were added in 1949. O-ring sealing in 1954.
Nitrogen filling and a constantly-centered reticle in 1957. And on and on. A dozen big advances.
Countless small improvements.

Most important, none of the improvements were made at the expense of craftsmanship.

The K4 tube is still tough lightweight steel. It is still hand-polished. Then gun-blued. The old-fashioned way.

We still make our own optics. Much of the work is performed by slow, skilled hands. Some of them have been making Weaver lenses for

more than twenty years.
We use a few machines, too.
But only where the machines are more precise than the hands.

Making scopes our way is expensive. Those skilled hands are hard to come by. And, take years to train. So, we've had to raise our prices. The 1972 K4 costs \$49.95, or \$4.95 more than the 1946 model. That's the price of progress.



Price shown is suggested retail price.

THE DAYS OF

WITH THE passing of the first one hundred years of service, both to the shooters and to the nation as a whole, the National Rifle Association can turn and look back on a prideful past. Then as now, there have been good times and bad times . . . but mostly good times. The best! I am aware that a large portion of today's membership are probably what might be termed "old timers." We have learned much about our sport, our hobby, and have passed what we know on to the younger minds who have joined the association in turn. We all enjoy receiving a monthly magazine, the "American Riflemen." Perhaps we can turn back a few of those always interesting pages and see how many of us became involved in the fascination of the shooting sports. I am sure you will enjoy hearing the old names and remembering what they taught us.

The early magazine or paper was simply called "The Rifle" and dated to 1885. This was followed by "Shooting and Fishing" which started in 1888. In 1906, we find a thin bi-monthly, titled, "Arms and the Man". This was followed by "The American Rifleman" and the name has continued to this day. Authoritively written and with "data" carefully screened for authenticity, "Rifleman" articles are widely quoted as the final word on the subject of guns. And shooters have been quoting from it over the years from the era of the old time Schutzenfest right up to todays National Matches. All these early forerunners as well as older copies of the "Rifleman" are highly sought after as collectors items. I have often

said that the "Rifleman" was a free magazine . . . if you wanted it to be. The "Arms Chest" always carried ads for the previous years issues, complete, at cost or above. As a Junior Member, I always eagerly read the ads and imagined which items I would wish for. For a modern gun collector, reading old "Arms Chest" ads is enough to make him climb a bare brick wall with his fingernails, toenails and teeth! Especially during hard times when rare and fancy guns sold for pennies on the dollar!

The men who wrote articles in the various magazines read like a "Who's Who" of gundom. The "Dope Bag" technical section was conducted for many years by Townsend Whelen whose eminance in gun circles was guaranteed by his famous and valuable book "The American Rifle". There was Capt. E. C. Crossman whose salty invectives "told it like it was" and let the chips fall where they may. Capt. Crossman was present at a number of scientific tests of service rifles and ammunition that were conducted by the Army. His "Book of The Springfield" is a classic for .30 caliber fans. Early cartridge designers and experimenters were represented by names like Charles Newton, Adolph Neidner and Dr. Horace W. Mann. They all traded notes, shot together and argued over differing views. Mann's book, "The Bullets Flight" is a reference work for ballistic buffs.

The National Rifle Association and its magazine, The American Rifleman, can look to its past with pride. Even more important, however, is the future of the N.R.A. and of its members. As the story indicates, it would be nice to return to the old days.



Left: Krag, Cal. 30-40, as issued. Right: Krag, Cal. 30-40 after it has been peerlessly remodeled.

LINSEED AND PYRO

By HARRY O. DEAN

A gentleman named Chauncey Thomas was a Rifleman "regular" who slipped many subtile smiles into his homey writing style. He held lengthy correspondence with certain shooters whose views he found interesting. One of these was a young westerner who was raised in Montana and who loved shooting sixguns and rifles. He once blew a few chambers out of a cylinder gun and told Chauncev all about it in letters. Chauncey Thomas counciled him in print and printed one of the cowboys long letters in The Rifleman in April of 1925. This launched the young man as a gunwriter as he gained experience and knowledge. His name is Elmer Keith.

Another writer was John Phillip Sousa. The famed bandleader was a student of the shotgun and had a number of special barrels bored to his order to test various theories on chokes, shallow rifling and pattern control devices. His namesake son shared this interest. Retired Army Captain Paul A. Curtis was a writer who leaned toward the shotgun as a specialty but covered rifle and pistol as well. Captain Charles Askins, father of Colonel Charles Askins was another prolific and highly qualified author whose son has followed (Continued on page 68)

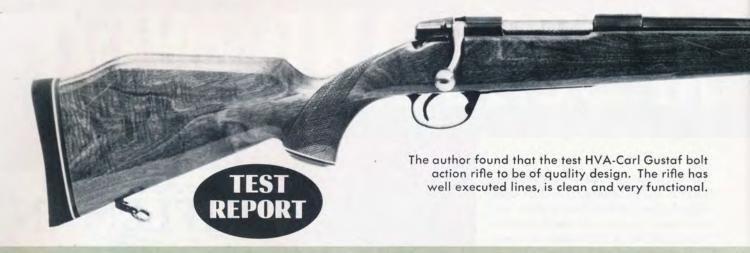
This old masthead design was a familiar sight to early American Rifleman readers. Do you recall seeing it? The early issues of this famous magazine has become collector's pieces and bring a high price.



This early cut of a backwoods benchrester appeared frequently in early "Rifleman" issues and evokes quite a few fond memories for countless shooters. If you look hard enough, you can almost see spirals of "Pyro" smoke.







THE HVA GUSTAV-

By JON R. SUNDRA

FOR MANY years the Swedish-made Husqvarna sporting rifle has had a reputation for being a good, sound musket. However, being based on the tired old Mauser turnbolt there was precious little to set it apart from so many other good rifles both foreign and domestic based on the same action. All that's changed now with the recent introduction of the new HVA action and a complete line of sporting rifles based on it.

When the new guns first started

trickling over here last year, they were being imported by Tradewinds. That, too, has changed. Now, FFV Sports, Inc., of New York City is handling the distribution of what will henceforth be known as the HVA-Carl Gustaf Rifle. FFV is a subsidiary of Forenade Fabriksverken of Sweden where the guns are made.

The rifle sent me for evaluation was a 7 MM Remington Magnum in the DeLuxe version which retails for \$279.50. Sitting atop the new rifle was a 3-9X Leupold cradled in a pair of streamlined Conetrol mounts. Naturally, my first inclination upon picking up the rifle was to work the action:

doing so produced sheer ecstasy. It took only a few seconds for me to conclude that here was the smoothest, most bind-free action I've ever encountered.

The key to this remarkable smoothness can be seen in the design of the locking lugs and the corresponding raceway on each side of the receiver. In cross section, the two opposed locking lugs up front are of a dovetail shape providing much more lateral support to the bolt than do conventional lugs. Just looking at this one innovation it's hard to believe that it could do so much to reduce friction and bind . . . but it does.

Other than the dovetail-shaped locking lugs and a bolt lift of 80 rather than 90 degrees, there is little else that is truly different about this HVA action. The receiver is tubular as are those on all modern actions. The bolt has a recessed face, an integral extractor, and a plunger-type ejector. The extractor grabs about 45 degrees around the case rim—a pretty good bite. Fitting into a recess in the side of the receiver, the bolt handle acts as a third or safety lug a' la '17 Enfield.

There are two gas ports in the bolt body but no corresponding holes in the left side of the receiver. In the event of a ruptured case, gas blowing back through the firing pin hole would be expelled into the left lug raceway. The Mauser is designed the same way and has always been known as one of the



The bolt handle on the new HVA action fits into the receiver slot, where it acts as a third lug. The safety was positive and quiet.



RIFLE

best from the standpoint of shooter safety so no problem here. As for the shroud at the rear of the bolt, it is as goodlooking as it is well designed offering an effective shield against gases blowing back along the bolt body and lug raceway.

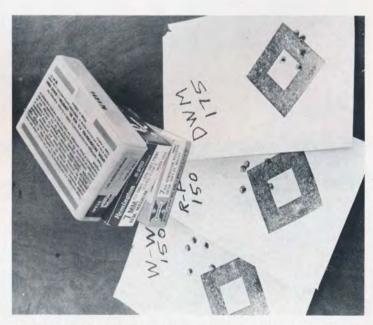
The trigger is adjustable but only for tension. By removing the bolt, an adjustment screw in the receiver tang is exposed. Tension can be adjusted down to 3.3 pounds; a bit stiffer than I like but OK. There was some creep evident but the let-off was crisp. Lock time seems extremely fast and due in no small way to the short firing pin travel of only .33".

The safety is located in the conventional position at the right side of the receiver tang; it's positive and noiseless in operation but, alas, locks the bolt when engaged. I don't like this feature even though it seems to be universal on all bolt guns. I always have my rifles altered so the action will operate with the safety on; it's a lot safer because rounds can be chambered or extracted with the safety engaged.

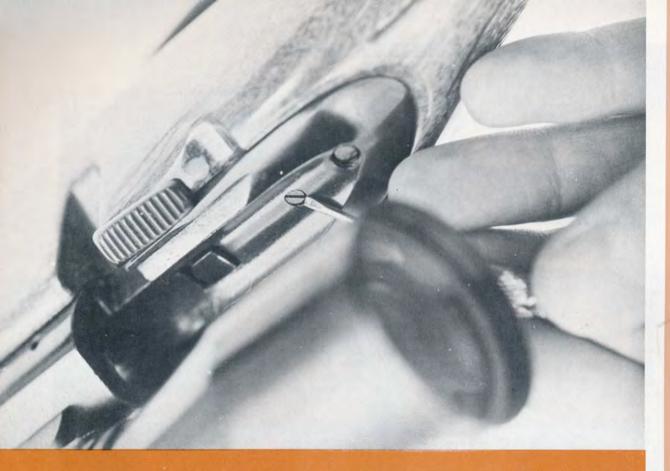
I found it a shame that such a fine action did not have a trigger guard-floorplate assembly of comparable quality. Despite an attempt to dress up the floorplate with some scroll work, the unit is a non-ferrous, roughly finished casting on which tool and seam marks were evident. Will Moore, Sales Manager for FFV, tells me some GUNS • AUGUST 1972



The bolt face on the HVA-Gustaf action is unique only in that it utilizes dovetail locking lugs which greatly add to the smoothness of operation and virtually eliminates any trace of bolt wobble for added glidability.



Considering the sub-freezing weather, Sundra got the HVA shooting well, posting a 1½" group with 175 gr. loads.



The trigger tension adjustment in the receiver tang is accessable when the bolt is removed. The tension can be adjusted to 3.3 pounds for sporter rifles and 1.1 pounds for target or varmint shooting. There was some creep evident, but the let-off was quite crisp.

changes are planned in this regard.

As for the barrel, it has a rather unusual contour in that the thick shoulder portion extends out from the receiver for about six inches before it starts to thin down to a straight taper. Actually, it's quite pleasing but measuring only .590 at the muzzle and on the 233/4" barrel, I find it to be a little on the thin side.

The stock was of good, man-sized proportions and sported a high-gloss urethane-type finish of excellent quality. The forend tip of contrasting wood slants forward giving the gun a pleasing, distinctive look. Wood to metal fit on barreled action and floorplate was good-as one would expect on a rifle of this price. All inletted surfaces were extreme smooth and it was evident that some effort had been made to waterproof them with the application of a finish of some kind. All in all, the general fit, finish and appearance of these new HVA-Carl Gustaf rifles was of excellent quality.

two separate afternoons during which the mercury was at no time above 18 degrees-hardly good shooting weather! Nevertheless, I got one fiveshot group down to 11/8" with Speer-DWM 175 grain loads and around an inch-and-a-half with the Remington and Winchester 150 grain loads. All things considered, that's fine performance. In addition to the HVA-Carl Gustaf sporter line in Standard and DeLuxe

As for functioning, the rifle digested

a box each of Winchester and Reming-

ton 150 grain loads and one of Speer-

DWM 175 grain loads as smoothly as

expected. Range testing was done on

grades, there is also a heavy-barreled target-varmint model which can be had with an optional unfinished stock so the owner may whittle it down according to his own taste and dimensions. And, last but not least, HVA actions and barreled actions are available separately. Good show!

For more information and specs on the VA-Carl Gustaf line, write: FFV Sports, Inc., 63 E. 64th St., New York, N.Y. 10021.



Feodor Vasilevitch Tokarev

Biographical Notes on his work as a Firearms Designer

By JOHN REMLING

A SKED TO name the gun designers whose work had the greatest impact on the world we now live in, the average gun buff will list Browning, Mauser, and possibly von Mannlicher. Virtually unknown is Tokarev, yet his developmental work on all types of small arms enabled Russia to advance to the position she now holds as a military power.

Feodor Vasilyevitch Tokarev was born in 1871 to a family of Don Cossocks in the village of Egerlik (Yerglik). Since it was planned that he should follow a military career, when he was of age he was enrolled in a gunsmithing course at the village school. Tokarev exhibited an aptitude for work with guns and upon his graduation from the local school he attended the Military Trade School at Novocherkask where he continued his training in gunsmithing.

Upon graduation from Novocherkask in 1891, Tokarev served with the 12th Don Cossack Regiment. It would seem that his ability with weapons was carefully noted as in 1896 he was requested to return to Novocherkask and



A 1940 photograph of Tokarev and several variations of his M1938 and M1940 semi-automatic rifles.

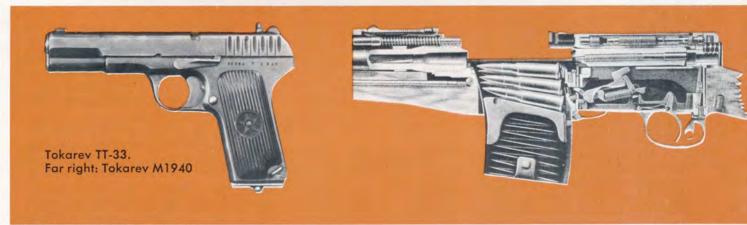
serve as Master Gunsmith Instructor. Tokarev accepted this assignment but his job as instructor was cut short when the school was closed a few months after his arrival. Tokarev's interest in firearms prompted him to apply for admission to the Military Technical School, also at Novocherkask, where he felt he could further his education. His application was accepted and Tokarev remained there until 1900, completing his studies in the Arms Department.

To put his education to use, Tokarev was returned to his regiment where he served as a Master Gunsmith until 1907 when he was assigned to the Officers Rifle School at Oranienbaum.

The military establishment at Oranienbaum was an arms research, devel-

opment, and test center and boasted a collection of all types of weapons both of native and foreign design. Here Tokarev continued his studies and utilizing the facilities at hand, within a year had designed and built a semi-automatic rifle. His design was basically a Mosin-Nagant rifle modified to operate semi-automatically and although the exact details are unknown, it utilized a short recoil system. His work was noted with much interest, and to aid him in further development, Tokarev was assigned to the Sestroretsky Arms Factory to continue his work as a designer.

In 1910 Tokarev presented an improved version of his rifle to the Testing Commission. It was decided that the design (Continued on page 66)





TUNING AUTO PISTOLS FOR HIGH PERFORMANCE LOADS

By C. GEORGE CHARLES

TEN YEARS AGO, even less, you could buy only one kind of ammunition for autoloading pistols—roundnose, metal-jacketed bullets of one weight loaded to one standard velocity. All this produced excellent reliability in all manner of guns, but the bullets penetrated animal targets cleanly without expansion or deformation, and possessed the least lethality for their size and velocity of all types.

In short, unless of unusually large diameter, such as the .45, they were lousy game- or man-stoppers. And, they still are. Of course, there were a few exceptions to the rule. In recent years both lead and full-jacket semi-wadcutter bullets have been available in .45 ACP caliber, but loaded to minimum functional velocities which negated their more lethal profile. Also, a few soft and hollow-point loads had been offered by the major manufacturers in 9mm and .38 ACP and similar calibers. However, they were ineffective, producing ball-like performance because of poor design and inadequate velocity.

Consequently, all autos (except for special .38 Special target guns with which we aren't concerned here) were designed and manufactured purely for round-nose ball ammunition. With it

they achieved wonders of accuracy and functional reliability.

Then came the day of high-performance autoloader ammunition introduced about five years ago by Super Vel Cartridge Corporation of Shelbyville, Indiana. Other makes and loads followed, and there began an increase in complaints of malfunctions with the new ammunition.

Not that all complaints were justifiable—or even believable—as is clear in correspondence I've received. One shooter (?) complained that none of his .38 Super and .45 Autos would handle the new ammunition and went into great detail about the difficulties



Basic tools for the job-stones and files.



The Browning chamber illustrated on the right clearly shows the smoothly radiused mouth which will prevent case-mouth snagging. The center barrel has a small amount of radius, but the left barrel has none and causes jams. The left barrel also shows the new straight Smith and Wesson M39 ramp as it is compared to the hump-shaped ramp of older M39s.

he had encountered. Unfortunately, the ammunition he complained about had not yet been sold commercially, so he could not have even seen it, much less fired it. Similar handloads, perhaps, but not the genuine factory product whose publicity had come only from experimental lots shot at the plant. But, functioning problems did—and do—occasionally exist with the new loads.

A shooter may have had no trouble whatsoever with ball ammunition in his guns-in fact, it would be unusual if he had. Then, one day he buys a box of the new high-performance loads and encounters feeding problems. Righteously he blames the ammo makeroverlooking the fact that no one in his right mind would intentionally manufacture defective cartridges. These high performance loads have been exhaustively tested and developed to produce optimum feeding reliability in all modern popular guns. Obviously, this is the approach that must be taken if enough ammunition is to be sold to make a profit.

The real problem lies in the simple fact that ammunition development has moved ahead of gun development. In

order to generate their greatly increased lethality, velocity and expansion, high performance loads are different. Different from the ammunition for which all current guns were originally designed.

To obtain adequate expansion, bullets must be driven at higher than traditional velocities; to achieve this velocity within allowable pressure limits, bullet weight and length must be reduced; to achieve adequate bearing surface, bullet shape must be different; and to secure adequate bullet pull, bullets must be seated to produce shorter overall length.

It is these differences in shape and dimensions of the loaded cartridge that causes what problems exist when the round is combined with a magazine and feed ramp originally made for ball ammunition. Those difficulties generally occur only in guns which contain deviations from standard in finish and shape of feed ramp and chamber mouth, or in magazine feed lips and follower. Some designs and calibers are more likely to cause difficulty than others. Generally, those guns with two-piece feed ramps and/or unusually

long travel from magazine to chamber are most likely to give trouble.

Feed ramps first. The older Browning-type feed ramp found in the Colt Government Model series is formed partly by the frame and partly on the



Browning HP full length ramp barrel on left handle the high performance loads best, while segmented Colt ramp, right, requires more fitting.

barrel. When the barrel is in counterbattery (rearward) position, the two parts of the ramp should be aligned to form a smooth continuous surface but many do not, presenting a ridge which deflects or catches and holds the incoming bullet, preventing it from entering the chamber properly.

To insure feeding with short truncated-cone bullets, all semblance of a ridge must be ground or filed off, and then the entire ramp must be polished smooth while maintaining its original shape and angle.

A sharp edge is often found where the ramp cuts into the lower edge of the chamber. This edge should be radiused and polished smooth—and this should be repeated at the front of the bevel found in some chambers. Further, the sharp mouth of the chamber on either side of its mouth should be lightly radiused and polished smooth. Carry this at least halfway up the sides

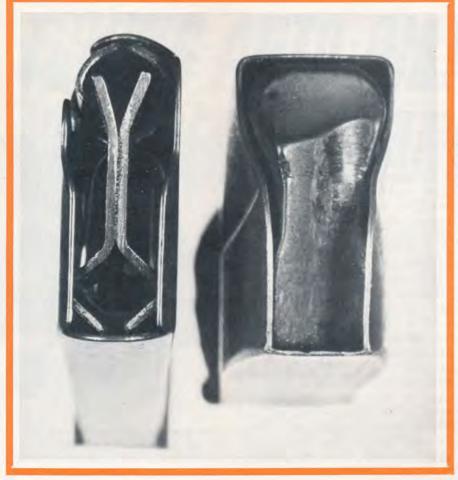
of the chamber mouth.

Straight, one-piece feed ramps, such as that of the Browning H-P, require only polishing smooth. This should be followed by the chamber mouth treatment just described.

Smith & Wesson M-39 pistols below about #150,000 have a one-piece feed ramp with a hump in its upper third. This hump causes feeding malfunctions and must be ground or filed away to form a straight surface. Current-production M-39's have a straight ramp, eliminating this problem.

Some guns will occasionally cause the nose of a bullet to snag on the sharp lower rear edge of the barrel tang or hood. This is more common in .45 caliber than others. While this is caused partly by a less-than-perfect feed ramp, beveling or radiusing the tang edge will eliminate the problem by causing the bullet to bounce free rather than be caught and held.

Regardless of the type, (S&W and Browning illustrated) magazine followers and the feed lips must be smoothly polished. The author states that many feeding problems are solved by simply filing or polishing the feed ramp smooth while maintaining its original shape.



Some blowback pistols have what appears to be a one-piece feed ramp which is actually formed partly in the frame and partly in the barrel. The two parts are cut separately, then the barrel is screwed in place—and in theory the two parts align properly. Often, though, they lack a few thousandths of an inch of meeting perfectly, forming an almost-imperceptible and very sharp ridge. Though hardly visible, it is enough to bite into soft bullets and cause malfunction. Simply polishing the entire ramp smooth will remove the sharp edge, even if you don't see it.

Two designs, specifically the Luger or Parabellum and the Walther P-38 in 9mm caliber combine a very short feed ramp and long travel from magazine to chamber. This makes feeding of unusually short cartridges such as the Super Vel 90-grain JHP very difficult. No amount of gunsmithing will compensate for this sufficiently to insure 100% feeding reliability.

Should you have one of these guns which will not feed the 90-gr. SV load, forget trying to correct it—just switch to a longer cartridge such as the 112-gr. SV. The greater length will solve the problem, providing the ramp and chamber refinements mentioned earlier have been accomplished.

Other areas of the gun may cause no trouble with ball ammunition, but combine with marginal functioning to cause occasional problems with high performance ammunition. Slightly deformed or worn magazine feed lips; try a new magazine with the sharp edges of the feed lips polished and radiused and the follower polished smooth. Also make certain the magazine spring is installed correctly—backwards it may feed ball "OK" but will foul up HP.

If the breech face in the slide, or the extractor claw, is rough or burred, the case head may not be able to rise smoothly into position from the magazine. Burrs around the firing pin hole will have the same effect. All are easily removed with needle files and/or small stones. The breech face should be uniformly flat and smooth, but need not be highly polished. Also, slightly bevel the lower edge of the extractor so it doesn't bite into the rim as the case slides up under it. When all is right in these areas, a cartridge can be pressed up under the extractor by moderate finger pressure, without causing scratches or gouges on the case.

Good feeding with high performance loads (Continued on page 48)



The author takes a long look at a deer across a brushy canyon.

Rangematics come in two models. Left, this rangematic has been calibrated for use from 19 to 250 yards—excellent for ducks. The Rangematic on the right is calibrated for 50 to 1000 yards.

By FRANCIS E. SELL

DURING THE past several months, while hunting deer, gunning duck and pass shooting geese, I have been testing two models of range finders with some interesting results. These Rangematic Distance Finders are put out by Ranging, Inc. of Rochester, N.Y.

There are two models of these range finders. One is calibrated from 19 to 250 yards, and is more suitable for a shotgunner wanting a careful estimate on gunning ranges-and sometimes these ranges can be very revealing, even to an experienced gunner. A good example of this occurred one day as I gunned Pintail in Oregon's fabulous Coquille Valley. My hunting partner and I were getting plenty of unaccountable misses. Those Sprig were coming over plenty high, we admitted that, but how high remained to be found only after I started measuring flights with my Rangematic.

The first few flights gave me trouble in getting on them for an accurate range reading. Then I begin pre-setting the range finder to 40 yards, flicking the adjustment around to bring those arrowing Pintails in focus for a correct range reading. With a little practice this came easy for me, with the imposed images of an individual bird coming clear for the reading. The range finder said 70-75 yards for most of those Pintail flights, while we had

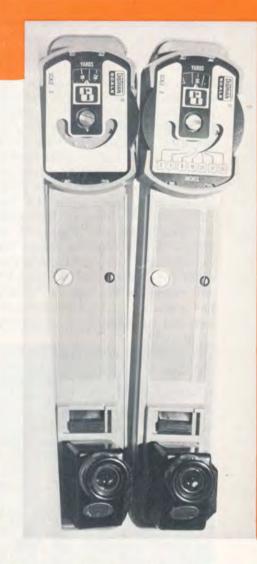
been estimating ranges at around 55-60 yards. The thing that threw us for a loss, literally, was the Bluebird weather. The clear, blue skies made the markings on those Pintails stand out brilliantly, and these markings usually spell out just one thing, in range.

With just a few readings, we re-adjusted our decoy marking sets at around 55-60 yards so we had an exact report on range when those Sprigs made a wide, low sweep beyond the limits of our main decoy grouping.

For the high flyers, I read ranges on flock after flock, with about one flock out of ten actually getting below the 70 yard mark. After this considerable revealing employment, we had well established what those sizzling Pintails looked like when they were this side of 60 yards. We both agreed that they appeared more like Pintails coming over at 45 yards when the sky was filled with rolling storm clouds, and curtains of rain silvered the dark stormy water.

I'll not beguile you with the idea that we wouldn't have solved this problem of range estimation without a range finder, but I do want to put across the pertinent gunning fact that we solved it much quicker with this range finder and while we were still with the best of the flighting. We ended the day with a bag limit of six Pintail each.

Later, while gunning a salt marsh for Bluebills, I again found employment for this range finder. I used it to



set out my usual decoy markers at half tide by the simple expedient of taking a few decoys, the range finder, and ranging on my blind as I dropped one downwind and one upwind 50 yards from my (Continued on page 55)

SWISS GUN

By GERALD L. BERKIN

TN THE YEAR 1602, the Savoyards, under the flag of the Duke of Savoy. led by the swashbuckling Captain Brunolieu, stormed the walls of the Old Town of Geneva but were repulsed by the spirited and stubborn defense of the local citizenry. This event is celebrated each year by the people of Geneva who pay homage to their brave forbears but the stirring parades and holiday hoopla have not beclouded the real meaning of their time of trial and deliverance. That is, the love of liberty is a trait common to all Swiss and with the desire to preserve their traditions of freedom, one finds in Switzerland a preparedness to defend that freedom by force of arms if need be. The Swiss citizen-army is legendary in this day and age and a nationwide familiarity with weapons has bred in the public at large a deep and abiding respect for military and sporting arms. So, in just about every Swiss town and village of any reasonable size one can always find a gunshop or two, complete with guns and accessories from all corners of the world.

In the shadow of the venerable walls of the Old Town of Geneva is a gunshop which, very probably, is typical of all gunshops in this lovely country—if anything really can be called typical in a country which reveres rugged individualism. The Armurerie des Bastions occupies premises which have housed gunshops for many years but the present management dates from only the last decade or so.

The current manager of the shop, Mr. Otto Siegrist, is an officer of several of the largest and oldest shooting clubs and societies in Geneva. He is also a member of the prestigious Comité Central de la Societé Suisse des Carabiniers, the organization which controls over half a million Swiss shooters in the country's many shooting clubs. There are only 15 members



The Armurerie des Bastions, located in Geneva, Switzerland.

of this committee, so membership in this august body is a position of some importance in local shooting circles. To attest to Mr. Siegrist's prowess, both as a businessman and as an active shooter, Mr. Siegrist will sometimes confess to having earned the coveted title of Pistol Champion of the Canton of Geneva. He is also the only member of the Societé de l'Arquebuse, Geneva's oldest shooting club, who has earned distinguished "division d'excellence" in the three shooting disciplines: largebore rifle at 300 meters, smallbore rifle at 50 meters and pistol at 50 meters. Mr. Siegrist has won. during his active shooting career, more than 700 medals, cups and trophys and in 1958 he won a small Fiat automobile at the Federal Shooting Match held in the town of Bienne.

The staff of the shop is rather small, but each person working in the place knows exactly what he has to do and why he must do it. Second in command is a retired chief of the Geneva traffic

police, Mr. Roger Marcelin, whose own weapon collection would do justice to any museum in the world today. It is Mr. Marcelin's abiding interest in guns, hunting and match shooting that keeps him active in the gunshop long after the normal retirement age. All gunsmithing work is accomplished by a 28-year old armorer who did his apprenticeship at the world-renowned Hammerli factory at Lenzburg, a picturesque town in the German-speaking part of the country. Mr. Karl Fellmann is the only gunsmith in the Geneva area who is authorized by the Swiss military authorities to repair Swiss military weapons which can be found in nearly every Swiss home. The Armurerie des Bastions is also the only gunshop in the Geneva area which is authorized by the local police to repair police weapons; so, on an average day it is nothing to find Fellmann busily working on machinepistols, police sidearms, and on other police ordnance which were left in the shop by some of

Otto Siegrist, manager of the Swiss gun shop, speaks with a potential buyer.



On display in a glass case are a few of the shooting awards won by Siegrist.

the local gendarmes. Fellmann is assisted by a young lad who is doing his own 4-year apprenticeship in the shop, at the conclusion of which, the boy will

be qualified to go off on his own as a certified gunsmith.

The gunshop itself is nothing elaborate, as is the case with most establish-

ments in Switzerland. There are two rooms, the first being the show room and sales area and the back room is the workshop and "office" area. Traffic flows rather freely between the two rooms as all customers are treated familiarly. It is sometimes difficult to distinguish between the customers and the personnel of the shop. In the US or in other areas, such freedom of movement would never be permitted as the weapons, accessories and ammunition are never locked or otherwise secured. So, while (Continued on page 62)

A general view of some of the firearms in their respective racks in the Armurerie des Bastions.





THE DEAN OF SMALLBORE SHOOTING LOOKS INTO THE FUTURE OF SMALLBORE SHOOTING

By BOB TREMAIN

THE 1972 Winter Olympics are over. The events and the number of medals won have been hashed over ad infinitum. But did you notice that the one shooting event, the Biathlon, received almost no mention in the press, and that TV coverage was scanty?

A decade or so ago most of the daily papers gave the National Matches at Camp Perry at least a one or two inch coverage by listing the names of the winners. Did your local paper carry any news about the National Matches last year?

Unless you are a devoted follower of the activities of the paper-punching marksmen, you may not even have realized that the National or State Matches were being held. To learn the names of the winners or details of the events, you have to read the firearms magazines. The daily press won't report them. This has led to the widespread opinion that the target shooting sports are on the way out, that lack of shooter interest is leading to the gradual demise of the formerly highly popular target shooting activities.

Besides lack of interest, increasing gun legislation and the dwindling number of ranges are usually cited as reasons for the apparent reduction in the number of competitors on the ranges. Is target shooting really a dying sport? Is there a future for rifle marksmen? Will we have National Matches in three, four, or five years? To get answers to these questions, I interviewed the dean of the smallbore marksmen who has been in the game for over 50 years and who is the prime purveyor of shooting equipment for the smallbore clan—Al Freeland.

Al has won more than his share of competitive events, always attends the National Matches, and to this date, at over 70, he competes in matches here and in Europe. To understand the men-

tality of a champion shooter and to learn what motivates a man to spend many hours practicing and travelling to distant ranges, I'll let Al tell his own story—through clouds of rather pungent cigar smoke.

"I did a little hunting when I was a boy growing up on the family farm in Kane County, Illinois. I often hunted squirrels for our dinner after we moved there from Joliet, Illinois, where I was born. In 1914 I was the champion corn grower of the state. My record was 127 bushels per acre, but today they raise 206 bushels per acre.

"I left the farm to become a machinist and tool maker in Chicago, and began target shooting there in 1917. I found out about 'Arms and the Man', and through it I found my way into the Centennial Rifle Club on the west side of Chicago on Jackson Boulevard. The club range was in the basement of a church, and to get there I had to take three horse-drawn trolley cars and

34

NOT BY A LONG SHOT," **SAYS AL FREELAND**



walk many miles.

"I went to the club after buying a Model 1892 lever action Marlin, for all of \$16. The gun is now known as the Model 39A. With this gun I fired my first match, and I can still hear the laughter of the other shooters. That is, they laughed until I hit the bullseve a couple of times. The gun had an open, or Rocky Mountain, rear sight and a blade front sight. These are the sights you find on today's M39A.

"I was invited to come back to the Centennial Rifle Club at the next meeting night, and that evening one of the members loaned me his 441/2 Stevens to shoot offhand. The Schuetzen type shooting appealed to me and since I did so well, I was asked to join the club.

"That year I won the Newcomers Match of the NRA. We shot 75 feet indoors in four positions, 10 shots each position, 12 matches to get the total score of 4800 points. The 75 foot tar-GUNS . AUGUST 1972

get is a bit larger than today's 50 foot indoor target, somewhere around 5/6" in diameter bigger than today's target.

"I kept borrowing rifles until I went to the National Matches the next year. There I bought from Paddy O'Hare a B.S.A. Martini rifle for \$12. The gun came from a Col. H. A. Garon who was stationed at the Canal Zone. The barrel was shot out so I had Niedner re-barrel the rifle, but I did the stock job myself. Then in 1919 at a New Jersev shoot, I met Major Hession of the Winchester Arms Co. From him I got my first Winchester Model 52, the gun bearing the serial number 5.

"I raised the comb on the stock to fit me and made a few other alterations. Later, I sold the gun to a shooter in Montana. Guess you could say I started my gunsmithing days early, and this eventually led to more gun tinkering and to Freeland's Scope Stands, Inc."

Like so many other businesses in the

firearms field, Al's began through need and an accident. He was working for the Vaver Sight Corporation at the time. The Vaver sight was based on a screw principle and was extremely accurate. Al had been hired by Walter Vaver to develop the sight further and to test it, as well as to supervise production in the downtown Chicago shop. Unfortunately, production costs were so high, even in those days, that the sight had to be dropped.

Prior to an outdoor match, Al travelled to the Coon Hollow rifle range on the banks of the Des Plaines River. It had been raining and the range was muddy as hell. To spot his shots, Freeland had bought that morning a Sears spotting scope with drawtube and stand at a cost of \$9.

After the first shot and while adjusting the scope, the stand toppled over, the scope landing in the mud. The scope was cleaned and on the second shot, the stand toppled over again. That did it-Al decided that he could design a better scope stand especially for target shooting. He whittled some legs from an orange crate, fashioned some ears from wood to support the scope, and glued the whole contraption together. This he took to the foundry and had them make a casting.

The first person to see the stand was Russel Wild of Rig Products, Inc. "I sold him the stand for \$5. My wife didn't believe me when I told her that I sold my first scope stand," recalls Al.

"That five dollar bill bought three sets of castings, and those too were



A great deal of Freeland's time is spent in his shop where he is the head supervisor for his custom match rifles. Al is not afraid to roll up his sleeves and pitch in when the work load gets extra heavy and shooters clamor for their gun before shooting events.

sold quickly. That \$15 paid for 12 more castings, and that's how Freeland's Scope Stands, Inc. started."

Today between 20-30 people work for Freeland's Scope Stands. It consists of a general sporting goods store and gun shop, with smallbore shooter's paraphernalia and super-accurate .22 target rifles being the mainstay of the business. Some small parts for stands and other shooting accessories are subcontracted, but most of the stuff is made right in the shop which is supervised by Al personally. What target shooting improvements has Al seen?

"In the past 50 years, I've seen a lot of improvements in every facet of target shooting. First of all, I feel that the people, that is the shooters, have improved. Their ability is much better today than it was when I began shooting at the Centennial Rifle Club in Chicago. I think that today's target shooters have learned a greater degree of concentration, and that's what you need in serious competitive shooting.

"Barrels have improved too, but the greatest thing is ammunition. Ammo has been improved tremendously and today's match ammo is beyond the wildest dreams that we had even 20 years ago.

"Stock design, shooting comfort, and many other mechanical devices have also helped. But the ability and the complete concentration of the shooter is still the single most important consideration in target shooting —and that is tops today."

According to this stock maker and builder of custom match rifles, most of the bedding devices are merely a means of covering up a bad or poor bedding job. A good job of fitting the action and barrel into the stock doesn't require bedding. What about free-floating barrels?

"If properly free-floated, a barrel doesn't require bedding. But a good free-floating barrel is a rarity. Of eight or nine barrels, that is free-floated barrels, you'll find that maybe only one or two will shoot well. The electric bedding system has more or less died. There's nothing wrong with the system, but the Freeland bedding system with which I was already experimenting in 1923 made electric bedding obsolete.

"Why use this or any other bedding device if the stocking, when properly done, can take care of all the bedding problems?

"Any wide shot that can be attributed to an overcharge of powder, from rimfire to largest centerfire, can be held in the black by the Freeland bedding system. This bedding will be sufficient to give good scores which may not necessarily be in the match class. You can't improve a good floating barrel, since such a barrel will shoot regardless of bedding.

"But proper bedding or stocking will make a good free-floated barrel shoot even closer. The node in a barrel is that spot in a barrel where there is the least vibration. It is at that point where we try to bed the barrel. If we can control that, we can control the rifle's accuracy. In recent years we have done quite a bit of such bedding in centerfire rifles, and find that even variations in the loads from shot to shot don't affect accuracy to that great a degree, providing we find the node and bed the barrel at the node."

Al's target rifle business is international in scope. A few weeks before I visited Al, (Continued on page 69)

LAWMEN IN ART

By GEORGE E. VIRGINES

THE WESTERN lawman has been the source of more interest and controversy then any other type of frontiersman. He has been the most maligned or the most admired, depending on which side of the fence you might be.

On the frontier he had to be a one man police force and often as not, the judge, jury, and executioner. The position, in those days, certainly wasn't exactly enticing considering that they were under-paid, over-worked, and a constant target for some gunman. At best, law enforcement on the frontier was both primative and bloody.

So the lawman emerged as a legendary figure and became an excellent subject to be captured on canvas of the masters—old and new—of Western art.

masters—old and new—of Western art.

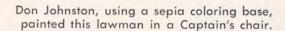
Call them what you may, City Marshal, Sheriff, Texas Ranger, Arizona Ranger, New Mexico Mounted Police, U.S. Marshal, Indian Police or just police, they all helped mould what was to become formal law in the settlement of the West.

Writers and historians all shared in their efforts to seek out the legendary figures who subdued the violence that once was prevalent across the frontier. It wasn't until later years that photographs of some of the famous lawmen began to appear in publications. So, unless he is an avid Western Americana buff, the average Western fan accepts the look of a frontier lawman from the movies. This medium also depicted many costume changes of the frontier lawman. Old time cinema stars such as William S. Hart, Billy Anderson, William Farnum, and others, were presented in a realistic, down to the last detail of sweat and grime, look of the old West. Then in the years of the thirties and fourties, the Western movie hero such as Roy Rogers, Tom Mix, Ken Maynard, Gene Autry. Rex Allen, and many more, became great stars. Their approach to dress became distinctive in design and style, bordering on almost a circus uniform.

Now, as the movies go through another era, the Western lawmen and frontiersmen are being presented more realistically. John Wayne is perhaps one of the all time greats among Western stars who has contributed more toward keeping the Western image believeable, entertaining, and our Western heritage alive.

Ernie Badynski, a prominent bronze sculptor, originally entitled his creation "Half Breed," but added a silver star and changed its name to read "Reservation Justice."





Filtrostrain o

E. L. Reedstrom's portrayal of a Western lawman.

But to turn back the pages of history, one has to pay high tribute to the Western artists of yesteryear. They are the ones who have captured the spirit and color of our West on canvas and have preserved it for future generations to admire, study, and remember.

The list of the many famous artists who have painted the early West and its people is quite long and only a few can be mentioned here.

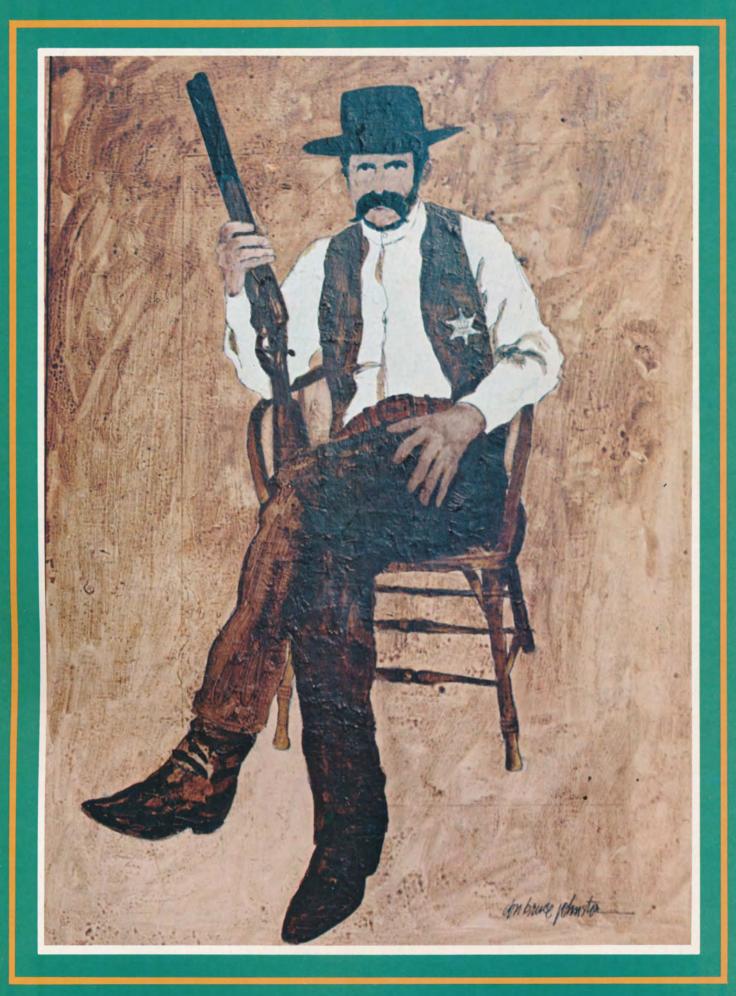
The past works of such famous artists as Charles M. Russell, Fredrick Remington, N. C. Wyeth, E. A. Burbank, O. C. Seltzer, and others have been displayed in galleries and museums. Reams have been written and their paintings illustrated in many books and magazines, so their work is familiar to most people.

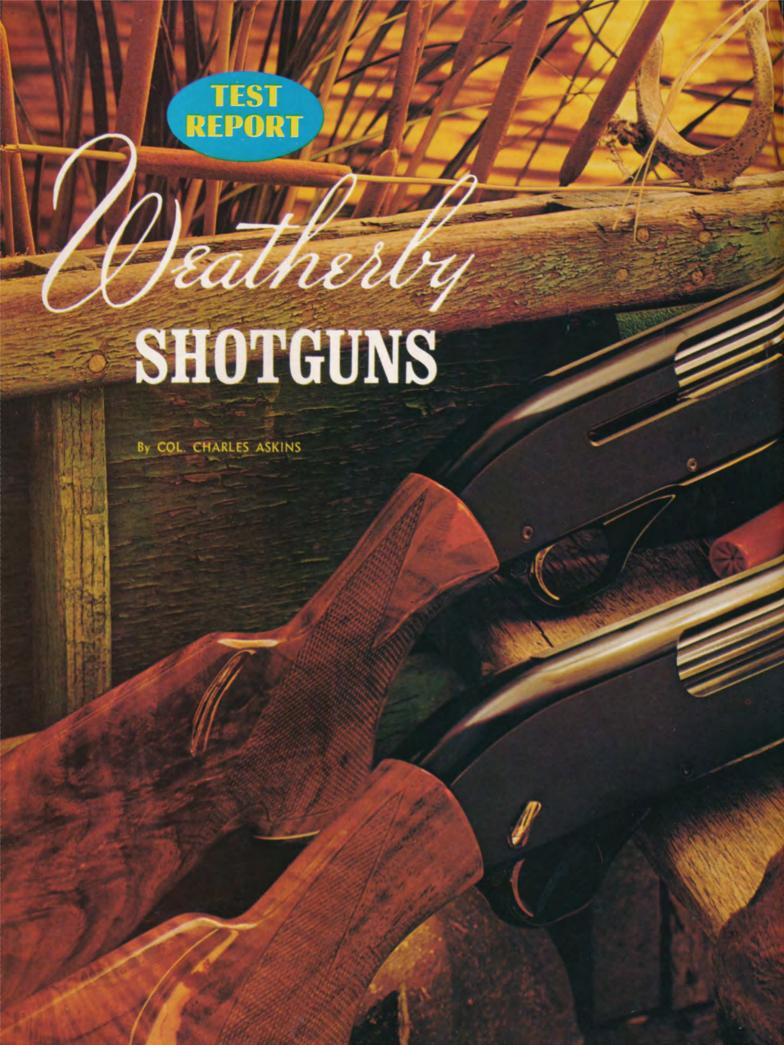
Today, the popularity of Western art is fantastic. Although the paintings of the past distinguished masters are just about untouchable, the art of lessor publicized artists of early years is fast becoming prominent in reputation and artistic value.

In researching and viewing Western art, I noted that the characters portrayed almost always included a frontier lawman. I thought it would be interesting to compare a few of the Western artists of yesteryear (Continued on page 58)



Charles M. Russell, one of the greatest Western artists, painted "Call of the Law" in Montana in 1914.







self-loading kind or one that has to be shuffled.

With this national affinity for the magazine smoothbore it isn't difficult to understand why west coast impresario, Roy Weatherby, when he commenced to design his own shotguns, settled on the most popular pair; 'an automatic and a slide-action pump gun. These models are old hat but their popularity is the staid and settled kind-like mother love and apple pie. When Weatherby, the Cinderella man of the firearms game, took a look at the scattergun

field, told him the repeaters were the hands down choice. He now has a pair.

These are strong, sturdy, thoroughly workable shooting irons. There isn't anything far out, exceedingly novel nor yet kookie about either one. The autoloader has a conventional and well-tested gas system in it; the pump repeater is right down the line. No gadgetry, no gimmicks, no geewhiz features. Both guns are bound to endear themselves to that (Continued on page 56) majority of American

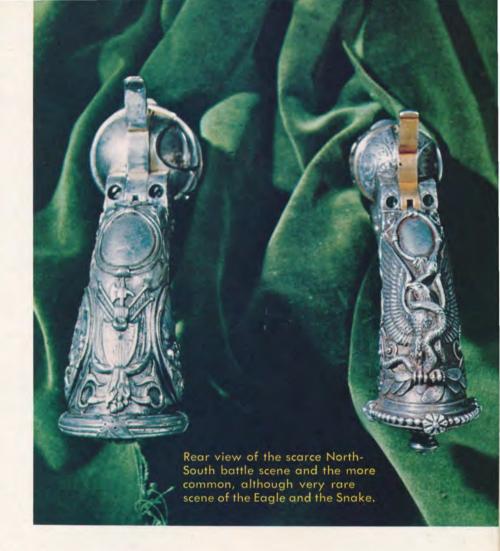




MOST collectors will agree that the "Tiffany Colt" models are the most beautiful of all American guns, and in most cases, even European arms. Once a handgun possesses profuse foliate engraving, done by a precision craftsman such as Nimsche, then provided with ornate pictorial cast grips, very little remains to enhance such beauty.

Because of the rarity, very little has ever been written or published concerning the "Tiffany Colts." This is probably due to the fact that they are scarce and very costly. Most original and authenticated models carry insurance riders and consequently cannot be studied. Also, few are available for comparison and seldom is more than one found in a collection: therefore, experience and knowledge is very limited among even long-time dealers. For example, one of the foremost antique arms dealers reported that they have handled only five since 1951 and only two previously over a period of some 31 years of business.

The engraved Colts with their ornate cast grips, candidly termed, "Tiffany Colts," derived this terminology from the fact that they were customized by Tiffany and Company, noted silversmiths and jewelers of New York City. The firm was organized in 1837 by Charles Lewis Tiffany and his brotherin-law, John B. Young, commencing business at 259 Broadway, and known as Tiffany and Young, expanding in 1841 to include a third partner, Lewis Ellis, changing the name of the firm to Tiffany, Young and Ellis. In 1853, Ellis and Young retired and the name was changed to Tiffany and Company. The firm relocated to 550 Broadway, then in 1870 to Union Square. In 1905 to 5th Avenue and 37th Street, then in 1940 to 5th Avenue and 57th Street, all in New York City, (the later being the current address). From 1860 to 1870 Tiffany and Company offered many services, from arms, accouterments, to general outfitters, not to mention their unique special services such as providing ornate presentation pieces. Early catalogs typify their work by utilizing such word media as: propriety, excellence, balance, magnificence, gorgeousness, precious, artistic, unexcelled, richness, important personages, etc.—all typifying the uniqueness of



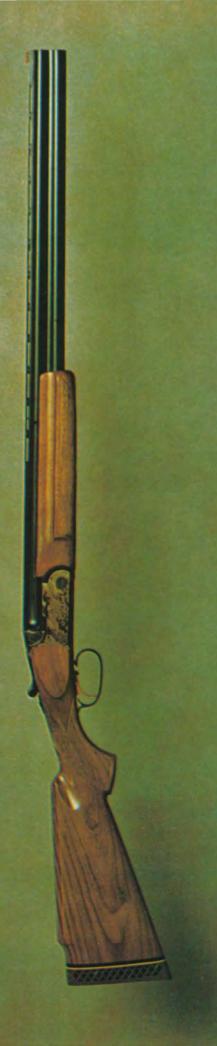
Tiffany's -

OLD and **NEW**

their classic creations. The first "Tiffany Colt" accountable was ordered by President Lincoln as a present to the Governor of Adrianople, Turkey, in recognition for his capturing and bringing to justice the bandits who killed Reverend Phillip Merriman and abandoned his family in the desert to starve to death. The State Department commissioned John Quincy Adams

Ward, a famed American sculptor, to design a cast metal grip. Ward designed the ornate grips with the assistance of John William Orr, a noted wood-cut illustrator, who did most of the border design in the grips.

The basic relief on the cast grips typified the "Missionary" pattern. Only about five specimens are known of this design. (Continued on page 46)



GUN OF THE MONTH

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Simply mail a plain post card with the required information to GUNS Magazine TODAY and you will be eligible for the Aug. contest drawing of this handsome Kleinguenther Over and Under Shotgun. The shotgun has a Poldi steel barrel with chrome lining. The mono-block system combined with a double Purdey receiver lock and box lock action contributes to the reliability of this excellent shotgun. The Kleinguenther comes in 12 and 20 gauge, ventilated matted rib, front and rear bead.

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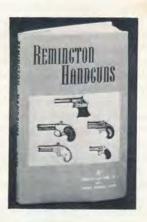
All you do to enter is fill in the required information on a plain post-card and return it to GUNS Magazine. Be sure to enter bottom line information—GM, Sept. GUNS. DO NOT MAIL ANY ENTRY IN AN ENVELOPE! Your name will entered in the drawing to be held Aug. 10, and the winner will be announced in the Dec. issue of Guns Magazine.

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SAMPLE FOR INFORMATION ONLY





Remington Handguns By Charles Lee Karr, Jr. & Carroll Robbins Karr Bridgeport, Conn. (\$2.95)

In 1947, Charles Lee Karr, Jr., and Carroll Robbins Karr, after extensive research, compiled an excellent book titled simply "Remington Handguns." It was immediately hailed as the standard reference on the subject. Not satisfied with the scope of their work, the authors continued their research and, some years later, produced a second edition even more complete and definitive than the first. The book traces the history of Remington handguns starting with the first, a percussion revolver designed and patented by the famous designer, Fordyce Beals. All subsequent Remington handguns are covered completely throughout the book. Copies of "Remington Handguns" can be obtained by sending a check for \$2.95 to: Handgun Book, Box 731, Bridgeport, Conn. 06601.

United States Single Shot Martial Pistols By C. W. Sawyer (WE, Inc., \$5.00)

Probably the most interesting group of American firearms to collectors is that encompassing the martial single shot. After all, the single shot was the only thing the Army, Navy and Militia had in the early days of this country until the adoption of the revolver, and later the automatic pistols which are now standard side-arms in all

branches of the service.

This book has been out of print for over 50 years and original copies are extremely rare as they were paperbound editions. All famous makers are covered in the book, pistols made in U.S. armories, or by private individuals and companies under government contract. Pistols using the flintlock, percussion and metallic cartridge are traced in brief but detailed accounts that fully describe them. There are no actual photographs, but instead, excellent line-drawings, mostly upgraded by E. J. Hoffschmidt, a leading artist in the field of firearms illustration. Though not highly detailed, the drawings do mirror the original guns keeping everything in scale and giving the reader an excellent idea of what the guns looked like.

One of the more interesting guns described in the book is that of the .45 caliber "Liberator" pistol which was the last Secondary Single Shot U.S. Martial pistol manufactured. In 1942 General Motors made one-million of the stamped steel guns at a cost of \$1.71 each. Just what happened to all of these guns is unknown. But the few that are known are extremely rare, to say the least.

For the collector of single shot U.S. pistols, this book is an excellent reference source and it makes for highly interesting reading. H.A.M.

German Secret Weapons of World War II By I. V. Hogg (Arco, \$3.50)

This installment of the excellent Arco series of books titled "Illustrated Histories of Twentieth Century Arms" deals with German secret weapons that were either still under development or actually being used against the Allies. The war-time German claim to have invented completely new "terror weapons" was not all propaganda. This book shows plans and describes details of some of the incredible projects that were under way by German scientists.

Items covered in the book are: Rockets; Homing and Guidance Devices; Proximity Fuzes; Radar and Fire Control Equipment; Target Detection Devices; Artillery, Small Arms and Ballistics; plus a maze of miscellaneous developments of which some were highly brilliant but never got into full production. Also in this section are a number of the original nerve gases. The author reveals spectacular developments such as the glide bomb that sunk an Italian bat-

tleship, an air cannon, and a multibarreled gun to bombard London from a distance of 150 miles.

Much of the research data and materials were destroyed by the Germans as the Allied Armies marched into Germany, but the author has devoted much research and investigation into this subject to distinguish between fact and fiction on these weapons. We think you'll enjoy reading this interesting and well illustrated book of quite "different" weapons. We did! H.A.M.

Flayderman's Book Catalog #5 by N. Flayderman & Co., Inc. New Milford, Conn. (\$.25)

Twenty-five cents won't get you very far nowadays, but your two bits brings you quite a bargain from Norm Flayderman. His latest book catalog (number 5) compares to nothing else in the gun world.

Flayderman's catalog has over 100 pages containing almost 800 titles with just about every single book currently



available and in print on the subject of shooting, military equipment, ammunition, gunsmithing, and related subjects. Norm has every one of these books in stock and ready for immediate sale. This new 1972 issue has been out for approximately six months, so don't waste any time. Mail \$.25 to cover the mailing charges to Norm and he'll see that this fantastic book catalog is part of your arms library.

TIFFANY GRIPS: UNMATCHED BEAUTY IN METAL

(Continued from page 43)

The pair of 1861 Police Model Colts presented to the Adrianople Governor were returned to President Roosevelt in 1945 and later interned in the Hyde Park Library. John Orr is credited with continuing the basic designs for the Tiffany cast grips, along with the aid and technology of Edward C. Moore. Orr's death in 1887 may indicate the absence of production after this date. Although the firm, Schuyler, Hartely, and Graham advertized the "Colt Tiffany Models," such as the following taken from their 1864 catalog, "Style 422, Colt's New Model, 51/2" engraved bronzed handle, plated and gilt," there is no evidence that they were engaged in production of such models but merely the agents for the Tiffany creations. Early Tiffany catalogs show prices up to \$300.

There were three basic cast grip designs, namely, the Missionary, considered the rarest; the highly detailed battle scene commemorating the War between the States, second rarest; and the Eagle and Snake and seal of Mexico, slightly more in number than the other two. This is probably due to the fact that this grip was used to promote early sale of conversions in Mexico after the introduction of the Colt Single Action Army Models, and thus market remaining surplus conversion parts. Perhaps a few points of caution are in order, inasmuch as spurious models are beginning to appear at an alarming rate.

Inasmuch as the value of such authentic pieces vary from \$3,000 to \$8,500 this is indeed attractive to the sophisticated craftsman. Engraving can be duplicated to undetectable degrees. Bronze silver plated castings can also be made using wax castings. Most seasoned arms experts are reluctant to examine a "Colt Tiffany" because of lack of exposure or arms for comparison, this is why little or nothing has been written as an aid for prospective "Tiffany" owners. The number of spurious models and some in the hands of reputable dealers have more than doubled. A few salient conclusions have been derived from an exhaustive study. Inasmuch as most "Colt Tiffany" Models were never extensively used, an almost fine to mint arm should be represented. Cylinder scenes can either be scroll,

rolled, or hand engraved, hammers plain or engraved so this is non-indicative. On larger frame models, such as Navy and Army, the grip butt retaining screw is of a smaller diameter than the customary butt screw, thus on a spurious model this would require brazing, drilling, and tapping to a smaller diameter-readily distinguishable on a Beta Gram X-ray. On the large frame Army and Navy, usually a grip number under the cap will conform in number, type and style to all other matching numbers on frame, barrel, cylinder, etc., readily comparative on a micro-projector. Grips were installed on the 1853 and 1862 frames by milling a square to accommodate the triggerguard strap end. It is well to examine this cut-out as an odd milling cut was required and only the corners will be filed out, the loading edges will show mill marks.

Metallurgically, and in simplifying

the definition of bronze, it is an alloy of copper-zinc-and tin. Specifically, drillings from two "Colt Tiffany" grips were examined on the X-ray spectrometer and Emission Spectrometer and found as follows: Cu (copper) 80%, Zn (zinc) 4%, Sn (tin) 14%, and surprisingly 2% As (silver). Thus in referring to all universal bronze specifications currently in use and previously used over the past 50 years, none conform to those utilized in the "Colt Tiffany" grips, this is due to the fact that silver was added to raise the recrystallization temperature and tend toward finer grain castings. Thus, such a casting would be expensive to produce today and conform with this analysis. Spurious models are probably produced from common brass (alpha-beta) of ASTM B22 Type D Bronze, all without silver. Quality of silver plate used on "Tiffany" grips was 925-1000.

Analysis can be a serious consideration in today's technological world. Papers can be forged, finishes aged to cover various base materials, engravings duplicated, but seldom does the "fake's" renumeration justify even the cost of 65% exactness, so this is in favor of a well-informed collector. Always bear in mind-as the "Tiffany Colt" is the epitome of all collectors, approach bargains with caution.

COMPUTERIZED SUMMARY OF **EVALUATION OF 20 "TIFFANY GRIP-ENGRAVED COLTS"**

20% Blue

100%

Frequency Findings: (100% = 20 Models)Types of Colt Models 20% 1860 Army Percussion Models 5% Conversion of the 1860 Army 30% Conversions of the 1853 Pocket P. of Navy caliber 20% Conversions of the 1861 Navy Model 25% 1862 Police Models using the fluted cylinder

100%	
100 70	Grin Sama
2501	Grip Scene
	Missionary
30%	North-South Fight Scene
45%	Mexican Eagle and Snake
100%	
	Overall Finish

45%	Mexican Eagle and Snake
100%	
	Overall Finish
50%	Nickel
10%	Damacene

Cylinder Type Engraving 75% Basic Floral Type 20% Hand-engraved Std. Scene 5% No engraving, fluted cylinder 100% Hammer Engraved 80% Basic Wolf Head (similar but not alike) 20% Not engraved (All conversions)	20/0	Ditte
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100%	20%	
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20% Gold, Silver, and Nickel

15% Engraved on backstrap disk 85% No presentation markings

Presentation Markings

TIFFANY STYLE GRIPS FOR MODERN HANDGUNS

MR. DEL ZORNADA of the Eagle Art Works, located in St. Louis, Missouri, has long been an admirer of the original creations. One of his ambitions has been to create and produce an ornate grip in a Tiffany fashion but at a modest price of about \$125, and in no way a replica or threat to the past creations. The original grips were made from bronze.

In considering a production of a quality grip, the use of bronze was eliminated because of its lack of strength, easy to dent and fracture during the normal use to which the shooter might subject them. Further

could not be confused with it because of distinct differences. The original "Missionary and Child" pattern showed a young maiden on the rear of the grip, holding a cross and scales, signifying the swiftness of justice. Also on the grip on either side, is shown the brigand faces. The eagle and shield of the United States is located on the butt cap. The grips were designed to fit only the 1849 small frame Colt series, which includes 1848, 1849, 1853, and 1862, all percussions, and conversions of the 1853 pocket pistols to fire the metallic cartridge.



silver plating would not be practical and likewise would be expensive. Another consideration was that bronze could easily be reworked by a skilled craftsman and thus the grip altered to fit antique arms.

After considering many alternatives, Type 304 stainless steel was selected, both for strength and final rust resistant finish. The use of stainless steel for such an ornate casting is by no means a simple task. Type 304 stainless steel has a cast melting temperature of 2550° F. as compared to bronze of 1830° F. Analysis of Type 304 used in the Eagle Iron Works "Liberty Grip" is: .25 C (Carbon), 9 Ni (Nickel), and 27-30 Cr (Chrome).

In the selection of a design, several ideas were considered. Inasmuch as the "Missionary and Child" was the first accountable pattern, it was decided to provide a similar design that would commemorate this grip and

The new stainless steel "Liberty Grip" has the similar motif and style as the "Missionary and Child" except the maiden is holding the American Flag and a banner which is inscribed, "Liberty". Grips are quite different in contour and are designed to fit only the Smith & Wesson small frame models such as: Chief Special, Bodyguard, Terrier, and the Kit Gun.

Grips are mounted on the frame and retained by two precision drilled and threaded Allen screws, located near the butt on either side. Grips are numbered inside as to state and number, such as Oklahoma and also Eagle Iron Wks., St. Louis.

Grips add beauty to the modern arms and enhance the stability of shooting balance. Needless to mention, they provide the collector with a limited budget, a pride of ownership that has long accompanied ornate arms.



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OUR MAN IN WASHINGTON

(Continued from page 20)

tation of power.) "If they had, we would not have had the 1968 Gun Control Act." Another member of Congress (on the other side of the legislative branch) who likes to hunt, confirmed that there is much interest in the area. He pointed out that the bureaucrats in the Departments of Interior and Agriculture would love to take over new responsibility of regulating wildlife on the Federal level.

For instance, the Department of Agriculture this year embarked on a new program that will provide free access to private farmlands in 10 states for thousands of hunters. It is only a pilot program where 50 counties in 10 States will hand out Federal funds, up to \$3.00 per acre. However, if the project goes, there will be millions of Federal dollars in the project in a few years. A lot of factory workers can be expected to take notice that their general tax dollars are going into a project from which they as sportsmen cannot benefit because of the prohibitive price of outof-state license fees.

The anti-hunting groups, too, would

like to have a central focus point!

A review of computer data being compiled by the Interior's program for fish, wildlife and parks, shows where the real hunting clout lies. Hunters and fishermen in 1970 spent \$6,825,571,000, up from \$4,046,440,000 in five years. That same year showed a decrease in small game hunters. The data clearly show that local hunting is dropping and the State governments are trying to make up the decrease by socking out-of-staters!

The data from Interior which does not, at this writing, break down into money spent by out-of-state hunters, will soon be available in more detail, It is known, however, that hunters alone spent something like \$2 billion for food, lodging, transportation, equipment and other expenses. For instance, it is estimated that hunters drank over \$56 million in booze in 1970. Now that is clout. Let us all hope the State Governments take a more sober attitude toward their outof-state hunters who spend like crazy for the privilege of a few days hunting, while the residents shoot game all season.

TUNING YOUR AUTOMATIC PISTOL

(Continued from page 30)

requires a full-strength recoil spring. The spring has little to do with resisting recoil, but provides *all* the power needed for feeding. A weak spring means weak feeding—and that makes failures more likely.

In addition to all this, all the friction-reducing tuning normally performed on accurized guns will add the slight extra edge of reliability by making recoil and counter-recoil smoother, and by making more energy available for stripping cartridges from magazine to chamber. Areas to be smoothed are hammer/slide, slide/disconnector, ejector slot, slide tracks in receiver, etc.

Guns based on the Colt Government Model will also benefit from installation of a recoil buffer of the type made by Dinan. This accessory softens recoil without reducing the energy available for feeding. No such device is available for other designs, though I suppose one could be built by a good machinist for a few bucks.

That generally takes care of the functional aspect of adapting your autos to high performance ammunition. However, there is still the problem of sights. Most guns carry only fixed sights regulated for the standard ball round at 25 yards. High-performance, light-bullet loads will print well below that point-as much as a full foot in some guns. Theoretically, filing down the front sight will bring things together, but most sights won't be high enough for use after that. So, you'll need either a higher fixed rear sight, or a fully adjustable rear sight. Best for the latter is the MMC combat sight which fits most guns without alteration and without a new front sight.

All things considered, any modern auto can be fully as reliable—and a damned sight more effective—with high performance ammunition. It's simply a matter of the right gun paired with the right load and sights —and proper application of all tuning operations discussed.

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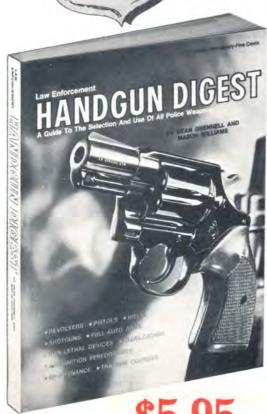
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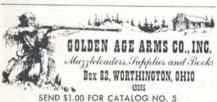
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JAN STEVENSON ON HANDGUNS

(Continued from page 15)

reasonably deep into ballistics, with external and terminal ballistics far overshadowing internal ballistics in reader interest. Closely allied to this was a desire to know what loads give the best trajectory, accuracy, and terminal performance, from a hunting or combat point of view.

And then there were others. All told I suppose there were a couple hundred suggestions for specific topics to be treated-one letter contained sixteen, each extremely technicaland many of these lent themselves to almost limitless extension.

So, in what order shall we serve it all up? What exactly have you to look forward to in the months to come? Such a brace of questions overlooks a crucial factor, and that is that the content of the column is to a large extent a compromise between what I feel like writing about and what the editor wants to see. Generally he wants to see diversity, whereas I prefer to fall onto a congenial subject as onto a diamond in the rough and then to spend months grinding the different facets. Also an enormous amount depends on what chances to be conveniently underfoot on the rare weekend that I can settle in and work.

Still, the column as a general rule will occupy more or less the terrain you have staked off for it; that is pretty well where I wanted it all along, though I refrained from saving so last September, and I was delighted to discover that is where you wanted it as well. As is appropriate these days, however, we will make a special effort to cater to minority interests.

Meanwhile a bit of aimiable tolerance would be in order. As one of you noted so well, "I personally enjoy plinking and hunting. But hold on a second. I believe that one who doesn't study a sport in general severely limits himself. I could hunt without reading about target shooting and remain ignorant or plink without reading about combat shooting and miss excitement."

Or, as another of you put it somewhat magisterially, and I think he was speaking for us all, "I, sir, am a handgunner; I am interested in just about anything about them."

And that generally will be our credo. I want to thank all of you who took time to participate in this; I feel I have gotten to know a lot of you, and you are honestly a great bunch of guys.

PULL! RISING ABOVE YOUR PLATEAU

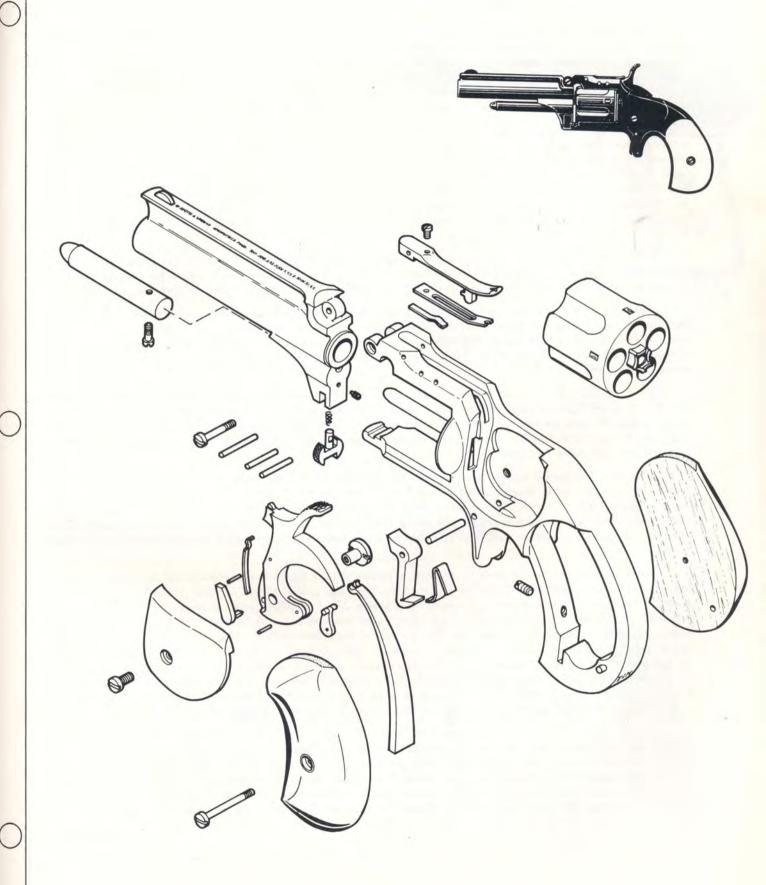
(Continued from page 19)

shooting at the same spots, consider this. By holding the gun loosely or cheeking it lightly on one shot, you may be 1/2 inch, or 1/4 inch from the same spot on the gun as if you were holding tightly or cheeking tightly. This is enough to cause a miss from any of the handicap distances, and in some cases for sixteen yard or doubles.

Plateaus can also be completely mental, especially in handicap shooting. Far too many shooters develop a plateau every time they get another yard. These people decide in advance that they can't break good scores from the new yardage, and as a result, they can't.

There are, of course, some valid reasons for a plateau that have not been mentioned. One of these can be in vision or other optical problems. One shooter I knew who was discouraged got new life when he found that his prescription for glasses was long overdue for change. You can't hit 'em if you can't see 'em.

Personal habits may set up a plateau situation. For example, one shooter I know ordinarily stayed up late, and partyed a lot, except for a big shoot, when he was straight arrow and early to bed. The change in habits hurt him, and he got off a plateau when he went back to normal. The same can be true in reverse. Scores are not helped for the shooter who is normally regular in his habits, but who partys it up before an important shoot. If you are in a plateau situation, one of these factors may be all that is keeping you from moving upward. A little thinking as to which needs action or correction could be extremely rewarding. In any case, good shooting.



SMITH AND WESSON TIP-UP - .32 Cal. R.F.

The revolver illustrated is a good example of the tip-up series of rimfire, metallic cartridge pistols produced by Smith and Wesson from 1857 onwards. These arms were built on a patent of Rollin White for a bored, breechless, cylinder revolver, and were the first to use metallic cartridges. They were produced in large quantities and in several calibers, becoming highly popular as small self-defense arms. Many were carried by officers during the Civil War and it was a favorite boot and hide-out weapon in the West for years. When the patent monopoly expired, a horde of imitations and improved designs flooded the market, but the original retained its popularity.

The pistol is a five shot, single action, rim-fire revolver with a tip-up or bottom-break action. The sheath trigger without a guard, the top cylinder bolt, and the distinctive barrel latch identifies the series. The lock action is simple; the hammer being impelled by a swivel-connected leaf main spring and released by a bent engaging the trigger. The cylinder hand is pivoted to the left of the hammer and is fitted with its own leaf spring in Colt fashion. Revolution is thus clockwise. The cylinder is provided with bor'd through chambers and ratchets at the rear. It rotates on a cylinder pin fitted to the standing breech. As the design provides no room under the cylinder, the cylinder locking bolt is assembled in the top strap. The bolt activating spring is fitted with the rear sight notch. The bolt release is provided by the hammer in this design.

The barrel is hinged to the front of the top strap and locked by a catch projection of the bottom of the frame. A round ended ejector rod is fixed beneath the barrel. This resembles a forward protrusion of the cylinder pin when the arm is closed. However, the actual end of the cylinder pin is seated in a recess of the barrel extension.

Functioning: Pressing upwards on the bottom latch at the base of the barrel extension unlatches the barrel. This may now be hinged open and the cylinder slid forward off its pin. The chambers may be cleared of fired cases by reversing the cylinder and forcing each chamber in turn over the ejector rod. The cylinder is then loaded at the breech in standard fashion and returned to its place. Snapping the barrel downwards automatically engages the latch and the arm is ready to fire.

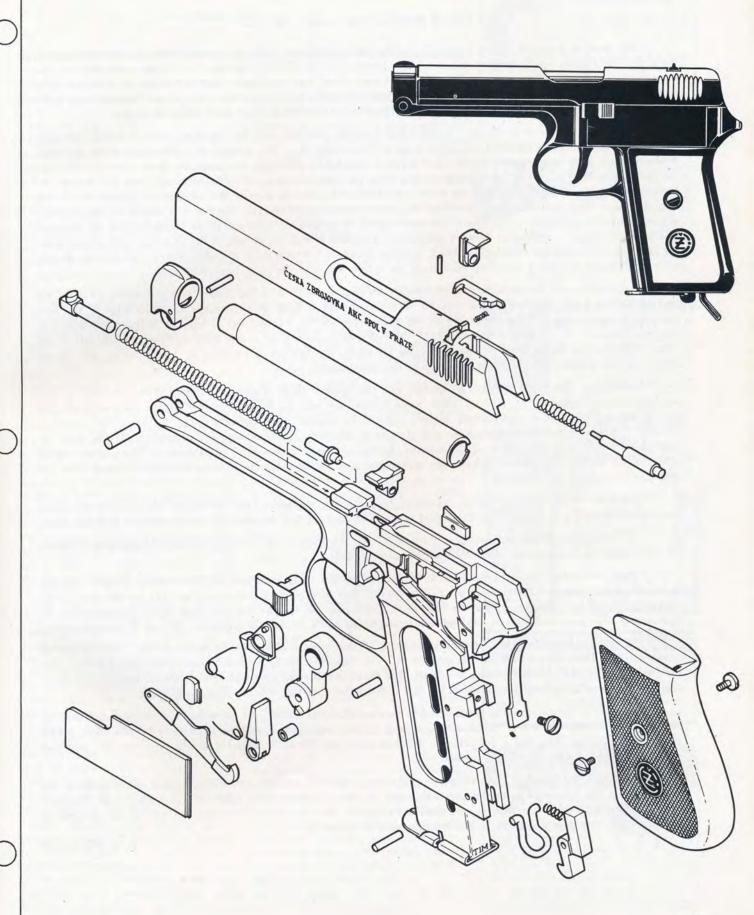
With the first motion of cocking, the upper surface of the hammer lifts up the cylinder bolt spring, freeing the cylinder. With the continuation of cocking, the hammer clears the end of the bolt spring, permitting it to again force down the bolt. Cocking elevates the hand which rotates the cylinder. On the completion of the stroke, the cylinder bolt snaps into the uppermost cylinder recess and the trigger engages the full cock bent. On pressing the trigger, the arm is fired and the cycle ready for repetition.

Stripping: The normal process of loading provides sufficient disassembly for field stripping. Further stripping is simple. Unscrew the barrel hinge pin and remove barrel. Turn out barrel latch pin at rear of barrel extension and ease out barrel latch and spring. Unscrew side plate on left of frame and tap off side plate. Unscrew grips. Drive out trigger pin left to right and remove trigger and spring. Compress main spring to disengage swivel from hammer. Locking bolt and spring are held by transverse pins. Reverse to reassemble. Use care when attaching swivel as it is easily broken.

The illustrated arm is characteristic of types produced in 1859, known as the second model .32. These have fluted cylinders with round barrels fitted with integral top ribs. The early model .32 had a round cylinder and an octagonal barrel. Both weapons have five groove, left hand twist boring. Great variety in detail distinguishes the various models and collectors disagree as to nomenclature. The earliest model seems to be the seven shot, .22 RF with a rounded brass frame, hinged nose hammer and a barrel latch at the rear of the cylinder near the trigger. This was introduced in 1857 and had a 3½" octagonal barrel with a three grooved, left hand twist bore. All models could be obtained with silver or gold plated and engraved frames, and pearl or ivory stocks, as the arm was a favorite presentation piece. The normal finish was bright or nickel plate with wooden stocks. Brass frame revolvers were generally plated. Steel frames could be obtained in case-mottling or blue. The butt appeared in two forms, a bird head shape or a flared end, straight bottom shape. Many of the tip-up models were sold cased, with a box of ammunition. Cased pairs are not unknown.

Evaluation: The tip-up models were made with care and usually have a fine trigger pull. The early rim-fire cartridges were poorly made, with soft cases and sensitive primers. Burst heads and jammed cases were not infrequent, as were occasional prematures due to primers striking the recoil plate on firing or even when handled loosely. Despite this, the convenience of fixed ammunition was enough to guarantee the success of the model. The tip-up model was responsible for many queer arms designed to circumvent White's patent, such as the Moore, Slocum, Bacon and Thuer conversion systems. The arm is now obsolete. (Do not use Hi-Speed .22 ammunition in the tip-up revolver!)

P. A. MIRANDA



CZECH MODEL 1938 - Cal. .380 ACP

This pistol is popularly known as the CZ, double-action Strakonice, from the manufacturer's address stamped on the slide. The weapon was a standard Czech sidearm produced by the Ceska Zbrojovka official arms works, and was also manufactured commercially for export. The pistol was extensively used throughout Eastern Europe, the Germans using it as a substitute standard after their absorption of Czecho-Slovakia. The pistol shows some points of resemblance to the earlier model of 1927 and its prototype, the pocket Mauser of 1910, but it has several unique features.

Although it is commonly known as a double-action arm, the pistol has only the trigger activated lockwork system introduced in the Roth-Steyr model of 1907. This is not a self-cocking arm. The weapon is a blow-back, slide activated, semi-automatic, fired by a swinging hammer and fed by a detachable, nine shot, box magazine in the butt. The slide has the usual integral breech block mounting a floating firing pin retained by a vertically mortised block and a claw extractor on the left of the ejection port cut in the top of the slide. Mating grooves are provided to engage the frame. The slide nose forms a closed sleeve for about 1½", which surrounds the barrel. The barrel is pinned at the muzzle to a block hinged to the front of the frame. The recoil spring is mounted in a trough of the frame forming an extension of the trigger guard. A stud on its forward compressor engages a hole in the bottom of the slide nose and its rear bearing provides tension for the slide locking block. This has splines which engage in the slide grooves. An external thumb-piece is provided to push it forwards, positioning the splines opposite the slide disassembly cuts.

The trigger is of the pivoted type, its rotation drawing forwards a spring loaded sear bar which traverses the left side of the frame. The end of the sear bar is provided with a hook which engages an off-set cam of the burn hammer. A separate disconnector activated by the slide depresses the sear bar out of hammer engagement, except in the firing position. As in the earlier Model 1927, the lockwork is covered by a side plate mortised into the left of the frame, which is retained by a guide groove engaging the slide. The hammer is impelled by a leaf spring and has no bent or thumb grooves. The magazine release is at the butt bottom.

Functioning: The pistol can only be carried with the hammer down. Pulling the trigger draws the sear bar forwards, raising the hammer. At full cock, the hammer escapes the sear bar hook, flying forward to fire the round. The slide is blown back against recoil spring tension, forcing the hammer back and extracting the case. The ejector is mounted centrally behind the magazine, so that ejection is forwards and upwards. On counter-recoil, the slide rechambers a round from the magazine; the hammer, having no bent, follows the slide forwards. There is no manual safety in this design. The slide is locked open on the last shot by the magazine follower, but runs forward when the magazine is removed for reloading.

Operation: Press magazine release rearwards and withdraw magazine. Load instandard fashion. Reinsert. Draw slide fully rearward and release to chamber first round. The hammer will be down. Do not attempt to cock the piece.

Field Stripping: Withdraw magazine. Push slide lock thumb-piece on left side forward. Maintaining pressure, lift slide upwards around hinge. Pull slide off barrel rearwards.

Further Stripping: Push rearward on forward recoil spring compressor and lift front out of trough. Ease out spring. Push out slide lock thumb-piece pin to left, lift out slide lock block. Unscrew grip and pry up side plate cover. Lockwork lifts off pins. Hinge pin may be unscrewed. Unpinning the barrel from the block is not recommended. To disassemble slide, push in firing pin rear and slide up retaining block. Ease out components. Reverse to assemble arm.

The pistol is rather large for its caliber, weighing 26 ozs. empty, with a barrel length of 3¾" and an overall length of 7½". The rifling usually has six grooves with one right turn in 10". (Some models have four grooves.) The one piece grip of 1910 Mauser pattern is plastic. The finish is a fine rust blue with bright polished hammer. The front sight is an integral part of the hinged block, the rear is dovetailed into the slide for lateral adjustment.

A number of variants may be encountered. A rare experimental model was provided with a sear and hammer bent so that the arm was a true double-action, cocked by the slide. Some arms were chambered for the Czech Model 1922 9 mm cartridge. This had a different rim diameter than the .380 ACP. A locked breech type was also produced which is superficially similar in appearance.

Evaluation: The pistol is of excellent materials and is finished superbly, the military model being equal to the commercial in this respect. Functioning is reliable and the design excellent for hard duty and long wear. However, although the trigger-cocking system is very safe, it makes the arm difficult to point and to level at the moment of discharge. The very easy and quick field stripping system is noteworthy.

P. A. MIRANDA

RANGEMATIC:

ACCURATE DISTANCE MEASUREMENTS

(Continued from page 31)

shooting place, as well as putting one decoy directly out at the 55 yard range, fronting my hideout.

Later, during the slow periods between flights of Bluebill, I did considerable experimenting with this range finder, measuring yardages of gulls coming over my hideout, shorebirds prospecting the mudflats, and even a brace of snipe washed off the tidal flats at high slack. With a little practice, I found no trouble getting on flighting birds, and by pre-setting the range marker to within 10 or 15 yards of my targets, I had plenty of time to get an accurate range reading.

Pass shooting Canvasback duck, the range finder certainly paid its way. These, the fastest of all ducks, as well as the largest, came over the small island where I hid. They flighted between the lower and upper section of a lake. There were enough mixed ducks to make out a bag after I acquired a limit of two Canvasback. But it was these two ducks that engaged my chief attention each day I gunned. While the other ducks,-Widgeon, Goldeneye, Mallard, Gadwall,-traded back and forth, came across the small island at 40 to 45 yards range, the Canvasback rubbed the 60 yard mark. Oddly enough, being larger than the other ducks, they seemed to be flighting at about the same range as the lesser species-until I began measuring ranges.

One item in connection with this range finding engaged my attention almost at once, snipe shooting. These small bog jumpers, coming out of the short stubble on overflow land where I hunt them, quite often swing to either side affording a right or left passing shot. Drop one and you can range on either the falling bird or a clump of nearby swamp grass. Ranges are always longer than is commonly supposed. One day, while collecting a limit of eight birds, I managed four passing shots, with the snipe falling at 40, 45, 40 and 55 yards—a plenty long range for snipe gunning.

Such range finding spelled out a gunning contention that I have always held that it is just about as easy to get on target at maximum range as it is to get on target at the shorter distances. The process is the same in either case. What usually cancels out the longer

shot is either lack of individual pellet energy, or lack of pattern density. Both snipe gunning and shooting duck over decoys spelled out the necessity for larger shot in each case. In gunning duck I changed from 6's, with a maximum range of around 45 yards, to long range handloads capable of taking them out up to 60 yards. The snipe gunning spelled out a change from my usual 8's to a 7½ size, as well as indicating full choke instead of the modified barrel that is my usual preference.

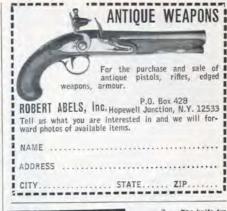
Turning to the other model of the Rangematic, with its calibrations from 50 to 1000 yards, I checked this out on feeding deer time after time. I confined my testing to ranges from 100 to 440 yards. While the instrument is calibrated to an extreme distance of 1000 yards, I didn't go beyond the 440 yard mark, feeling that this is about maximum range for big game field shooting.

Accuracy appeared acceptable all along the line—though this required a bit of practice to get the best out of the instrument. One intriguing factor of this long range model is the interchangeable scales that may be used to show bullet drop over the distance. Suppose you are using a .30/06, sighted in to hit point of aim at 200 yards with a 150 grain bullet at nominal velocity. By inserting the proper bullet drop scale (#7) you come up with the following bullet drop data:

Range	Point of aim	Bullet drop
200 yards	0	.0
250 yards		.3 ¾ inches
300 yards	0	.9 3/4 inches
350 yards	0	.16 3/4 inches
400 yards	0	.25 3/4 inches
450 yards	0	.37 3/4 inches
500 yards	0	.50 3/4 inches

This is excellent, practical field data for those using the venerable .30/06 for hunting. It is typical of the data supplied by the various scales for the Rangematic with all calibers and nominal bullet weights from the .218 Bee, to the .460 Weatherby Magnum. These scales, incidentally, are easily inserted or removed from the range-finder, and give almost instant, practical readings for all ranges out to 500 yards with the larger calibers.

Got a mule deer buck standing (Continued on page 56)







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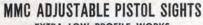
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across a deep Western canyon? You are a bit uncertain about the range. Your 7MM Remington is sighted in to hit point of aim at 200 yards. So-using the proper scale, which you'll have in the range finder to complement the caliber and bullet weight you carry, as well as the velocity, you take a range reading. Game is at the 300 yard mark. You are using a 150 grain bullet. The read-off shows the game standing at 300 yards. Bullet drop will be about 61/2 inches with a dead on hold. Suppose, however, you are taking full advantage of this caliber's long range ability. You'll probably zero in at 300 yards. This has been anticipated. There is a blank scale available so you can write your own ballistic ticket for drop figures-wildcat, special handload, or special sighting-in adjustment.

Operational technique, at least in my case, improved with use. The best, most accurate range findings, came of averaging two or three readings for the longer distances. Where time prevents this, as in taking a reading on moving big game, the best, most accurate readings were made by coming quickly on target, rolling by the indicated reading, then back for the final assessment. This particular checkmate is rapidly and easily done after a bit of practice, and delivered very accurate range readings. It's simply a matter of merging the two images seen

through the eyepiece by turning the yardage dial on the left side of the unit.

All in all, this Rangematic will find hunter use, off-season and in-season. If you are primarily interested in wildfowling and field gunning, obtain the shorter range model. If you are an out and out long range rifleman, obtain the long range model. Get the scales from your dealer that indicates bullet drop for the caliber, velocity and bullet weight you are using. In addition, obtain one of the blank scales so you may enter the bullet drop of your special handload, or wildcat, once you have worked these out.

The entire package, including the holster for the range finder, is modestly priced at \$29.85, at your sporting goods dealer, or direct from Ranging, Inc., P.O. Box 9106, Rochester, N.Y. 14625. The bullet drop scales come extra. You'll find it a nice instrument to play around with this summer, pest shooting. When autumn comes, and you have that moose or elk of a lifetime under your rifle, an accurate range reading may be the one factor that'll give you a clean, one shot kill. The price, measured against that, is very modest indeed. I know that from here on out, I'll have one or the other of these Rangematic models with me where

ever I hunt.

WEATHERBY:

A HUNTER'S IDEAL PAIR

(Continued from page 41)

sportsmen who are looking for sturdy performance.

The auto-loader, dubbed the "Centurion" by the imaginative Weatherby, has a slightly muzzle heavy feeling which contributes materially to a good balance. A gun with the preponderance of weight in the back end never swings smoothly. The Centurion sports an anodized aluminum alloy receiver which provides for a balance farther up forward than most scatterguns. This receiver is sleek and racy in profile and is identical to the action on the Weatherby pump gun. This latter is known as the "Patrician" model—and more about it later.

The automatic holds 4 cartridges when fully loaded. As it comes from the factory it is plugged to contain only two rounds in the magazine, to conform with federal law. The gun is chambered for the standard 2¾" 12

gauge cartridge. The 20 gauge Centurion is chambered for the 3" shell. Barrels are 26", 28" and 30" in length, with the shortest bored skeet, improved cylinder and modified choke; the 28-inch either modified or full; and the 30-inch offered only in full choke. The two guns shipped for field test had 26 inch improved cylinder barrels. These were slightly under standard diameter, both running .725" (.729" is usually accepted as standard cylinder diameter) with a choke in the last half-inch of the muzzle of .005". Patterns with Remington RXP and Federal target loads ran a consistent 38% to 43% for 25 patterns. This is good performance.

I tried a dozen slug loads, the newest S&W-Fiocchi loading, and found for some reason the pump gun shot better than the auto. Just why this would be I could not establish, for

both barrels are identical inside. The slugs grouped into the standard American 25 yard pistol target at 50 yards. Again, good shooting.

The chromemoly barrels on both shotguns sport a raised ventilated rib. It is %" in width and grooved at right angles to the line of sight to break up light refraction. There is only one sight, which is too bad, a second bead about midway of the rib prevents cross-firing. The top of the receiver, in the sighting plane, has been grooved to dampen light reflection but the receiver on either side of this sighting line is blued. The sides of the anodized receiver are finished in a dull nonreflective finish.

These shotguns are not standard models in the customary sense. Roy Weatherby calls them his "standard" models but his rifles are dubbed the same way and all are really deluxe firearms. The shotguns are the same. This is no better evidenced than by an inspection of the quality of the wood in mainstock and forearm. This, according to Weatherby, is selected American Walnut.

I seldom see American Walnut of this grade. And certainly it is selected alright! It is exceedingly handsome with a deep rich grain, covered with a lacquer to bring out its full body and coloration, and meticulously matched in both main butt and forestock. The checkering is all handwrought. It runs an honest 20-lines-to-the-inch and is without any tool over-runs in the borders.

There is a comfortable pistol grip, with a reach from trigger to grip of 31/2 inches, which is very close to perfect for the average hand. The grip is capped with a white spacer and a black crown into which has been set the traditional Weatherby trademark, the ivory diamond. The buttstock is graced by a high quality Pachmayr recoil pad set off with a pair of line spacers, the one black the other white. These stocks are obviously made by a coterie of stockmakers in the Weatherby plant at South Gate, A close examination of the two indicates minor differences which is indicative of the individuality of each stockmaker.

The butt stock on the Centurion runs 14%" length of pull while the pump gun has a stock of but 14 inches. The Centurion indicates a drop at comb of 11/2"; the pump repeater goes 115/2". The Centurion has a drop at heel of 21/8 inches; the Patrician reveals. 21/2". Both shotguns are down pitched differently. The automatic has 15%"; the pump 234 inches. The Centurion weighs 7 lb., 5 oz.; the Patrician is lighter, 7 lbs., 1 oz. These are excellent weights for upland guns, for skeet, and any loading except the

magnum charges. A gun at but seven and a quarter pounds will handle fast throughout the day and leave the gunner still responsive and accurate at day's end. These are distinctly not shotguns for the 11/2" oz. magnum charges customarily fired at ducks and geese. They will belt the hell out of you and take a lot of fun out of the shooting

The automatic is distinctly the lighter on recoil of the two models. It is gas-funtioned and for this reason the sensation of recoil is lengthened and prolonged and thus seemingly softened. The pump gun slams you a whole lot faster. The Weatherby gas system is pretty conventional. It consists of the usual double gas ports located about midway of the tube. The gas jets through these two ports and enters a hollowed-out piston. This piston is drilled through its center and slides on a shaft which is screwed into the front end of the magazine tube. As the piston moves backward under the impulse of the gases it bangs into the operating rods which are attached to a

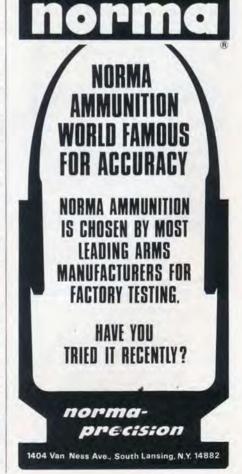
tubing about the magazine.

There are bleed holes in the shaft which supports the piston and in the case of magnum loadings these vents syphon off the excess gases. This softens the blow to the operating rods and the breechbolt. The gases are shunted up forward and escape from the gun through a ventilated magazine cap which is neatly countersunk in the front end of the forearm. Weatherby has purposely designed a lag time in the opening of the breechbolt to permit the shot charge to escape the muzzle before the bolt lock commences to open. It is a very conventional lock, moving into position in the barrel extension. There is a disconnector so you cannot get two discharges with one pull of the trigger. The pump gun has the same disconnector, if anything more necessary in this model, because of the fact that occasionally you see a fellow who forgets to release the trigger when he shuffles the slide. He gets that second shot off a mite before he wants it. This cannot happen with the Patrician

The piston, the magazine tubing and the barrel which supports the twin operating rods are all chromium plated. This obvitates rusting and makes cleaning a lot more handy. The breechbolt is also chromium finished and is grooved after the inimitable Weatherby fashion. The Mark V rifle bolt is grooved. It is pretty apparent where the designer got his idea for also grooving the shotgun breechblocks. This feature helps to improve the movement of the bolt, it contrib-

(Continued on page 58)







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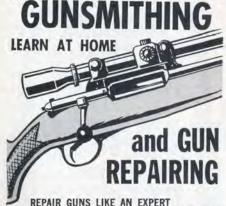
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utes to self-cleaning, and eliminates a tendency to bind or cramp. The shell carrier is also chromed, a good wrinkle for the carrier, if it is of common stock, tends to rust. The trigger is gold-plated-a rather needless touch, I thought. The safety is the cross-bolt type located in the near end of the trigger guard. A conventional button on the right side of the Centurion receiver serves to release the bolt. On the Patrician there is a handy little lever on the receiver just above the trigger which when pressed will unlock the action so the slide can be shuffled. It too is gold-plated.

The trigger assembly is completely conventional. It is readily removable by drifting out two tapered pins. A worthwhile feature of the Weatherbys is that neither gun has a screw in it.

Guns may look quite appealing and certainly these latest from Weatherby seem to have everything, but how well will they shoot? That is the test of the pudding. After all, a shotgun is a tool, a device for hurling a shot charge, and if it will not direct that load of pellets where the gunner dictates then regardless of its beauty of line and frame it is worthless.

Unfortunately, the test arms arrived when the hunting season was closed. It would not be possible to shoot any game for a month or more. However, skeet has no season and there was every reason to try both models on the winging clays. Both guns are bored improved cylinder, an excellent choke for the short range sport. Plug gauges indicated there was only .005" choke in either barrel. This is about as near perfect for skeet birds, bobwhite quail, grouse, snipe and woodcock as you can achieve. I hurried off to my favorite skeet grounds.

I shot 50 targets with the auto-

loader, firing the new Remington RXP target load, it contains 11/8 oz. of No. 81/2 shot ahead of 3 drams of powder. The score was 49. I then switched to Federal Champion target loads, 11/8 oz. of No. 9 with 23/4 drs. equiv. of powder. With this load I got a straight 50. This made a 99 for the first hundred shots out of the new gun. Despite the fact that the stock is a mite too straight for skeet shooting I had no trouble with it. A straight stock is apt to cause you to over-shoot an occasional target, but this did not happen. The gun performed flawlessly. It accepted the change from Remington plastics to Federal plastics and never bobbled. I tore the gun down after the shooting stint and found the powder residue easily wiped off the chromed surfaces of the gas system.

Immediately after the 100 shots with the Centurion I swung over to the pump repeater. I fired the first 25 shots with RXP and a following 25 with Federal, Because I have been shooting autoloaders and the over-/under at skeet these last few years I was a bit poky with the slide. I came out of the 50 targets with a 48. The gun swung and moved and pointed quite as smoothly and as effortlessly as had the Centurion and because the stock is not quite as long and has a bit more drop at both comb and heel I believe I pointed it better. But I was a trifle awkward with the pump and this probably accounted for the two lost targets. A half-dozen rounds with the pump would serve to sharpen me up again and I would handle it quite efficiently.

These are finely designed and meticulously assembled shotguns. Quality of a most pleasing kind is obvious throughout both arms. I'd predict both will appeal to a host of discriminating owners.

CANVAS LAWMEN: PORTRAIT OF AMERICAN HISTORY

(Continued from page 38)

with the Western artists of today, especially their interpretation of a frontier lawman.

Charles M. Russell was perhaps one of the greatest of Western artists. He had lived during the harsh times of early Montana and saw first hand all of the characters that made up frontier life. In one of his colorful paintings of 1914 entitled, "The Call of The Law," he shows a lawman on horseback wearing the heavy clothes of a cold Montana and displaying his badge with one hand and holding a

Winchester on a pair of surprised law breakers. Russell worked as a cowboy on cattle ranches in Montana and could have witnessed a scene like this. Every detail is captured in this picture, from the Bull-Durham bag hanging from the pocket of one outlaw to the complete surprise on their

Another famous artist whose illustrations have contributed greatly toward preserving the feel of the old West is Newell Converse Wyeth, who could be called the "Painter of Men in

Action." His technique and talent captured a real atmosphere of the wild west in each of his paintings. Even his many illustrations that appeared in Scribner's, Harper's, Collier's, McClure's, and many books are now becoming collector's items. When you speak of N. C. Wyeth you are speaking of a famous family of artists. His son Andrew is a distinguished and famous artist of today. His daughter Henrietta (Mrs. Peter Hurd) is held in high esteem internationally for her portraits and, of course, her husband is the famous New Mexico painter, muralist, lithographer, and illustrator. Another daughter, Ann Wyeth is married to Mr. John McCoy, a water colorist of note. N. C. Wyeth was a dedicated painter, and he, too, lived the Western roles he depicted on can-

One of his dramatic paintings of a frontier marshal and his posse is a fine example of his interpretation of a Western lawman. This was painted in 1907 to illustrate the book "Langford of the Three Bars," by Kate and Virgil D. Boyles. Looking at it, you can almost feel and taste the alkaline dust kicked up by the possemen's horses.

Ellbridge Ayer Burbank, is probably lessor known as a Western artist, but never the less is highly talented in portraying the West on canvas. He is especially noted for his very fine painted portraits of numerous Sioux, Cheyennes, Crows, Moquis, Utes, Osages, and Arapahoe Indians. Some very fine examples of his Indian art work is contained in the famous art collection of the Hubbell Trading Post in Arizona.

Burbank also did unique portrait sketches of three famous men in Western frontier history, Wild Bill Hickok, General George A. Custer, and Colonel Buffalo Bill Cody. Illustrated here is the likeness he did of one of the most famous lawmen, Wild Bill Hickok.

The list could go on and on of the many talented artists who have portrayed the West and its lawmen on canvas. Their works are well preserved throughout the country in museums and private collections.

We are fortunate that today a new breed of Western artists are lending their talents in displaying today and yesterday's West. In a way, they have taken on a task that presents different problems from the past masters. First, they have to strive for originality and not let the art of Russell, Wyeth, Burbank, and others affect their style or technique. The successful artist of today has to research with photographs, artifacts, and a collection of

(Continued on page 60)







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assorted Western relics to depict any scene or character of the early frontier. The proof that the contemporary artist has accomplished this can be seen at the many museums, galleries, and collections that exhibit their work.

I am fortunate that several of these fine artists agreed to execute a piece of work exclusively for this article. Here for the first time ever published, are several excellent examples of their interpretation of a frontier lawman. Unique to this presentation is that all of these gentlemen are involved in different fields of art. One is a art teacher in a high school, another an art director and supervisor for an advertising agency; still another a magazine and book illustrator; and finally, a famous cartoon strip artist. This makes a most interesting cross section of artists and their interpretation of the frontier lawman.

Ernie Badynski of Santa Fe, New Mexico is the high school art teacher. He is prominently known throughout the Southwest for his bronze sculpture work. Although he has done some fine oil paintings, sculpture is his first love.

As illustrated, his contribution is a fine bronze originally entitled, "Half-Breed." Because of the silver star added to this particular bronze he retitled it, "Reservation Justice." This unique piece, representing an Indian Policeman, is number 5 of five originally cast in the lost wax process. It stands 15 inches high on a solid walnut base with "Badynski" burned into the base.

In my interview with Ernie I wanted to know why he picked this particular character as his interpretation. I quote his answer; "As with most good Western Art this bronze tells a story. All of the great cowboy artists had this factor in their work, the title of the painting or sculpture sort of draws you into the story."

But like many artists, Ernie is modest in his description and choice. So I took the liberty to add my interpretation as I viewed his bronze.

Title it what you may, but this gaunt figure tells the whole story at a glance. As you look at this emancipated loner, the past, present, and future are revealed. His clothing, hanging on his meager frame suggests the poverty, hunger, and loneliness of the past. The present is revealed in his chosen job by the shiny star worn proudly and boldly on his chest. The tool of his trade, a shotgun, clutched in his bony hand will decide his future; hunt the lawless, kill or be killed.

Ernie Badynski has just completed

two more Western bronzes. One entitled, "End of a Buffalo Hunter" and the other "Hold Out." His work is currently displayed at the following art galleries; 22 Gallery, 222 E. Cincinnati, El Paso, Texas.-Canyon Road Art Gallery, 710 Canyon Road, Santa Fe, New Mexico.,-Gold Key Art Gallery, 88 W. 5th Ave., Scottsdale, Arizona.-Marshall Field & Co., 111 N. State St., Chicago, Ill.

Don Johnston of Richton Park, Ill. is an art director and supervisor for a large advertising firm in Chicago. His paintings are prized possessions in many private collections throughout the country. He has directed and specialized his talents to the frontier lawman and outlaws.

In his contribution he painted his interpretation of a lawman seated in a Captain's chair, popular and common in the old West, holding a sawed-off double barrel shotgun as he surveys the scene before him. Don chose a sepia type coloring, remarking that he sees the story of our Western frontier as a giant sepia tin-type photograph. In his opinion, old photos are the closest tie we have to the true character of the West. One thing else he mentions is the fact that the artist of today has the advantage the old Western artists never had and that is we are able to take only the positive and most romantic aspects of the older days. They do not have to live through the undesirable aspects of those days.

Don is currently preparing a large collection of his unique Western art work for a one man show to be held at the Marshall Field & Co. Store of Chicago, Ill. In this group of art he will be depicting such characters as Belle Starr, Billy the Kid, Earp Brothers and Doc Holliday, Wild Bill Hickok, Jesse James, and others in a most dramatic and original rendering.

An artist who is fast becoming well known and respected for his authentic paintings and book illustrations of the Civil War and the early Western frontier is writer and illustrator. Ernest Lisle Reedstrom of Cedar Lake. Indiana. His work is outstanding in every artistic medium and his attention and knowledge for detail give his art added significance.

Reedstrom's pen and ink sketch presentation of a lawman shown here is clearly original. His choice is unique and fresh. Much research is reflected in the clothing and dress of this frontier character. Note the coat, vest, tie, and hat all show the astute attention given details. This is characteristic of Reedstrom's artistic talent.

His own painting of "Custer's Last

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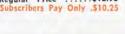
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SWISS GUN SHOP: A GUN COLLECTOR'S PARADISE

(Continued from page 33)

one wanders around, you pass stacks of cartons containing a variety of pistols, cases of rifle scopes, boxes of ammunition and a staggering variety of bits and pieces relating to guns and parts thereof. All these items would be tempting targets for pilferage but, strange as it may seem, such losses are miniscule in Switzerland. Stock is arranged generally by type of weapon; that is, one wall is devoted to shotguns, another is devoted to large caliber rifles, another for small caliber rifles, and the far wall is divided between air arms and match rifles. Pistols and ammunition are placed in cupboards below the rifle racks. Scattered throughout the floor area are racks of pistol holsters, rifle slings and cases, a large pallet with hundreds of boxes of shotshells, and so on all around the two rooms. The weapons in the shop can come from anywhere in the world and they usually do. There are rifles and pistols in profusion from Spain, Italy, Belgium, France, Germany, Austria, Hungrary, Japan, Czechoslovakia, the USSR, the US, and England. One can browse to heart's content among Walthers, Mausers, Hammerlis, Steyrs, Ferlach drillings, Brownings, and among lots of other items rarely, if ever, seen in the US. There are curved brass hunting horns nestling against glove-soft German shooting jackets and a powerful crossbow hangs casually from a hook close to a tray of Japanese-made hunting whistles.

All Europeans are fascinated by the American West and its wild history of shootouts, rustlers and rugged cowboys. Even in staid Switzerland, the Western buffs are pretty numerous and in Siegrist's shop window, one sees two Winchester 94 commemoratives beckoning, as it were, to the passerby. Strange as it may seem, Siegrist has in stock more models of Colt and Smith & Wesson handguns than can normally be found in a gunshop in the States. He has stacks of sought-after weapons, such as 83/8 inch barrelled Smiths, nickel-plated beauties, and a whole bevy of types which go for a premium in the States. There are even some types which are now discontinued in the US, but these won't be replaced, of course, once

present stocks are exhausted. Before driving you Guns readers nuts with the goodies I saw in the used-gun racks, let me tell you about some of the modern weapons I found in the shop. Thanks to the Gun Control Act of 1968, American shooters and collectors probably won't be seeing items like these for awhile—at least not in the forseeable future at any rate.

My own taste runs in the handgun line and Siegrist has plenty of Walthers like the PP's, the PPK's, the little TP's and the fabulous TPH. He also has a model or two of a little cutie called the Korriphila, a tiny doubleaction all steel auto pistol which comes in .25 ACP and .22 Long Rifle, I saw for the first time a series of Czech BRNO handguns which, on the outside at least, look like dead ringers for Colt handguns. The two I personally examined were .38's but I was told that .22's are also available. One, called the Model Grand, is a 5 inch barrelled revolver which is a wee bit smaller and daintier than its Colt look-alike, the Official Police .38. The other is a stubby, 2-inch barrelled carbon copy of the Detective Special which goes by the name of Model ZKR 590. Both pistols are all steel and are finely blued in the standard BRNO manner. Each weapon comes in a plain cardboard box which contains a cleaning rod, a test target, a guarantee card and an instruction booklet printed in English. The price is considerably below that of their US counterparts and it would be a great pity if such fine handguns were to be denied to US shooters because of government red tape or politics. Now that one US dealer is importing the sturdy BRNO shotguns, perhaps these fine pistols can also find their way to the US via another enterprising importer.

In a small corner off to one side of the sales room, Siegrist keeps the second-hand pistols which draw local collectors like flies. These items are kept in a side drawer and on the day that I dropped in to gather material for this article, the drawer held a like-new S-42 Luger with matching numbers, a tiny engraved Walther Model 9 which looked like it had never been fired, an NRA-excellent Colt Official Police in .22 Long Rifle

caliber, some small odd-ball auto pistols whose names were unknown to me, and a small Spanish copy of a nickel-plated H&R tip-up revolver in .32 Short Colt caliber.

On different occasions, I personally scrounged from that little drawer eight brand new Model 1929 Swiss commercial model Lugers with consecutive serial numbers! This was quite a find because only 1,917 weapons of this kind were ever manufactured. This treasure trove was originally turned up by Siegrist from a local factory which had purchased the weapons for the purpose of arming its employees at the outbreak of the Second World War. When the Germans didn't invade Switzerland, the Lugers were placed into storage in their original grease and only some twenty years later was the decision taken to sell the guns. Siegrist was contacted and he grabbed the lot.

On another occasion, I found a like-new Latvian Luger lying casually in the drawer and needless to say, I wasted no time in laying claim to this gem. By the same magic or business acumen, Siegrist regularly turns up Bolo Mausers, rare Walthers, and a whole range of wild collector's pieces. The strange thing of it all is Siegrist's conception of Luger values—he considers a Luger a Luger and they all go for the same price! So, whether one turns up a rare Luger

variety or a run of the mill German military model, they are all treated the same and some pretty fantastic bargains can be had at times. I think if you mentioned the name of a handgun, sooner or later a representative model of same would turn up in that strange little drawer on one side of this ordinary, yet fascinating gunshop.

One firearm accessory which is rarely seen by American shooters is the pistol or rifle silencer. In Switzerland, these devices are as common as boxes of chocolate and adding silencers to weapons is one of the most common gunsmithing jobs Mr. Fellmann is asked to undertake. The shop, however, limits the installation of silencers to smallbore rifles and pistols as a matter of policy. Local law doesn't mention silencers but Mr. Siegrist himself has decided that these items are best handled carefully. Local sportsmen really go for these silencers in a big way because the local gentry enjoy backyard or basement target practice and the use of silencers cuts down on noise levels and neighbor complaints dramatically.

Most of the available silencers require threading of the gun barrel for installation but there are types which merely slip over the muzzle of the weapon. These types are held in place by a bayonet-type slot on the silencer which is twisted into place over the front sight base. Nevertheless, silencers are readily available for sale and if a customer wants to buy one to do with as he pleases, he need only plunk down the going price which is normally less than the price of a box of ammunition. The silencers work well and the bayonet types slip easily onto the business end of Browning .22's and on the longer-barrelled smallbore Beretta pistols.

Another common pistol accessory in Switzerland which is not often encountered in the US because of Federal laws is the pistol shoulder stock. Many local shooters, for reasons of convenience or preference, like to have their favorite pistols fitted out with detachable shoulder stocks, Thus, you can see Lugers, Browning HP-35's, and other handguns—both (Continued on page 64)





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automatics and revolvers-neatly rigged out with detachable wood, metal or folding stocks. This freedom from stifling regulation, as far as the law-abiding citizen is concerned, is one of the most striking differences between gun controls in Switzerland and the US.

The used rifle rack is located in a cupboard in the back room and at the time of my visit, the cabinet contained a Mannlicher-stocked Dumoulin carbine in .308 Winchester, a sleek Winchester Model 63, a couple of fancy Browning and Beretta shotguns, several odd military conversions, and a couple of inexpensive .22's. I also saw a couple of Hammerli match rifles, a gaggle of 98k Mausers, and a group of M1911 Swiss Army rifles converted to .22 Long Rifle caliber. While wandering around and wishing I could afford all the guns I got my hands on-notwithstanding the fact that the going prices were considerably below that for the same weapons in the US-I stopped for a moment and watched some of the customers who were streaming into and out of the shop. The clientele of the Armurerie des Bastions is truly international and in the space of just a few minutes, I saw an Italian buy a small chrome pocket auto, a Frenchman pick up a fancy Smith & Wesson target revolver, and an Indian putting his cash down on a fine quality German shotgun. When I asked about the kind of clients seen in the shop, Mr. Siegrist showed me order sheets for weapons destined for royalty, ministers, and assorted bigwigs from all over the world. This is not too surprising as Geneva is the headquarters of all sorts of international organizations and many of these types buy their weapons, both sporting and defensive, from Mr. Siegrist. When they go back to their own countries, they remember the quality of the service they received in Geneva and they tell their friends. The result is that Siegrist is constantly busy filling orders from the four corners of the world for collectors pieces and for modern arms of all kinds. Another result from a decade of honest and hard work is the fact that the Armurerie des Bastions doesn't advertise but this hasn't affected the business to any measurable degree.

In the bigbore rifle line up, the most popular calibers are the European types which is only natural for this part of the world. On the shelves around the salesroom are boxes of 7 x 64's, 8 x 57J's, 9.3 x 64's and so on. Because of the wide use of drillings and single shot break-open guns, rimmed cartridges are very popular and these are available in many calibers and bullet weights. Several US calibers are also popular with Swiss shooters but these are usually in the magnum class-particularly the 7mm Remington Magnum and a flock of Weatherby types. Some real thumpers for English bigbores are good sellers, too, in view of the international outlook of the shop. These disparate cartridge types must be stocked to meet the needs of local hunters who bag their game in Africa, Asia, or just about anywhere. Ammunition labels also run the gamut from the large US manufacturers through RWS, Kynoch, Fiocchi, Gevelot and down to some Russian types. In brief, if you can't find ammo in Switzerland for your shooting iron, you must be shooting something that belongs in a museum.



Karl Fellman, Swiss gunsmith, hard at work.

Riflescopes are common accessories and although one can usually find Weaver, Redfield. and Bushnell scopes on the shelf, the most popular types appear to be the German brands. Zeiss, Hensoldt, Nickel and other brands sell well and by all standards, these are glasses of outstanding quality. For the Swiss shooter with a limited budget, several low-price Japanese brands are available as well. One interesting scope which is available for the BRNO bigbores is an East German Zeiss scope which is incredibly bright and clear —a real pleasure to sight through. The price of this glass is much less than its West German counterpart but the built-in mount appears to be made only for the grooved BRNO receiver.

On occasion, the Armurerie des Bastions receives requests for strange gunsmithing work but as long as the requests do not strike Siegrist as being unethical or illegal, he will approve the work. For example, Mr. Fellmann had to saw the barrels off some pretty nice shotguns some time ago to meet a client request and Siegrist approved the work. Why? The requestor as an ex-king who lives a life of comfortable exile in Geneva but who hasn't given up his favorite sport of hunting. His Highness wanted a sure-fire snake killer and he asked Siegrist to doctor up two of his shot-guns. Other odd characters sidle in from time to time and make similar requests, either for silencers for their Saturday night specials or for modifications to weapons which would make them into machineguns. Siegrist turns these types down with monotonous regularity.

The shop is equipped with the standard tools of the trade—lathes, drill presses, and a variety of other equipment, but the main work is done by the patient hands of Fellmann. The workshop area is a clutter of frames, barrels, parts and piles of other bits and pieces which make up the symphony of wood and metal which are fine modern and ancient weapons. Just being able to poke around in the stuff is a great pleasure for any gun nut, regardless of nationality.

One of the glaring differences between a Swiss gunshop and its American counterpart is the ready availability of Iron Curtain weapons. Besides the two BRNO handguns mentioned previously, there are Hungarian copies of the Walther PP, BRNO rifles, shotguns, and combination guns. Also of interest to shooters, are several varieties of Soviet target handguns which come in neatly fitted hardwood cases complete with oil cans, screwdrivers, weights, and other accessories. Soviet shotguns are popular to a degree because of their relatively low price, but their quality is nowhere near that of even the lowcost Spanish jobs on hand. The Spanish weapons are generally of good quality considering their price range and their comparison to the Soviet guns is made only to provide readers with a point of reference. From time to time one can always find at Siegrist's some very fine English scatterguns which have been brought in for trade or for sale from the estate of some deceased collector or shooter. The same holds true for other quality arms, such as Francotte double rifles, which turn up occasionally. Of course, the fine weapons move fast as local gun buffs are always on the prowl to see what they can turn up. It's all part of the fun, of course, to slip away from one's job during the day and to drop into Siegrist's place for a looksee. Swiss gunshops are very different from their German counterparts in that the Swiss generally let you manhandle the guns on display as you see fit. The Germans, on the other hand, will raise Hell if you so much as try

to put a finger on a weapon without their very strict and formal approval.

Fellmann devotes the same care to all weapons lying casually around the shop, be it work on a submachinegun or to an exquisite shotgun of English or Belgian manufacture. Confidentially, he confesses his preference for work on the fine guns as this sort of work presents an artistic challenge: the run of the mill gunsmithing on the other items can be something akin to straight machine shop drudgery. When one gets a good look at the quality of the work turned out by the back room crew at the Armurerie des Bastions, one can easily understand why there are many devoted customers the world over.

While neither the largest nor the smallest, perhaps, — nor even the ritziest—gunshop in Switzerland, the Armurerie des Bastions is to my mind a typically Swiss gunshop, operating and staffed by typically Swiss craftsmen to whom weapons are more than just a business. For wandering American hunting and shooting buffs who may pass this way, a visit to a Swiss gunshop would be a rewarding experience. Even if you don't find what you are looking for in the way of guns or accessories, at least the skiing and the scenery are great.

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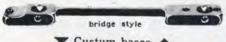


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TOKAREV: THE RUSSIAN GUN GENIUS

(Continued from page 27)

was worthy of consideration and ten specimens were ordered to be built for testing. Subsequent tests brought forth suggestions for improvement, but by this time Tokarev had developed an entirely new design. This weapon was recoil operated also, but utilized a bolt sleeve which cammed open a turning bolt and also acted as an accelerator in pushing the bolt to the rear. As well as incorporating some of the suggestions of the Testing Commission, Tokarev reduced the total number of parts required. This new rifle was tested against competing designs and although the results were favorable, no decision was made to produce any.

Not easily discouraged, Tokarev presented a model with further improvements in 1913. This time it was recognized that this rifle deserved very serious consideration, and the Testing Commission requested that twelve additional rifles be built for further tests.

Here fate stepped in and in spite of Tokarev's efforts and the favorable reaction of the Testing Commission to his designs, his position as a designer was placed in jeapardy. It seems that the Czar's Treasury was more interested in various other proposals and was not sympathetic to requests for funds to be spent on the salary of an arms designer. In one of the decisions concerning Tokarev's association with the Sestroretsky Arms Factory, it was indicated that ". . . the Treasury bore the daily expense (3 ruples per day) given to said officer for a period of 31/2 years . . . and has decided to inform those in charge of the development program that the present permission to pay these daily wages will be the last and will not be extended."

An extension was granted however, because of the persistant pleas of the development commission. One of their requests for extension stated in part "Tokarev makes all of his rifles himself, with his own hands, and that possessing outstanding designing abilities, at the present time has perfected so satisfactory a rifle that to drop work half done is unthinkable."

During the following year Tokarev presented an even more improved version. Again the tests of his rifle resulted in much praise but little action —explained at least in part by Russia's involvement in the war and the subsequent revolution. Tokarev's duties during the war are unknown, but it is recorded that he was named as Technical Director of Arsenals in 1918. His directorship did not seem to deter him from designing for while he abandoned his old rifle designs, in 1921 he introduced a light-weight modification of the Maxim machine gun. The Maxim had been in production at Tula Arsenal since 1905 and the then-standard M1905/10 weighed 40 pounds empty. Tokarev's aircooled version, undoubtedly influenced by the German M1908/18, brought the weight down to 281/2 pounds.

Tokarev's modification was recommended for adoption by the Russian Army and given the designation MT (Maxim-Tokarev) when it was found superior to competing light machine guns in tests held in 1924. It must be noted that further tests of production versions revealed several objectionable features. It was found that the corrections required along with the incorporation of several design changes recommended resulted in a gun so changed from the original that major re-tooling would be required. Production of the MT continued, but the gun received limited usage by the Russians. Many however, saw service in the Spanish Civil War.

In 1925 the Russian government gave serious consideration to the replacement of the Nagant revolver used by their armed forces with a more modern weapon. Several designers including Tokarev were requested to design and build automatic pistols meeting certain requirements set down by an Advisory Committee. Although Tokarev welcomed this assignment, he did not work at it to the exclusion of all others and during the following year submitted a sub-machine gun for testing. This was the first gun of this type designed in Russia and it offered selective fire through the use of two triggers. Designed to use the then-standard 7.62mm revolver round, a curved magazine was utilized in an attempt to feed these rimmed cartridges without jamming. While the design showed promise, testing was unsatisfactory due to feeding problems.

It appears that Tokarev was not content to work on one design at a time for in 1929 when he was about finished with the work on his automatic pistol, it is recorded that he demonstrated a new type of aircraft machine gun with a very high rate of fire. Details of this gun are unknown.

In 1930, Tokarev's pistol was submitted for testing along with others of native and foreign design. Test results showed Tokarev's entry to be far superior to the others and a pleased Testing Commission recommended that the pistol be adopted by the government. Officially designated the "Pistol TT Mod. 30", production was instituted at the main arsenal at Tula. Early attempts at mass production brought to light certain problems that could be eliminated only by a change of design. Acting at the suggestions of production engineers, Tokarev modified several of the parts in his design so that they could be more easily manufactured. This improved version was later designated the TT-33 and its manufacture continued relatively unchanged at Tula until 1949. The TT-33 design was not abandoned however. Post-war production was instituted in Poland, Hungary, Yugoslavia, and China, Declared obsolete by the Russian Army in the 1950's, the TT-33 is still the standard pistol of many satellite nations and of China.

Although involved with details rel-

ative to the production of his automatic pistol, Tokarev's energies were again directed toward the development of a semi-automatic rifle. It is recorded that he submitted experimental models for testing in 1931 and again in 1933. Although no details of these tests are available, it is thought that the rifles were versions of a gas operated design by Simonov. The M1936 semi-automatic rifle adopted in that year is officially credited to Simonov, but it is reported that Tokarev was responsible for the development work that led to its adoption.

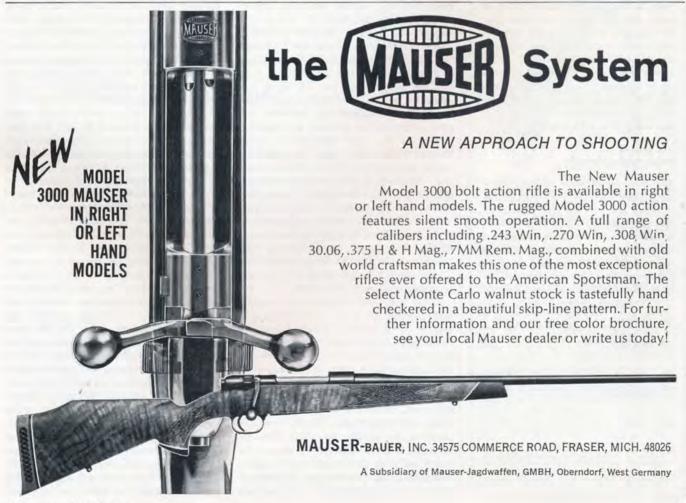
While considerable quantities of the Simonov rifle were built, they were not considered sufficiently reliable for general issue and were utilized in the field as supporting weapons for machine gun units. Tokarev experimented with Simonov's basic design and evolved a new design which was adopted in 1938 under the designation Tokarev M1938. Production of the Simonov was discontinued, and existing facilities were converted to produce Tokarev's rifle in quantity. Within two years, Tokarev had made certain improvements in his design that were considered important enough to warrant adoption, and again tooling was changed to produce the new version designated the M1940. Throughout

subsequent production, various other minor changes were made including a carbine, variations in stock design, and different muzzle brakes.

The adoption and production of his rifle saw the fulfillment of Tokarev's life work and a grateful Russian government publicly recognized his contributions. In various ceremonies in 1940 and 1941, Tokarev was named a Deputy of the Supreme Soviet, awarded the Stalin Prize, received three Orders of Lenin, awarded a Gold Star Sickle and Hammer, received the title Hero of Socialist Labor, and was conferred with a Doctorate in Technical Science.

Here the story ends. If Tokarev is still alive he is now 100 years old. If Tokarev is dead, no records can be found to indicate when he died or from what cause. Sources in Russia were most courteous in helping in research, but could provide no information on Tokarev's life or activities after 1941.









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LINSEED AND PYRO: RETURN TO THE GOOD OLD DAYS

(Continued from page 23)

ably in his footsteps Charles Askins Jr., tutored by his father, was soon outshooting him and shooting better with the pistol than many a casual rifleman. He went on to become pistol champion of the United States several times! Colonel Askins knows all guns and his articles in Guns magazine have always had a wide audience. Handloading fans found much of interest in the writings of Earl Naramore, J. R. Mattern, J. Bushnell Smith and Philip B. Sharpe, all of whom wrote volumes on the subject.

The "Rifleman" did much to introduce and popularize cartridge designs such as the .22 Hornet, conceived by Captain Grove Wotkins and aided and abetted by A. L. Woodworth and Capt. G. A. Woody. Pressured by Col. Whelen, Winchester produced the Hornet cartridges before any commercial rifle was available to fire them. The year was 1930. Watkins may also be credited with pioneer work that culminated in the .220 Swift when he teamed with J. B. Sweany in renecking the .30-06 and .250-3000 to .22 caliber around 1934.

Ned H. Roberts necked the 7x57 M/M cartridge to .25 caliber to create the .25 Roberts. Charlie Newton had previously tried the same thing as a rimless version of his .25 Krag but passed it by. By 1934 the factory engineers had revamped the Roberts version slightly and offered it commercially as the .257 Roberts. In 1937 gunsmith Hervey Lovell reported on necking the .25-20 S.S. to .22 to create the .22-3000 Lovell whose modern counterpart is the .222 Remington. Here again, research proves that rifle wizard Charles Newton had made up a cartridge that was the spittin image of the R-2 Lovell to develop a 2000 F.P.S. pistol prior to World War One! There wasn't much that the unsung Charlie Newton hadn't tried.

Prior to WW 2, there as a wild and wonderful era of wildcat cartridge development. Duplication was multifold. A few were good, most mediocre. Lyle Kilbourn of Whitesboro, N.Y. created an excellent improved Hornet by blowing out a shoulder on his case, the K-Hornet. The best of my own wildcats copied this idea when I moved the .25-20 shoulder forward to create the .255 Dean. I found it superb but too powerful for many existing guns and was forced to soft pedal the interest that "Rifleman" reports had generated. A modern

counterpart, the .256 Winchester Magnum was encountering similar difficulties when I visited Ballistician Mert Robinson in 1962.

Between the two World Wars, the N.R.A. Service Company sold some real bargains in shooting equipment. Some of the greatest bargains imaginable came from the creation of the Department of Civilian Marksmanship, the D.C.M. This government agency ushered in the real glory days: the days of Linseed and Pyro! Some of our finest gunmakers, amateur and professional, got their start on the super bargains offered by the D.C.M. The prices would vary from time to time and you had to add a few dollars extra for "packing and shipping", usually in wooden crates! The .45-70 trapdoor Springfield was \$1.50. The Model 5 Ross .303 Straight pull sold for \$3.55. The 30-40 Krag Jorgenson only \$1.50 (carbines slightly more). The .303 British Lee Enfield was \$3.50. The 7.62 M/M (.30 cal.) Russian Nagant rifle, new, at \$3.44. The .30-06 Enfield 1917, \$7.50 used, \$12.50 new. The .30-06 Springfield could have been purchased for \$15.00 and up to 45.00 for a "Springfield Sporter", new. Also some Springfield Model T heavy barrel match rifles with pistol grip sporter stocks and star gauged barrels went for about 50.00 new!

Yes, some rifles and pistols were sold after the Second World War also and articles were written about how to sporterize them but the gunsmithing stories written between the wars are my favorites. Alvin Linden wrote many of the best. The hobby of sporterizing military rifles worked something like this: You ordered a D.C.M. rifle and then carefully followed the "how to do it" stories in the "Rifleman". You learned to cut down and refinish the stock. Remove or rebuild some of the metal parts. Affix new or handmade sights, checker or carve the stock and sometimes polish and reblue the metal. The D.C.M. sold various military type ammunition components; cases, primers, bullets and powder. Among the powders was one which we all used and it gained a certain fame. It was called Pyro D.G. or more simply "Pyro." This powder seemed to do well in most any centerfire bottleneck case of military size. The Winchester 110 grain hollow point bullet, designed for use in the .30-30 could be "souped up" to 3000 feet per second or more in the Krag,

Russian, Springfield or Enfield rifles and was a "standard" woodchuck load of the era.

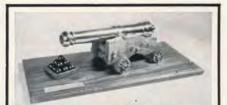
Linseed oil and love was the favorite stock finish. You thinned the first few coats and rubbed them into the wood that you had sanded and wet and whiskered and sanded again so fine that it was bone smooth. Then you followed the old rule of rubbing a few drops of warm linseed into the stock, "Once an hour for a day . . . Once a day for a week . . . Once a week for a month . . . Once a month for a year . . . and once a year forever."

When you had finished dismantling and remodeling your D.C.M. rifle and reassembling it and testing handloads for it you really knew that rifle. N. R. A. members who went through the whole cycle of available rifles and rebuilt and loaded for each one, would end up as experts in gunsmithing, handloading, target shooting and ballistics. A wide spectrum of gun knowledge that certainly set them apart. They really lived and loved the shooting game. I am proud to say I rebuilt every rifle in the line with one exception, the .45-70. How I wish I had one now! I fired many and it was a real laugh to have to step through the smoke to check the target!

Space does not allow mention of all the old writers. There was Kendrick Scofield, Major Julian S. Hatcher, J.V.K. Wager, Allen Tedman, Monroe Goode, Harvey Donaldson, J. W. Fecker, Frank J. Kahrs, Elliott Christian Lenz, Fred Ness, Ralph Waldo Miller and a host of others. Pulling out a stack of old Rifleman magazines can cause you to burn a lot of midnight oil They are hard to put down. I even sneaked in a couple of stories of my own and the magazine seems to have survived.

It's fun to look back, but we have to look forward, too. We now have over a million members. Strangely, the old books show that the same anti-gun people were active over the years and the National Rifle Association has been steadfast in upholding the rights of the citizen to retain his sporting and target arms. Then as now, poor judgement and misdirected public sentiment have caused the passage of poor laws that tend to punish the weapon rather than the criminal who uses it. It is like I said; there were good times and bad times.

But always the good times have far outweighed the bad. Like the days when we learned to rebuild the old military rifles into cherished sporters. To refinish and rub down the satin smooth stocks with the warm oil with its pleasant aroma. To smell another familiar aroma as we handloaded the home cast gas check bullets and seated the Frankford Arsenal primers in fresh brass. Those were the days . . . of Linseed and Pyro!



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AL FREELAND: DEAN OF SMALLBORE SHOOTING

(Continued from page 36)

he had shipped centerfire target rifles to two marksmen in South Africa. One of the guns reached its owner just before the last match of the season. Never having won a big match, the fellow managed to snare the South Africa Championship with his new

About 10 years ago, Al was one of the first to receive the coveted 1600 Award at Camp Perry. This honor is bestowed upon a shooter who fires a perfect score over the four courses (50 meters, 50 and 100 yards and 75 feet). In 1966, Al took time out from supervising his shop to set a new world's record—an incredible 400 39x's at 100 yards. Since the 1600 Award was begun, a great many shooters have fired the requisite score to be honored in this manner. Al considers it a good omen for target shooting in general, and for smallbore shooting in particular, that so many

shooters compete for top honors.

As a competitive shooter and prime supplier for smallbore target shooting equipment, Freeland can evaluate trends in this area better than anyone else. He points out that most of the co-educational colleges around the country always restricted rifle shooting to boys. "I find it very exciting to see pictures of girls competing, shoulder to shoulder with the boys, for places on the teams," says Al. "East Tennessee College is one such example. There is Susie Smith from Minnesota, and many other girls are coming into target shooting. They used to think that target shooting was an all-male sport, but now the girls are beginning to find out that they can compete, and they compete well.

"If a young shooter can't make the grade, either the coach is at fault, or the shooter doesn't try hard enough. And you have to be gifted for target



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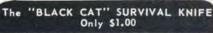
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shooting. It is a challenging sport and to be good you must work at it, just like in any other competitive sport. Some people are more gifted than others. Gary Anderson is one such shooter

"Look at Anderson when he shoots. You have never seen a crazier or more unorthodox position, and I wouldn't recommend it to anyone. But for Gary it works. The same can be said for Wiggers. He cants the rifle as much as Gary."

Al feels that the competitive shooter should avail himself of all the permissible mechanical aids. As long as the competitor adheres to the match rules, and shoots well, he should not be corrected. He cites the Phoenix Matches in 1970 as an example. Shooters from other countries flocked to the Freeland stand in Commercial Row. They stood patiently in line, hour after hour, to buy equipment that they had never seen before in their own countries. Al insists that those aids are not crutches, but are designed to relax the shooter physically so that he can concentrate fully on the sight picture and the trigger squeeze.

As a concrete example that target shooting is on the upswing, Al cites some interesting facts. These days, a new smallbore shooter can buy an excellent commercial target rifle in any gun shop or sporting goods store. Anschutz, Remington and Winchester make high quality rifles for target shooting, and as a consequence, Freeland builds fewer custom guns.

The same holds true for International type rifles. Commercial guns are being produced here and in Europe, hence fewer custom guns are being produced. However, many shooters who take their paper-punching seriously will eventually order a custom rifle, or will have Freeland modify and practically rebuild one of the factory guns.

That there is a change in the smallbore field is evident, according to Freeland. The British B.S.A. is an extremely fine gun and Al's shop used to produce around 30 custom match rifles a year on the B.S.A. action. Many of our top-ranking shooters have Al re-work their factory match rifles, the customized gun often costing slightly more than a B.S.A. built up from scratch would have cost them. Since the accessories sales have reached an unprecedented high, and there seems to be no end in sight as far as demand is concerned, it looks as if Al's prediction is correct-target shooting is not only here to stay, but interest is growing. Could it be that we once more will become a nation of riflemen?





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JANA INTERNATIONAL COMPANY DEPT. 60 P.O. BOX 1107, DENVER, COLORADO 80201 The people from Bausch & Lomb introduce an inexpensive, lightweight rifle support system which improves shooting accuracy called the "Accu-Pod." It is intended for the use of varmint shooters, long-range big



game hunters and for sighting-in hunting rifles. It is an aluminum bipod, adjustable in height from 6½ to 11 inches, which slips on the rifle and is held in place by an elastic strap. Its 5¼ ounce weight makes it easy to carry in the field. Accu-Pod's price is \$5.95. For Further information, contact Bausch & Lomb, 635 St. Paul Street, Rochester, N.Y. 14602.

Back in the 1930's, Daisy introduced a B-B gun, the Red Ryder Model 40, which became the most popular gun in the 86-year history of the company. Now those many owners of that great all-time favorite are fathers wanting



their sons to experience the pleasure of owning a Daisy Red Ryder. That is why Daisy has introduced the commemorative Red Ryder B-B carbine which is stirring the memories of gun enthusiasts. This replica, even to the burned in Red Ryder lariat signature on the wood stock, is pictured with the designer of the original Daisy Red Ryder gun, Robert O. Wesley. For further information, contact the Daisy/Heddon Company, Rogers, Arkansas, 72756.

SHOPPING GUINS

O. F. Mossberg & Sons, Inc., North Haven, Conn., has introduced the Model 810B Center Fire Rifle in 7m/m Remington Magnum as part of their fine line of bolt actions. The 810B is a big game rifle, built for accuracy and ruggedness by Mossberg craftsmen. The 810B has a Damascened bolt with a deep blue shaped bolt handle, and four in-line locking lugs for smooth operation and increased strength. Action cocks at the



opening of the bolt. The recessed head of the bolt covers the cartridge base and the rim for added safety; there is a positive extraction and ejection.

The stock is made of genuine American Walnut and features a high gloss finish. The custom checkered stock sports a Monte Carlo comb and cheek piece, with sling swivels being standard. The 24 inch barrel with crowned muzzle is highly polished and deep blue finished to match the receiver. The weight is approximately 8 pounds with the overall length of 44 inches. O. F. Mossberg has been manufacturing firearms since 1919 and this is another quality piece. Write O. F. Mossberg & Sons, 7 Grasso Ave., North Haven. Conn. '06473.

Hawes Firearms of Los Angeles is introducing the all new Federal Marshal. This handsome full size sixshooter is available in .357 magnum and .44 magnum calibers at nearly one half the price of other single action revolvers identical in appearance and quality. Features include deluxe case hardened steel frame, solid ordnance steel parts, deluxe blued finish, modern floating firing pin system and handsome genuine walnut grips. Rugged, accurate and fun to shoot,

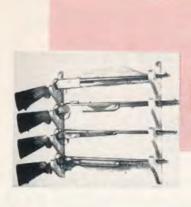


this revolver sells for \$99.95. For complete details, write the Hawes Firearms Co., 8224 Sunset Blvd., Los Angeles, California.

A new addition to the quality line of cutlery in the U.S. has just been announced by J. A. Henckels Twinworks, Inc. The line consists of four hunting knives; the Steelhead (Model 911) is a modern Bowie-type knife with a clipped point, the Bison (Model 922) has a straight edge blade with a little curve to the point, the Bullmoose (Model 933) is an all-purpose



blade, and the Sabertooth (Model 944) has a curved blade especially suited for skinning big game. All blades are hot forged of high carbon no-stain steel. The handles are fitted genuine stag horn. Blade, finger guard, tang and butt cap are forged from one steel blank into a single indestructible one piece unit. The sheaths are heavyduty cowhide and can be looped over a belt. Write the J. A. Henckels Twinworks, Inc., 1 Westchester Plaza, Box 127, Elmsford, N.Y. 10523.



GUN RACK

with genuine Indian stag handles, chrome-plated bolsters and a brass lining. The hinge is chromoly and the spring is plenty strong to obviate the danger of a blade closing on the skinning hand. There is no blade lock, which is a pity. There is a thong hole in the heel of the knife, but no belt pouch. I have had one made by my local leather man and shall give the PIC import a trial during the big game season. Col. Charles Askins.

Handgun Sight

It's a safe bet the majority of the big-bore autoloading handguns in use are ex-military or else commercial versions of military models, and most have fixed sights intended for the standard military ball load. The venerable Colt .45 Auto and Browning H-P are classic examples. When using handloads or any of the newer H-V factory loads, those original rigid sights don't look where the bullet goes.

Lots of replacement rear sights are available, but all the previous adjustable models are by nature so high that the front sight must also be replaced if they are to be used. To make matters worse, many models require larger dovetails or other cutting on the slide to accommodate them, and they often require special holsters.



Not so with the new "Combat Sight" from Miniature Machine Co., 212 E. Spruce, Deming, New Mexico 88030. This little \$14.95 gem lies so low on the slide of the Colt .45 Auto and the big Browning that the old front sight matches perfectly. Better yet, the MMC unit slips right into the original rear sight dovetail without any machining whatever. You might have to stipple the bottom of the old dovetail to get a tight fit or clean it up with files if it's been battered about -but nothing more than that. This unusually low height also means the MMC sight fits easily into a holster and isn't nearly so likely to get banged about as those towering target models.

This unit is adjustable for both windage and elevation, the former by the usual slotted screw, the latter by a small socket-head screw bearing on the top of the slide. Both provide ¼-inch clicks at 25 yards when installed on the standard Colt Government Model slide; greater spacing will give less value to the clicks, and vice versa. On the shorter Colt Commander, each click comes to about %2 of an inch.

The sight is quite simple and compact, comprised of only seven parts, including the windage clicker. It comes complete with mounting instructions, Allen wrench for elevation adjustment, and a capsule of Loc-Tite for sealing the screws after zeroing. At \$14.95 you get the plain black rear leaf; for a buck extra the notch is outlined in white.

Personally, I think this is the most likely adjustable field and combat sight to come along since some unknown pistolero figured out how to put a S&W revolver sight on the big auto's. Maj. George C. Nonte.

Rancher's Knife

The Precise Imports Corp., NYC, have a dandy gutting-skinning knife made in Japan. It is a folding job with two blades and so big that it needs a belt pouch to pack it comfortably. The first blade, made of chromoly steel is for sticking; the second is for gutting. These blades are 3% inches in length, of 3/32 of an inch in width at the back, and 3/4 of an inch in depth. The knife takes a good edge and holds it against a variety of uses. I have been cutting leather for the repair of three old saddles and a half-dozen halters and the blades show no sign of losing their sharpness. The knife has a length, closed, of 5 inches, a weight of 7 ozs,

George Brothers

The famous Lin-Speed, that irreplaceable stock finish, is made by a single individual. I used to think that "George Brothers" were two hombres, but George assures me he is the sole owner, proprietor, and chief cockalorum, and that his last name is Brothers and that he has no actual brothers. Be all that as it may, the stock compound manufactured and distributed by him is in a class by itself. Now our good Lin-Speed merchant has something new. This is an allsteel cleaning rod for the .17 caliber. Made of surgical steel, with a ballbearing handle and a built-on jag-tip, the rod is 35 inches long, as strong and flexible as a good fly rod and bound to be a boon to .17 caliber owners. The first .17 cal I owned was neglected until I finally converted a length of welding rod into a cleaning tool. There simply were no rods on the market and a .22 rod would not pass down the bore. This high quality instrument from the inimitiable George Brothers, Great Barrington, Mass., will fill an urgent need. Col. Charles Askins.

Maverick Rifle

The new Maverick model rifle by the Ranger Arms Co., Gainesville, Texas, is designed for the family of short cartridges such as the .22-250, .240 WM, 6 mm, 6.5 Rem Magnum, .284 Win, .308 and the .350 Rem Magnum. The action is built for either the right-hander or the southpaw. Average weight of this short-action Ranger is 71/4 to 71/2 pounds. Barrels run either 24 inches in No. 3 contour, or 22 inches in No. 2 contour. The tubes are all slick and there are no iron sights on any Ranger rifle. There are three grades of the Maverick, together with a fourth which is a benchrest single shot. Standard grade sells for \$300. The stock wood is Claro or English walnut, handcheckered, with Rosewood pistol grip cap and maple

spacer. The ventilated recoil pad is standard. A slope-away Monte Carlo, together with a cheekpiece and roll-over comb is standard. The forestock has somewhat squarish lines, which, as far as I am concerned, makes for more comfort and security.

The Mayerick action is machined from SAE 4340 steel, the recessedhead bolt locks up with 3 large lugs, it is grooved to prevent stickiness, chromed and engine-turned, with 3 gas escape ports in its body, plus two in the receiver ring. The bolt-lift is only 60 degrees which makes for speed and ease of operation. The bolt handle is angled sharply rearward which in effect shortens the length of pull of the stock and thus makes it easier to function. Especially in cold weather when the gunner will be wearing a heavy outer coat. There is a conventional claw-type extractor and a spring-loaded ejector. The bolt release latch is in the front end of the trigger guard.



The trigger is a Ranger design, adjustable for weight, over-travel and movement. It is held in the action by two guard screws which in turn pass thru and are locked into the receiver. The receiver is held in the stock by 3 screws altogether. The firing pin travel is .2969" and is exceedingly fast and quite positive. This extremely short throw together with the speed is not so critical in the hunting rifle but Ranger also makes the Maverick in a single-shot benchrest gun and it is here that the short speedy firing pin really means something!

There is a simple push-button safety located in the forward ring of the trigger guard. It does not effect the bolt which can be used to safely load or unload the rifle. There is a hinged floorplate. Capacity of the magazine is 3 cartridges. Ranger Arms sells the most of its rifles, both the newer Maverick and the older Texas Magnum complete with scope and mount. Unless otherwise specified the scope mount will be the Conetrol two-piece, but any scope may be specified.

The barrel is a Douglas Premium tube, 6 lands and grooves, 1-turn-in-9-inches, 22 inches in length, with a weight of 2 lb 7 oz, caliber 6.5 mm Rem Magnum, on the test rifle sent

forward for evaluation. There is a big recoil lug and the barrel is glassbedded into the stock to a point 4 inches ahead of the receiver ring.

The stock, with the barreled action pulled out of it shows an extremely high degree of inletting skill on the part of Ranger stockmakers. The fit of the recoil lug in its mortise in the stock was extremely well done. This juncture had been glass-bedded and the bearing was complete between stock and bolt.

Trigger pull on a dead lift was 4 lb 3 oz. It was constant without creep or over-travel. The bolt moves freely and easily, the engine-turned finish plus the short-throw of the opening makes for fast rapid fire when desired.

Fired for group at 100 yards using regular factory 6.5 mm 120-gr loads the results were satisfactory for this light hunting rifle. The test gun ran 8 lb with Conetrol mount and Redfield 1X-4X scope. This is an exceedingly handsome and sturdy rifle, fast-handling and good fitting. In the 6.5 Rem magnum caliber it is superb for such game as whitetail and mule deer, caribou, sheep, pronghorn and black bear. Col. Charles Askins.





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(Continued from page 59)

Campaign" a 60" by 45" canvas which involved 5 years of research and 3 years to paint, has been accepted by many prominent authorities as one of the most authentic depictions of this famous battle. Reedstrom's fine art illustrations have appeared in Guns Magazine, and other Western type publications. He has done some remarkable illustrations for such authors as Lawrence A. Frost of "The Custer Album", Fairfax Downey of "Fife, Drum and Bugle", Carl W. Brehihan of "The Complete Authentic Life of Jesse James". He currently finished doing the jacket design, endsheets and chapter art for a new book entitled "The Gunfighters" by Dale T. Schoenberger. And, of course, he illustrated my own book, "Saga of The Colt Six Shooter."

One man whose contribution to Western lore is perhaps in a lighter vein but still cognizant of the early West is Stan Lynde, creator of the popular and world wide read cartoon strip, "Rick O'Shay." His story was told in the May issue of Guns Magazine. The enthusiastic reception that Rick O'Shay has been received from all who have viewed and read the strip is a credit to Stan Lynde, a real Westerner, and artist.

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In closing I would like to extend my gratitude to the following people who made this article possible with their kind cooperation and assistance. Harold McCracken, author of many books including "The Charles M. Russell Book"; Les Beitz, Author of "Frontier Relics" and very knowledgeable in Western Art; Mrs. Margaret E. Files of Thomaston, Maine, avid collector and fan of N. C. Wyeth; Miss Mildred Goosman, Curator, Western Collections of the Joslyn Art Museum of Omaha, Neb.

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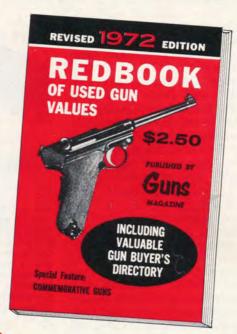
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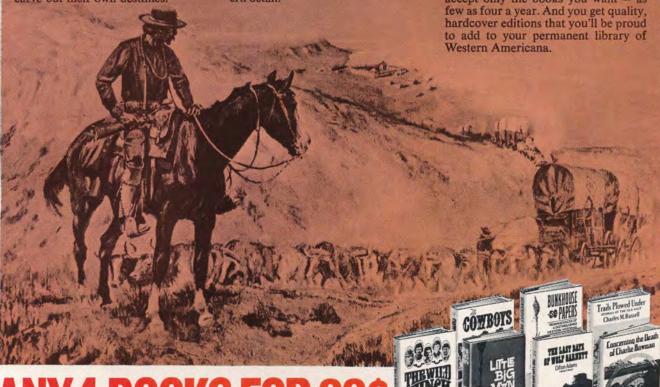
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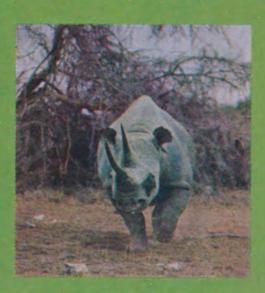
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