JUNE 1967 75c

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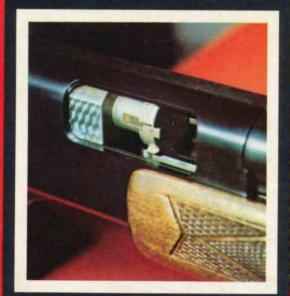
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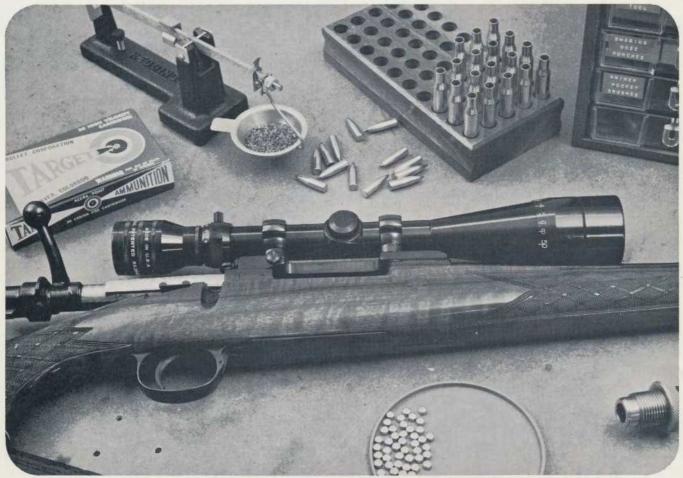
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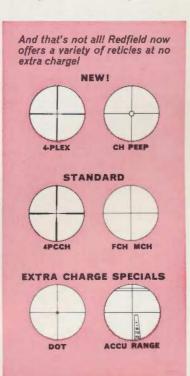


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TRIGGER TALK

EADING OFF THIS MONTH, James E. Serven, dean of Western gun writers and collectors, tells us about the deadliest and mostfeared firearms of them all, the shotgun. The Buntline Special and Marshal Dillon's "hawglag" notwithstanding, the shotgun loaded with buckshot was considered the most effective weapon by experienced gunmen on both sides of the law. Lawmen like John Slaughter used one, as did the "po8" bandit Black Bart.

Col. Askins gives us a double-barreled test report this month: one on Remington's new high power, centerfire rifle, the 788, and one on Thompson-Center's single shot pistol, the Contender. Don Simmons has another "toolless" stripping job this month, this time on the Walther P-38. Bob Mandel reports on the Sahara's Gun Show, which featured Colt's. The famous "Missing Walker" has finally turned up and was displayed at this show. One of the most interesting technical developments to come along in many a year, an electric gun sight, is discussed by Harry O. Dean. This new sight is being marketed by Sears, and offers a single sighting plane, like the normal riflescope, though it does not magnify the image.

Reviewed in our "Guns and the Law" section is a new product, Chemical Mace, which could very possibly revolutionize relations between police and the criminal element. When used, there have been no outcries of "police brutality" and attacks on police officers have been reduced up to 50 per cent.

Next month Guns will have a feature article on a little known development in the Vietnam War, the use of snipers by American commanders. Using highly tuned rifles with 12 power scope, these specially trained GI's are daily making shots you wouldn't believe. Because they can travel in twos and threes and can stay back at very long ranges, these snipers can beat Charlie Cong at his own game, guerrilla warfare. Not only is this a new tactic in the use of troops, but it also is a reversal of the trend toward use of short to medium range arms with very high rates of fire.

THE COVER

The modern shotgun is the feature of our Color Gallery and cover photos as well this month. Winchester's 1200 slide action features a front-locking rotary bolt and a complete system of interchangeable barrels. Photo by Frank Eck.

JUNE, 1967 Vol. XIII, No. 6-150

George E, von Rosen Publisher

Arthur S. Arkush Ass't to the Publisher



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E. B. Mann Editor In Chief

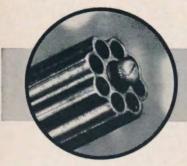
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COLLECTOR'S CORNER

By ROBERT MANDEL

Be not afraid of any man no matter what his size; when danger threatens, call on me and I will equalize.

THE ABOVE RHYME found engraved on the grips of a Colt percussion revolver tells, in many ways, the story of firearms. For hundreds of years the firearm, be it cannon, musket, or pistol, has been the badge of authority and the means of protection for man. The early history of firearms is still somewhat unknown. It has been said that they were developed from the cannon, but a better guess would be that they really evolved from fireworks or more specifically, the rocket, which was the first type of fire projectile known. The cannon would then be an intermediate step in firearms development. Probably the earliest record of the cannon was found in Chinese writing dated 618 B.C. where a cannon is mentioned as bearing the inscription, "I hurl death to the traitor and extermination to the rebel."

Many early accounts of firearms use have been found, but are not clear whether they refer to cannon or hand cannon, for unfortunately there was a great confusion of terms. It is necessary to almost guess from the individual's writings exactly what he was refering to, as in some cases firearms could have meant fire arrows or rockets to the writer. The hand cannon appeared in the field of battle by 1360—used by England's Edward III against the Scots. Records have been found that tell of an order given to the town of P'erouse to make 500 small cannon, palm size, to be fired from the hand. The date of this writing was 1364.

By 1420 armour was being penetrated, and the hand cannon showed signs of becoming a formidable weapon, capable of rudimentary precision. Around 1420, the first mechanical device for firing the weapon made its appearance, for until this period the gun was a two-hand weapon: It had to be held, supported, and aimed by one hand and then with the free hand, ignition made at the touch hole with a burning match. With the simple instillation of a release or trigger and attached lever or serpentine holding a rope soaked in a saltpeter solution, the hand cannon became a one-hand-heldand-fired arm—the matchlock.

The handgun, be it matchlock or hand cannon, after discharge became useless until reloaded, and if time were a factor the arm was discarded in favor of the sword or dagger. Faults of the matchlock were many: It was slow and clumsy to use and the hazard of having a lighted match gave chance of accidently setting off the loose powder carried on the person. Keeping a match lighted on a rainy or windy day was almost impossible, and on these occasions the arm was useless. The glowing match in the dark made it impossible for the soldier lying in ambush to surprise anyone. Just to fire his piece, the owner had to get out his flint and steel, light his match or rope, blow on it until it became a glowing coal, prime his arm and if the weather was favorable . . fire.

Out of necessity, the wheellock was invented in the 16th century, and with its development, firearms suddenly became practical. For the first time in history here was a firearm with a self-contained ignition system, a compact weapon that could be concealed and be ready to use to kill a man before he came within effective sword or knife distance. True, the wheellock was a more expensive weapon than the matchlock. However, this did not mean that it was only owned by the wealthy, for the common man was never inclined to economize on matters which affected his life or the lives of his loved ones. For without his firearm for protection, the home owner, merchant or traveller was left open to the bands of robbers that roamed the countryside. From the advent of the wheellock, there was a steady progression of changes in the arms field . . . the miguelet, snaphaunce, flintlock, and percussion followed in the many years to come. But to me the wheellock was really the beginning of the firearms age when the arm became independent of the weather, concealable, accurate, and last but not least, quick to fire.

Before wrapping up this month's "Collector's Corner," a few words should be said about the invention that rivals the wheellock in importance, rifling. Arms were first of large bore and ungainly, using round stones and then iron or brass balls. Soon smaller calibers and refined barrels using lead balls came into being, but not until the advent of rifling did the firearm really come into its own. In the early 16th century August Cotter of Nuremburg was supposed to have made the first rifled barrel. It is possible that it was invented earlier, but not too much has been found that would back that up. In all probability, rifling was derived from the spinning motion of the arrow when in flight. Rifling is much like the motion of the arrow or crossbow quarrel since both are a means of giving the projectile a spinning motion when in flight, and so preventing it from leaving its original line of aim. Thus, in the 16th century, the wheellock arm coupled with the rifled barrel became the modern arm of the Old World.





By COL. CHARLES ASKINS

WHAT IS THE IDEAL WEIGHT for the hunting rifle? The most common big game is the whitetail deer usually hunted by stalking and this can build up to several miles of foot-slogging. The weight of the gun gets pretty important as the mileage stretches out. No one wants to pack a heavy gun. By the same token no one wants to be kicked. That is to say, all of us want to eat our cake and have it too. The lighter the fieldpiece, the more bounce it develops on the butt end. The nimrod with the go-go .308 at 61/4 lb. is going to get belted a lot harder than the gent who shoots the same caliber in a model that hefts 7% pounds. It takes only half an eye to see that there has to be a compromise here.

In the gun-weight/gun-recoil equation every huntsman is a law unto himself. Some fellers are bulls; a 9-lb. rifle and a 20-mile march is as nothing. "Why worry about the kick?" said one. "With a good shot you only have to get off a single round anyway." This is a good philosophy and I wish there were more hombres who talked like that!

But these bravo types are few. I shoot away the mornings at a public range a couple of miles from my camp. This morning, the Texas deer season just ground to a close, and I heard a jazbo state, "My God, that .264 of mine stomps me plumb to death." He stood as tall as a Brahmas bull and weighed more than Cassius Clay. The .264 in an 8%-lb. rifle (with scope and mount) will wallop you about 26 ft.-lbs.—about like a 12 gauge scattergun.

This LBJ-size Tejano should switch over to a .243: It will kill his deer and not even tip his 10-gallon hat. It is pretty much the same story on the score of gun weight. Go into any sporting goods emporium and listen to the pow-wow when a new rifle is in process of passing over the counter. "What's she weigh?" is a question that sometimes proceeds an inquiry as to caliber. It would seem to the observer that what the average American sportsman is looking for is Daisy air rifle heft in a rifle that has no more rearward clout than the .22 Short.

The average American sporting rifle for game from coyotes to Polar bear weighs from 6¼ pounds to 8¾ pounds and the recoil varies from 8 ft./lbs. to 48 ft./lbs. The manufacturer, when he builds a shooting iron at 8¾ pounds and knows it is going to wallop the user with twice the blow he suffers when he is shooting the 12 gauge shotgun, isn't too happy. He realizes if he could turn out a 16-lb. rifle, like the old buffalo runners carried, he would dampen a lot of that punishment. But he is bound by some of the toughest rules, ones which apply to all gun makers. He has got to keep his finished firearm within weight limits that are acceptable to the extremely weight conscious hunting fraternity.

WEIGHTS OF	POPULAR RIFLES
Browning H.P.	61/4+
Colt Coltsman	61/2+
FI Musketeer	7
H&R Ultra Auto	71/2
H&R Ultra Bolt	73/4
Marlin 336	61/2
Mossberg 800	61/2
Remington 600	51/2+
Remington 700	61/2+
Remington 742	71/2
Remington 760	71/2
Savage 99	61/2+
Savage 110	6%+
Savage 340	61/2
Weatherby Mark	
Winchester 70	7+
Winchester 88	71/4
Winchester 94	61/2
Winchester 100	71/4

Even the military gets into a bind when it comes to balancing off gun weight against recoil. After WW II there was a hue against the M-1 rifle. "It weighs too much," old Col. Henry Kelly, the chief of the infantry board, complained. So Ordnance went to work to reduce the weight but at the same time were bound to retain the .308 cartridge which had been accepted by all the NATO signatories. After 16 years of anguished endeavor Ordnance came along with the M-14. A gun that weighs a pound less than the original M-1! The difficulty lay in the gun-to-cartridge relationship. The engineers could have built a six pound rifle very well. But the .308 cartridge in a six pound rifle would whale hell out of the trooper. When he is kicked, he flinches and this had to be avoided. The upshot was that the military went to another cartridge, the pipsqueak .223, a minuscule round for combat usage but one without recoil. The rifle for this cartridge weighs 6% pounds. It is the new M-16 and is in wide usage in the Vietnam embroglio.

Everyone uses a scope sight on a hunting rifle these days. When you lash on scope and mount to the shooting iron, you add from 12 to 16 oz. to the combined weight. A rifle that looks like a featherweight at 7¼ lb. is something else again when an all-steel bridgetype mount and a 14-inch 3X-9X variable power scope is buckled onto it. From the zephyr-like feel of those seven-and-a-quarter pounds, it will have jumped to 8½! One time I was going to Africa and I took along a

(Continued on page 8)

THERE'S no finer .22 rimfire than a Ruger 10/22 Autoloading Carbine. You get design leadership, traditional materials, precision manufacturing - and a new standard of performance. It's light and compact, fast handling, easy to carry. Button-rifling and excellent balance make accurate shooting easy. Quality built throughout, with every part better than it needs to be.

Built the way a magazine should be, that's the unique Ruger rotary



magazine. Retaining lips and feed ramps are solid alloy steel, not easily deformed sheet metal. Feeding problems are eliminated. Holds 10 rounds, yet fits flush within the stock. Simple, rugged, totally reliable. It's a unique pleasure to own the absolute best, like a

RUGER° 10/22 Carbine

Folding leaf rear sight can be adjusted for elevation and windage. Folds out of the way when you use a low mounted scope.



Three stock styles: Standard (large photo), the Sporter, and the fulllength International. All gracefully shaped with hand-rubbed oil finishes. Ruger still insists on stocks of genuine, American walnut. Perfect steel-towood fitting is typical of the craftsmanship lavished on these carbines.



The 10/22 has a bigger brother, identical in shape and overall size, close in weight: The Ruger .44 Magnum Carbine. Come deer season, you can shift your 10/22-developed accuracy to this brushcountry rifle, and scarcely notice the change.

Some details on the 10/22: For .22 long rifle cartridge only, regular or high-speed. Barrel length 18½". Overall length 27". Weight 5 pounds. Gold bead front sight. Sliding cross-bolt safety. Price \$54.50. The Sporter is \$64.50, the International \$74.50. Sporter or International with handcheckered stock \$10 extra.

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(Continued from page 6)

Winchester .243. This was the M88, the new lever gun. I had Reinhart Fajen make up a fancy grade walnut stock in Mannlicher type for this new prize. After that I put on a Lyman scope and a Buehler mount. That was the prettiest, most streamlined little beauty you'd ever want to see! I thought it was great until I put the thing on the scales. It went 8% pounds! I was astounded. That fulllength, extremely dense Fajen stock had done it. No .243 ever made is worth lugging for medium game at a heft of dang near nine pounds!

A deer rifle for the Leatherstocking type who walks and stalks his game should not weigh more than 7% pounds. If he is allergic to kick, it should not beef him more than 16 ft./lbs. Again, this latter factor is a highly personal one. It grows infinitely more critical as the game grows in size and the hardware increases its bore diameter. For the gunner who hunts from a pickup truck or from horseback or flies and spots his game and thereafter alights to make a short stalk and fire, weight then becomes of secondary importance to recoil. It is all very well for the fellow to say, "Why worry about the kick? You are going to fire only one shot anyway." It simply does not work that way. The gunman who is scared of the backward lash of his magnum will miss with that first shot, miss because of his anticipation of the punishment.

The savvy answer is to increase gun weight. Since he rides up on his game by horsepower, whether animate or inanimate, he can pack a much heavier rifle, and he should. The $8\frac{1}{2}$ -lb. .30-06 will deliver 19 ft./lb. recoil while the same gun scaled down to 7 lb. will belt you like a magnum with around 25 ft./lb.

No one knows what the average rifleman can take in the way of recoil. For 30 years soldiers complained of the kick of the Springfield rifle, a .30-06. It has a relatively mild recoil. The new family of magnum rifles develop considerably more whump at the rear end. The .300, undoubtedly the most popular, turns up 38 ft./lb. in an 8% lb. gun. If the '06 with its comparatively light recoil is too much, then certainly the .300 Magnum is going to scare a lot of shooting men.

For black bear, elk, caribou, and sheep the rifle should weigh not more than 8¼ pounds complete with scope and mount. The most of this hunting requires a considerable amount of footwork and here literally every ounce of gun weight is critical. The other day, Peter Alport, the very well-known northwestern outfitter, shipped me a custom-made rifle. It is a Sako .308 with spidery barrel, pint-size stock, a mini-scope, and a total poundage of 6 lb. 10 oz. It is intended for sheep hunting, a game of the empty reaches where the huntsman must go light, climbing and scrambling along the shale slopes. His rifle, even at less than seven pounds, is a real burden even if he's in absolute fighting trim.

For moose and that great monster bruin, the Alaska brown bear, for his equally gargantuan cousin, the Polar bruin, and finally for the smaller addition, the irascible grizzly, the rifle had better weigh from 8¼ to 9¼ pounds. I favor the latter and heavier gun the more. These critters are toughies and sometimes take a lot of killing and it may be at really embarrassingly close yardages! The best of the guns for these, our largest game animals, are the .300 Magnum, the .338 Magnum, the .340 Magnum, the .375 Magnum, and the .358 Magnum. The .338 will kick in a 9-lb. gun with 36 ft./lb.; the .340 goes 37.5 ft./lb.; the .375 is a mite more at 43 ft./lb. And the .358 Magnum, a whale of a fine loading for the Arctic swing, hits you with a full 48 ft./lb. blow. To dampen this mayhem, the gunner must make sure his musket is not too light.

There are other items in the gun-weight vs. gun-recoil tally. Important is the matter of balance and handling qualities. A heavier rifle holds more steady. And it does not matter whether you shoot off your hindlegs, belly down, sitting, kneeling, or from a benchrest, the hig gun with lots of barrel weight a certain muzzle preponderance—will show less tremor, hold closer to the mark, resist the occasional flinch you put on the trigger, and finally deliver more game to bag than the featherweight model.

Regardless of what I may shoot, from pocket gophers to Cape buffalo, I favor the heavier model. From .22 to .284, a rifle should not go less than 7¼ pounds; from .30 caliber to .375, it should not weigh less than 8½ pounds, and from .400 to .460, it should weigh not less than 10½ pounds.

My tiger shikari, Percy Dinshaw, hunts in the central provinces of India, in Madhya Pradesh. Last year, Reinhart Fajen, the very well known stockmaker, and I shot with the inimitable Dinshaw for several weeks. A recent letter from the hunting camp says: "I am in camp with Bruno Pollarz of Hanover (West Germany). He came into the machan the second morning, sat up over a fresh panther (leopard) kill and promptly missed it at 20 yards. He has lugged in a really superbly built 9.3X62 Mauser fitted with the Zeiss Diavari 11/2-6X scope with a post and broad crosshairs. This scope, I note, has a tendency to magnify the reticule as the power is reduced. He balled up a second panther the next day too. As the light came on this big tom started creeping away and he simply could not pick the beast up in his scope. He had it turned up to six power. He speaks just 10 words of English and I know an equal number in German, so it is a bit tricky trying to make each other understood. I only hope to God be listens to me on tiger and shoots one of my M70 .375's with the straightforward post reticle!" Tiger guides do have their problems it seems.





CROSSFIRE

Buying A Double

In your April issue Mr. L. James Bashline had an article on old American double barrel shotguns. He told what to look for before buying one: no dents in the barrels, no wobble in the action, no cracks in the stock, some bluing, and no alterations.

Now he failed to tell us that 75 per cent of these guns were used in the days of black powder and when you put them away without cleaning the barrels, they would pit on the inside. A lot of these barrels were pitted very deeply. To get the pits out, the gunsmith polished the barrels on the inside. The result was that the barrels were polished so thin that it was dangerous to shoot them with our modern day ammo.

Mr. Bashline priced the Trojan Parker from \$85 to \$150; if he has any Trojan Parkers in 20 gauge in what he calls good condition, I have \$175 waiting for everyone he can send me.

O. J. Zurschmiede New Albany, Indiana

Errors In Pull!

Attention is called to two glaring errors in the PULL! column on page 51 of the January issue of GUNS Magazine. Apparently Mr. Miller's mind was where a skeet shooter's mind is when he spoils a straight when these errors occurred.

In his discussion of when the option is shot when one finishes without having missed, he stated the optional shot is taken from station eight, when he should have said from station seven. Also in talking about shooting singles at stations five and six he says that the first shot is taken at the right hand or low house when he should have said from the left or high house.

This proves that his column is read with interest. Better luck for a straight or 100—per cent that is—next time.

> John R. Harrison Oklahoma City, Okla.

When I read your good letter, I said to myself that somebody goofed—this must be a typo. There was no typo. Somebody goofed and that somebody was Miller.

As you know, there is nothing in the book to prevent taking an optional from station eight. Trouble is, nobody I know is that brave. Of course, I should have said that optional are usually taken from station seven, not eight.

As you also well know, I must have been thinking of doubles (or not thinking at all) when I said that singles at stations five and six are taken from the low house first. Since I'm not all that much a non-conformist, I confess that all the rest of the skeet gunners shoot the high house first.

Such fuzzy thinking must have accounted for the fact that I shot a double from station seven in reverse order during the 1951 Skeet Nationals. At the time I attributed it to the pressure of my first national tournament. As I also recall, the referee muttered something about doing it the hard way.

Some of the sting is removed by your comment regarding the column being read with interest, for which I thank you. I'll try to visualize the stations on the wall facing my typewriter next time. Break 'em all in 1967—in proper order.—DICK MILLER.

A Woman on Gun Laws

By chance I recently picked up your February issue; your magazine is not always available here. However, I enjoyed reading it very much, particularly the "We Get Letters" section, in this case the letter to Hon. Arthur J. Sills.

As a fan of guns and hunting I am following the Great Gun Debate with considerable interest, if not concern. At the same time, I'm following the developments on crime prevention, and I must say I have reached the conclusion a gun law curbing all purchases would NOT be the solution. (The satiric letter points this up wonderfully.)

As a woman I'm indeed much more concerned with the prevention of crimes such as rape and child molestation; this is where we'd have to start legislating, not put the whole blame on the guns. However, instead of tightening the laws, giving the law enforcement agencies true power and support, one is endlessly worried about the rehabilitation of the wrongdoer and the rights of the accused, thus often allowing convicted killers and rapists to go free.

We all know that such a man is never in need of a source for firearms. While I must admit that the sale of such items as antitank guns and bazookas seems a little, shall we say, far-fetched, I will also add that I want to be able to walk the streets safely and if this is not always possible, I want to be able to have access to a weapon of self defense—quite aside of the sports angle. I feel a law as the proposed would not stop the punks from getting the guns, but it would very possibly stop me and many other women from obtaining the only means of protection. As long as so little is done against sexual assaults and muggings, even burglary con-

(Continued on page 10)

how much should you pay for a quality .22 scope?



How much for an exceptionally fine, precision, made-in-America scope... with constantly-centered reticle, steel tube for strength, fine gun-blue finish, and other quality features usually found only in high-price scopes for highpower rifles?

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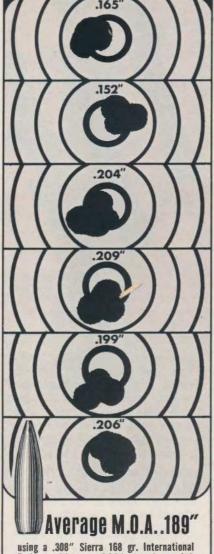
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AT GUN DEALERS EVERYWHERE



CROSSFIRE

(Continued from page 9)

nected with murder, we must all be aware of those dangers and refrain from sticking our heads into the sand, in the naive supposition that as long as the good guys don't get the guns, the bad guys won't either.

Let me just add that I thoroughly relished the bit about government control over potential rapists. Personally, I feel the same way as the author. If we strive to eliminate crimes of violence we must chop down and blast away the tap roots, the rising criminality rate due to kid-glove handling of felons and the Freudian chatter about lack of mother love (or too much thereof) in the case of one hoodlum, hate of the father in case of another, or friendlessness, or too much money, or too little money, Grade-B milk, and many more of pre-taped excuses.

This summed together, in my opinion, has created the deplorable, un-understandable, sheep-like attitude with which eight ablebodied women allowed themselves to be butchered hideously by one man (who would have gotten his gun one way or another, all laws notwithstanding).

Please join me in hoping and fighting for a better situation when the honorable man and woman need not fear the attack of the lawless, but when we all who enjoy the great gun sport can do so without being labelled as defenders of violence.

Dawn E. Battle Halawa, Aica, Hawaii

Increase of Crime

The increase of crime is due to the leniency of the Courts and Parole Boards.

The recent rulings of the Supreme Court have hampered law enforcement to the extent that is almost impossible to question suspects and search for stolen property. There is too much emphasis on the constitutional rights of the criminal. It seems to me that the good citizen has no constitutional rights anymore.

The Dodd anti-gunbill will only help the criminal. The registration of firearms will not be worth the paper it is written on because it cannot be enforced. Orange County, Virginia, once had a pistrol registration law. Of the 13,000 residents, only 25 pistols were registered. The answer to the increase of crime with guns or another method is to severely punish the criminal. If there were as many people killed in the United States by guns as automobiles—over 50,000 a year —there might be some justification for more gun control.

In over 30 years as Sheriff, I have seen people killed by many objects other than the gun. I am against any new gun law.

Fear and want control the human body. So if there were the fear of being severely punished for commiting a crime, it would be reasonable to assume it would deter the person in commiting a crime. No law is stronger than our Courts, thus if the Courts will give maximum sentences and not minimum sentences, I firmly believe that crime would be greatly decreased.

M. M. Myers, Sheriff Orange County Barboursville, Va.

Vinson Fan

My March issue of GUNS arrived this morning and I was so impressed with the article on U. M. C. shotshells by Carlos Vinson that I felt I should let you know how interesting I found it. You have a fine, wellbalanced magazine and with contributors of Mr. Vinson's caliber (perhaps "gauge" would be more consistent), I am sure that it will remain so.

I have recently become interested in shotshell collecting and, to my surprise, find very little factual information relating to this subject in print. Mr. Vinson's carefully researched data was therefore most welcome. May I strongly urge you to consider more of the same whenever possible.

Nath Winfield Chappell Hill, Texas

Penpal

I am wondering if you have any readers of your magazine who would like to exchange correspondence regarding shooting, wildfowling, and hunting with myself and members of our club. We would also be grateful for any they would like to swap for some of ours.

> W. Hilton, Sec. Dover Gun Club 6 Maple Lane Higher Ince, Wigan Lancashire, England

Colorwork

Being a buyer of your magazine for a long time, I feel I should have my say in "Crossfire."

Your middle section of GUNS in color is wonderful. But why not come up with fullsize middlefolds of rifle stocks, so it could be traced and used as a pattern? But you spoil your pin up in December, 1966, with the parts of the Winslow rifle side of the middlefold.

When you publish rifle pictures, why don't you publish them in a middlefold section so it will be complete? I feel that many of us would enjoy displaying such in our den: Better them than full-size girl pin ups.

> Amédée Landry Eel River Crossing N. B., Canada

Redeye on Quail?

Your latest issue sheds some light on a puzzling thing. I have long pondered on the lack of steel victrola needles on the market, but "A Dissenting View of Today's Hunting Cartridges" may provide an answer. However, it would be hard to weigh out bazooka powder to 203 grains, due to the fact that it comes in sticks. Perhaps one could whitle a charge with his trusty Barlow knife. The D.D. is currently on a similar kick these days, what with the .06 caliber flechette being touted as a replacement for most everything but the hand grenade. Its fantastic velocity is supposed to overawe the foe, but what if the foe is illiterate?

As for large game of the dangerous sort, once a friend told me of how he laid out an elephant with a .30 carbine, but he doesn't recommend the caliber for such excessive beasts. A recent report from Vietnam mentions how a chopper crewman laid out a tiger with a burst from his dreadful M16, landing later to retrieve the hide, etc. Someone will try that on the level now, and either we will have a nice article on "Hunting The Tiger On Full Auto" or a learned article in "Ordnance" on the digestibility of the modern military rifle. One wonders how fiberglass and polycarbonate would fare in the feline innards.

The gent who wrote the letter on the registration of certain unmentionable weapons has gone too dad-blamed far. He doesn't know how seriously some lawmakers take comments like that! He may yet find himself with a strictly limited hunting season, regardless of how the targets may be attractively flaunted before him. And how could an eligible target be fired upon with an unregistered weapon? It's hard enough to get some dames to do legal things these days! This might also lead to limits on calibers, barrel lengths, and amounts of ammo in private possession. What next?

Your report on the Redeye is a big game tale which should interest the Viet Cong. Since we believe in fair play and they haven't got any, is there any way we could send those poor souls a few gross? They have heen firing on our stuff with old-fashioned machine guns all this time. Give them a sporting chance, maybe.

Use of the Redeye system on game would end the active hunting pretty quick, and allow the hunters to relax with a glass of their favorite cold medicine or a deck of greasy old cards for the remainder of their holiday. It would also reduce the skill levels to a point where any oaf could play. But what if he was leveled on another hunter? The heat seeker might be set for quail and his nol might be running a fever almost that hot.

This scientific age is getting to be too much for me. Ah for the 19th Century! John P. Conlon

Newark, Ohio

Home Defense

I have just read your excellent article on guns for defense of the home in the January issue and I am glad to see some gun magazine has brought this important subject to light. I am a firm believer in that if crooks knew that most people had a firearm to defend home or store, the robbery rate would quickly decline.

I think you have overlooked an important gun when you talk of home defense, the shotgun. To begin with, a shotgun can be bought without a permit (except in N. J. or Philadelphia) as is necessary for a pistol in many places. (In New York the police think anyone who wants to own a pistol must be criminally inclined.) Secondly a shotgun is just about the easiest firearm to master, as a pistol is quite difficult and a high powered rifle is quite out of place in a dark hallway. And thirdly, a good name brand, single barreled shotgun can be purchased for a very modest price, always less than that charged for a pistol (except an imported "suicide special"). And lastly, the crook doesn't live that won't be discouraged by a charge of No. 4 shot and also it increases your chance of connecting with this lawbreaker and ending his career then and there.

> Paul S. Scarlata Jamacia, N. Y.

Or is it the other way round? No matter-the Savage 24 is both. A rifle barrel perched on top of a shotgun barrel. You can fire either one with the same

> trigger-just flick a spur on the hammer for an instant choice.

RIFLETHAT

A SHOTGUN

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> Savage makes the rifle barrel in 22 long rifle or 22 magnum. You can have that in combination with either a 410 or powerful 3-inch magnum 20 gauge shotgun barrel. That's four possible barrel combinations and they're all available in two grades-the 24-DL at \$68.50 or the plainer standard 24 for only \$54.50.

> It turns out there are a lot of men in this land who like the freedom of taking what comes, without having to carry both a rifle and a shotgun.

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HANDLOADING BENCH

By DAVE WOLFE Editor and Publisher of The HANDLOADER Magazine

WE ALL KNOW handloading is as safe a hobby as any—in fact, a damn sight safer than a few that could be named on the spur of the moment. And why is it safe? Well, because it is composed of relatively few simple basic mechanical operations that almost anybody with one good arm and eye can accomplish. But perhaps even more than that, it is safe because it is a hobby where every action is completely under the control of the individual—YOU.

While spending a quiet evening preparing ammunition for the coming weekend shoot, you have only your own actions to be concerned about—there is no other driver to come charging out a side road to negate all your own careful driving; no carelessly struck or thrown ball to bounce off your skull; no one else forcing you into a compromising or dangerous situation in spite of your own efforts to do right. There is only you, the tools, and the components, and you are in complete control.

But to keep things safe (not to mention to produce the results you want on target) your undivided attention is required. Resizing a case may seem like the simplest job in the world-but suppose you're listening to Eager Edgar spinning tales about his latest safari and fail to run a couple of cases fully into the resizing die. And suppose one of those cases winds up in the ammunition you're taking on a grizzly hunt. Fate being what it is, that case will surely be the one you try in vain to chamber or extract for a fast second shot when yon hurt and angry bruin is coming Hell-bent only a dozen yards away. Or it could be that you're filling the powder measure when a saloon buddy comes to the best part of a recitation of his latest amorous adventures-and so distracted you dump in Hercules 2400 and wind up with a case full of it instead of 3031 in your trusty ought-six. Your widow will grieve, if for no other reason than all the paper-work involved in collecting on your insurance.

So we've eliminated the trouble other people get you into, but what about that which you can accomplish all by yourself?

Organization of your loading bench or shop (if you're fortunate enough to have the latter) and proper labeling and storage of tools and components will do more to eliminate "mistakes" than any other action you can take. Nothing makes me shudder more than to look around someone's loading bench and see unmarked fruit jars and bleach bottles filled with powder. One fellow I know kept bulk-purchase powder that way—then came the day he THOUGHT he was using H-4831 for some 7 mm Magnum loads. But after stomping the bolt handle open and finding primer pockets opened up to over a quarter-inch diameter, he remembered having once dumped powder from military .30-06 ammo into a similar can. He was lucky then, and now labels and stores everything very carefully.

The same situation can occur with bullets. One custom loader I knew many years ago (no longer in business) cranked out for a customer nearly a thousand hot .30-06 loads. In a few days the customer came in with blood in his eye (literally, for a primer had let go and peppered him with hot gas and brass fragments). Checking for the source of trouble disclosed that a substantial percentage of the cartridges had been loaded with .312" diameter bullets meant for the .303 British. It seems that in consolidating his bullet stock one day my friend had mixed up some unmarked .303's with the .30's.

And back before I learned better, I once loaded a batch of .45 ACP ammo with large rifle primers. Both rifle and pistol primers had been dumped into unmarked flat travs for easier handling, and I failed to clear away one before using the other. In that particular case nothing happened except that my .45 target revolver wouldn't fire but about half of those rifle primers. The story might have heen different, though, if I had used those large pistol primers in the hot .300 H&H loads which were assembled just before the .45's. As a matter of interest, Federal color codes its primers to prevent just such an occurrence. Of course, you DO have to look at the colors, but perhaps that isn't asking too much.

What seems to scare both those who reload and those who don't most is the possibility of a double powder charge. We readily admit that it is possible for this to happen under certain circumstances. Elaborate procedures and gauges have been proposed to prevent such happenings and to disclose their presence should they happen in spite of you. But all the gauges and fancy procedures in the world won't do a bit of good if you don't watch what the Hell you're doing. I rather doubt that the fellow who is so careless as to drop a double charge in a case will be attentive enough to catch it with a gauge. The key to this alleged problem is simply to concentrate on what you are doing. rather than letting the mind wander to such things as the latest addition to the office secretarial staff. While on this subject, I am reminded of a fellow who once told me that he always did his reloading while watching television. He's not yet blown up any guns that I know of, but rest assured I'll not be shooting any of the stuff he puts together.

Where full-charge loads in rifle calibers

are concerned, it isn't possible to get a double charge into the case. It's another matter, though, with many pistol caliber loads and some reduced rifle loads. Only close attention will eliminate the possibility. Make certain you drop ONLY one charge in each case, then look into the case mouth as it is removed from the powder measure. You'll be able to see the level to which the powder reaches.

Of course, every cartridge you reload should be closely inspected for defects after the job is done. But that isn't always enough. If the ammunition is to be used for serious purposes-like an expensive hunt or in an important match-every round should be run through the gun. Don't take it for granted that simply because you think you loaded it RIGHT that any given cartridge will chamber freely and properly in a given gun. A cartridge that chambers tightly (or not at all) can cost you an important match or a record trophy. Even factory loads have been known to hang up a gun at a critical moment. And if it can happen to factory stuff produced in a multi-million-dollar plant, the product of your two-bit loading operation is even less immune.

Essentially, reloading safety is a problem brought about by the extreme simplicity of the operations required. Loading is so mechanically simple that we tend to get careless or inattentive—and then, LOOKOUT! So unthe on it a bit before returning to the bench next time. Perhaps a bit of reappraisal now of the way you've been doing things will prevent an embarrassing or dangerous lapse in the future.



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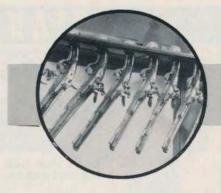
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GUN RACK

New Remington Rifles

The center fire highpowered Model 788 Remington rifle, with the 9-lug lockup midway of the bolt has a twin in a .22 rifle built identically. The .22 comes in three variations, a single shot, tubular feed bolt action repeater, and clip-loaded bolt action. They are known as the Models 580, 581, and 582. The bolt has 6 locking lugs which turn into mor-



tises in the receiver. Provision is made for a tip-on scope; there are iron sights. With 24inch barrel and a weight from 4% to 5 pounds, the rifles are notable for exceedingly plain walnut stocks and pressed steel accessories such as the trigger guard, trigger assembly, etc.

This rifle has the fastest of all lock time for a twenty-two. This is 1.7 milliseconds. Why this was built into a low-priced rifle is difficult to say. But we won't quarrel about that one! Just be grateful for it. Tested at 100 yards from the bench with the new Weatherby Mk XXII 4X50 scope, the little rifle grouped exceptionally well. With Remington Kleanbore it ran 1.35" for 10 shots. This is only a plinking gun remember and such shooting is quite good. With Winchester EZXS, two 10-shot strings measured an average of 1.40 inch.

There is now a bullgun barrel for the Model 700 Remington in calibers .222, .223, .22-250, 6 mm, and .243. This tube is 24" in length and runs .830" at the muzzle. It hikes the total weight of this fine varminter to a full 9 lb. without the scope. Each of these goes through the Mike Walker shop at Ilion and is guaranteed one MOA. There are no iron sights. There are scope blocks for either the hunting scope or for a target model. The Marine snipers at DaNang are using a similar rifle, except in .308 cal., to gun down the Viet Cong.

On the 700 shipped down, I affixed the brand new Weaver K12 scope in Lyman Tru-Lock mounts. The rifle is a .22-250, one of the sweetest calibers for varmint strafing. I sighted in at 275 yards with Remington 55grain hollow-point, Power-Lokt factory cartridges. The new Weaver K12 scope has an objective lens adjustment for range and with this set on 300 yards, I was certain of eliminating all parallax. Once sighted in, I shot three 5-shot groups which averaged 3.48 inches. I then shoved off for the Big Bend, a vast area in West Texas which holds more entrancing targets for a handsome rifle like the 700 Variminter than any place in all the Southwest.

After two days the total hawk kill was 37. These ranged from 125 yards to 290 yards. There were misses too, but surprisingly few of them. The .22-250 despite its fine accuracy is susceptible to the wind, and at this season winds get up to 30-40 knots in the wide open stretches beyond the Pecos. The new bullgun with its bulbous barrel, its miraculous trigger, and its sweetly fitting stock is a hard-hitting performer on varmint and predator.—Col. Charles Askins.

The Klein Sporter

Every once in a while a jewel lies on our doorstep and we ignore it simply because it is too obvious. I found just such a gem the other day. This is the Klein Sporter offered by Klein's Sporting Goods, Chicago. Milt Klein has taken the Model 1917 Enfield action and has made it into a handsome sporting rifle. The '17 action is one of the strongest too. It is ideally suited for conversion to any of the magnum cartridges. Milt is offering his model in '06 only.



The barrel, originally 26 inches, has been whacked off to 22 inches and is muzzle crowned. There is a set of Williams sights, front and rear. The front is graced by a rakish ramp. The barrel has been slimmed and contoured and proof-fired with 75,000 psi blue pills. The action has had the original rear sight removed and the ugly upstanding "ears" milled away. It has been tapped for a scope. The bolt has been polished and chromed, and it works slick and easy. The trigger guard is milled and hlued. There is no floor plate; the stock covers it.

The really crowning touch on this very appealing new sporter is the stock. Here Klein really outdid himself. This stock must be made, in all probability, by Reinhart Fajen. It is turned out from a good grade of walnut, has a roll-over Monte Carlo with cheekpiece and a comfortable pistol grip with a pistol grip cap in a contrasting wood. The checkering is good quality, 16 lines to the inch. The forestock is also checkered and here, again, there is a forend tip of some exotic wood. There is a good quality rubber recoil pad. The wood finish is lacquer. There are sling swivels.

The rifle is provided with a Tasco 4X scope in Weaver mounts. In another variation there is a Tasco vari-power scope, 3X-9X, in Weaver mounts.

The Klein sporter has one bad fault. It cocks on the closing motion of the bolt. This is bad. I have corrected this for less than six bucks. I simply attached the Numrich Enfield striker assembly and Presto! had this one licked. For real dollar value, this offering at \$89.95 from the inimitable Milt Klein is one of the best in the book!—Col. Charles Askins.

Gun Kote

The Ammodyne Co., Box 1589G, Los Angeles, Calif., importers of the excellent RWS primers (they sold 46,000,000 last year!), are also handling a brand new kind of gunk



guaranteed to weatherproof the firearm. This is Gun Kote, a pretty sensational kind of protection. I have a brand new Remington Model 600 barreled action in the new 6.5 caliber, and decided to give it the Gun Kote treatment. The first step is to thoroughly disassemble the firearm; the bolt, trigger assembly, magazine, floorplate, and sights must be taken down. All parts are then washed in carbon tetrachloride to be sure all greases, oils, and other residues are removed.

Gun Kote comes in two aerosol cans; the first is #1301 cleaner, the second is the actual coating. This second can is numbered #13-7 Spray. Handling the parts, when it is necessary, with clean white cotton gloves, you spray thoroughly with the 1301 cleaner. This stuff evaporates quickly and you can then get to the business of applying the coating.

Lay all the parts out on a sheet of wrapping paper, and with the nozzle of the 13-7 Spray about 12 inches from the piece, give it a fog coating. Allow this to dry for about 60 seconds and then reapply. Let this second coat set for at least 5 minutes. Finally add a third coat. I found there was a tendency in some odd angles on the receiver where the chemical tended to develop a wrinkled or wavy appearance. When this occurs you go back to the 1301 cleaner, remove the coating, and start over.

The parts, including the barrel, are then baked in an oven for 30 minutes at 350 degrees. Any ordinary kitchen oven is OK, if it has a thermostat which is dependable and can be set for 350 degrees and will not creep higher. If necessary, turn the barrel end for end and bake for an additional 20 minutes. The temperatures are too low to anneal any parts or draw the temper. While the parts are still hot, give them a last coating of 13-7. Further baking is not needed; there will be a good solid bonding from the residual heat.

The finished gun isn't particularily pretty. There is no high brilliant luster as you see in the nicely blued high quality firearm. Gun Kote is a protection against the elements. It reminds me of WW-II days when all our military ordnance was Parkerized. It does not have the look of the Parkerized gun but it is nothing glamorous! If, after you apply the gunk, you don't like the looks of it, apply the 1301 cleaner before you crank up for the baking stint. After it has gotten the heat treatment it is there for good! This stuff isn't as good as chromium plating but it is almost as expensive. It costs \$14.95, will cover a rifle, scattergun, and one sixgun.-Col. Charles Askins.

Star Model B

The used handgun market is booming these days—so much so, in fact, that in most areas any really good guns are snapped up as soon as they come in. Consequently, I had little luck when I recently started looking for a couple or three good 9 mm guns for a project that was in the works.

A quick check of the surplus market showed that Hunter's Lodge had received a fresh lot of Spanish Star Model B pistols in 9 mm Parabellum (Luger) caliber. A pair was ordered forthwith. Upon their arrival I was surprised to find the condition and quality far above that normally associated with military surplus. The guns do show some use, but very little, having perfect bores and nearly all of the original finish. Most interesting is the tightness of both guns. There is



virtually no looseness of slide and barrel as is normally. associated with swinging-link, Browning-type guns. I'll venture to say that both guns are as tight in both respects as any new, currently-produced, domestic selfloading pistol. The exterior metal finish is very nearly equal to that found on pre-war Colt autos.

The Star Model B, incidentally, is virtually a copy of the 1911 Colt .45, except that it lacks the grip safety, has a solid backstrap and heavy leaf mainspring, and uses a somewhat different trigger linkage. Weighing in at 38 oz., with a 5" barrel, it has long since proved to be a very reliable and accurate gun.

If you're in the market for a fine, highvelocity, self-loading handgun, you can't go wrong by looking into this surplus item. From Hunter's Lodge, 200 S. Union, Alexandria, Va., at \$49.00 the copy.— Major George C. Nonte Jr.



The Plainsman Model 865 bolt action .22 cal. rifle has double extractors for positive shell extraction and ejection, five-shot magazine, thumb safety, cocking indicator, blade front sight and adjustable rear sight. Monte Carlo style American walnut stock. Also available: The Pioneer Model 750 single shot. See both at your sporting goods dealer now.

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Pachmayr's new "Presentation model" basket weave design, shown above, is the latest in receil pads for rifles and shotguns. Available in 3 colors and sizes. Price \$7.50. See your favorite dealer or write for details of this and other Pachmayr receil pads for rifles or shotguns, field, trap or skeet use. All "White Line" receil pads are guaranteed a lifetime against faulty workmanship or material.

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DODD-CELLER BILL PROVIDES FOR REGISTRATION OF GUN PURCHASERS

A new scheme hatched by Washington's federal bureaucracy virtually assures passage of anti-gun legislation this Congress. Adding insult to injury, the scheme puts gun owners into an anti-crime package of legislation along with dangerous criminals, drug pushers, organized crime, and other habitual law violators.

The scheme started while Congress was in adjournment. Regular readers of GUNS will recall last Congress Dodd succeeded in getting the anti-gun legislation referred to the Judiciary Committee, and thence to his Juvenile Delinquency Subcommittee. (The legislation should have gone to the Commerce Committee.) What followed was a most one-sided affair. The new anti-gun legislation has again been referred to Judiciary in the Senate.

In the House last Congress, anti-gun bills (socailed "Dodd Bills" in reality written by the Administration) went to the proper committee, Ways and Means. What resulted was public review of the legislation and its death. Upon the adjournment of Congress, the federal bureaucrats turned their thoughts to the difficulties faced in the Ways and Means Committee. The obvious answer was to pull the same kind of committee switching that had been used last session in the Senate.

'Most noticeable were some statements in the Congressional Record the previous August! Following the "Texas Tower Sniper" tragedy some important lawmakers released their true feelings. None other than Speaker of the House, John W. McCormack (D - Mass.), House Majority Whip, Hale Boggs (D - La.), and House Minority Leader, Gerald F. Ford (R - Mich.) made anti-gun remarks. With this kind of political power to support its cause, the Administration bureaucrats went shopping for a House counterpart to the Dodd Subcommittee and found a likely one in the Judiciary Committee. The anti-gun legislation was rewritten to accomplish the transfer. With the aid of House officials, it worked! Renamed the "State Firearms Control Assistance Act of 1967," the Judiciary Committee now has the legislation, to give the legislation a rubber stamp treatment if it so desires. The act is part of a fivepiece legislative package for "Safe Streets and Crime Control." The Chairman of the House Judiciary Committee is Emanuel Celler (D - Brooklyn, N.Y.), who introduced the legislation in the House this session of Congress, and who, strangely enough, heads "Subcommittee Number Five," to which the crime package has been referred for public hearings. It looks very much like a House counterpart to the Dodd-ism in the Senate.

Hovever, once the legislation is reviewed by the Committee, the tide could turn. On its way back to the House floor, the route all legislation must follow, the anti-gun measure will go to the House Rules Committee. Here is the best chance of spoiling the new anti-gun scheme to bypass the House Ways and Means Committee. Rules can take sharp exception to the legislative hanky-panky and cause the bill to be recommended to Ways and Means.

EFFECT OF THE DODD-CELLER BILL

The purpose of the new anti-gun legislation is to isolate gun owners. No longer could shooters and hunters move to the range or field without fear of violating the Federal gun laws and thus become a criminal. And a gun owner could not move his guns along with other personal effects when moving across state lines. More important, however, the legislation, without stating it, provided for the registration of all gun purchasers on both a State and Federal level. (More on this later in the story.)

Before going into the actual language of the proposed law, it is necessary to review the preamble of the bill. The preamble is important because it sets what is legally known as the "intent of Congress," used in interpreting the actual law. In short, the preamble states access to firearms is a "significant factor in the prevalence of lawlessness and violent crime in the United States."

The chapter of the legislation providing for the registration of firearms and also ammunition purchasers follows (page 21, line 4):

"Each licensed importer, licensed manufacturer, and licensed dealer shall maintain such records of importation, production, shipment, receipt, and sale or other disposition, of firearms and ammunition at such place, for such period and in such form as the Secretary may by regulations prescribe. Such importers, manufacturers, and dealers shall make such records available for inspection at all reasonable times, and shall submit to the Secretary (of the Treasury) such reports and information with respect to such records and the contents thereof as he shall by regulations prescribe. The Secretary or his delegate may enter during (Continued on Page 78)



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17

SHOTGUNS -Bad Medicine in the West

BOTH THE VAW AND THE LAWLESS OF THE FRONTIER RECOGNIZED THE VALUE OF A LOAD OF OO BUCKSHOT

> Teddy Roosevelt used a shotgun to guard three thieves who had stolen a boat from his ranch, marching them 40 miles to the nearest jail.



STAGE BOBBER. These Circulars are for the use of Officers and Discreet Persons only. About one o'clock P. M. on the 3d of August, 1877, the down stage between Fort Ross and Russian River, was About one o'clock P. M. on the 3d of August, 1877, the down stage between Fort Ross and Russian River, was stopped by a man in disguise, who took from Wells, Fargo & Co.'s express box about \$300 in coin and a check for \$205 32, on Granger's Bank, San Francisco, in favor of Fisk Bros. On one of the way-bills left with the box, the here I lay me down to lleep robber wrote as follows : he coming mory du Excerpt from handbill of 1877 describes Black Bart as a wit or a wag. But those who looked into the barrels of his shotgun might have had more sinister thoughts. money in The It will be seen from the above that this fellow is a character that would be remembered as a scribbler and some It will be seen from the above that this fellow is a character that would be remembered as a schooler and some-thing of a wit or wag, and would be likely to leave specimens of his handwriting on hotel registers and other public places. If arrested, telegraph the undersigned at Sacramento. Any information thankfully received. **By JAMES E. SERVEN**

O^N AUGUST 3, 1877, the Wells Fargo stage made its slow, creaking way up one of the hills near Duncan's Mills on California's Russian River. It was a pleasant and usually peaceful run; there were no passengers this day and no shotgun messenger.

Suddenly there appeared a weird-looking figure standing squarely in the road ahead. A linen duster covered his head. The most prominent thing in evidence, however, was the ominous muzzle of his double-barrel shotgun pointed directly at the driver's head. At the command "throw down the box," the driver did not hesitate; it was foolhardy to argue while looking down a pair of lethal shotgun barrels.

Although the driver did not know it at the time, he was the first victim of a highwayman destined to make history of a sort in California. The legend of this stage-robber and his shotgun got off to a poetic start when the verse (shown in handbill above), painstakingly written on the back of a waybill, was discovered with the empty express box soon after the holdup.

This unusual message was signed "Black Bart, The Po 8." And so began a long career in robbery (through shotgun persuasion) of Charles E. Boles, alias Black Bart, ending in his eventual capture on a San Francisco street. The shotgun believed to have been used by Black Bart was found in a cabin known as one of his hideouts, near Angels Camp; it is now owned by a gentleman of that village in California's Calaveras County.

A desperado named Jim McKinney used his shotgun to write history in California, too, but he did not have the finesse of Black Bart. Even so, a book titled "Shotguns on

SHOTGUNS IN THE WEST

The shotgun guard was a familiar sight on Wells Fargo coaches. Hundreds of Springfield caplock muskets were transformed into shotguns by boring out the barrels and cutting down the fore stocks.

Sunday" was written about him. Closely pursued by a badly shot-up posse, McKinney was finally forced to hole up in a Chinese joss house. The aroused posse closed in and saved the state the cost of a hanging by tatooing McKinney with a hail of lead. They found six notches cut in the stock of McKinney's overworked shotgun.

The shotgun had long been a widely used weapon in the West before Charles Boles and Jim McKinney took it as a partner. Back in 1846, Jesse Boone was a member of a party that camped near the Humbolt Sink in what is now the State of Nevada. Jesse came upon a thieving Indian making off with some of the party's vitally needed supplies. Jesse promptly sent the dusky thief to the Happy Hunting Ground, possibly the last hostile Indian so dispatched by a member of the Daniel Boone clan—and Jesse did it with a shotgun.

Three years later, an ill-fated wagon train strayed off the trail and blundered into Death Valley. The plight of the men, women and children in this party of '49ers soon became desperate. There seemed to be no way out of the bare, awesome valley and they did not have sufficient supplies or strength to go back.

Two young men, William L. Manly and John Rogers, volunteered to climb out of the valley and cross the desert on foot in an attempt to reach a settlement near Los Angeles to summon help. They successfully completed this mission—with the help of a shotgun. Almost no wildlife was encountered on the scorched desert but they managed to sustain themselves by shooting a crow and some other small game with Rogers' double-barrel shotgun. They struggled on to obtain supplies and accomplish the rescue of their friends. It does not appear as heroic to place a shotgun in the hands of Marshal Dillon and other screen heroes today as to have them nobly challenge the villain to "draw first" with a pistol. But this pseudo chivalry was a luxury few citizens or peace officers of the Old West wished to demonstrate. The shotgun has not had the "good press" of the "unerring rifle and the lightning-fast pistol," but it was actually one of the most-used and most useful of all firearms ever devised.

If we study old catalogs and advertisements we usually find more shotgun illustrations than those of other guns. Many were very surprised to learn recently that a Gallup poll revealed the ownership of more shotguns in American homes than any other type of weapon. It is doubtless a pattern of firearms ownership which has prevailed for many years and will probably continue.

The boom of the shotgun has been heard all through the West, and contrary to the glamorous heroics with pistols claimed by some armchair writers, the shotgun was more effectively used in Tombstone than Ned Buntline's publicity-getting long barrel Colt. It is doubtful that any self-respecting lawman would ever be seen wearing one of those clumsy Buntline monstrosities which were originally designed by Colt to be used as a pistol-carbine with an attached shoulder stock.

Fact is not always easy to separate from fiction in the history of Tombstone, the Arizona mining town widely known as "The Town Too Tough to Die." On these streets walked the legendary Wyatt Earp, Doc Holliday, John Slaughter, the Clantons, Curly Bill Broscius, John Ringo, Luke Short, Frank Leslie, Jeff Milton, and many others for whom guns were a part of their normal attire.

While he was an express messenger for Wells Fargo, Jeff Milton used the cut-down shotgun shown at top.

0

One piece of Tombstone history provokes little controversy: In the famous fight at the O. K. Corral, Doc Holliday did Wyatt Earp and his brothers a great service by emptying both barrels of his Greener shotgun into Tom McLowry's mid-section as McLowry was throwing lead in their direction.

Marshal Wyatt Earp, himself, was a firm believer in the shotgun for close range work. He is quoted as stating after a fight with outlaws at the Iron Springs water hole, "I had two six-shooters in my belt, a double-barrel shotgun looped to my pommel, hung under my left leg, and a Winchester was hanging in a scabbard on the right side of my horse." In later years, Wyatt Earp added a lever action Winchester repeating shotgun to his arsenal.

The Winchester Model 1887-1901 lever action repeating shotgun proved to be popular with many lawmen in the West. We find interesting records of their vital use by Chappo Beaty, an Arizona Ranger, by Jeff Milton and by John Slaughter. (Continued on page 72)



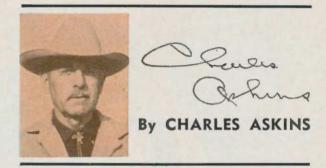
Shotgun messengers, like these from Wells Fargo, did not always limit themselves to a single gun.

THE REMINGTON 788

R EMINGTON HAS A NEW centerfire highpowered rifle. It is called the 788—an addition to the 700-series family. The gunmakers look back over their shoulder to see what the competition is up to and if he comes along with an economy model there must be—pronto-like—a matching gun. The 788 has its share of metal stampings and the stock is as plain as my Aunt Kate. But the going figure is less than a C note.

Along with this fetching price tag is a lot of value all wrapped up in Plain Jane. To begin with, the 788 might have the strongest of all bolt actions. It locks up with nine lugs. These have a sum total bearing area of .152 square inch (by comparison the Springfield and the 1917 Enfield have .092 square inch). The bolt lifts through only 68 degrees of rotation—almost all other bolt actions move through a full 90 degrees. These good points are further strengthened by the use of a big heavy receiver and an over-fatted bolt.

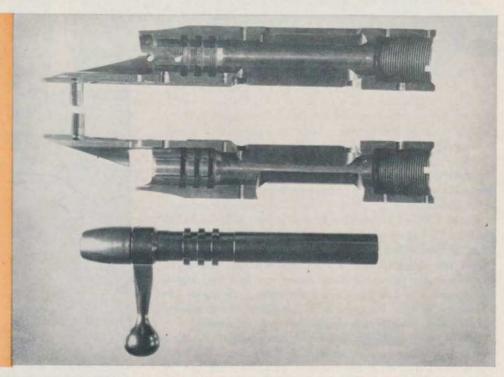
The new number comes in some useable calibers. These are the .222 Rem., .22-250, the old .30-30, and the .44 Magnum. Sometime, maybe, Remington might add that other shorty, the .308, but it



ASKINS

isn't in the cards right now. In the .222, the cliptype separate-loading magazine holds four cartridges, with a fifth in the bore; in the other calibers the total capacity is four shells. The .222 and .22-250 have 24" barrels; the .30-30 and the .44 sport a 22-incher. Weight for the varmint calibers is $7\frac{1}{2}$ lbs., the .30 and .44, an even 7 pounds.

The walnut stock has been whittled with a modified Monte Carlo and pistol grip. The buttplate is black plastic. The wood has what appears to be a lacquer finish. There is no checkering, no fore-end tip, no pistol grip cap, (Continued on page 24)



The receiver of this Remington 788 has been cut in half to show the location of the lug recesses. Note that the metal is quite thick in the lockup area.

TESTS:

THE CONTENDER SINGLE SHOT

I T TAKES A LOT OF GUTs to build a single-shot gun these days. And it does not matter a hoot whether it is a rifle, a pistol or a scattergun! These are times when the shooting man has been conditioned to a kind of ordnance that is multi-shot. Shooting irons were one-shot types during the last century. There has been a steady development away from these old timers until today the one-bang types are looked on as strictly 1860.

Despite this an outfit up in staid New Hampshire, Thompson/Center Arms, said to hell with it and why not build a one-round handgun? *If it is a good one*. It takes guts, chum, but who ever questioned that a New Englander didn't have a plentitude of bravo.

This brand new single-shot pistol has a sort of lefthanded name. It is called the "Contender." The Contender comes in a whole gaggle of calibers; the .22 Long Rifle, .22 Rem-Jet, .22 Rimfire Magnum, .22 Hornet, and the .38 Special. Later on, the company hints, there will be other calibers. Perhaps the .44 Magnum.

A unique feature of the Contender is that you can jerk a barrel out of the investment casting receiver and slap another in place—of different caliber and varying length in a twinkling. The hombre who wants to shoot the .22 Long Rifle on Monday, the .38 wadcutter during midweek, and the .22 Hornet for Saturday may do just that. The pistol, with any one of its several calibers, carries a going price of \$135. Extra barrels run thirty-six bucks. If you don't like the galaxy of calibers offered, write the company, they may make up a special barrel to your caliber, either standard factory or your wildcat.

The Contender is a lot of hardware. It is almost 14 inches long with the 10" barrel in place (there is a shorter tube at 83_4 ") weighs 43 oz., and has a frame which requires a big hand to reach the trigger. The stock is man-size, made of selected walnut, checkered, and sporting a sort of bobbed-off thumbrest. It comes in either left or right hand, and there is a German silver buttplate for name or initials.

The stock-to-barrel angle is 31 degrees. This is as near perfect as any designer can come. This grip-to-tube design makes the barrel point naturally and necessitates a minimum of fight to keep the sights dead on.

There is a forestock, also of walnut and also checkered. It snaps off as a first step in dismounting the barrel. The barrel pivots on a hardened steel pin, $\frac{3}{8}''$ in diameter. This bolt is readily pushed out, from either side, and once removed, the barrel is lifted out of the action. The barrel is a Douglas, with a locking (Continued on page 24)



and no sling swivels. The stock has good and useable dimensions: the comb drop is 17/8'' which is okay for scope use, the length of pull (distance from the trigger to the center line of the butt) is 135/8''. With a winter hunting coat in place, this still gives enough play to permit fast manipulation of the bolt.

The real guts of this musket, the action and barrel, are 24 carat! The receiver has been machined from a piece of round bar stock, properly alloyed and tempered. This gun was designed by one of the world's greatest firearms builders, Wayne Leek, and he set out to do a job which would be priced reasonably. He succeeded in this receiver. If a rifle action could have been achieved with greater simplicity I do not see how it would be possible.

The bolt and the head of the cartridge are shrouded with steel. There is an ejector port in the receiver to permit the empty to fly clear but it has been held to the slim proportions absolutely essential. Because the locking lugs are toward the tail end of the bolt and not up forward in the conventional location, the bolt-head needs no clearance in the receiver ring to lock up. This, together with the fact that the bolt face is recessed, without cuts in it for the extractor gives you a design that is, quite probably, the strongest of any bolt operated rifle.

The lugs, all nine of them, are just ahead of the bolt handle. These are arranged in clusters of three and are situated about the periphery of the bolt body with some 120 degrees separating each cluster. These lugs lock into mating cuts in the body of the receiver, which has been purposely thickened over the area of the lock-up.

The bolt is a big-body breechlock, notable for a cleanliness of line. It has a substantial gas shield at its tail which not only is a splendid safety device but also contributes to smooth and appealing lines at this juncture. For some reason which is a mite obscure, the 788 has one of the fastest falling strikers on any firearm; lock time is 2.4 milliseconds. That's quicker than you can say "Scat," chum. Along with this a brand new trigger assembly. When you pull the action out of the stock on the 788 it is a relief not to see all those paper-clip springs so common in some ordnance. (Continued on page 59)

THE CONTENDER

lug electric welded on the bottom side, both sights are affixed to the tube $(8\frac{1}{2}'' \text{ radius on } 10'' \text{ bbl.})$ on top, with a graceful ramp in front supporting the conventional 1/10'' patridge post, and a movable rear. All barrels are chambered with a countersunk breech which provides a considerable margin of safety, reduces headspace, and improves accuracy. There is an extractor, cam-operated, and with sufficient movement to lift the empty so it can be grasped even by the stubby-fingered gentry.

The receiver is as slab-sided as an old Winchester highside wall and because it is an investment casting of chrome-moly steel, it does not take the high luster bluing that you instantly note on the Douglas barrel. This is a minor point. The big outside hammer is of conventional configuration, with a broad spur. On the front face of the striker is a cleverly designed rotatable surface which, when swung upward, strikes the rimfire firing pin extending through the standing breech. When swung downward, it hits the second firing pin, also extending through the standing breech, and intended only for centerfire cartridges.

The trigger has little or no curve to its face, it offers a broad expanse of surface areas and thus seems to require less force to "break" the sear. The sear has a letoff of 2 lb., 10 oz., and indicates no false travel after the sear releases. There is an Allen screw in the assembly to adjust trigger movement, but no way to either lighten the pull or to make it heavier.

The trigger guard has an extension spur which curves backward and downward. When the gunner closes his fist around this spur extension and exerts force, the entire trigger guard-spur extension pivots upward and the gun will open. It is a tip-up type, the barrel pivots downward just sufficiently to present the open breech.

Unlike other single-shot pistols the lock-up on the Contender is unique—and complicated. When the gunner squeezes the spur extension to break open the breech, he activates the safety. This safety consists of a $\frac{1}{16}$ " steel wedge which interposes between hammer and sear. This same safety moves in between the hammer and the firing pins, provided the hammer (Continued on page 67)



Wayne Leek, one of the world's best, designed the 788 for Remington; is chief of Research & Development.



The three-barrel Contender set comes in an attractive hardwood case with trays for the gun and barrels.



By FRED E. POE

Side view of Hood's Duplex gun shows large cylinder pin, which also serves as a chamber for the .32 caliber rimfire cartridge.

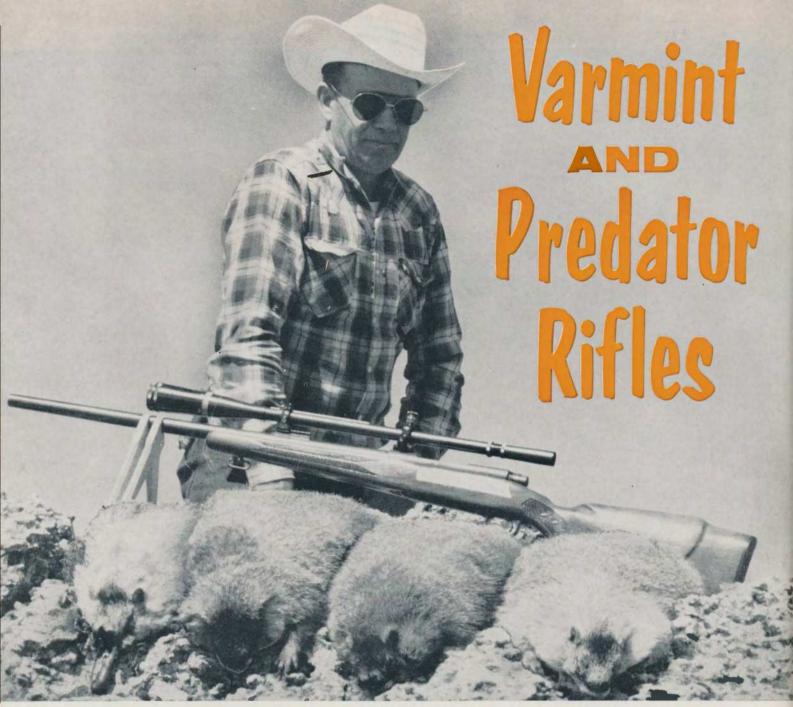
The DUPLEX REVOLVER

THE DUPLEX REVOLVER was invented by Freeman W. Hood, and patented Dec. 7, 1880. At this time Mr. Hood was employed by the Osgood Gun Works in Norwich, Conn. The Osgood Gun Works disappeared from the Norwich directory in 1888. No really reliable records can be found on this company, but through the Conn. State Library I find that the Duplex Revolver was reputedly made for William Read and Company of Boston, Mass., and the St. Louis Missouri Fur Company. This may be the same St. Louis Fur Company of the great fur trading era, but I can not authenticate this statement. There are no records available to tell us how many of this model were made. The one pictured in this article has a four digit number, all other samples I have seen also had four digit numbers.

The barrel length of the Duplex is $2\frac{1}{2}$ "; the overall length is $51^{3}1_{6}$ ". The cylinder is an 8 shot .22 cal. rimfire and a one shot .32 Long rimfire in the center. The grips are black walnut and are found to bear the same number as the frame, but numbered on the underside in pencil, not stamped as with the frame. The barrel, frame, cylinder, and latch are numbered alike. The barrel is numbered at the rear of the hinge, the cylinder on the back outer edge, the latch on the underneath side, and the frame under the wooden grips on the left hand side. This gun has no extractor device on the .22 cal. chambers. The single shot .32 Long has a very simple ejection device which works by breaking the gun open and lifting the cylinder out. The rim of the .32 catches on a small lip at the rear of the cylinder and in this manner is ejected. The barrel latch on this gun is very impractical because it is not a true locking device. It is merely a spring loaded lever with a notch cut in it. With very little wear on this latch and spring and also the barrel hinge, the gun becomes very loose and sloopy, and when cocked will not line up properly, causing the shaving of the slug as it passes from cylinder to barrel.

When one wishes to fire the .32 Long, the hammer must be pulled back and the spring-loaded firing pin pushed down as far as possible. On the original patent drawing the firing pin was designed to pivot in a circular motion, but this was changed for some reason, either before production started or very shortly thereafter. All examples of the Duplex I have seen have a firing pin made of flat steel, which is spring loaded and only tips up and down. The hammer is designed to accept the original patented firing pin or the flat steel pin. There is little change in the shape of the hammer as compared to the original drawing.

One very important part of any firearm, a rear sight, was not included in the manufacture of this revolver. It has a small blade sight on the front of the barrel and that is all. The cylinder walls on this weapon are sufficient to withstand the explosion of the .22 Long when fired. The .32 cal. chamber is also strong enough to stand the stress, as it is also encased by the .22 cal. cylinder. The samples I have seen of this gun were all marked DUPLEX on the top of the barrel latch. I have never seen one marked (MONARCH) and do not know any collector who has seen one marked thus.



This varminter can bust chucks at 300 yards with his .225 Win. M70 Varmint topped by Lyman's 15X scope.

A seasoned hunter and guide takes a look at the small game rifles



fle Broman

y LES BOWMAN

TODAY, IN OUR 50 STATES, probably more hunters shoot varmints and predators than game animals, yet the words varmint and predator are left out of some dictionaries, and are not clearly defined in others. Some dictionaries define the word "varmint" as an objectionable or undesirable animal, usually predatory. In some it is defined as being any small animal or bird obnoxious to the plans and operations of humans. Predator is defined as an animal or other organism that preys on other animals.

Out here in the West, the term varmint is mostly applied to such animals as the California "digger" or ground squirrel, the prairie dog and its varient the picket pin, jack rabbits, wood and rock chucks, porcupines, badger, armadillos, and also includes the different rodents, such as the gopher and the rat. Added to these are such birds as the crow, starling, jay, and mapie, and various unprotected hawks and owls.

The term predator is usually applied to animals such as the various cats, from wildcats to the lynxcat, and where the cougar is still unprotected it is also included in this category. Foxes, coyotes, wolves, wolverines, and even the hair seals of Alaska are considered in this class, too.

It has become the habit of the shooting fraternity, and even the major arms companies, to designate any of the lower caliber rifles, from the .22 centerfires to the .17 caliber, and even the .22 rimfire, as varmint rifles. Actually any size cartridge can be used on either varmints or predators, if a shooter so desires. In many of the larger caliber sizes, bullets are listed that are light in weight, have thin jackets, and are meant for varminttype shooting.

My own interpretation of true varmint cartridges includes the .22 rimfire up through the now popular .17 caliber and all the numerous cartridge sizes using the .224 caliber bullet.

Under some conditions and in certain terrain I occasionally include one of the 6 mm calibers in the varmint category. This is especially true in long range chuck shooting. Generally speaking, any size over the 6 mm has too much crack and muzzle blast for best use in varmint shooting, particularly if you are shooting at varmints that make their home underground. They just disappear down their holes and refuse to come out again for long periods of time when such guns are used.

The type of cartridge and caliber used for varmints should be carefully selected, both for the distance you are going to shoot and the size of the varmints. There definitely is sportsman-like shooting at varmints and predators, even when the purpose is to eradicate them. For this reason, the .22 rimfire should be limited to the smaller rodents and close-up shots. While it is sufficient for prairie dogs at around 50 yards, it is definitely not the caliber for rock chucks. The .22 Winchester Rimfire Magnum is okay for prairie dogs out to 100 yards, but for the big 14-pound Above: Remington's Model 700 BDL Varmint. Left: Winchester's Model 70 Varmint. Both are fine varmint guns right off the shelf.

rock chucks it is not powerful enough except for close shots. For most of the birds in the jay and magpie class, as well as the small owls and hawks, the .22's are okay, when used at moderate distances.

The real varmint rifle starts with the metal jacketed, center-fire cartridge such as the .17 Javelina. There is one handgun that has been proved to be really accurate and carries enough energy out to the 200 yard limit to be a good varmint gun. This is the Remington XP 100, with its .221 Fireball cartridge. Many fine custom rifles are now being made for this cartridge. Its power is midway between the .22 Hornet and the .222 Remington. The Hornet was the first of the really good varmint cartridges and had an average effective range of around 200 yards. The .222 Remington starts our present day production rifle off as varmint cartridges with its effective range of about 250 yards. The .223 and .222 Magnum raises this to the 275 to 300 yard figure.

The past few years have seen the introduction of several fine production rifles and cartridges that have given the varmint shooter long range and good killing power. These are the .224 Weatherby Magnum, the .225 Winchester, and the .22-250 Remington. These three excellent cartridges have raised the effective distance average for the varmint shooter to over 400 yards. While Winchester has discontinued production of the .220 Swift rifle, they are still making this cartridge, and it gives the shooter a bit farther range than 400 yards. When we add the .243's and 6 mm loadings we get a range out near to the 500 yard limit. All this gives the varmint shooter real long range shooting, with low noise level, safety from ricochets and stray bullets, low recoil, and high accuracy potential. These new varmint rifles have opened up a great number of shooting areas that were closed to the shooter using the heavy, high power rifles.

The number one requisite for a varmint rifle, for any distance and any varmint, is that it be as accurate as possible. As there is little recoil to any of the varmint calibers, most people shoot them well. In the short range, lower power cartridges such as the .22 rimfires, the (Continued on page 56)



Letters

As a licensed dealer, I find your magazine very useful and informative. As a police officer, I am even more pleased to see the new April "Guns and the Law" series. It seems that no matter how well trained, the police officer can always learn new techniques and tips and apply the same.

The Minneapolis police department rookies are told that the FBI has replaced the clumsy Thompson submachine gun with the 20" barrel shotgun using OO buck shot.

Many officers tend to raise the muzzle too high when firing from the hip. Intentionally firing lower will re-sult in more hits, and if fired a bit too low, the pellets will bounce, ricochet upward, and still reach the intended target in an even more devastating manner. Used in this manner, in an alley or between buildings, it is not hard to understand why the FBI refers to the shotgun as their "alley E. D. Scott sweeper." Minneapolis, Minn.

May I tip my hat to you, and salute you for the two interesting articles in the April issue, "Shooting Back at Crime," and "Guns and the Law." H.A.S.

Newark, N.J.

I am very pleased that Guns now includes a police section. I feel, however, that I must criticize the cover photo on your April issue. First his stance—in this position, a bullet hit-ting any part of his body would put him out of the fight. Second-unless his foe is the Jolly Green Giant, he better get that revolver muzzle down. Third—the reason the left hand is there is not to balance the body, but be ready to grab the weapon and keep H.A. Land Chief of Police Mayville, N.Y. in the battle.

NEW WEAPON AGAINST CRIME

GUNS and

By COL. REX APPLEGATE

N PITTSBURGH, PA., two police officers were sent to stop a bar fight. One of the fighters, violently drunk, ignored the command to stop fighting and charged the officers. . . .

In Dayton, four unruly juveniles attacked a department store detective who had ordered them out of the store for rowdy behavior.

Officers in Leesport, La., were called to subdue a man who had become violently insane. The man was six feet tall, and weighed 200 pounds. He

charged the Chief of Police. . . Two policemen of Brownsville, Pa., raided a crap game with 25 gamblers present. The officers ordered the men to line up and be led into the patrol wagon. Several of the men tried to rush the officers and force their way out to escape arrest. . . .



The Chemical Mace easily handles dangerous situations like this one.

As any law enforcement officer will realize, each of the situations described above offer excellent spawning grounds for complaints of "police brutality." The officers, had they been carrying the normal police weapons, would have had to either resort to hand-to-hand combat; the use of their batons (billie club or night stick, if you will) or, if the situation called for it, the use of their revolvers. These people had to be subdued; but does the drunk have to be clubbed; or the juvenile manhandled; or the gamblers shot? Not necessarily!

The situations described above were all brought to successful conclusions without the use of any force-neither fists, nor clubs, nor guns. In each case, the officers were armed with a revolutionary weapon-the Chemical Mace.®

This weapon, manufactured by General Ordnance Equipment Corp. (201 S. Highland Ave., Pittsburgh, Pa.) is essentially an aerosol device which propels a stream of a special tear gas droplets. When any of these droplets touch the face, they react with the oils and fatty compounds of the skin, affecting nerve endings causing a stunning sensation, and forces the eyes to close. The compound does not have to hit the eyes directly to be effective.

Before you say to yourself, "This is only another tear gas pen," let's compare the Chemical Mace with more common devices; the pen guns, pressurized can tear dust projectors, etc.

the LAW

Generally, pen guns and spray-can devices have limited range; the Chemical Mace, Mk II, has an effective range of up to 8 feet; the Mark IV, up to 20 feet. Other devices, when fired, may contaminate a large area, and in some cases, the officer is subjected to the effects of his own weapon; with the Chemical Mace, droplets are propelled in a shotgun pattern only at the target, leaving bystanders unaffected. With pen guns and spray-can devices, the officer must constantly be aware of wind conditions so that spray does not come back toward him; with the Chemical Mace, the heavy droplets brought back by the wind will fall to a level below the officer's face, even under adverse wind conditions.

There is one other aspect of the Chemical Mace that should be of interest to all police personnel, and that is that there are no toxic after or side effects. A recognized testing laboratory found that even after monkeys and rabbits were subjected to bursts directly in the eyes for periods up to five seconds, "no detectable conjuctival irritation or corneal damage" was discovered. Considering that in normal use the Mace would only subject persons to bursts of one-half or one second, these tests indicate that it can be used with complete confidence.

The configurations of the Mace that are available include the Mk II, a pocket size unit that can fire 8 one-second bursts, with a range of 8 feet. The Mk IV is a larger version, with capacity of up to 60 shots and a range of 15 to 20 feet. This model can be worn on the officer's belt, or carried in a squad car.

The Mark VII is called a Chemical Baton. This features a disposable cannister which contains the same formulation as the Mace, built into the familiar baton. Three sizes are available; the 12" billy, 20" night stick, and 26" baton.

Just what is the effect of the Mace's irritant? Let's go back to the situations described at the beginning of this article. In the Pittsburgh bar fight, one of the officers was armed with a Mark IV. He hit the attacker with a two-second burst at a range of 6 to 7 feet. The attacker immediately stopped, covered his face with his hands, and stood bewildered. The elapsed time of this incident was about three minutes. The bar patrons were not angered, and many were not aware of what had happened.

In Dayton, two of the juveniles were shot with a Mark IV Mace. The other two juveniles stopped immediately and upon order, picked up the two who had been hit, and led them out of the store.

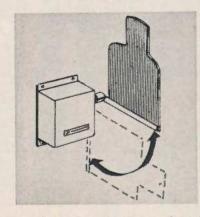
The man in Leesport was hit by a burst from a Mark II Mace from a distance of 4-5 feet. The man instantly stopped, putting his hands over his face and crouched down. He was effortlessly led away. The attackers in Brownsville were hit with a burst from a Mark IV

The attackers in Brownsville were hit with a burst from a Mark IV which immediately subdued them. The others filed out to the wagon with no incident. (Continued on page 70)



New Products

Universal Target Turners from Police Ordnance, P. O. Box 398G, San Dimas, Calif., can be used in virtually every possible situation, from pop-up silhouettes to turning regulation tar-



gets. Their compact size makes the units easy to install and to maintain. Electronic timers and programmers can be used with remote switches to suit any range conditions.

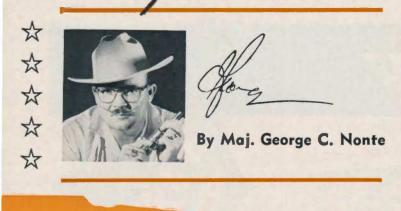
Holsters by Don Hume Leathergoods, Box 351G, Miami, Okla., feature welt and muzzle plugs, are metal reinforced, and are available in a full



Chemical Mace comes in two basic forms: The Mk-IV carried on the belt or in the squad car, and the pocket-sized Mk-II.



range of styles in either plain or basketweave. Hume's new catalog is available for just 35ϕ and shows their complete line of quality leathergoods for law enforcement.



The Shrinking Military Cartridge G OING INTO WORLD WAR II, the assorted combatants found themselves in possession of and required to use the most motley array of military small arms calibers of ammunition ever asembled.

While it is common to think of the British as having used the .303, the French the 8mm Lebel, etc., in that conflict, the truth of the matter is something else entirely. Briefly, let's take a look at what the major powers used at the beginning, in order to understand more clearly what followed in the wake of victory.

Britain had standardized rifles, LMGs and HMGs in .303 caliber. Thompson SMGs were on hand in .45 ACP, and Webley and Enfield revolvers in both .455 and .38/200 calibers. In addition, the often overlooked Besa 7.92mm (8x57mm Mauser) machine gun was standard in many armored vehicles from 1939 onward. So there were in the beginning one rifle, three pistol and two MG calibers (without even mentioning heavier ground MGs or aircraft weapons, both of which we'll ignore here).

But came Dunkirk, and U.S. .30-06 arms came into use, followed by the 9mm Parabellum Sten SMG in 1941. Colt .45 ACP pistols were also procured in quantity. So by the time the war was well under way, our British cousins had to supply *eight* calibers of basic small arms ammunition for the troops—multiplied by the number of types (tracer, incendiary, armor piercing, ball, etc.) required in each. The procurement and distribution of all those ammunition items was a War Office nightmare, particularly when virtually all calibers were being procured from Canada, the U.S., and Australia, as well as the home island.

The French found themselves nearly as badly off, but didn't stay in the fight long enough to encounter England's difficulties. Our then-allies, the Russians were either more fortunate or better prepared and got by with one rifle and MG caliber and another for pistols and SMGs. The United States, with its production facilities already in high gear

RIFLE CARTRIDGES

Caliber	Origin	Туре	Bulle Weigh		Muzzle Energy	Common Arms	Countries
7.62 NATO	U.S.A.	Rimless Bottle- neck	150 gr	. 2800 fps	2612 fp	M-14, G-3, FN variations, MAC, M-60, M-73, Swiss M-57, MC 710-3 Jap. TYPE 64, Type 62, MG 42/59, Bm 59 series, Fin- nish M60 series	NATO (except France), Scandinavia, South Amer- ica, Cuba, Australia, NZ, India, Austria, W. Ger., Japan, Netherlands, Den- mark
7.5mm French	France	Rimless Bottle- neck	139 gr	. 2705 fps	, 2259 fp	MAS 36, MAS 49 series, M 07/15, M-34, M-1924, M-29, M-31, M-32, MG	France
7.62mm M 1943	U.S.S.R.	Rimless Bottle- neck	122 gr	2330 fps	1470 fp	AK series, SKS, RPD, RPK	Soviet Bloc, UAR, Fin- land, Comm. China, N. Viet Nam
7.62mm M-52	Czech,	Rimless Pottle- neck	132 gr	. 2440 fps	1745 fp	M-52 rifle, M-52 MG	UAR, Czech., some South American & African countries, Cuba, Comm. revolutionary groups all over the world
.223 (5.56mm)	U.S.A.	Rimless Bottle- neck	55 gi		1288 fp	M-16, Stoner system, AR 18	U.S.A.
					STOL &	SMG	
Caliber	Origin		llet ight	Muzzle Velocity	Muzzle Energy	Common Arms	Countries
.45 ACP	U.S.A.	230	gr.	830 fps	402 fp	M-1911A1, Thompson SM6 series, Madsen M-	U.S.A., Mexico, Brazil, various recipients of U.S.
9mm Parabellun	n Germa	ny 115	gr.	1115 fps	317 fp	1950 SM6, M3A1 SMG Luger, P-38, Browning HP, Beretta M-51, Sten- sences SMG, Lahti, Svomi SMG, UZL, SMB, French M-50, Most Western SMG	military aid All NATO except U.S., Canada, Australia, NZ
7.62mm	U.S.S.I (E. Ge		gr,	1378 fps	269 fp	TT 33 pistol, all PPSII & PPD series SMG	All Soviet Bloc nations
9mm Makorov	U.S.S.I	R. 94	gr.	1070 fps	239 fp	Makarov (PM), Stechkin · (APS)	U.S.S.R. and many Soviet Bloe nations

when war actually came, was able to supply all its own needs, thus keeping to three calibers for rifle, carbine, pistol and SMG use.

In the enemy camp, the Italians were worse off than Britain, the Japanese in somewhat better shape, and the Germans doing nicely with only two basic calibers until 1943 when the 7.92mm Kurz was added to feed the new MP43 assault rifle.

And, of course, every major power made wide use of civilian handguns in various calibers, thus generating a requirement for ammunition to fit them, but they were not normally issued to troops in the field. Every nation's forces also made use of captured enemy arms whenever practicable, but only when ammunition was already available. It is history now that the problems were solved, but many a logistician vowed "never again!"

And so today we have two complete new families of military small arms cartridges—one on either side of the Iron Curtain. It is today considered essential that ammunition, and to a lesser degree weapons, of any sovereign nation be interchangeable with those of real or potential allies and also any country on which it might have to depend on for supplies in an emergency. Even allegedly totally unallied nations are steadily rearming with calibers standard to either NATO or the Soviet Block to simplify procurement.

There have been holdouts in this area. Fiercely nationalistic France, with her contempt for anything not utterly French, has steadfastly refused to adopt the new rifle and MG cartridge of the West. Farther east, Czechoslovakia proceeded apart from other Soviet satellites and adopted its own cartridge in 1952—only to eventually switch over to the Soviet standard not long ago.

Serious development of new standard cartridges began during WW II in both Germany and the U.S.S.R. Germany had actually begun back (Continued on page 77)



Left: Britain used all these seven cartridges in WW II. Right: They now use only the 9 mm Luger and 7.62 NATO.



U.S. standard small arms cartridges are the .45 ACP, 5.56 mm and 7.62 mm.

The Winchester Single Shot

The 1885 Single Shot began the successful alliance between Browning and Winchester.

PART ONE tells how a rifle invented by John Browning came to be called the Winchester High Wall

By JAMES J. GRANT

WHEN THOMAS GRAY BENNETT of New Haven, Connecticut, walked into the gun shop of the Browning Brothers in Ogden, Utah, in the early spring of 1883, the meeting that ensued was to have far reaching consequences for the lives of many people. Bennett was the son-in-law of Oliver Winchester, and in 1883 was Vice President and General Manager of the Winchester Repeating Arms Company. He had come all the way to Ogden from the East to buy, if possible, John Browning's patent single shot rifle. This rifle had come to Bennett's attention when one of Winchester's salesmen ran across a used rifle and sent it to the factory for examination and appraisal. It interested Bennett enough to cause him to come the long way by rail to meet the maker of the rifle.

While the company had the 1866, 1873, and 1876 repeating Winchesters in their line, they did lack a rifle capable of handling powerful big game cartridges. The meager power delivered by the various weak cartridges used in their repeaters was a far cry from the heavy black powder charges utilized by the Sharps and Ballard rifles and the newly introduced .45-70 Government cartridge.

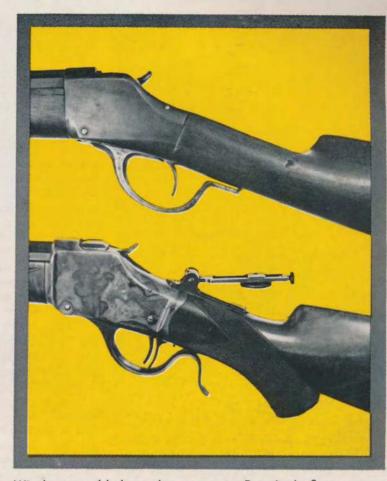
The Sharps Rifle Manufacturing Company had by then ceased business, and Bennett no doubt could have bought the patent and manufacturing rights to the Sharps at a reasonable figure. Apparently he considered the new Browning single shot rifle superior to the Sharps. It was, of course, obviously much better than the old Sharps side hammer system, but just as obviously not superior to the Sharps Borchardt. But Bennett was a conservative man and distrusted the lack of an outside hammer on the Borchardt which he felt wouldn't go over with the shooters.

. Bennett made a deal with John Browning for his rifle patent and purchased the manufacturing rights for the sum of eight thousand dollars. He would no doubt have paid much more had Browning held out longer, but to Browning this must have seemed like a lot of money—more than he had ever had before—so he sold it to Bennett. Thus began an association between John M. Browning and Winchester which was to continue until 1902, and was to make much money for all concerned.

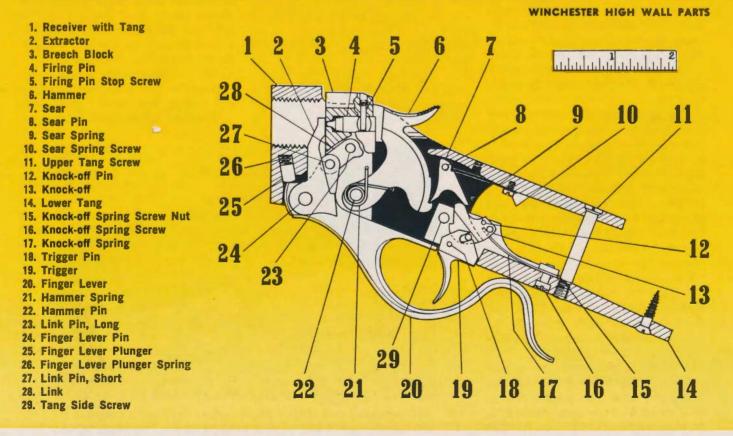
In relation to Browning's first invention, the single shot, a patent was granted him October 7, 1879, No. 220,271. This design was obviously more or less inspired by the Sharps side hammer action. Many specimens of the various Sharps no doubt passed through his repair shop, and that of his father before him, so he had ample opportunity to examine them and devise his own improvements.

Browning may have been more or less unconsciously influenced by the Sharps vertically rising breech block linked to an under lever trigger guard and with an extractor pivoting on the axle pin of that lever. The Sharps lock is fairly well protected from dirt and other extraneous matter by the lock plate on the outside and by the wood of the butt stock on the inside, while the Browning center hammer permitted the entry of dirt more readily. However, every other feature of the Browning was an improvement over the Sharps side hammer, but not over that of the Sharps-Borchardt, which is another matter entirely and in a class by itself above both the Browning-Winchester and its ancestor, the Sharps.

The action, as made by Browning, consists of the vertically rising and falling breech block operated by the link and finger lever. The extractor pivots upon the lever axle pin and is actuated by a stop on the falling breech block. The flat spring anchored beneath the breech of the barrel of the Sharps is used by the Browning to operate the hammer which is hung between the divided lower legs of the breech block, and also to retain the finger lever in a closed position.



Winchester added another curve to Browing's finger lever along with angled seating of the breech block.



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Top: Winchester with thick side walls. Bottom: Side walls were soon milled.

WINCHESTER

The finger lever is kept in a closed position by the placement of the lower link pin, which is ahead of the upper link and finger lever pins when in the closed position. This permits the tension of the under barrel hammer spring on the forward projecting lower end of the hammer to depress the breech block slightly while the link pushes the upper end of the finger lever forward and the whole lever into the closed position. The firing pin is retracted by a coil spring which encircles it. The Browning breech block is about 1.15 inches in width.

There is considerable variation occurring in the surviving Browning single shot specimens and since these were all made in a small shop, mainly by hand. this shouldn't be surprising. They were made much as the early muzzle loading rifles were made in the backwoods gun shops and it is extremely difficult to find even two of these which closely resemble one another. There is also considerable variation found in the markings on these rifles, but this is not the place to enumerate these differences. Suffice it to say again that these variations, while extremely interesting to the collectors, certainly can't be considered surprising.

It seems reasonable to assume Browning made some quantity of rifles before the patent was granted him in 1879 as we find specimens marked "J. M. Browning, Ogden U. T. 1878." The U. T. refers to Utah Territory, since it had not then been admitted to the Union.

At least a portion, possibly all of the very early rifles made, were on actions with a separate lower tang, but the later ones—and those commonly seen—have the lower tang made integral with the frame. All Browning single shot specimens in existence today show the same gentle, graceful curves joining the butt stock with the frame and this stock held in place with short tenons extending into the frame at the rear and retained by a single bolt threaded from the top down into the lower tang.

These rifles were fitted with barrels which the Browning Brothers bought from suppliers, Remington being one of these. They are found mainly in two calibers, .40/70 Sharps Straight and .45/70 Government. These were two very popular calibers about this time, the .40/70 favored for deer and the heavier .45/70 for elk and grizzly bear. I know of just one other caliber in an original Browning installed barrel and this is the .50/90 Sharps. One other specimen differing in caliber is a .38 caliber piece reported as being in the Winchester Gun Museum at New Haven.

It is generally agreed there were about 600 rifles produced by the Brownings at Ogden and the survival rate is very low. Most of the pieces still in existence are in the West. I know of only two specimens east of the Mississippi. They were made for and sold to men who used them a lot and used them hard in a frontier wilderness, and while the Browning was a ruggedly built rifle, made to take hard usage, the attrition of the years took care of a great number of them.

I have owned my Browning rifle for quite a few years but even yet whenever I pick it up I still feel a distinct thrill to realize how it came into being and I marvel at its clean rugged lines and the simplicity of its few action parts. I have owned quite a few Winchester single shot rifles, many in deluxe target grades, but I must confess my old Browning, plainly and honestly made as it was, intrigues me more.

This article was supposed to be about the Winchester single shot action, but I could not resist the temptation to give some of the background of this famous action. I feel it should be considered in the light of the coming discussion since the models made by Winchester are quite varied.

Perhaps I should mention right here my remarks in this article will pertain to the Winchester lever action single shot rifle. Winchester made other single shots, some years back, namely the Model 1899 Thumb Trigger, the Model 1900, Model 1902, and Model 1904, but these were light rifles of bolt action pattern, and intended primarily for boys' use. It may interest you to know that Winchester also obtained the design and patent rights to these rifles from John M. Browning who invented them.

When the rifle was offered by Winchester in 1885 they called it the Winchester Single Shot Model 1885. The principal differences between the first actions as made by Winchester and its predecessor the Browning were:

1. The Winchester frame was octagonal shape at the barrel housing; the Browning was round topped. Later Winches- (Continued on page 54)



An interrupted thread take-down system was used on some of the Winchester High Walls as well as some of the Low Wall version.

COMBINATION GUN

TWO GREAT GUNMAKERS ARE REPRESENTED IN THIS UNIQUE GUN

By HARRY O. DEAN

The Newton-Adolph combination gun, with two 12-gauge barrels and .25-35 Win. rifle barrel. THE NAMES of Fred Adolph of Genoa, New York, and Charles Newton of Buffalo, New York, are among the most famous, and controversial, in the history of American firearms. One of the unusual and little-known facets in the lives of these two men is the fact that they were associates in business for a while. The unusual gun shown here is visual evidence of their temporary partnership in the firearms business.

Adolph was both a skilled gunsmith and a clever businessman. He worked for a time at the Ithaca gun plant in Ithaca, N.Y. Thereafter in the early 1900's he struck out for himself and set up shop in Genoa, N.Y. He sold imported guns from this location for a number of years.

The ads which he placed in various magazines intimated that he was creating handmade guns in Genoa, N.Y. He did do some customizing, remodeling, and stocking but the combination guns he purported to make were imported. He sold them under his own name. Some were specially chambered by Fred Adolph for "Express" cartridges designed by his friend Charles Newton.

Newton was a Buffalo, N.Y., attorney who turned his brilliant mind to his chosen hobby of firearms. He was one of the early wildcat cartridge designers and it was his contention that high velocity and flat trajectory were the coming thing in firearms. At the turn of the century he experimented with a number of outlandish combinations. He quickly learned the proper relationships between caliber, barrel length, and powder capacity (Continued on page 64)



Missing for a long period and presumed lost, the second Colt belonging to Capt. Samuel Walker has reappeared





William Locke's ornamented Colt's display, titled "The Craftsmen's Art in Colt's," received the "Best of Show of Engraved Arms" award.

RARE OLT'S AT SAHARA By ROBERT N. MANDEL A S I WALKED through the exhibition hall of the Sahara Hotel in Las Vegas, and looked over the fabulous displays of Colt firearms, I could not help but wonder if Sam Colt had any idea that his product would give him the esteemed title, "Father of American Firearms."

Whether he got the idea for his revolving cylinder from watching a ship's wheel or from the windlass and pawl, as a young man, serving as a midshipman, Sam carved and whittled on a model of his invention which would, in a few short years make him a legend in his own time; but more than that, a legend in a time when men would pay fabulous sums of money for samples of his brainstorm.

It was fitting that one our country's finest gun shows would have as its theme, Sam Colt's firearms. Never before, and probably never again, will so many magnificent examples of single Colts and groups of Colt models meet under one roof. I have never seen so many low serial numbers and mint condition guns in all my years of collecting. The first display to greet you as you entered the exhibition hall was a fantastic array of Colt Single Action revolvers, owned and displayed by the wellknown personality, Mel Torme. Mel not only is a fine singer and song writer, he also has a vast knowledge of Colt firearms, and his display was evidence of this. It was so good that it won the title of "Best Cartridge Arms Display of Show," and there was no argument from anyone that it wasn't very well deserved.

There was no arguing the fact that William Locke had the "Best of Show of Engraved Arms," and his display of ornamented Colts dazzled with fine examples of the craftsman's art. Seeing an array of fine Colt percussion revolvers is exciting enough, but when the display is seasoned with Tiffany grips, silver plated and embellished New Pocket Models, and others, just as nice, even the most critical collector stands in awe.

Robert Q. Southerland of Kansas City, Mo., walked away from the Sahara with three awards. His Colts were shown in an exact replica of the famed Colt



Mel Torme's fabulous collection of Colt's won the "Best Cartridge Arms Display of Show" award. It was suitably placed at the entrance of the exhibition hall.

COLTS AT SAHARA



Commenting on R. G. Southerland's excellent display titled "The Evolution of the Colt" are Harry Knode, Jim Serven, Herb Glass, Jon Peck, and Nathan Swayze.



Jim Fowler's distinctive display of Winchester rifles earned him a tie for first place with Elmer Taylor.

display case, a replica that had everyone at the show talking. His second award was for his Pearson-Colt, Serial No. 1; and that's what you might call a pretty early Colt! Sutherland's "ace in the hole" was his third award winner, an original patent model of the Colt Single Action.

As one could expect at a show of this nature, there were variations upon variations. However, when you studied the display of Philip R. Phillips of Bartlesville, Okla., you had to look twice to be sure that your eyes were not playing tricks. Here were displayed seventeen (17) Paterson Colt variations. Phillips headed his display with "Gun Show Making History," and truer words were never spoken, for it was truly a sight to behold. It was little wonder that he won "Best Percussion Display of Show."

Clare Short, well known collector of Woodland Hills, Calif., won two awards for his display on the evolution of the Colt Percussion Revolver.

All of the above awards were justly given, although the many other great Colt displays would have topped anything at any other gun show. To win an award at the Sahara, only the finest of displays have a chance.

To me, one of the finest single guns at the show was the "Lost Walker." This was displayed by Dr. Roy S. Horten of Santa Ana, Calif. Captain Walker—soldier, scout, indian fighter, and Texas Ranger—owned a pair of Whitneyville-Walkers, serial Nos. 1009 and 1010. Number 1009 is still in the possession of the Walker decendents in Baltimore, Maryland. The other one, serial No. 1010, disappeared and could not be located for many years, thus the reference to "The Lost Walker." It is now in the collection of Dr. Horton, and it was the hit of the show for me. Only in this great Colt could one find so much history, romance, and intrigue.

Although the theme of this Sahara Show was Colt Firearms, other collectors were not forgotten. Frank Sellers of Denver won "Best American Gun of Show" with his historical Sharps Model 1877 Rifle, which was originally a presentation to Theodore Roosevelt—a fine one-of-a-kind firearm. M. C. Clark of California won an award for his Purdey elephant rifle.

As in any gun show, Winchesters can never be forgotten. Once again Jim Fowler of Nashville, Tenn., (Mr. Winchester) won in a tie with Elmer Taylor of Orange, California, for their outstanding Winchester displays. The romantic theme, "Guns That Won the West," was displayed in great taste by Jon Peck of Hartford, Conn. A most attractive display of Buffalo rifles won an award for Duane Mitchell of Paso Robles, Calif.

These displays, of Colts and other arms, represent only a sampling of what was offered at the Sahara. Others that impressed me were: Cris Anderson's Civil War Revolvers; Burgess Arms, displayed by Lynn Wakeling of Reseda, California; The Philadelphia Deringer, a fine collection shown by Harold Ward of San Francisco; Sharps Arms, displayed by Jack Wray of Northridge, Calif., and the study of Merwin & Holbert arms by John Palmer, Jr.

Once again, the Sahara Gun Show was a credit to the firearms displayed, to the collectors who participated, and to the vast society of gun enthusiasts. Harry Mann, Director of the Gun Show, and John Romero, Sahara's Director of Publicity, are to be congratulated. If last year's show was called the "Million Dollar Gun Collection," what would we call this one? Many of the individual firearms shown here were beyond the realm of having a fixed price.

GUNS COLOR GALLERY

A LTHOUGH the concept of the double barrel shotgun may not be modern, the models shown in this color gallery are demonstrable proof that a truely modern shotgun can be produced which successfully combines the old with the new. There are those who say that the double shotgun is outmoded, yet they cannot deny the fact that almost every sportsman has a burning desire to some day become the owner of a fine double. Perhaps the very fact that the concept of the double shotgun has not changed over the years is the reason for its popularity, even today.

She Modern Shot



The Model 101, an over-under shotgun which proudly bears the name Winchester. Shown here is the latest, a 20 gauge with interchangeable barrels in 28 and .410. This combination acknowledges the popularity of the smaller gauges, not only among the target shooters, but also among those who take to the fields in quest of gamebirds.

Photo courtesy Winchester





9

Superposed by Browning, the standard by which all others are judged. Shown here are, left to right, a Midas, Pigeon, and Diana grade, three of the four specially engraved models available. Not shown is the Pointer grade. Photo courtesy Browning Arms



BY APPOINTMENT TO H.R.H. THE DUKE OF EDINBURGI GUN MAKERS

I. Purdey & Sons

When one thinks of an English "best quality" shotgun, the first name which comes to mind is Purdey. The side-by-side shown here is a 12 gauge sidelock, from Abercrombie & Fitch. Photo by Frank Eck PRACTICAL GUIDE TO COMPLETE DISASSEMBLY OF

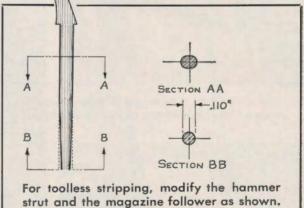
The Walther P-38

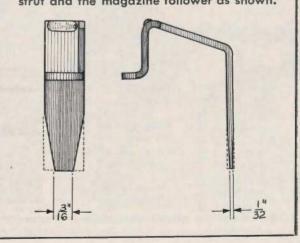
By DONALD M. SIMMONS, Jr.

THIS AUTOMATIC was designed by the Walther factory in 1937 and was adopted by the German Army in 1938 as "Pistol Model 1938," or P-38. It was one of the most advanced automatic pistols in the world and is still considered so today, over a quarter century later. Most American sportsmen have an aversion to "sheet metal" guns and this dislike, which is unreasonable, has even affected our military thinkers and designers. If a part in a military firearm can do a job, its beauty should have nothing to do with deciding whether it should be used. The P-38 was designed to have many pressed steel parts in the original concept. This was unlike our Springfield 1903, which was an all-machined part rifle until the urgency of WW II, when we went to pressed steel parts and it was renamed the 1903-A3. The 03-A3, because of this, is not popular for civilian rebuilding, but this economy in no way affected its usefulness as a military arm. Designing initially with pressed steel parts allows the designer to effect a great saving in the machining time for the entire arm.

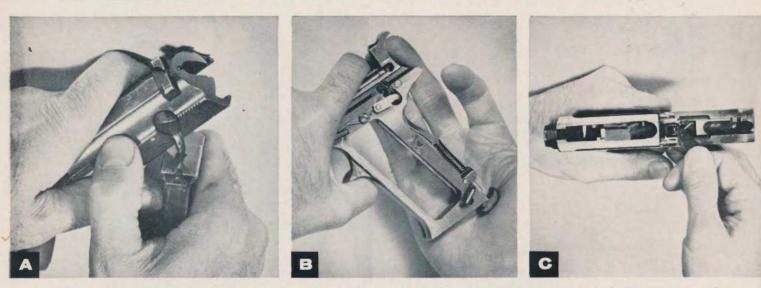
In designing the Walther P-38, savings through the use of pressed steel parts were effected so that the machining of the main forgings could be fairly complex. Yet with import duties and because of low production, a new P-38 today costs \$120.00 in the U.S.A. from Interarmco, the sole U.S. distributor, as compared with the only two 9 mm Luger American-made pistols, \$90.00 for a Colt Commander and \$92.00 for a S&W Model 39. This leads to the question, just what is so cheap about the P-38? The external quality of P-38s made during WW II certainly deteriorated from 1938 to 1945, but contrary to many writers' opinion, I find that the later pistols work just as well and are just as safe as the early ones.

Many returning servicemen brought a Walther P-38 back with him as a souvenir. I believe that to learn to fully strip it without any tools is interesting and valuable to the owner. In the toolless takedown of a P-38, two parts are modified to serve as tools, but which in no way impairs their functional strength. The two

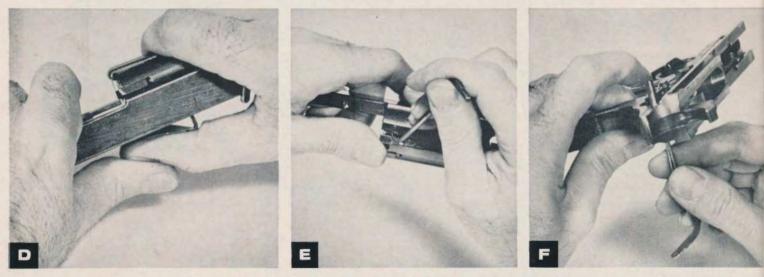




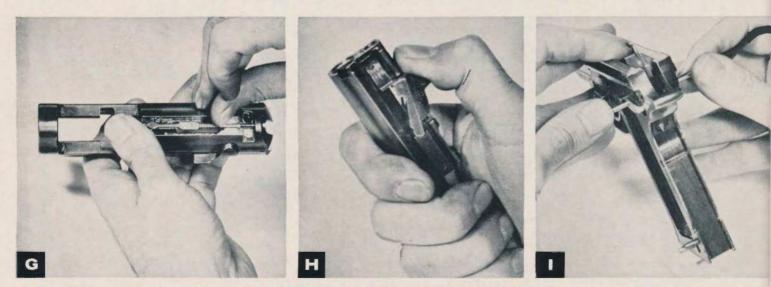
THE WALTHER P-38



The toolless stripping job begins by using the safety to release the magazine's floor plate lock (A). Removing the magazine catch (B), requires a deft motion. Use the magazine follower (C) to snap the trigger bar out of the frame.



The slide cover is removed through pressure of the magazine follower tool (D). The extractor is snapped out of the frame (E) with hammer strut. The hammer and associated parts are aligned for assembly with hammer strut (F).



Make sure the smooth side of the indicator pin is up (G) when inserting it. The locking block will snap into place under thumb pressure (H). The sear and ejector are aligned with the hammer strut (I) as the sear pin is inserted.

parts are the Magazine Follower (52) which will hereafter be called the Magazine Follower Tool (52) In a like manner, the Hammer Strut Tool (28) is made as shown in the drawings.

If the pistol is in excellent condition or if it is an early rare one, I would strongly suggest that an extra magazine be bought and its follower modified instead of the original one. Also, hammer struts are available as P-38s are being made today, and this will save the original one if your example is a collectors item.

This disassembly of a P-38 can be done in about $2\frac{1}{2}$ minutes and the reassembly takes about $5\frac{1}{2}$ minutes. Just as a final test, I tried doing both operations blindfolded and while it took a lot longer (especially reassembly), I was able to do it.

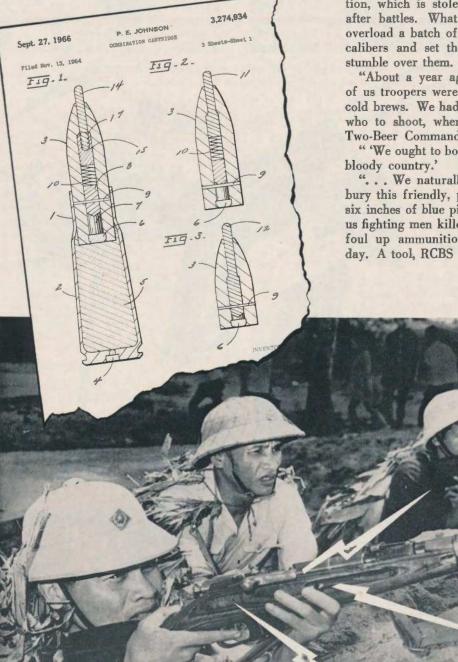
FIELD STRIPPING

The first step to a complete disassembly of the P-38 is to field strip. The pistol is placed in the right hand as though shooting. The Slide (6) is retracted by the left hand and held back by the Slide Stop (47). The chamber is examined to be sure the gun is empty. Push the Magazine Catch (46) with the left thumb at the same time that the left forefinger pulls down the front end of the Floor Plate (54) and retract the magazine group from the Frame (22). Still holding the pistol in the right hand, using the forefinger and thumb of the left hand, pull down on the Safety Subassembly (19, 20, 21) so that the red letter "F" is covered and the white letter "S" is exposed. With the same thumb and forefinger swing the Take Down Latch (27) to 8 o'clock. Now place the left hand with the (Continued on page 52) thumb to the rear over the



HOW TO BEAT THE CONG!

OUR BEST WEAPON-INGENUITY-MAY BE NEEDED FOR SUCCESS IN VIETNAM



N EITHER THE HAWKS nor the Doves would insist that they have a corner on suggestions to end the war in Vietnam, and GUNS Magazine has had more than a few pass across the desk. Some are patently ridiculous, while others are patented inventions. Two ideas which recently came to our attention were worthy of more than a passing glance and we decided to pass them on to our readers.

Specialist 5th Class Perry A. LeClerc, currently stationed with an artillery battalion at Nha Trang, Vietnam, wrote us of an idea that, if pursued, could well demoralize the entire North Vietnamese Army as well as the Viet Cong. His idea, *deliberately overload their cartridges*. It is a fairly well-known fact of the Vietnamese conflict that "Charlie," as the VC and North Vietnamese are affectionately known, is using Allied supplies, especially ammunition, which is stolen, captured, or just plain policed up after battles. What Sp/5 LeClerc proposes is simply to overload a batch of rounds in VC and North Vietnamese calibers and set them out where Charlie will naturally stumble over them. LeClerc writes in part:

"About a year ago (safely back in the world), a few of us troopers were fighting this Vietnam war over some cold brews. We had it all mapped out on the tablecloth who to shoot, where to bomb, and the like—when our Two-Beer Commando spoiled the whole show:

"'We ought to boobytrap every loose round in the whole bloody country.'

"... We naturally agreed that it would be cheaper to bury this friendly, picturesque little country under about six inches of blue pill handloads than to have even one of us fighting men killed. Lord only knows how easy it is to foul up ammunition; careless handloaders do it everyday. A tool, RCBS seating dies in 7.62x39 mm, 7.62 mm Moisin, etc., bullet pulling hardware, a few clips of captured or surplus ammunition, a hatful of granular tetryl, and you're in business. Much cheaper than a napalm bomb, and far less indiscriminate.

"We assumed that innocent, peace-loving farmers would not likely be hurt by these infernal devices, but they should have a most salutary effect on terrorists and rebels. Imagine the moral effect of instant retribution brought on by the criminal act itself. As Pappy used to say, "That'll break 'em of suckin' aigs."

Sp/5 LeClerc wrote up the idea and shipped it off to the Department of the Army, which later rejected it as being impractical. Be this as it may, one still can imagine Charlie a few moments after the blue pill blast, wondering about Buddha's wrath, or whether the war in the south is worth a hand. Perhaps he thinks, "So this is why the French went home," and wonders whether he should go home too; that is, if he isn't completely out of traveling condition.

Still, the Department of the Army has a point: Suppose a case of these overloads got mixed with a batch of regular ammo being used by our troops during a firefight. Our boys just wouldn't have time to sort out every round, and the blue pill and the regulation cartridges would have to look awfully similar to keep Charlie fooled for very long. And if there was any recognizable code in the headstamp, it would be broken eventually. Issuing the blue pill loads only to special units would give the units a highly difficult job of planting sufficient cartridges to do an effective job and would necessarily limit the demoralizing effect. Reluctantly, the idea must be filed as "Not Practical At This Time."

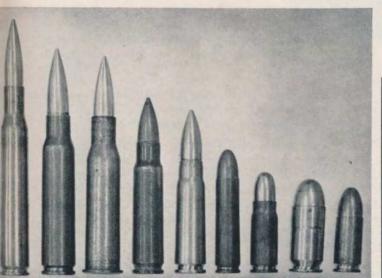
Another idea, one which blossomed into a patent, No. 3,274,934, belongs to Philip E. Johnson, and it again

relates to cartridges. Mr. Johnson calls his invention the Combination Cartridge. Like ordinary small arms ammunition, his cartridge can be fired in a gun of appropriate caliber. Unlike conventional cartridges, his rounds can be used as boobytraps or land mines.

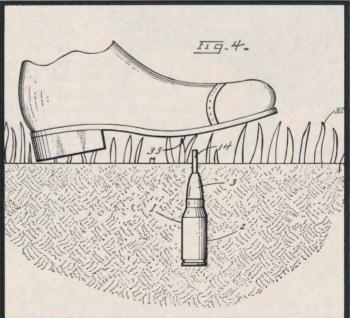
The secret of the cartridge's dual effectiveness lies in a secondary primer located at the base of the bullet. Also housed within the bullet is a firing pin, positioned to strike the secondary primer and detonate the powder charge. The firing pin is tripped through pressure on an actuating pin extending from the tip of the bullet. The pin can take any of several configurations, though they basically depend upon rupturing a shear pin to reliably attain enough energy to ignite the secondary primer.

The basic advantage of the Combination Cartridge is that its dimensions would equal those of standard military ammunition, with both using a standard cartridge case. Since new designs and tooling are not required, there would be a considerable savings in cost of manufacture. Additional savings result from the reduced costs of packaging for transport and issue since both standard and combination cartridges can be packed in the same magazines, cartridge belts, ammunition cases, etc. Due to the simplicity to manufacture, low cost, compactness, convenience, and ready availability, our troops can use boobytraps and land mines in quantities, places, and at times never before possible. Where it might take five to eight minutes to plant a single anti-personnel mine, 30 to 50 combination cartridges can be planted in the same length of time and in a wide variety of patterns.

Since work is already being done on the bullets, it would be a simple and quick additional step to afix conventional tracer materials of various colors. These could be used for a multitude of purposes. (Continued on page 68)



Above: Overloaded cartridges would cause havoc among VC forces who use any ammo they can get, including .30-06, 7.5 mm French, 7.62 Russian, 7.62x45 mm Czech, 7.62x39 mm Russian, .30 M1 Carbine, 7.62 Russian SMG and pistol, .45 ACP, and 9 mm Luger. Right: Boobytraps made with Combination Cartridges would give the Cong fits (See patent on facing page). By THE EDITORS OF GUNS



Author mounted the electric sight on his custom Ithaca Model 37, using Weaver rings and shotgun mount base.

DAY OR NIGHT, a crisp, clear sight, a firm unwavering spot of light: No, we are not trying to be poetic. We are about to examine a new gunsight that can be used on pistols, shotguns, or rifles. This "any gun" usage is but one facet in the remarkable versatility of this new device. It can be used in daylight, late dusk, and (under certain conditions) even at night! The idea is not entirely new but the approach is rather novel. Let's see what this new sight looks like and examine its inner workings.

The outfit responsible for this design is The Oxford Corporation of Williamsville, New York. They have created a rather unusual sight which projects a tiny dot of light to act as the aiming point. By "project," I do not mean to imply that the light shines on the target. The spot of light, or "pip" as the makers like to call it, is



Snap-on neutral density filter compensates for excessive brightness in background.

superimposed on the target or game. It acts much like the reticle of a telescopic sight. It is focused at infinity. The pip of light always appears to be "way out there" right on the target regardless of range.

As you can see in the photos, the Oxford sight looks much like a scope. It is no such thing. Bear in mind that there is no magnification whatsoever. It may be said that the sight possesses optical elements, but only as a means to an end. The view presented through the sight is precisely the same as that seen with the naked eye—except for one thing—the presence of that tiny "pip" of light!

Once the sight is zeroed in, this pip of light becomes, in fact, the bullet strike point. The shooter needs only to aim his gun until the pip falls exactly on his target, then squeeze the trigger.

The Oxford sight uses a one-inch tube, the same as most popular scopes. Therefore, it can be adapted to many standard scope mounts having one-inch rings. This discloses a mounting capability that provides for unrestricted versatility of use. It can be mounted on pistols, rifles, and shotguns. This immediately unveils one of its greatest benefits: There is no exit pupil or eye relief problem! When you hang that handgun out at arms length, you have completely eliminated our old, conventional four-point sight alignment problem with all its attendant difficulties. Remember? Target, front sight, rear sight, and eye. You just can't focus those old eyeballs on three things at once, can you? With this new sight, you have only one distance for eye focus; the target. The pip, focused by the sight at infinity, always appears to be at a distance equivalent to that of its target.

Pistol advantages are paralleled by similar benefits on the shotgun. Again, the absence of magnification, lack of critical exit pupil, and non-existant eye relief combine to allow the shotgunner to "keep both eyes open." This permits a full field of vision which allows fast identification and acquisition or "sight finding" on the target. Quick snap shots at fast moving birds or running game are simplified when the "two-eye" shooting technique is not impeded.

Rifle shooters will find that the points we have outlined are also beneficial to them. The Oxford sight may be mounted *ahead* of the bolt handle in cases where the bolt lift interferes with telescope mounting. This also applies to top ejection leverguns. The simplified single-plane, single-focus sighting technique also permits a higher rate of *aimed* fire by appreciably shortening the recovery time between shots disturbed by recoil. The elimination of the "four point" (iron) sight alignment complexity could also simplify training and should shorten the training time and effect a saving in the number of rounds fired prior to qualification. This sight is certainly a boon to shooters with vision problems and especially to older shooters who have lost some of their ability to accommodate readily to changes in focus.

We might describe the sight technically as an illuminated, collimated reflex sight. It was developed originally to permit accurate aimed fire under conditions of poor visibility. At this writing, no exotic name has been applied to the Oxford sight. I have been tempted to tag it the "Oxford Starlight Sight" or the "Project-A-Light" sight, but we will hold off for awhile.

The basic appearance, as you can see, is much like a telescope having a one-inch tube. A smaller tube, above and parallel to the first, projects forward from a turret-like housing. The sight is electrically operated. The smaller tube holds two penlight cells and a finger flicked on-off switch operated from left and right. The buttons are very small and are recessed in hemispherical depressions on each side. At the rear of the battery tube turret is a knurled or notched adjustment disk which controls a variable rheostat. This allows the user to have full-range control over the intensity of the aiming pip.

When the switch is turned on, a tiny bulb passes its light through an aperture and directs it, at prime focus, upon the rear surface of a concave-convex meniscus lens located at the front of the tube. This pip of light is reflected back to the shooters eye as a bundle of parallel (or collimated) rays and he sees it as a single spot of light. He holds its intensity in complete control. He can adjust its brightness to meet his personal preference and vary it to suit shooting conditions. The lens or reflective element does not require a reflective coating of any kind because of its light-shrouded containment within the tube *(Continued on page 55)*



F EUDIN', FUSSIN', AND FIGHTIN' are a way of life in the world of sports. Sportsmen, and sportswomen, the world over are highly individualistic and as such are difficult to compress into common opinion molds. Witness the rabbit punches interchanged by the various boxing groups, the verbal gymnastics of the NCAA and AAU, the hoop-la between the basketball associations now extant, the uneasy truce between the behemoths of the AFL and NFL, the body checking common to the hockey leagues, and some verbal pin knocking in bowling circles.

Divergent opinions are spawned naturally in worlds populated by self-appointed experts, and no sportsman is not an expert in his or her sport. No area of sports activity is more thoroughly populated by self-appointed experts than the shooting sports, which perfectly normal condition has been the subject of more than one PULL! column over the years.

But, it now seems to me that an editorial in the April issue of Guns & Game reads feudin', fussin', and fightin' into an area where none exists. The Guns & Game editorial, which seems to me both intemperate and inaccurate, accuses the NRA (National Rifle Association) of meddling in the affairs of and influence of the ATA (Amateur Trapshooting Association). The NRA is castigated for having added shotgun events to its numerous programs, and for having conducted a national shotgun tournament.

Let me explain to the reader before making further comments that I am a Life Member of the ATA, a Life Member of the NRA, and an Annual Member of the NSSA, therefore I have no axe to grind with respect to one association over another. I shot for many years in an NRA small bore league, subsequently got the skeet fever and competed in tournaments up to and including the nationals, then was bitten by the trap bug which projected me into local, state, area, and national tournaments conducted and sanctioned by the ATA, where I won both money and championship trophies. I still enjoy the three separate shooting games, and have a lot of respect for the associations who conduct these games with such great efficiency. I have not to date participated in the NRA shotgun program, simply because I haven't had the opportunity. As of now, my only participation in clay target games has been in those controlled by ATA and NSSA.

I will admit to the reader that about ten years ago, I took pen in hand and wrote the NRA suggesting to them that I would like to see that group become more involved in shotgun activities. The reader will realize that the current involvement of the NRA in shotgun sports has my implied blessing. It is my further opinion that any effort on the part of NRA to create more interest in shotgun shooting can only provide benefits for both the ATA and NSSA.



Obviously, if the NRA shotgun programs give the scattergunner an interest in competition, he or she would find further outlet in the well-established tournaments of both ATA and NSSA. The NRA shotgun program is not universal and wide-spread enough to meet the needs of a truly dedicated tournament shotgunner, and I suspect that the program is not now nor is it ever intended to be a substitute for the ATA and NSSA programs.

Much of the sound and fury of NRA's involvement in clay target activities derives from the NRA's position as a member body of the internationally constituted ISU, under whose auspices are conducted all world-scale shooting programs, including the Olympic Games. If the United States wishes to be represented in International shooting events, its shooters must be selected by and certified hy the only group which is a member of the International Shooting Union, and that group is the NRA. Any shooter who wishes to represent the United States in shooting events sanctioned by the ISU may compete in the tryouts, whether or not he is a member of the NRA, ATA, NSSA, WPA, Elks, Moose, Lions, Eagles, Rotary, Kiwanis, Little League, or the Sons And Daughters Of I Will Arise. As I understand the present regulations, if the shooter wins a place on the United States team, or as an alternate, he or she must then become a member of the NRA, which seems logical for administrative purposes, and certainly presenting no insurmountable difficulty either in letter or in spirit.

I do not think that it is generally understood that the games of trap and skeet as they are shot in the United States and Canada are strictly home-grown versions, and are quite unlike the games by the same general name as fired in the rest of the world. As I indicated earlier in this column, I have competed in the national tournaments of skeet and trap conducted by the ATA and NSSA. I was lucky (and lucky is an apt description) enough to win a major trophy in the Grand American, the national trap tournament conducted by the ATA. Because of this experience, and because of some limited experience in shooting the international version of the trap game, I am aware that the winner of the ATA tournament is just that, winner of the U.S.-Canadian version of the game.

The winner of the ATA tournament is as well equipped to compete in an ISU World Championship as I would be to compete in the PGA golf championships, and I assure you that my golf game is at least fifty strokes off the PGA norm. What I have just said detracts in no way from the ATA and NSSA winners: They are the best in the land, and have survived a grueling, well-run tournament. They could hold their own with any shooter in the world. IN THEIR OWN GAMES. But, the domestic versions of trap and skeet are not those shot in ISU world events.

The Guns & Game editorial makes an oblique reference to the position of the Army in International events, and somehow ties the NRA with the Army. This "guilt-by-association" treatment probably refers to the presence of military men on teams representing the United States in international shooting events.

Military shooters, and civilians, compete for the privilege of representing their coun-

try in ISU events. That military shooters win some of the positions is not surprising. A civilian would have to be independently wealthy and free of any job responsibility to devote the time to shooting that members of all the military services Advanced Marksmanship Units MUST do. I do not think that the AMU units of all the military branches are given due credit for the tremendous contributions to improvements in shooting technique and equipment they have made. One of the most enlightening experiences in my life was a visit to the Ft. Benning, Georgia, Army AMU unti in connection with planning for the 1959 Pan-American Games in Chicago.

Most rifle and pistol shooters are aware of what the various AMU units have done for their sport. It seems to me that scattergunners are not quite so cognizant of the contributions these same units have made to the clay target sports, especially in the international versions of these games. That overdue credit is freely and publicly given here. And, if the reader's sense of the proper is offended by involvement of the military in what seems to he civilian shooting sports, let's face the facts.

While the emphasis on performance in worldwide sports events is supposed to be an individual accomplishment, we humans, constituted as we are, tend to place highly nationalistic emphasis on results. When Johnny and Ivan square off in a shooting match, let's face it, the match is between the United States and Russia. The captain who was my escort at Ft. Benning told me that the Russian shooters in the previous Olympics had made no secret of the fact that they were subsidized and intensively trained for the events by their government, and in fact expressed surprise that our shooters were not similarly advantaged. The impetus given AMU units by our military since that time simply meets the facts squarely in my opinion.

Ask yourself this question: Do you as a citizen of the United States wish to be represented in international shooting events by the best trained shooters available, whether they are military or civilian, or do you propose to pit poorly prepared shooters from this country against the best other nations have to offer?

Remember also these facts. The ATA is the governing body for trapshooting in the United States. The ATA is a highly efficient organization, and does a tremendous job in supervising the conduct of the domestic trap game, culminating in the Grand American, one of the most exciting and colorful sports events known to man.

The NSSA sanctions and conducts skeet tournaments in the United States in an equally professional manner, and conducts a national tournament packed with color, tension, and fantastic shooting.

The NRA is the member body for the United States in the International Shooting Union (ISU) and as such is responsible for fielding teams to represent the U.S. in ISU events, which it does in its usual businesslike manner. In more recent years, the NRA has also given more recognition to the shotgun sports, which is good. There is little or no real overlap in their respective functions, which they do well in spite of some yapping by shooting enthusiasts of all persuasions.

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DISASSEMBLY OF THE WALTHER P-38

(Continued from page 45)

slide and push back slightly. At the same time, with the thumb of the right hand, push down on the Slide Stop. The slide is now free to go forward. Slide it forward slowly until about 1/4" from normal closed position and then give it a slight push forward. This allows the barrel group and the slide group to be disassembled from the frame group. The barrel group can be then separated from the slide group by turning both groups upside down and pushing forward on the Locking Block Cam (4). This allows the Locking Block (3) to unlock and the barrel group can be slid from the slide group. This completes field stripping. It is a classic example of something that takes longer to describe than to execute. The actual time consumed, once one becomes adept, can be as little as five seconds.

MAGAZINE GROUP DISASSEMBLY

The magazine group can be further disassembled in two different ways. Hold the magazine group in the left hand so that the Floor Plate (54) is upward and so that its rounded end points away from you. Take the slide group in the right hand which has its Safety Subassembly (19, 20, 21) still in the down or "safe" position and use the lower tip of the safety subassembly to push the Floor Plate Lock (53) down through the hole in the floor plate. See picture A.

The plate can now be slid away from you about 1/2", but when this distance has been covered the floor plate stops. Push the forefinger of the left hand into the hole which the moved plate has uncovered. The forefinger can now push on the floor plate lock and the floor plate will be free to continue to move away from you and off the bottom of the Magazine Body (51). The floor plate lock and the Magazine Spring (55) can then be withdrawn from the magazine body. By turning the magazine upright the Magazine Follower (52) will drop out of the bottom. The follower will be set aside as a tool and will from now on be called the Magazine Follower Tool (52). The rest of the parts will be put into a magazine group pile.

The alternate method of magazine disassembly is to use a loaded 9 mm cartridge. While this may be expeditious, I feel that during disassembly of a firearm it is unnecessarily dangerous to have a loaded round present. However, if this system is preferred, the point of the loaded 9 mm is used to depress the floor plate lock and you would then proceed in the same manner as above.

BARREL GROUP DISASSEMBLY

Hold the barrel group in the right hand, with the fingers wrapped around the Barrel (1) in such a way that the little finger is in contact with the Front Sight (2) and the thumb is resting on the cam surface of the Locking Block (3). Exerting a downward and outward motion on the cam surface will release the lock. With the Magazine Follower Tool (52), push on the little leaf of the Locking Block Spring (5) until the little end of the spring disappears into the mounting hole in the barrel. This will reveal enough of the bent end of the spring that the magazine follower tool can hook it and pull it from its mounting hole. The Locking Block Cam (4) is secured to the barrel by heavy staking, therefore it is not normally removed unless it is necessary to replace it. For this reason we have left in the original barrel group the locking block cam and the front sight.

FRAME GROUP DISASSEMBLY

Hold the frame group in the left hand with the left Grip (49) upward. With the magazine follower tool unscrew the Grip Screws (50), then remove the grips by placing the nail of the index finger at the rear of the grips and pulling upward first and then backward. With the thumbnail remove the Slide Stop and Sear Spring (38); and in a similar manner, on the right side of the frame, remove the Trigger Bar Spring (37).

The removal of the next three parts can be done in two different ways. The parts involved are the Magazine Catch (46), the Hammer Spring (36) and the Hammer Strut (28). In the first method, with the Hammer Subassembly (39, 40, 41, 42) in the down position, place the frame with the back of the pistol up in the left hand. Then place the palm of the right hand over the Magazine Catch (46). See picture B. There is a distinct order now in the movements of the palm of the right hand, and if done correctly, nothing could go more smoothly; but if not, the job can be very hard on the hands and patience. First, the right palm lifts the magazine catch as you would if you were releasing an imaginary magazine. Second, the catch is pushed upward toward the left palm. Third and lastly the right palm is snapped down so that the front end pin of the magazine catch is lifted out of the notches in the frame. The alternative method is to push the magazine catch against a soft block of wood and using much of the same motions, release it from the frame. This will free the Hammer Spring (36) and Hammer Strut (28). The hammer strut will be retained as a tool and will henceforth be called the Hammer Strut Tool (28).

With the hammer strut tool, push the Hammer Pin (33) from left to right out of the frame. This will release the Hammer Drop Lever (29), the Firing Pin Lock Lever (30) and the Hammer Subassembly (39, 40, 41, 42). Again with the hammer strut tool, push the Sear Pin (34) from left to right, removing it from the frame and also removing the Ejector (31). Leave the Sear (26) dangling in the frame. Now with the trigger pulled fully to the rear by the left forefinger, take the magazine follower tool and push down on the Trigger Spring (45) and at the same time push outward on the projection of the Trigger Bar (25). See picture C. This will snap the bar from trigger

subassembly, pulling it from its engagement with the sear. The sear can now be removed by turning its nose up to the top of the frame and pulling it out of the frame from left to right.

With the hammer strut tool push the pin part of the Slide Stop (47) from right to left and remove it from the frame. Remove the trigger subassembly from the frame. Set the Takedown Latch (27) at about six o'clock and wiggling it slightly, pull it from the frame. During this operation it is a good idea to put the forefinger over the front of the frame, as in some cases the Takedown Latch Plunger & Spring (23, 24) have heen known to fly, although normally they are staked to the frame.

Take the magazine follower tool and place the screwdriver section in the Recoil Spring (35) coils about midway in the Recoil Spring Guide (32). Pull the recoil spring backwards at the same time the recoil spring guide is trapped in the forward position. Holding the spring to the rear, remove the guide from the frame. Allow the spring to come forward and pull it out of its groove. Repeat on opposite side. This completes the disassembly of the frame group. The only parts which have not been taken down are the Takedown Plunger & Spring (23, 24). There are also several parts riveted to the frame, which include the lanyard loop, the mounting pin for the slide stop & sear spring, and the mounting pin for the trigger bar spring.

SLIDE GROUP DISASSEMBLY

Take the magazine follower tool and place the screwdriver section under the front lip of the Slide Cover (7). With the fingers of the right hand holding the cover and the thumb on the magazine follower tool, push upward and forward on the slide cover. See picture D. This will release it from the slide and also allow the Rear Sight (9) to be removed. Next pull the Firing Pin Lock Spring (13) out of its hole. Take the front end of the Indicator Pin (8) and lift it out of its retaining groove and pull it forward out of the slide. Turn the slide upside down and with the hammer strut tool, poke out the Firing Pin Lock (12) and the Firing Pin Retaining Pin (15). Now, covering the rear end of the slide with the palm of the right hand, pull upward on the Safety Subassembly (19, 20, 21), releasing the Firing Pin (11) and remove the Firing Pin Spring (16). Put the safety subassembly midway between "S" and "F" and with the magazine follower tool, looking from the bottom inside the slide, push the safety subassembly out of the slide.

(Continued on page 54)





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(Continued from page 53)

Put the slide on a flat surface and with the drift end of the hammer strut tool pushing on the rear pinlike projection of the Extractor (10), snap it from its hole in the frame. Be sure that the Extractor Plunger (14) and Extractor Plunger Spring (18) do not fly. See picture E. Tap these two parts out of the slide and this completes the disassembly of the slide. If the spring and plunger don't fall out easily there is a cutaway section in the firing pin tunnel from which the magazine follower tool can pry out the extractor plunger spring. This completes the disassembly of the slide group and also the disassembly of the entire P-38.

SLIDE GROUP REASSEMBLY

Place the Extractor Plunger (14) into the Extractor Plunger Spring (18) with the small end of the spring going on first. Then slide this subassembly into the correct hole in the slide. Now, take the Extractor (10) and push with the thumb of the left hand on its forward face and the thumb of the right hand at the rear, pushing inwards. The tail of the extractor will snap into its hole in the slide.

The Safety Subassembly (19, 20, 21) is now placed in the hole in the slide so that its operating lever is midway between the "S" and "F" marks. Push it in smartly, and turn it to the firing position so that only the letter "F" shows. Drop the Firing Pin Spring (16) into the foreward end of the groove in the slide with the tail of the spring upwards and to the rear. Push the Firing Pin (11) into the rear of the slide with the square rear notch to the right, away from the safety subassembly, making certain that the front of the firing pin passes through the firing pin spring. Using the magazine follower tool, push the rear end of the firing pin in and secure it with the Firing Pin Retaining Pin (15) in the round hole on the slide under the Rear Sight (9). Place the Firing Pin Lock (12) into the other hole in the slide, then place the Firing Pin Lock Spring (13) with its larger end into the lock.

Now wind the Indicator Pin Spring (17) onto the rear of the Indicator Pin (8) with the big end of the spring going on last. Hook the front end of this subassembly under the tail of the Firing Pin Spring (16) with the smooth side of the indicator pin upwards. Lift the assembly to a position on top of the breech face and far enough forward so that the rear of the indicator pin can be fed into its retaining hole at the rear of the slide. At the same time, hook the rear of the indicator pin spring with the finger nail and pull it forwards so that it will be in line with its retaining notch in the slide. See picture G. Push to the rear and allow the subassembly to drop under the tension of the firing pin spring.

Replace the Rear Sight (9) with the sight notch to the rear of the slide and hold it in the down position against the Firing Pin Lock



Spring (13) with the right thumb. Place the Slide Cover (7) back into the milled slot in the front of the rear sight. Pushing backwards with the left thumb on the front end of the cover and downwards with the right thumb, the cover will snap into its locking notches in the slide. If added force is required to do this, the front end of the cover can be hit with the heel of a shoe. This completes the reassembly of the slide group.

FRAME GROUP REASSEMBLY

The reassembly of the frame has the most parts and requires the longest time of all the groups. Push the Takedown Latch (27) into the hole in the frame from left to right with the finger lever of the latch down. By pulling the lever outwards and at the same time pushing strongly on the upper part, the latch will snap into position. Turn the finger lever forwards as far as it will go.

Slide the Recoil Spring (35) into its groove in the frame. Using the thumb, push the spring until it is flush with the groove and then use the magazine follower tool to drive the spring into the groove. The entire spring should be about 34" from the beginning of the groove. Now, slip the Recoil Spring Guide (32) into the spring. In the same way assemble the opposite recoil spring guide. Drop the Trigger Subassembly (43, 44, 45) into the frame and align its holes with those in the frame using the hammer strut tool inserted from right to left. Push the Slide Stop (47) in the same hole from left to right. Place the Sear (26) in its oval slot in the frame from right to left with the sear nose upward and the trigger-bar notched side out. Slide the Trigger Bar (25) non-pin end under the trigger bar notched side of the sear. Guide the pin of the trigger bar into the hole in the upper end of the trigger subassembly. Now, pull the trigger backwards fully as in firing the pistol. Using the magazine follower tool, push down on the Trigger Spring (45) and at the same time keep pressure on the front end of the trigger bar until it snaps into place.

Place the Ejector (31) into its slot in the frame (it is in the correct position when it stands about 3/16" above the frame) and hold it in place by sliding the hammer strut tool through the sear and frame from right to left. Insert the Sear Pin (34) from left to right while the left forefinger is keeping light pressure on the trigger. See picture I.

Place the Trigger Bar Spring (37) over the mounting rivet in the frame, hooking the long leg into the small groove in the bottom rear of the trigger bar. Place the unbent end of the Slide Stop & Sear Spring (38) in the Slide Stop (47), forcing the coiled section over its mounting rivet. Snap the bent end, with the opening of the bend upwards, over the top of the sear and into its relatively deep retaining groove. Hold the frame in the left hand with the left side upwards and as level as possible. Place the Hammer Subassembly (39, 40, 41, 42) into the frame with the lower end under the sear nose and the Double Action Strut (40) over the sear nose. Next, add the Firing Pin Lock Lever (30) below the hammer so that you can still see through the hole. Now add the Hammer Drop Lever (29) in the same way. By sliding the bammer strut tool into the same hammer pin bole from right to left from underneath without turning the frame over, the last three pieces can be kept in alignment. Slip the

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Hammer Pin (33) into the frame from left to right as the hammer strut tool is withdrawn from the right side. See picture F. Place the Hammer Spring (36) onto the hammer strut tool in the frame with the upper end of the strut engaging the hammer subassembly. When the strut is in the correct position, the strut can only be moved backwards far enough to make it parallel to the grip of the frame. Put the bottom of the hammer strut tool into the hole in the upper end of the Magazine Catch (46). Push downward on the upper end of the catch with the left thumb and push vigorously upward with the right thumb. This will allow the pin on the magazine catch to snap into its two retaining notches in the frame. Place the Grips (48, 49) back on the grip section of the frame by sliding the leading edge of each grip into their retaining undercut in the foregrip. Hold the grips in place with the Grip Screws (50) which are tightened by the magazine follower tool. This completes the relatively complicated frame group.

BARREL GROUP REASSEMBLY

Place the Locking Block Spring (5) with the long leg downward and inserted first into the hole in the Barrel (1). Force the upper short leg inward and downward into the same hole, using the magazine follower tool. Push the spring in as far as it will go. Reinsert the Locking Block (3) holding the barrel in the right hand with the Front Sight (2) downwards and away from the thumb. As you push inwards and forward with the thumb, the lock will snap into position in the barrel. See picture H. This completes the barrel group reassembly.

MAGAZINE GROUP REASSEMBLY

The last group to be assembled is the magazine because the magazine follower tool was being used to reassemble the other groups. Place the magazine follower tool over the small loop of the Magazine Spring (55). The small loop should be open to the rear in order

to be correctly assembled. Slide the above two parts into the Magazine Body (51) from the bottom, with the round end of the magazine follower tool corresponding to the round end of the magazine. The Floor Plate Lock (53) is placed onto the protruding end of the spring again, with the round end forward. Push the parts until the Floor Lock (53) is at least 1/8" into the magazine body. Hold with the forefinger of the right band the back of the magazine. Slide the Floor Plate (54) on from front to rear, removing the forefinger when its pressure is not necessary. This completes the magazine group reassembly. The magazine should be inspected after each firing because nothing can cause more trouble than a dirty magazine.

REASSEMBLY AFTER FIELD STRIPPING

Slide the barrel group into the slide group with the lock in the unlocked position during insertion and then locking after the barrel is against the breech of the slide. Slide these two assembled groups onto the frame group. Be sure that the takedown lever is thrown forwards in the unlocked position and the frame group is held in the normal shooting position so that the Ejector (31) and the Hammer Drop Lever (29) and the Firing Pin Lock Lever (30) are all down in the frame. Insert the magazine into the grip and draw fully back on the slide. Turn the takedown lever to the rear and horizontal and push the slide stop down, keeping the fingers away from the forward moving slide. Drop the hammer by turning the safety downward. This completes the reassembly of a P-38.

Today with the 9 mm Luger ammunition so inexpensive, it is almost possible to shoot a P-38 as cheaply as a .22. The shooting of a high powered military automatic is a great deal of fun even if just plinking at tin cans. So, my advice would be to each owner—take them apart, learn how they work, and go out and try them—see if I'm not right!

PROJECT ELECTRIC SIGHT

(Continued from page 49)

The single lens is held in a thin aluminum tube within the main tube. This tube is prestressed and cantilevered to a position at the midpoint of the horizontal and vertical adjustment screws. These screws are positioned at the front end of the main tube and are coin slotted. They move the inner tube (and lens) in $\frac{1}{2}$ minute click adjustments to zero the light pip. The pip is always on target and remains so regardless of the position of the eye. Hence, no parallax.

To test for parallax, I aimed the pip at a mark with my eye in a central position, relative to the tube. Without moving the gun, I moved my head so that I was looking into the tube from the extreme edge. The pip was still on target. I questioned Dexter Rosen, secretary-treasurer of the Oxford Corp., in regards to "losing" the pip against bright backgrounds like sun-lit snow or shooting into the sun at sunrise or sunset. He explained the use of the neutral density grey filter. This reduces the light intake to a point where the pip was easily visible against the snow or sun condition prevalent at that time. The filter snaps on the forward end.

The Oxford sight has been tested under varying conditions of degraded visibility. Its independant light source marks it as obviously superior to any reflective sight which is dependent on ambiant or environmental light for its aiming point. With both pip brightness control and optional filtering, the Oxford sight is claimed to be usable under any light condition or target/background combinations as long as the target can be delineated with the unaided eye. At 8½ ounces, it is also remarkably light in weight.

The new sighting concept I have described here is currently under evaluation by law enforcement agencies at the Federal, state and local levels and by various branches of the service, both in the U.S. and Canada. Only a limited number will be available from Sears Roebuck retail and mail order outlets. The basic purpose of this report is to continue to keep our readers informed of the latest developments in the field of guns.





VARMINT AND PREDATOR RIFLES

(Continued from page 27)

accuracy level should be at least 1 inch at 50 yards. For the longer range rifles a group of 1 inch at 100 yards is desired, and we have many fine production varmint rifles offered today that will do this.

The number two requisite for my varmint rifle, for all distances, is a scope of the proper power for the purpose for which it will be used. For the .22 rimfire rifles this can be 4X or under. For the longer distance rifles we can start with the 4X and work up to as high as 12X. This one is the maximum power that is useful for this work. Personally, I like the new variables up to 9X that we use for game hunting. I have just seen what I believe will be one of the best varmint scopes ever offered. This is the new 4X to 12X Redfield Variable, with parallax correction at all distances. This scope will take care of all conditions of varmint hunting and can actually be used on a game rifle.

The true varmint, except for the birds, dens up during the winter months, to a great extent. Most of them come out in early spring, when the warm days start, and stay out until the first heavy frosts start in the fall. The best shooting is on warm days, when the sun gets high. The light is better then, too.

The varmint shooter of today is fortunate in having a choice of the finest array of varmint cartridges we have ever known. He can have these chambered in custom-made or factory production rifles, to suit his personal desires. There was a time when only the custom rifle and load was considered the ultimate in varmint rifles, but now most of the large arms companies have special varmint rifles that are superbly accurate. In fact, it takes an extra fine custom gun to beat these for accuracy. This is also true of the bullets. An example of this is the new Remington Power-Lokt bullet, factory or handloaded. This one is steadily climbing in favor, even in the exacting bench rest competitions.

In this array of excellent varmint cartridges there is a comparatively new one that gets special notice. This is the .17 caliber, best represented by the .17 Javelina. This one was developed by the O'Brien's Rifle Co. (324 Tropicana #128, Las Vegas, Nevada). It is made up in the Javelina and other versions (which means case types), by both O'Brien's and P. O. Ackley (2235 Arbor Lane, Salt Lake City, Utah). Bullets are made by Ralph Sisk (Sisk Bullet Co., Iowa Park, Texas). I have never used one of these little calibers but bave some friends who bave, and they are really sold on this rifle for use on the smaller varmints, at the right distances. They are all experienced varmint hunters and I certainly am willing to accept their judgment. They say it is really good out to about 200 yards when used on the smaller varmints, such as prairie dogs, and it is an enjoyable gun to shoot. So far, they are all custom made and I understand that barrel making for this small bore is really an art. However, the two companies now making them seem to have mastered this job and are turning out accurate guns.

It would be extremely difficult to make a choice of the *best* rifle and cartridge combination. Selection often is made according to the make of rifle a shooter prefers. Weatherby's beautifully scaled-down Mark V Varmint rifle, in .224 Weatherby, with its small, belted case, is one of the best balanced, best looking varmint rifles I have in my gun rack. It is a pleasure to load and shoot. However, one must remember that this is a proprietary cartridge, made only by Weatherby, and cannot be made up from other cases.

The next cartridge is one that has been with us for over 30 years in the form of a wildcat, and was recently brought into regular production by Remington. It is called the .22-250 Remington and probably has a little more steam than some of the others.

The third varmint gun in this class is the .225 Winchester. A newer version of the old .219 Zipper, always known for its superb accuracy. This case is also a special one and, from a practical point of view, cannot be made from other cases. Winchester makes medium and heavy barreled rifles for this one and they are among the most accurate.

I have used all three of these varmint cartridges, and the effective distance of all of them is about the same. The .22-250 may have a little bit more, but the varmints certainly will never know about it. These three cartridges average about 3600 fps at the muzzle.

Mention should be made of one cartridge that has no production rifles available. However, plenty of custom rifles are still being made to use this caliber. Shooters who own one still swear by them and ammunition is still made by Winchester. This is the excellent .220 Swift, with a maximum of over 4000 fps velocity. Most real varmint shooters loaded the Swift with heavier bullets, in order to buck the wind better, but they still got about 3800 fps. The .220 Swift case is one of the best and strongest ever made by a factory. Barrel life on the rifle was not too good if top loads were used, but could be extended considerably by a small reduction in loading.

Now we come to the last of what I would term varmint cartridges. These are the 6 mm's. It is available in the good Winchester .243 or in the equally fine Remington 6 mm, formerly known as the .244. This caliber, even with the lightest bullets normally used, the 75 grain weight, bucks the wind better in long shots than the smaller .224 caliber does. With the 80 or 85 grain bullets it is nearly perfect as a long range varmint cartridge. The top velocity is around 3500 fps with the lightest bullets and up to 3400 fps with the 80 grain weight. Mean effective varmint range with this caliber is around 500 yards. I have only one thing against this size for strictly varmint use. It often puts the varmints into their dens and keeps them there for long periods, due to the sharp blast

or report. This, of course, depends a great deal on the terrain and the wind direction.

The selection of a rifle for the hunting of predators also depends to a great extent on what kind of predator and at what distances it will be shot. We are not considering now that predators are frequently killed when we are hunting bigger game, as in the case of wolves and wolverines in the north country. Here a hunter uses what he has at hand.

To start with, I would take the four top varmint rifles as my choice for a predator rifle for certain specific animals. Any one of them are big and fast enough for many predators like the coyote, fox, wolverine, and nearly all of the cat family, plus one of our largest predators and one I like to hunt the best of all; the seal of the west coast. This animal is not hard to kill but very hard to hit so that it can be salvaged. It is nearly always necessary to make a direct brain shot to get one. Accuracy is a most necessary attribute for this kind of shooting.

The 55 grain soft or open point .224 bullet in any of the four top guns in the varmint class, will do a fine job on head shots on seals. I have also shot and watched others shoot coyotes, using these same bullets and rifles, with complete success. Accuracy in placing a shot is also more important in the sure killing of a coyote than is the size of the caliber.

For strictly predator rifle choices we will go into the light game class of cartridge, starting with the 6 mm Remington and the .243 Winchester. This is the smallest cartridge that I would care to use on wolves. The northern wolf sometimes weighs as much as 175 pounds and I have heard of them topping 200 pounds. They are tough and have lots of vitality. For the smaller predators, like the fox and coyote, the 6 mm with any weight bullet is fine. This caliber is also okay for the cat family up to cougar size, where a 100 grain bullet would be necessary.

Next in line as a predator rifle is the very good .257 Roberts. This rifle has been discontinued as a production model but ammunition is still made for it. It was really put on the sidelines by the factories loading it down so low and then bringing out the 6 mm's and loading them up to good pressures. If the .257 had been loaded to these higher pressures it is somewhat doubtful if the 6 mm's would have become as popular as they are.

UN HNGRAVING REVIEW

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However, one of the best all-round predator cartridges is the oldest wildcat we have, the .25-06. This is the finest non-magnum, long range predator cartridge I have ever used. I have killed animals from coyotes to mule deer, elk, and black bear with them. It is amazing to me that some manufacturer has not put this caliber in production. Thousands are made yearly by custom gunsmiths. Cases are made by the simple operation of necking down the .30-06 to .25 caliber. I prefer the .270 case necked down because of the longer neck. This gun is my idea of a perfect wolf rifle. It is also tops for sheep, goats, and caribou.

Another good cartridge for this class is the .257 Weatherby Magnum. This is a real long distance cartridge that can also be used with heavier bullets for game in the caribou, sheep, and goat class.

The rest of the calibers for predators are some of the standard hunting calibers. Any

of the 6.5's are good. The new Remington 6.5 Magnum is excellent, with the 120 grain bullet. The Winchester .264 is one of the longest distance predator rifles available, if used with the 100 grain load. This same gun can also be used for all but the heavier type game. The reliable .270 Winchester is the next caliber size and is a non-magnum case. It can be used with the 100 grain bullet for predators, at long distances. It is also big enough, loaded properly, to kill any game on this continent. I have killed more grizzlies with one of these than any other caliber.

The .270 Weatherby really does not belong in the predator rifle class, as it is definitely a big game rifle and too much gun for predators. The 7 mm Remington Magnum is in the same category. Even the fine old .30-06 is not a real predator rifle, although it is used by thousands for killing many types of predators.

There are very few place on the North American continent that it would not be possible to hunt some type of varmint or predator right along with the game animal a hunter was after. I will never go to Alaska again without a good high speed

varmint rifle or one of the lower predator types. My immediate preference would be the .22-250 or one quite similar. Anything requiring a caliber larger than this could be killed with my game rifle.

A man with a good varmint rifle and a good predator rifle can hunt the year round. Hunting varmints is mostly a summer thing but predators are best hunted in the winter. Their pelts are best at this time and most predators make nice mounted trophies.

I am already planning on the equipment, rifles, and ammunition I will be using this coming varmint season. Along with the new 4X to 12X varmint scope that Redfield will have out in time for varmint shooting, I have one of the new heavy barreled Remington Special varmint rifles, in .22-250 caliber. This I will be able to try out along side the accurate heavy barrel Winchester .225. Then there is the new 788 Remington rifle, chambered for the .222 Remington; this will take care of the shorter distance shots. Guess the varmints will really catch the devil up around the Medicine Wheel in the Big Horns this summer. All I have to do now is get enough ammunition loaded.

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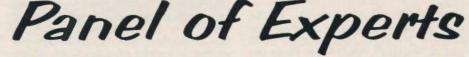
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Because of the heavy influx of questions, it has become necessary to limit the number of questions submitted in one letter to two. Your questions must be submitted on separate sheets of paper, must carry full name and address, and your Shooters Club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

Baltimore Police Pistol

I have the following Colt Model 1849 Pocket Pistol, caliber .31, five shot, four inch barrel, serial number 141874, in very good condition with all matching numbers. On the bottom of the grip is engraved "Balt. City Police." I cannot obtain any information here in Baltimore. Do you have any suggestions, information, estimate of value. Dan Sobolewski

Baltimore, Maryland

The only suggestion I can give you concerning your "Balt. City Police" marked Colt, is going to the Police Dept. or your City Hall



and trying to find something in the records. As the City must have appropriated the money to buy the Colts for the Police Department, City Hall may be the best place. Collectors value for your marked Colt pocket Pistol would be about \$125 in fine condition.—R.M.

7.7 Jap Conversions

I have a 7.7 Jap rifle which I want to rebarrel to a more standard caliber. I can have the rifle converted to .30-06 but I am afraid the chamber pressure would be too great. I can also have it rebarreled to the following calibers: .270, .280, .284, and .308. Which would you recommend? The rifle will be used mostly as a spare rifle and for an occasional deer.

E. C. Mertz Omaha, Nebraska

If you wish to use your 7.7 Jap rifle mostly as a spare, why not leave it as is, caliberwise. New factory Norma ammuniton is available and ballistics are quite comparable to the .308 which you mention as a possible caliber for rebarreling.

I personally feel the Jap actions are not worth rebarreling; if the rifle is scoped, the Jap safety is almost impossible to manipulate efficiently; the bolt handle is difficult to alter, and parts are difficult to obtain. To my knowledge there is no moderate priced safety alteration available.

Strength of your 7.7 Jap depends on whether it was one of the early made, chrome bore versions, or one of the gradually declining in quality-almost junkers-made during the final phase of the war. The early Jap actions are extremely strong, and will handle any of the .270 and .30-06 class pressures. It is difficult to accurately separate the good from the bad. Basically it narrows down almost exclusively to the following signs. If the barrel is turned rough, appearing to have had a dull hatchet used on it for a lathe bit, avoid it like poison! If metal finish is comparable to our own Springfield and Enfields, it is likely a good one. Chrome bores can be identified by the spillout of rust-proof shiny white surface around the muzzle.

Due to the head diameter of .30-06 cases being about .020" smaller than the Jap ammo, the barrel should be set back if converted to this caliber. The .308 bullet in the .311 Jap barrel (approximately) will decrease breech pressure. However, first-rate accuracy is ordinarily obtained with .30 caliber bullets. A handloader could use .311 diameter bullets for best accuracy and velocity results, but great care should be exercised to prevent such ammunition from ever being fired in any standard .30-06. Should you decide to have the 7.7 Jap rebarreled, I would prefer the .30-06 or .280. The calibers you mention all are good and very similar, performance-wise. The choice is yours.-W.S.

SAA Loads

I am the owner of an old model Colt Single Action Army, serial number 189694, in .45 Colt. Mechanically the gun is sound but with a pitted bore. This gun has not been fired in over 20 years as it has been a keepsake belonging first to my grandfather, then to my father, and finally to me.

While I do not plan to do any extensive shooting with this old pistol, I would like to fire it for my sons. What I would like to know is are these old guns safe to fire with factory ammo as it is now loaded. If not, are there safe loads that can be handloaded with smokeless powder? If black powder only is recommended, what amount of powder and what granulation should be used?

As I am presently loading for .45 ACP using Lyman Mould 452460, I would primarily be interested in using this bullet. If this is not recommended, I will purchase some 250 gr. lead bullets. Any information on this will be greatly appreciated.

> Ernest E. Smith St. Louis, Mo.

Your Colt Single Action Army is safe with current factory .45 Colt loads. It is also safe with up to 9 grains of Hercules Unique powder. The bullet you have should be satisfactory. However, if you are concerned with maximum accuracy, you may have to try several bullets to determine which is best.—D.W.

Colt Repairs

I have a Colt .44 pump action rifle which does not seem to work as it should. The action is very hard to open. I have taken the gun apart and I believe there is a part missing. I cannot locate any gunsmith locally who seems to know anything about it. So I am trying to get an exploded drawing or picture showing the parts required or information as to who would know how to repair the piece. Enclosed are pencil copies of the two parts that seem to require a connecting piece.

> Harry F. Collins Elida, Ohio

Philip Sharpe in The Rifle In America (pp194b-194c) illustrates the action of the Colt Lightning rifle. However, I do not suggest that you attempt the indicated repairs yourself, as you might easily do additional damage. If you wish to make the attempt, you might contact: Norman Romig, 910 Fairmont, Trenton, New Jersey, or Bob Harris, Cornwall Bridge, Conn., for any repairs required. Kenney Weinstein of West Hurley, New York, might undertake to repair your rifle, but quality gunsmithing is quite expensive.—S.B.

ASKINS TESTS: REMINGTON 788

(Continued from page 22)

The new trigger is as clean as a houn-dog's tooth, breaks without any over-travel, and is as sweet as a maiden's dream.

There is a big recoil lug on this new rifle. The lug beds snugly against a mortise cut into the stock. Because the receiver is round, without any shoulders, corners, sharp-angle ends, and without even the semblance of a tang to butt up against the stock, the gun needs this sizeable recoil lug to give it the required stability. My powder burning with the 788 convinced me it has all the anchor it needs in this big addition.

During the wring-out phase in the development of the 788 it was fired with 125,000 psi blue pills. This just to see if the action could take it. It is now regularly proof-fired with 85,000 psi loadings. The factory cartridge, regardless of caliber, never goes over 55,000 psi, so the margin of safety here is pretty ample. Someone asked one of the Remington staffers how he was sure all those 9 lugs made contact with the recesses in the receiver, "After we touch off that 85,000 psi blue pill, I can assure you every lug is in full contact." I'd reckon he had a point there!

There isn't anything especially new about putting the locking lugs 'way back on the bolt body. Those two old Norwegians, Krag & Jorgensen, locked up their rifle with a single lug that abutted the bridge of the receiver; the venerable British SMLE locks many inches behind the bolt-head. Probably the hottest of the new rifles with a closure toward the shank end of the bolt is the Schultz & Larsen. This rifle is Danish made, and in the powerful .358 Magnum caliber locates the four locking lugs 5" behind the head of the bolt.

A pecularity of both the Schultz and Larsen and the new 788 is the length of the receiver. On the S&L .358 Magnum, the overall length of the receiver is $7\frac{34}{2}$ ". I have a Mauser '98 chambered for the .358 and the receiver is only $6\frac{1}{2}$ " long. On the Remington, the overall of the receiver is $6\frac{1}{4}$ " (this on the .222 Rem.) while the Sako .222 goes only $4\frac{34}{2}$ ". This is a price we pay for this tail-assembly sort of lock-up. It lengthens the entire action and when this happens the receiver-bolt assembly can get too heavy because of the greater amount of metal present.

The 788 is, in my opinion, too heavy. It goes 7½ pounds in the jackrabbit calibersthe .222 and the 22-250. In the Model 700 you can get the same calibers at only 6% pounds. In the .30-30 and the .44 Magnumthe latter a pistol loading-the weight is a full seven pounds. It should be not more than six or 61/4 pounds. The answer lies in the massive receiver and bolt. As an example, the bolt body has a dimension of 21/32". On the Sako .222, the bolt body, a slightly modified Mauser-type with two forward locking lugs, is only 17/32". In the 788 there is a lot of extra weight and just why it has been put there is anybody's guess. It would appear the rifle is to be chambered for other and hotter cartridges but this ain't necessarily so. If you go to the magnum loadings then you run into cartridges of such an overall dimension as to make the receiver so long as to be ungainly. The Schultz & Larsen suffers from this sort of elephantiasis.

The 788 has screw holes for a scope, also some iron sights which, fortunately, can be taken off by the simple removal of three screws. On the rifle I received, I affixed the new Conetrol bridge-type mount; this is the slick-chick job with no screw heads showing, a real streamlined job. And in the mount I put the new Tasco 3X-9X vari-power scope. Remington, in an effort to provide a stouter mount base, have tapped the receiver for 8-40 screws. Ordinarily you have to be satisfied with 6-40 screws.

The rifle shoots MOA at 100 yards. At 200 yards, a better distance, I cannot hold hard enough to cluster 'em into MOA. The best I could do with Remington hollowpoint Power-Lokt was an average for five 5-shot groups of 3.20". With Federal soft point, standard factory stuff, some 8 groups each of 5-shot, fired on a series of 3 afternoons, fell into an average of 3.46 inches.

I have now shot 26 jacks, deliberately taking the game at from 175 to 250 yards. Also 17 hawks and a single coyote. The bolt is one of the slickest. Because it is virtually encased in steel it runs free and smooth. Unlike the .358 Schultz & Larsen which tends to bind because of set-back and springiness, the 788 indicates no tendency of this kind. The bolt lifts free and easy and because of its shortness of travel, the rifle is extra fast on follower shots for a bolt gun. This is a good lowcost rifle.

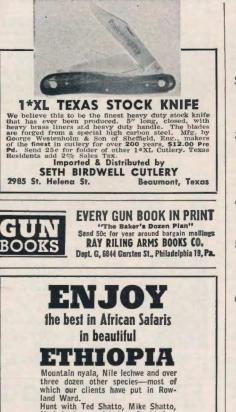


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TED SHATTO, SAFARI OUTFITTER Box 1745, Addis Ababa, Ethiopia

THE WINCHESTER SINGLESHOT

(Continued from page 34)

ters have this part round.

- 2. The Winchester lower tang was a separate removeable part; most Brownings (all the later ones) had the lower tang integral with the frame.
- 3. The finger lever of the Winchester had the free end made into a graceful curl; the Browning lever was flat and laid along the tang similar to that of the Sharps-Borchardt.
- 4. The breech block of the Winchester was more narrow than that of the Browning, being 0.95" in width.
- 5. The firing pin of the Winchester had a lug on the lower rear part which was contacted by the link camming the pin to the rear before the block started downward.
- 6. The Browning had a simple trigger mechanism in which the trigger end contacted the sear directly. In the Winchester version, another connecting link called the "knock-off" was inserted in the trigger sear hammer system, and while it does complicate things just a little, it makes it possible to secure excellent trigger pulls and paved the way for the introduction of several varieties of set triggers.
- 7. The main change instituted by Winchester is one which, in the estimation of many users of these rifles, is inferior mechanically to the original Browning system. This



is the manner in which Winchester modified the vertically rising breech block of the Browning to one in which the block was seated on a 5 degree slant. The idea being, of course, to help seat a stubborn or unsized cartridge case; but the degree of slant is too slight to be of any help here so it should either have remained vertical or been slanted somewhat more.

When this was changed to the 5 degree slant, they should also have changed the length of the link or the location of the lower link hole on the lever; for the combination of a 5 degree out-of-vertical seating of the breech block in combination with the original Browning location of the lower breech block link pin hole well ahead of the finger lever, causes a slight dropping of the block and, as a consequence, a loosening of that part when the lever snaps over center and up against the lower tang. This slight drop and loosening of the block from the breech of the barrel has been the cause of much discussion and "cussin" ever since.

The only possible advantage to this particular feature is that it permits the under barrel mainspring to more readily hold the finger lever in the fully closed position as the breech block loosens in its final seating movement. I'll have more to say about this defect in the action later on.

The first rifles made by Winchester, or at least those generally encountered, were the plain sporting model, a basic hunters rifle. As mentioned before, the barrel housing portion had three flats instead of a round top as the Browning action. However, Winchester changed this before too long and subsequent frames all carried round tops.

The flat side walls (or thick walls as they are also called) were also changed fairly early to the milled or paneled side receiver type. However, the octagonal top persisted for a while into this thinner walled series. Evidently the factory decided it was unnecessary to continue the thick walled frame as it added some weight to the completed rifle. This thick flat side frame does come back into the picture later on in production as we shall see.

Factory records give no indication when various modifications of these actions were put into practice and while I have arrived at some conclusions by studying various action differences and relating them to serial numbers, they would make rather dull reading and so I shall not include them here.

The single shot was very soon available chambered for many cartridges, from .22 rim fire up to and including various .50 calibers. It was made for all the popular sizes in the Winchester repertory as well as many special Ballard and Sharps sizes. During the production life of the single shot it was made for over 33 different cartridge sizes. I think it was made for more different calibers than any other American single shot rifle except possibly the Phoenix.

The Winchester catalogue for 1885 in announcing the new model stated: "This gun has the old Sharps breech block and is as safe and solid as that arm. The firing pin is automatically withdrawn at the first opening movement of the gun and held back until the gun is closed. The hammer is centrally hung, but drops down with the breech block when the gun is opened and is cocked by the closing movement. It can also be cocked by hand. This arrangement allows the barrel to be wiped and examined from the breech.

"In outline, everything has been done to make the gun pleasing to the eye. It can be furnished with or without set triggers with barrels of all ordinary lengths and weights and for all standard cartridges, also with rifle and sbotgun butt, plain or fancy wood, or with pistol grip."

Winchester made the single shot with four different styles of receivers and six different weights of barrels. It was made in plain sporting model, special sporting model, fancy sporting model, military musket pattern, several varieties of Schuetzen models, and even in a light carbine model on the low side wall action. In fact it came in just about every model found in single shots of other makers except one.

Winchester never offered a Creedmoor pattern rifie on this action. It seems odd at first that they did not, but you must remember they did not introduce the rifie until 1885 and Creedmoor matches were by then on the wane.

The low side wall frame was not introduced until a few years after the single shot made its debut and I shall cover this particular version in detail later. I just want to mention here the low wall used a smaller barrel, namely the number one size and of course the shank is smaller also.

I have one specimen of high side wall with a number one barrel and while the serial number of 12,262 would indicate a manufacturing date of 1887, or two years after introduction of the model, it doesn't tell us whether the number one barrel was first used on the high wall or on the low wall frame. However, I am of the opinion it was introduced in the high wall. I base this assumption upon the following: My rifle is a light sporter No. 1 full octagon barrel of 26 inch length, chambered and marked for the .32 Long center fire cartridge. It has a shotgun butt plate and is otherwise a typical plain sporter.

Now this light cartridge is one which would normally be made and sold in the low wall rifle but apparently it was not yet in production so therefore this particular rifle was made up on the high wall frame. Incidentally this frame is the type generally assumed to be of later production, being a round top paneled frame in case hardened finish.

The dimensions of the various barrels available for the single shots were as follows:

No. 1-Muzzle, .7187"; Breech, .9060"; Shank, .8125".

No. 2-Muzzle, .8750"; Breech, 1."; Shank, .9218".

No. 3-Muzzle, .889"; Breech, 1.050" Shank, .9218".

No. 4-Muzzle, 1.062"; Breech, 1.125"; Shank, .9218".

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(Continued from page 61)

No. 5-Muzzle, 1.10"; Breech, 1.16" Shank, .9218".

The sixth size barrel—the one overlooked by most people—is the special No. 3½ and was apparently added later as all I have seen were made for heavy smokeless powder charges such as .405 W.C.F., .50-110 W.C.F., etc., and they are usually made of Winchester proof steel and are so marked.

A 25" No. $3\frac{1}{2}$.405 Winchester barrel measures .920 at the muzzle and 1.138 at the breech end. The threaded shank is of course the standard .92 inch diameter. You will occasionally find a No. 2 barrel with the same small threaded shank of the No. 1 barrel. The No. 2's were made with either size shank, no doubt varying here according to the caliber of the bore. One loose No. 2 barrel I measured just the other day was an old full octagon 28" member in .32 W.C.F. caliber and muzzle was $\frac{7}{2}$ " (.8750), breech was 1" and the shank was $\frac{23}{32"}$ (.8125).

The round 28 inch barrels in .22 rim fire caliber used on the muskets such as the Winder musket rifles are about the same at the muzzle as No. 1 size barrels, but run heavier at the breech, usually being about 1%" larger in diameter here, or 1 inch in diameter. You will find variations from the sizes given in the muzzle and breech diameters of all size barrels but almost no variations in threaded shank dimensions. The refinishing of barrels will also alter the dimensions slightly as you may well know.

Standard barrel lengths in the No. 1 size weight ran from 24 inches in rimfires to 26 and 28 inches. However, I have seen some as long as 30 inches and perhaps you may have one even longer. The No. 2, 3, 4, and 5 barrels had standard lengths of 30 inches but I have seen some No. 3 and 4 weights longer, the longest being 36 inches. The No. 5 weight is the most scarce of all and you couldn't blame a hunter for not ordering a No. 5 to lug through the woods. The 5's were generally used on strictly target rifles but there is really very little difference in the weight of a rifle fitted with a No. 4 or No. 5.

About the time the .22 Hornet and the .22/3000 Lovell cartridges were popular and everyone was remodeling single shots for the new cartridges, the high walls with No. 1



shanks were avoided by most gunsmiths as it was felt they lacked strength for these cartridges, due to the smaller amount of steel left around the chamber. For cartridges of .22 Hornet and the .22/3000 Lovel sizes this barrel shank was adequate, of course, but for larger ones such as the .219 Zipper and comparable head sizes, the objection may have had some foundation in fact. The small shank No. 2 specimens would also fall in this category.

Winchester maintained the Browning principle of allowing the hammer to come to full cock upon closing the lever and some men like this feature, some do not. It is perfectly all right if on a target rifle, but very unhandy on a varmint gun. It is extremely difficult to let the hammer down to its safety notch manually while working under a low mounted scope. Later Winchester modified the hammers by installing a fly in the portion contacting the sear but these do not always function as they should and some will choose to cock fully upon closing at disconcerting times. When a rifle was ordered with a set trigger of any kind a fly must of necessity be in the hammer.

One of the features I personally dislike about the Winchester single shot action is the clickety-clack racket they make upon opening the action. This sharp double click emitted then is caused by the sear dragging across the safety and full cock notches of the hammer and transferring the racket to the knock-off and then on to the trigger. Since these parts must have some clearance upon their respective axles the racket is necessarily compounded. This is the noisiest single shot action in operation I know of, but I have heard few objections to it on this score.

Like most black powder single shot breech blocks the earlier Winchester had large fring pins, the more readily to fire the black powder primers in use in those days. They are generally well fitting pins with nicely rounded ends and do a good job on old primers. In contrast, consider the Borchardt firing pins which, in most of the military versions, have a firing pin about one-eighth inch in diameter, projecting beyond the breech block face the same amount, and flat and square on the end!

The second and largest group of actions found have large pins but with more sharply finished ends and these do not properly fit their breech block orifices. The last series of breech blocks made have small well fitted firing pin protrusions. These were supplied by Winchester even as component parts while they were still offering parts for these guns. None of these firing pins, even the smaller last issue type, were suitable for cartridges developing high pressures and most gunsmiths always bushed the block and installed small properly shaped pins when they were rebarreling to modern cartridges.

The firing pin used by most good gunsmiths when most of these old actions were being reworked, was some version of the Mann-Niedner special firing pin and these generally were entirely satisfactory. Since these incorporated a reduction in size of the firing pin orifice in the breech block, there was very little danger of a pierced primer and subsequent gas leakage into the shooters face. Most Winchester breech blocks have a factory installed vent in the top to take care of some gas leakage and others have side vents as well.

Older breech blocks are found with bulged front faces and consequently these are inclined to hang up in the frame and resist the effort of the under barrel spring to force them down into position. This causes the finger lever to droop away from the lower tang. The principle cause of these bulged faces, outside of rust and corrosion from black powder residue, is the heavy hammer used and the fact that the breech block face is pretty thin from the main body firing pin bore to the front face. The falling of these heavy hammers against the block and against the rear end of the firing pin does in time somewhat bulge the face of the block. Since these firing pins are in line with the bore of the rifle and are fairly large at the rear, there is very little loss of power here and they get practically the full force of these hammers.

Later the hammers were lightened somewhat, and still later when the coil hammer spring was substituted for the flat under barrel spring, the hammers were made lighter still by radically milling away surplus metal on each side. When the coil hammer spring was adopted the finger lever was kept open or shut by means of a spring loaded plunger seated in the front lower end of the frame where it hore against a raised boss or lug on the surface of the finger lever.

These coil spring actions thus do not have the large hole cut through them at the front lower face to permit the old flat hammerlever spring to protrude into the frame. This makes for a much stronger front wall. The only exceptions to this are those made originally for .22 rim fire cartridges in which there is a cut made for the wire spring which activates the extractor-ejector. This spring is anchored to the front outside wall of the frame and projects through a cut in this wall to contact the ejector. I can find fault with the coil spring action however, in-as-much as they never seem to cock or let off as smoothly as those with the flat hammer-lever spring.

The coil hammer spring arrangement paved the way for the interrupted thread take-down system used for many high side wall rifles and some few of the low side versions. This take-down system is about the same as that segmental screw take-down used on the Winchester Model 1912 shotgun. There is another Winchester take-down system used on a very few flat spring single shots but it is found very infrequently, so infrequently in fact that some have denied its existence at all. It utilizes a screw through the frame from side to side similar to that found on the Remington Number four light rolling block rifles. This same general take-down is found on Hopkins & Allen actions. Like the Hopkins & Allen and Remington rifles with this type takedown, the Winchesters with this system have smooth slip-in barrel shanks.

The Winchester came with a choice of plain triggers, single set triggers, a regulation wide spaced double set trigger called by them Scheutzen Set Triggers, and also with a special close coupled pair of triggers called merely "double set triggers" by the factory. This type is set by pushing forward on the rear trigger and this sets the front trigger.

The Winchester Schuetzen set is like the double set triggers found on other good single shot rifles of the period such as the Ballard, Sharps, Stevens, etc. The plain and single set triggers utilize the same lower tang while Winchester double set and their Schuetzen set triggers each required a special lower tang.

The last Winchester component parts catalogue I have around is from 1939 and this one and one dated April 1, 1938, still list many parts for the single shot and it was possible to get those parts then. I know a man who cleaned them out of parts during World War II and of course there have never been any more made.

An odd, at least odd to me, feature of these rifles is the fact the lower tangs are marked with the 1879 patent date. Winchester introduced the rifle under their name in 1885 but the component parts lists issued by the factory all referred to the model as the 1887 model. Can you explain that to me please?

The butt stock fastening is rather poor on the Winchester. Of course, most single shot frames with long tangs don't lend themselves to the most securely anchored wood. The front end of the butt stock is tenoned securely into the sharply radiused frame rear, and you would naturally conclude that stock could never get away or become loose.

The trouble is the screws retaining the lower tang to the frame tend to work loose as their seat in these tangs is not very deep. When the tang loosens the hutt stock wood naturally has some play and many pieces are found in which the wood of the grip is badly split and no longer will stay tightly in place. If the tang holding screws are always kept tight, no trouble develops here. At the conclusion of this article I will suggest a way this trouble can be avoided when restocking one of these actions. I should mention here that these actions as made by Winchester, were very well made and the action parts well hardened. That accounts for the fact that much used specimens are still usable and some actions have worn out several barrels.

Of all the single shots I have played with and switched barrels back and forth on, the Winchester is the only one which will accept any factory-made threaded shank (in its correct diameter, of course) and turn up and index correctly to the index mark on the frame.

Most Ballard barrels will not do this, some Stevens will not, and quite a few Remington and Sharps barrels will not correctly fit any action other than that one they started life with. I am referring here to factory threaded, unaltered shanks and while thread diameter and pitch was constant for any make, evidently most were individually hand fitted.

Winchester, however, had very carefully and accurately made gauges and used them on every barrel even those made for component parts stock for they will all turn in, fit exactly, and index correctly. In addition the breech block, if in good condition and not bulged on the face, will generally breech up correctly. The operation of the Winchester action is simplicity itself.

Dropping the trigger guard lever causes the breech block to drop by means of the connecting link between the lever and the block. As the breech block drops, an offset on its left side bears against the rearward projecting leg of the extractor and cams the

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extractor top to the rear, extracting the cartridge case. Upon closing the action, the hammer is held at full cock, unless it is one of those which have a fly in the hammer to prevent this, in which case the hammer comes to half cock upon closing the action. The hammer may then be manually brought to full cock.

Directions for stripping the action: Remove the forearm and take out the screw holding the flat spring to the barrel. (If your rifle has the flat hammer-lever spring.) This will remove the tension on both hammer and hreech block. Back out the small lever pin holding screw on the bottom edge of the frame, using a small properly fitting screw driver please. Push out the freed lever axle pin and the lever block assembly may then be worked out of the frame. It may be necessary to work the extractor out separately after the block is partly out; this will depend somewhat upon the amount of cartridge engagement lip the extractor possesses. In other words some extractors, depending upon caliber, have more side projection.

If it is desired to separate the hammer from the block lever group, the split end pin which resembles a screw, may be driven out with a punch. The link is pinned to the block

GUN BOOKS

with a conventional straight pin.

Early firing pins are secured in the breech block by a small pin from side to side in the block while later models have a long slender screw threaded into the top of the block to retain the firing pin.

The lower tang is removed from the frame by backing out the two screws which enter it from the lower rear corner faces of the frame. The tang is then slid out of the frame to the rear. When replacing this tang, it is necessary to hold the trigger forward with the thumb so the knock-off part will go forward of the sear. If the trigger is not held forward, this knock-off can go in behind the lower end of the sear and it is improperly assembled and will not operate. When reinserting the block-hammer-lever unit into the frame, it is generally necessary to hold the sear out of contact with the hammer and hammer spur by inserting a finger under the top tang to press the sear upward, thus removing the front edge from possible contact with the hammer.

This is such a simple single shot action there isn't really anything to disassembling or reassembling it, and I have often wondered why so many examples of it have such frightful scars from the various tools which have been applied to it.

The sectional drawing of the action shown

is a coil hammer spring type of high side wall. There are a few other minor parts used on certain models of the action. For instance .22 rimfire high wall frames with the .22 kicking extractor-ejector, have a small wire spring bearing upon them. This spring is anchored with a screw into the front face of the frame where the forestock covers it.

The high side wall frames made for rimless cartridges have another small wire spring to snap the extractor into the cannelure of the rimless case. This spring is on the inner left wall of the frame. There is an extra tapped hole in the top tang just to the rear of the hammer which is used to secure the front end of a tang sight base when such a sight is present. The rear end of this sight base is held by the upper tang screw extending down through it.

In addition to these, a few additional parts are required by a take-down action. These consist mainly of the take-down extension, extension adjusting screw, screw lock, takedown lock, lock plunger and spring, etc. Single set, double set, and Schuetzen double set triggers also add more and different parts which I cannot list or illustrate here. The flat underbarrel hammer-lever spring type action will be shown in a low side wall version next month.

(To Be Continued)

NEWTON-ADOLPH COMBINATION GUN

(Continued from page 35)

that we now call "bore capacity." His cartridge designs soon became remarkably efficient.

Charles Newton befriended Fred Adolph and designed a number of cartridges for him. Among these was a "family" of cartridges based on the long, rimmed cartridge called the .40-90 Sharps single shot. The three cartridges were identical except for caliber and were denoted as the .30, .35, and .40 Newton Express cartridges. These rimmed "Express" cartridges predated the later and more familiar line of Newton calibers.

They were chambered and offered by Fred Adolph for use ONLY in combination guns and double rifles. A SEPARATE family of cartridges based on a Berdan-primed, foreign rimless case was created by Newton for the Mauser bolt action rifles imported by Adolph. These were named the .30, .35, and .40 Adolph.

These same cartridges in .30 and .35 caliber were renamed the .30 and .35 Newton using improved American cases with regular (Boxer) primers when Newton set up his own company in 1914. This is another story, of course.

With the aforementioned close association of these two men, it is not surprising that Charles Newton should acquire one or more of the Fred Adolph combination guns. The one shown here is a beautiful threebarrel arm.

The barrels are made of Krupp fluid steel and are so marked. The double shotgun barrels are twelve gauge and the lower rifle barrel is in .25-35 Winchester center fire caliher. Iron sights for the rifle barrel consist of a snap up front bead and three leaves, flush with the rib, that snap up at the rear for 100, 200, and 300 yards. For long range shots there is a brilliant snapon, 3X telescopic sight with post and horizontal cross wire. Precision shooting is assured by a set trigger which is pushed forward to set. A slide button above the triggers on the right side makes one trigger selective for the rifle barrel.

Deep chisel engraving enhances the entire receiver with a vine and leaf design. Three ducks are inlaid in gold on the left side, and a large gold fox appears on the right of the receiver. Charles Newton's monogram appears as a gold "C" entwined with a platinum "N" on the receiver top.

The action operates smoothly with the under lever and a Greener cross-bolt of SQUARE cross section assuring a tight lockup. Excellent wood and fine checkering compliment this heautiful arm. The name "Fred Adolph" appears in tiny letters in a ribbon banner on the left and "Genoa, N.Y." on the right to disclose the gun's origin.

A "Fred Adolph" combination gun, double rifle, pistol, or bolt action rifle is a collectors prize but this special arm which was created for Charles Newton is a most unusual gun. Its existence was known to only a select group of Newton's personal friends. Your author tracked it down after spotting it in the hands of Charles Newton in a rare old photograph.

Truly the Newton-Adolph combination gun is a fabulous link with the past and with two of the men who helped pave the way for today's modern firearms.

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C HARLES ASKINS has told many times, in print and otherwise, about the hundreds of thousands of rounds he fired, in a rigidly imposed routine of practice, to become National Champion of target accuracy with a handgun. Nobody is telling how many practice rounds are fired annually by the current crop of handgun champions, but their names make it pretty obvious that the average man, with average practice time and average practice facilities, has hardly a ghost of a chance against the graduates of the Armed Services Special Marksmanship Units who work and shoot day in and day out, the year around, on target ranges.

Nothing can take the place of practice for the achievement of excellence in this or any other human pursuit; that's axiomatic. Not many of us are possessed by the compulsive urge to be a National Champion, but a great and rapidly increasing number of people would like to be able to shoot a handgun fairly well, whether at targets or in preparation for self defense; and for even that degree of efficiency, practice is essential.

Fortunately for the man (or woman) who doesn't have job-provided shooting facilities, or job-connected incentives for marksmanship, there are more ways than one to practice with a pistol. One of these—and a method so effective that even the lucky ones who can shoot every day use it—is dry firing: that is, simulated firing using the gun but no ammunition.

Don't think it won't work. Dry-firing can not only make a fair shooter out of a rank novice without expending a single round of ammunition—a fact that has been proved countless times by military and civilian instructors; it can also help an experienced shooter to improve (a) by enabling him to practice more, and more often, and (b) by helping him find and correct faulty procedures that are impairing his scores.

Accurate sighting and proper trigger control are the two most important ingredients of target-type marksmanship with a handgun -and of the two, trigger control is by far the more important. Contrary to what you may believe if you've tried to hold a pistol on a target and found it wavering from hell to breakfast, sighting is easy! The normal sight alignment for handguns is simple: top of front sight level with top of rear sight (which must be level), and front sight blade exactly centered in rear sight notch. Knowing that, all that is needed is the same kind of concentration a golfer uses in keeping his eye on the ball-concentration on keeping the sights in that alignment. Don't worry much about the target; try to set it neatly on top of the front sight blade, but if it moves from side to side and up and down (as it will do; it does even for the champions), don't worry about it. Keep those

sights in alignment and p-u-u-l-l-l the trigger very slowly.

That's where the problem lies: in pulling the trigger without altering the perfect sighting alignment. If the sights are kept in proper alignment during the bullet's travel down the barrel, the bullet will fly one of an infinite number of lines parallel to, if not exactly on, the line of aim. This is why the apparent movement of the bullseye over the sights is of secondary importance to any but the master shooter. If you hit within a radius of a few inches around dead center. you're scoring nines, eights, and some tens. Which ain't bad. Whereas if the sights are out of alignment, the bullet is started off at an angle which will throw it far off target. Holding the sight alignment means shooting straight, even if not dead center. Clear?

Failure to concentrate on sight alignment is one sure way of losing it. Another way is by jerking or pressing the gun (and hence the sights) off alignment by improper application of pressure on the trigger. Dry firing can cure both problems. It can also help you to decrease that target "movement" that is so disconcerting to the beginner.

"But," you say, "Soandso told me never, never to snap a gun on an empty chamber and he's an expert!" They told me that, too, back in the twenties, when I began shooting pistols in competition. But I wasn't working for the Border Patrol or the Army, like Askins and some of the more recent Champions; I didn't have job-provided shooting facilities or job-connected excuses for spending half my time on the range, so I dry-fired my precious target pistols. I put a tiny pellgun target on the wall, and I figured to snap 100 carefully held "shots" with each of those three guns at that target every day. The last time those guns were fired in competition, they won a regional championship. I still have them; and if you can show me any damage from all that dry firing, I'll eat my hat like the people in the TV commercial.

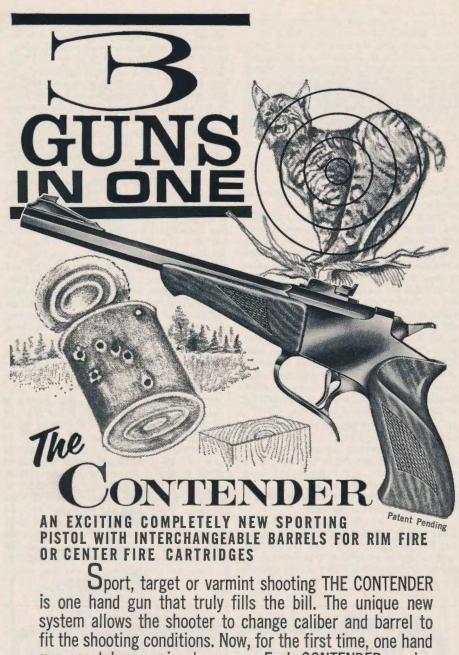
Time was when dry firing was bad news, at least for some guns. Guns whose firing pins are attached to the hammer, guns whose firing pins or strikers hit the edges of the chambers, in rimfires, or against squareshouldered stops, could and did mutilate the chamher edges and/or cause breakage of firing pins or strikers. But better design and better metallurgy and spring-supported inertia firing pins have practically eliminated those dangers in modern handguns. At an NRA show some years ago, one leading handgun maker set one of his revolvers in a torture device which snapped the gun once every second or so, endlessly, throughout the four-day exhibit. The incessant snapping drove neighboring exhibitors nuts, but the gun wasn't damaged.

However, there's no law against being a pessimist. If you are one, go ahead and put empty cases in front of your firing pins. (But be sure they're empty!)

How can you make this dry firing practice pay off? First, make sure your revolver or pistol is empty. Then seat it in your hand so that the barrel, when your wrist is straight, is an extension of the line of your forearm. Your grip should be as high as possible without bringing the web of flesh between thumb and forefinger into contact with the (cocked) hammer or in jeopardy of the back-slashing slide of an autoloader. Grip the gun about the way you would

(Continued on page 66)





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(Continued from page 65)

grip a wet glass of water of the same weight -firmly, but not hard enough to produce muscle tension. Later, you'll doubtless experiment with many degrees of grip tension; but right now, you'll be using a new set of muscles, so don't strain them. If your wrist tendons stand out, if your fingernails whiten, you're gripping too hard. Relax.

Now stand and "face" your target-a scaled-down bullseye or any spot on the wall at about shoulder height. Stand straight, head up, but not tense, feet comfortably apart, facing 30 to 45 degrees left of the target (if you're right-handed). You'll try different shooting stances as you go along; this is a good one to start with.

With your free hand, cock the gun. (If you're using a revolver, forget about its double-action feature; trigger control is difficult enough at best, so let's start with the action requiring the least effort.) Thrust the gun out at the target.

Now for the first time, place your forefinger on the trigger, laying the pad of the first joint squarely across the trigger. This is important. Trigger pressure must be straight back; and, since your finger is a series of hinged joints working only in one direction, the only way it can apply straight-back pressure is with the first joint, with the finger bent, curving outward, out of contact with the gun.

Align the sights-and p-u-u-l-l-l. Don't "squeeze with your whole hand, like the squeezing a lemon," the way your old gun-nery sergeant used to tell you. If you do, your other fingers and the muscles in the palm of your hand tighten, press against the gun in various placed, force the sights out of alignment. With that curved forefinger, pull the trigger straight back, slowly but firmly, exerting continuous pressure. Concentrate on the sights! Keep 'em in alignment. Sure, the target seems to float back and forth across the sight picture, up and down-ignore it; keep pulling until the hammer falls.

Were those sights in perfect alignment when the "shot" was fired? If they were, you've been kidding me: you didn't need practice! If they weren't-that's why you're practicing.

And you can console yourself that it's practice that will pay off, in three ways. It will teach you to concentrate on those sights, which is essential. (Oh, I know about those experts who can "point shoot" without consulting the sights at all, but that's another story.) They are experts, remember? If you're an expert, why are you reading this? It will teach you to pull that trigger properly, so that the shot fires without upsetting the sight alignment.

And holding the gun on target will develop the muscles you need to hold the gun on target. Simple, huh? But true. And as those muscles develop, an odd thing will happen. That moving target will get less illusive. It will never stop moving, entirely; no man can stand entirely still, and no arm can be held entirely rigid. But the practiced man and the trained arm can hold a gun a lot steadier than you can bold it, without practice. And if you do enough dry firing to learn sight concentration and trigger pull first, when you do fire live ammunition, you'll find that whatever movement the target still has doesn't much matter!

ASKINS TESTS: THE CONTENDER

(Continued from page 23)

is in the forward or down position. If the gun is dropped and strikes on the hammer, it will not fire. No amount of jar, or rough treatment, or hard useage will permit the hammer to come to rest on the firing pin. The Contender does not have a safety notch as do other one-shot models. It has something much better, this excellent built-in safety device.

Along with this innovation, the movement on the spur extension also serves to position both the trigger and the sear so that the piece may be cocked. The trigger-sear assembly is forced into engagement with each other and once this is accomplished the hammer can be hauled back and the pistol is then ready to fire. If, after cocking, the shooter should change his mind and lower the hammer, he will find he has to go through the whole exercise once more. That is, he must squeeze upward on the spurextension, open the gun completely, close it, and then-and not until then-he can once more fetch the hammer to full stand.

This pistol is going to appeal to those handgunners who like to shoot two-handed, and at long yardages. With this in mind Thompson-Center has provided a scope mount base. It is attached to the barrel by first removing the rear sight, an assembly held in place by two 6-48 screws. The mount base will accept any tip-on mount intended for pistol useage. Such scopes as the Bushnell Phantom 1.3X are now in use on the Contender

Field tests of the Contender have now included 1,143 shots in three calibers: the .22 Long Rifle, .22 Rem-Jet and the .38 Special. From the HEG machine rest, all calibers have grouped very well. The .22 Long Rifle, with Federal Hi-Power, not certainly a match loading, have grouped for 100 shots into 2.65" at 50 yards. The .38, with Rem-ington Targetmaster 148 gr. wadcutters, grouped 100 shots, 50 yards, into 2.95". And the .22 Rem-Jet, using Peters 40 gr. highvelocity softpoint bullet, for 20 shots grouped into 3.10" at 50 yards. The 10-ring of the Standard American pistol target measures 3.37", and the Contender is capable of grouping within this ring with the barrels which we HEG-tested.

Shot offhand, in the conventional pistolman's pose, the Contender with 10" .22 Long Rifle barrel in place, fired scores of 91 and 93 at 50 yards. With the .38 barrel, it was impossible to shoot for score at either 25 yards or 50. The pistol shot seven inches high at the shorter yardage and eleven inches high at 50 yards. Turned on the rifle target at 100 yards the bullet fell 16" below the point of aim. It is evident there has been a lack of engineering on the calibration of the sight for the .38 tube.

The Contender with the .22 Rem-Jet barrel was fired only with the 1.3X scope in place. It was shot at 50, 75, 100 and 175 yards. The scope mount could not be kept in anchor. It had a tendency to creep under the somewhat mild recoil of the Rem-Jet load-

ing and this necessitated a continual round of re-zeroing. Best results were obtained when the scope, mount, and the base were removed and the open sight was attached. The .22 Rem-Jet reaches to 175 yards with ease and 20 shots were held inside the Colt silhouette target.

The rear sight is a casting-undoubtedly an investment casting like the receiver. It is movable by an elevating screw, requiring a screwdriver. The sight leaf is under coilspring tension, without locks. The deflection movement is also screw-functioned, without locks. Movements are not calibrated in either direction. There is a zero point for deflection but none for elevation. Constant shooting of the three calibers produces changes in elevation (none were noted in deflection) and the gunner must constantly check the elevation screw to maintain a working zero. The sight could not be used for serious target shooting. Not only are movements far too crude, but the lack of locks, the absence of reference point in the elevation screw, and the sloppiness of fit in the sight leaf would preclude serious consideration as a target proposition.

The Douglas barrel is octagon in every caliber. Over the chamber it is round and here it has a greater diameter. The octagonal configuration might well have given way to a completely round tube with a good deal more weight in it. This pistol is muzzle light, and a feathery muzzle on a handgun is not conducive to a good steady hold. The handgun that settles down and goes to sleep is the one that has so much muzzle preponderance the marksman has to fight it constantly to keep it from developing droop. The Contender does not do this. Neither does the Luger, nor yet the P-38, and a raft of others. Such guns are not notable for close hard holding.

As I see the Contender, it is a pistol for the hunter, for the plinker, for the fellow who shoots at targets casually. It will lend itself handsomely to the reloader. Because of the closed and locked breech it will withstand some of the hottest reloads. With a little scope attached and in the .22 Hornet, .22-Rem-Jet and .22 Rimfire Magnum calibers, it will kill small game at ranges to hell-and-gone.





HOW TO BEAT THE CONG

(Continued from page 47)

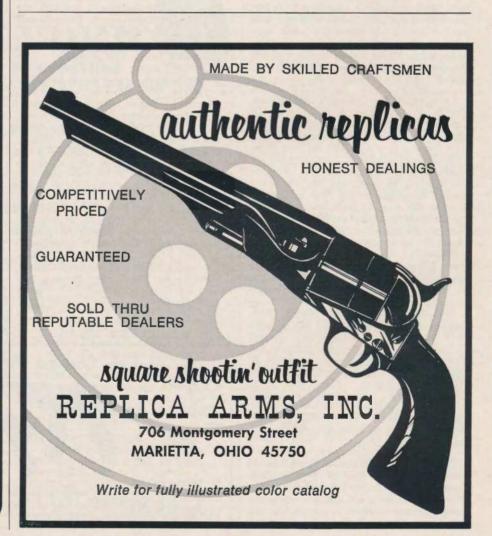
For example, due to the combination cartridge's ease of placement and small size, the progress of an enemy force could easily and accurately be charted through virtually any terrain with these tracer cartridges.

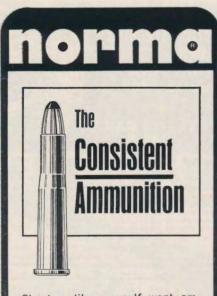
Again, because of their ease of placement, combination cartridges can be used to mine an area of protected or concealed terrain so heavily that it becomes virtually denied ground, and the bulk of the enemy force would be pushed into our troop's field of fire. To effectively mine areas in this manner, mechanical planting devices, similar to farming equipment, and of a size to be easily attachable to jeeps, tanks, trucks, and the like, can be utilized.

An entirely separate area of use for Mr. Johnson's invention lies in their use as boobytraps. Because of the absolute minimum of time needed to plant them, a considerably greater number of traps can be planted, not only increasing their effect in numbers wounded, but also their demoralizing effect. Various sorts of actuating pins can be used to increase the coverage of the trap. Any piece of padded furniture is a potential hiding place for a boobytrap.

Although the velocity of the bullet fired with the secondary firing pin and primer will be substantially less than one fired in the conventional manner, accuracy and trajectory are no problem because of the extraordinarily short ranges involved, generally less than two inches. Increased velocities can be achieved through any of several methods, such as increasing case wall thickness, changing case alley, adding laminations of steel, fiberglass, or other strong materials, or by inserting the combination cartridge into a strong, tight-fitting tube for firing. This tube would probably be in two pieces, an outer tube and an inner ring fitting around the neck and shoulder of the cartridge case.

These are just a couple of the ideas we've seen, which were aimed at ending the war in Vietnam. Some were unworkable; many needed further work; but all work toward one end, ending the conflict. Perhaps, as has happened with other wars, it will not be the work of the diplomat or politician which ends the fighting, but rather that of the GI, whose dogged ingenuity produces the winning weapon or tactic.





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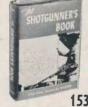
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(Continued from page 29)

These incidents are only a few on file, and like the others, they all show that there were no permanent injuries to those hit with the Mace; the police officers were not harmed and there were no charges of "police brutality."

In a test, conducted by Captain Ross Donald of the San Jose Police, the effectiveness of the Chemical Mace against an armed agressor was demonstrated. Captain Donald received a burst in the face from about five feet, and he reported that, "It worked faster than I thought. As soon as it hit, I couldn't see a thing." Although Captain Donald managed to draw his revolver, he could not see to fire it.

Most police agencies will find that it is good policy to give several demonstrations of the Mace. First, each officer who will be using it should be subjected to the loading. A full facial burst is not necessary, for even a small drop of the solution on the checkbone will demonstrate the immediate and tactical effectiveness of the loading. A second demonstration should be made with members of the various press media present. This will alert them to the fact that this humane weapon is being used, and will help forestall outcrys of "police brutality."

Will the Chemical Mace ever replace the gun? No! The most effective weapon against a gun is still the gun. However, the Chemical Mace fills the need of a weapon to replace the club. A bleeding head, no matter how justified, becomes the favorite target of press photographers, and is the subject used by militant minority groups to help create martyrs at the expense of the police "public image." In the hands of law enforcement agents in small towns or rural areas, the Chemical Mace can also be an effective means of keeping the peace among boisterous neighbors, subduing frenzied drunks, and maintaining order within the jail-all without the use of physical force.

No demonstrations or tests can bring out the advantages of using the Chemical Mace as effectively as actual—in the field—experiences. Here are a few more actual cases on record. In Pittsburgh, officers cruising in a high crime area, stopped to break up a street fight between two women who had gathered a large crowd of spectators. The officers immediately broke through the circle of onlookers and quickly "shot" each woman with a short burst from a Mark IV. The fight was instantly stopped, the women were completely subdued and effortlessly led to the squad car and driven away. The crowd was not aroused or angered, nor were they aware of what actually happened.

Officers of Houma, La., received a call to subdue a man who had gone beserk. The man was about 6' 2" and weighed over 200 pounds. On arrival, they found the man armed with a knife and a chair. He attacked the arresting officers and their police dog. knocking out the dog and injuring the officers. One of the officers took a Mark IV Mace, approached within ten feet of the man, and hit him on the side of the face with a short burst. Within one or two seconds, this man was completely helpless. The officers described him: "Like a rag doll." The man was handcuffed and brought into jail without any trouble. The "Houma Courier" wrote an editorial commending the police for not having used firearms or brutality in handling this situation. The editorial said: "In a time when police brutality is often singled out for attack, it is good to be able to point to instances where law enforcement officers can do their job without risking the death of the subject involved."

We will undoubtedly see more and more law enforcement agencies using the Chemical Mace or the Chemical baton. Already, it is being used by such cities as Pittsburgh, Pa.; Cedar Rapids, Iowa; Troy, N. Y.; Columbus, Ohio, and by numerous state and county departments. In most areas it has reduced assaults on police officers by 50 per cent. It will undoubtedly raise the police image by affording the law enforcement officer the means with which to handle potentially violent situations without the usual force necessary when armed only with a club or a gun.



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SHOTGUNS: BAD MEDICINE IN THE WEST

(Continued from page 21)

John Horton Slaughter was born in Louisiana but his parents toted him over the trail to Texas while he was still wearing threecornered pants. He grew up learning how to put bullets in the buffalo, the Kiowas, and the Comanches that were prime Texas targets in the mid-1800s; and during the War Between the States he may have tried his aim at some Yankees. Later he served with the Texas Rangers.

It was in the cattle business and later as sheriff of Tombstone that John Slaughter earned some bold type in the pages of history. In a cattle deal, his trail crossed that of a hard customer named Bill Gallagher. They had a bitter dispute over the ownership of some cattle. Gallagher armed himself with a shotgun loaded with buckshot and two six-shooters. His plan was to close in on Slaughter quickly and blast him with the shotgun.

John Slaughter was alert to Gallagher's plan, however. He knew the limitations as well as the capabilities of a shotgun, and he had no intentions of letting himself become a target for the lethal charge of that shotgun. As Gallagher charged toward him at full speed, Slaughter laid him low with wellplaced shots from a long-range rifle.

Many stories are told of John Slaughter's fearlessness and his firm belief that his enemies could never kill him. Ed Lyle, Cap Stilwell, and four other outlaws attempted to amhush Slaughter one day as he and his wife were driving from Charleston to Santa Cruz. Slaughter caught sight of the riders as they skirted around to get ahead of him. Sitting calmly with a shotgun across his lap, he had Mrs. Slaughter whip up the horses, reaching a clump of willows ahead of the outlaws. Knowing Slaughter's deadly fighting ability and realizing that their design was known, the six would-be attackers decided to await a more favorable opportunity. Soon afterward Slaughter confronted Lyle and Stilwell and told them if he ever saw them in the territory again he'd kill them. They left.

Following John Slaughter's four years (1887-1890) as sheriff of Cochise County, in which Tombstone was located, that part of Arizona turned well away from its previous lawlessness. Slaughter was then able to turn his shotgun from human targets to shooting ducks, a sport he especially enjoyed.

Jeff Milton was another of the legendary western figures who came from the deep South, drifted over to Texas, served as a Ranger, and then was drawn westward until he reached Arizona Territory. It was my good fortune to know Jeff Milton when I ranched in Arizona in the 1930's. He was then near the end of his life span of 85 years, but was erect, alert, keen-eyed, tight-lipped, and even then there emanated a firmness of character that warned this would be a bad man to cross.

Jeff Milton was the worthy subject of a book published in 1948 sub-titled "A Good Man with a Gun." It may be said that his record showed him to be a very good man with a shotgun. At dusk on February 15, 1900, the southbound train puffed into Fairbank, the nearest train stop to Tombstone, which had no direct rail line. What appeared to be five drunken cowboys had herded bystanders between themselves and the railroad tracks. Actually these were five of the most vicious outlaws in the territory — "Three-fingered Jack" Dunlap, George and Louis Owens, Bravo Yoas, and Bob Brown.

The Wells Fargo express messenger on this run chanced to be Jeff Milton; he came to the express car door in shirt sleeves and was greeted with a demand to throw up his hands and jump down. Instead, Jeff reached for his sawed-off shotgun standing inside the door. A volley of shots cut Jeff's shirt to shreds, hitting his left arm between the elbow and shoulder. The impact spun him around and knocked him down. Thinking they had him,



John Slaughter

the outlaws rushed from behind the bystanders by whom they had been shielded. It was a mistake. Raising up, Jeff grasped the shotgun in his right hand and let off a blast at the lead man. "Three-fingered Jack" Dunlap caught eleven buckshot and Bravo Yoas received a stray shot that headed him at a gallop for Mexico with a painful seat in the saddle.

In this encounter Jeff Milton recieved the arm wound which was to give him months of suffering, but he eventually regained partial use of the arm. Even with one crippled arm he was later able to show himself the better man in a showdown with Burt Alvord, one of the planners of the Fairbank robhery who had sworn to kill Jeff.

Having spread the word that he will kill Jeff Milton on sight Alvord swaggered through the swinging doors of a hotel where Jeff was playing cards with some friends; against the wall beside him was Jeff's efficient shotgun. Alvord was not expecting to find Jeff in town this day and was taken by surprise. He started to head back through the swinging doors but was brought up short by Jeff's order to stop or be killed.

Everyone knew Alvord had boasted he was out to kill Jeff and Jeff was urged to shoot Alvord. But Jeff had a different idea. Followed by his friends, he marched Alvord over to the Buchman photo shop. Jeff observed that he would have the photographer shoot Alvord! Then they'd have the picture of a brave man! To this bit of humorous humiliation Jeff added the sober warning that if Alvord ever crossed his path again the shooting would involve a different kind of powder than flash powder. Burt Alvord was seen in Arizona no more.

It was Jeff Milton's creed that he never killed a man who didn't need killing and never killed an animal except when he needed meat. He died in bed, highly respected by those who knew him. His once very active shotgun now stands silent among mementos of his life on display at the Arizona Pioneers' Historical Society.

The dramatic use of shotguns in the west was not the sole province of outlaws and lawmen; many ordinary citizens were forced to use them for other purposes than putting meat in the pot. Perhaps one of the most notable examples of this involved a future President of the United States,

It was in March of 1886 that young Theodore Roosevelt, owner of the Elkhorn Ranch in Dakota, had occasion to use one of his two double-barrel shotguns (a 10 guage and a 16 guage) as a man stopper.

The Elkhorn Ranch lay on both banks of the Little Missouri and a small scow was kept near the ranch house for convenience in crossing the river. Some drifters came downstream in March of 1886 and helped themselves to the boat. Young Teddy Roosevelt was not the kind to submit meekly to this sort of indignity. With two ranch hands, he set out in pursuit. Several days later they surprised the culprits and disarmed them. TR wrote, "I kept guard over the three prisoners, who were huddled in a sullen group some twenty yards off, just the right distance for the buckshot in the doublebarrel." Later, TR sent his ranch hands back to the ranch and marched the three prisoners in to Dickinson, going without sleep for 36 hours in the process. Teddy Roosevelt was also "a good man with a gun!"

Arms manufacturers, taking note of the effective use of sawed-off shotguns in the West, came up with short-barrel models classed as "riot guns." Winchester's Model 97 and Model 12 repeating shotgun actions were employed to produce guns of this type, 19,196 delivered for guard duty and trench warfare during World War I. Marlin and Burgess made similar riot guns. Prison guards and law-enforcement agencies began to add these riot guns to their man-stopping arsenal, and the shotgun for law-enforcement purposes took a prominent place alongside its brothers whose more peaceful purposes were hunting small game and breaking clay.

Although throughout the pages of history shotguns are sometimes shown as a tool of the lawless, their non-sporting or man-hunting employment has been primarily on the side of law enforcement or the military. As a man-stopper, shotguns are bad medicine.







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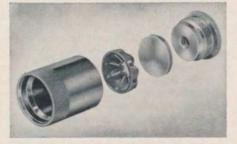


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THE SHRINKING MILITARY CARTRIDGE

(Continued from page 31)

in 1938. Both worked toward what we now call an "intermediate" cartridge of considerably less power than existing rifle and MG calibers. In 1943 both placed new cartridges in limited service. Germany the 7.92mm Kurz, Russia the 7.62mm M-1943 (7.62x 39mm). In performance the two were virtually identical. The former died with the M-1943, the .223 offered much higher velocity and less recoil than previous intermediate calibers. It also permitted a lighter weapon and ammunition than the 7.62mm NATO.

Consequently, after much controversy, the .223 (5.56mm) cartridge and rifle (modified AR-15, designated M-16) were adopted by the U.S. to supplement, not replace, existing

	CA	RTRIDGE D	IMENSIONS	(Inches)		
Caliber	Rim Dia.	Head Dia.	Neck Dia.	Bullet Dia.	Case Length	Cartridge Length
7.62mm NATO	0.470	.466	.338	.308	2.01	2.75
7.62mm M-1943	0.445	0.443	0.340	0.310	1.520	2.20
7.62mm M-52	0.443	0.442	0.333	0.310	1.753	
7.5mm French	0.482	0.480	0.340	0.308	2.11	2.99
223 (5.56mm)	0.375	0.374	0.249	0.224	1.850	2.21
.45 ACP 9mm	0.476	0.476	0.475	0.452	0.898	1.17
Parabellum 7.62mm	0.393	0.392	0.380	0.355	0.760	1.16
Pistol 9mm	0.390	0.380	0.330	0.307	0.970	1.35
Makarov	0.396	0.389	0.384	0.363	0.710	0.97

Wehrmacht and the latter is now virtually standard throughout the Soviet Bloc.

The United States followed another principle in developing a cartridge that possessed virtually the same performance as the old .30-06, but reducing its weight and bulk as much as possible. The result was what is now called the 7.62mm NATO cartridge, and was adopted as the U.S. standard in 1954.

Much controversy surrounded the adoption by NATO nations of the U.S. 7.62mm. England in particular preferred a 7mm intermediate cartridge and produced a rifle, the EM-2, for it. U.S. authorities were adamant, refusing to settle for the less-potent British proposal—and since Britain had depended on the U.S. as a major supplier of arms and ammunition for two wars, she gave in and adopted the 7.62mm, followed by all other NATO nations except France.

Since that time nearly all Western World development of rifles, automatic rifles, LMGs and GPMGs has been in 7.62 mm NATO caliber. Major and minor powers alike (aside from the U.S., with its M-14 rifle) have rearmed with 7.62mm variations of the FN FAL rifle, and to a lesser degree with the CETME or its near-twin, the H&K G-3. Of course, some less-wealthy smaller nations continue to get by with their pre-war calibers or the better WW II castoffs, but all have plans for re-equipment at the earliest practicable date.

But development did not stop there. In 1957 the U.S. firm of Armalite, Inc. offered for testing a new cartridge known as the .223, along with an advanced light rifle chambered for it. While technically of the intermediate class, along with the 7.62mm 7.62mm weapons. Performance of both rifle and cartridge in the current Viet Namese War has been such as to prompt a number of other nations to give some consideration to its adoption, at least for special purpose use. There are also reports that Russia has developed a similar cartridge from the basic 7.62mm M-1943, however, it isn't known whether that development came before or after that of the .223.

While it is too early to make specific predictions, it just might be that we are on the verge of going into a second generation of post-WW II rifles and MCs.

There has been less activity in pistol and SMG cartridges. Each of the major powers had its own distinctive cartridge prior to the war. Since then, in the interest of commonality, all Western nations except the U.S. have adopted the 9mm Parabellum used so successfully by Germany during the war. Even the French finally admitted that their old 7.65mm Long was inadequate and went to the 9mm.

Within the Soviet Bloc, the high velocity 7.62mm pistol and SMC round of WW II remains in wide use, but is being replaced by the new Makarov 9mm cartridge. The latter is of low enough power to permit its use in the unlocked breech mechanisms of the Stechkin and Makarov pistols now becoming standard in many Soviet satellite nations.

But just what has all this development and standardization produced? Today most Western nations require only the 7.62mm NATO cartridge for rifles, automatic rifles and light and medium machine guns. In addition, the 9mm Parabellum cartridge serves both their pistols and submachine guns. Not only does this mean that internal logistics problems have been greatly eased, but that in time of need standard ammunition from friends, neighbors or allies may be pressed into service and perform just as well as the domestic product.

On the Soviet side of the world the same situation exists. The nations now under Soviet control would have once required a score of different cartridges to supply the needs of their basic small arms. Today the 7.62mm M-1943 serves for all rifles, assault rifles, and light and medium machine guns except those of Czech make still in limited use. The 9mm Makarov cartridge appears destined to do the same in pistols and submachine guns.

And just what are these late-generation cartridges like and what will they do? The tables show performance and dimensional data.

Of course, every nation has its so-called War Reserve, which normally includes a number of previously-standard weapons. The U.S. has its .30-06 M1 rifles, the British their warehouses of .303 Lee-Enfields, the Russians their millions of 7.62mm Rimmed M-91 series rifles, and the smaller nations many millions of WW II vintage bolt action rifles of many calibers. And some nations continue to use the older arms so long as parts and ammunition last, while at the same time laying in stocks of the newer weapons.

A major war started today would see many millions of WW II arms resurrected and placed in service, but the majority of firstline troops would be equipped completely with weapons for the cartridges just described. Thus the principal combatants in future wars should encounter far less logistical difficulty in supplying ammunition for their basic small





OUR MAN IN WASHINGTON

(Continued from page 17)

business hours the premises (including places of storage) of any firearms or ammunition importer, manufacturer, or dealer for the purpose of inspecting or examining any records or documents required to be kept by such importer or manufacturer or dealer under the provisions of this chapter or regulations issued pursuant thereto, and any firearms or ammunition kept or stored by such importer, manufacturer, or dealer at such premises. Upon the request of any State, or possession, or any political subdivision thereof, the Secretary of the Treasury may make available to such State, or possession, or any political subdivision thereof, any information which he may obtain by reason of the provisions of this chapter with respect to the identification of persons within such State, or possession, or political subdivision thereof, who have purchased or received firearms or ammunition, together with a description of such firearms or ammunition." (Underlining and italics supplied for emphasis.)

Thus, police registration of all gun and ammunition purchasers could be accomplished in one of two ways: The Secretary of the Treasury could require periodic reports listing purchasers from federal licensees, the information to be compiled into a national registration list. Or any police office of the state or political subdivision thereof can independently or in conjunction with the national registration, compile its own list of firearm and ammunition purchasers.



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