APRIL 1967 75c

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Full Color Feature The Engraved Gun



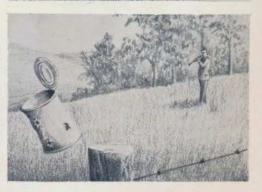
Contributing Editors: Col. CHARLES ASKINS, Shooting Editor Maj. GEORGE NONTE, Military, LES BOWMAN, Hunting, Col. REX APPLEGATE, Police

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WITH THIS ISSUE, we introduce our new staff of contributors; Charles Askins, Les Bowman, George Nonte, and Rex Applegate. The full details of how and why this was done is on page 21.

Our mail bag has been crammed with letters asking for more articles on takedown details for various handguns. The article in the February issue, covering the takedown procedure for the Colt .45 Auto pistol was just a beginning.

Also, at the request of many readers, we have changed the format on our full-color section. You will note that we no longer have any captions on the photographs. This will permit those readers who so desire to frame the photos. I hope that this format will satisfy all of you who have written to us. 38

I would like to call you attention to several articles in this issue. There are some interesting questions raised in "Shoot Back Against Crime," especially when you consider that a total of 39 bills are now pending in the New York State Legislature concerning firearms, ammunition, registration and licensing changes for gun dealers. Some of these would add rifles and shotguns to the firearms covered in the Sullivan Law: thus further assuring the criminal fewer guns which could "shoot back."

Watch out for Harry Dean's predictions of new developments in the smallhore shotshell field; he actually knows more than he's telling. Les Bowman was fortunate in being in the right place at the right time, and was the only gun writer at the grand opening of the Ranger Arms factory. Read his first-hand report on page 26. The article on investment castings should help you understand what makes up a modern firearm. Too many people have a false impression of just what the word "casting" means, and they recoil at the thought of having cast parts on their firearms. As you will read, there are castings and there are castings.

In this issue we introduce our new police department, "Guns and the Law." Each month we will have articles of interest to law enforcement officers; articles which we hope will help them in their thankless task of fighting crime. While this department is written especially for policemen, I am sure that many of our readers will find it of interest. We hope that the more that the average citizen knows about police problems, the more they will appreciate and support their local police.

#### THE COVER

To kick off our new police department, our cover photograph shows Salt Lake City Police Lt. Farold Christiansen, Ret'd, demonstrating combat firing position. Photo taken by John S. Flannery, at the police range just north of the Utah capitol.

APRIL, 1967 Vol. XIII, No. 4-148

George E. von Rosen Publisher

Arthur S. Arkush Ass't to the Publisher



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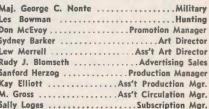
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### CROSSFIRE

locities since we are talking about heavy, dangerous game at close ranges where striking velocities are high anyway and mass of slug creates energy for bone crushing effect. Jacques P. Lott

Los Angeles, Calif.

#### **Commemorative** Collecting

I think reader O'Dell (Jan. Crossfire) has missed the point, in that he says commemorative guns are not collectors items. They are by definition, i.e., they are collected. The difference is that while most guns are collected because they have some historical significance, the American Revolution, the Civil War, or were associated with a colorful period, the winning of the West, or by their mechanical ingenuity signaled the end of an era and the beginning of a new. In other words they were involved in great events and having one gives us a link with these times and makes them live for us.

It's only my opinion, but I believe commemoratives are the antithesis of this and by their very nature sterile. To me they are like the replicas; they have their place, but they are not nor can they be of the importance of the guns that built this country from nothing.

Paul A. Quihillalt Lafayette, Calif.

#### **Defense** Guns

I was certainly glad to see the article, "Guns For Defense Of The Home," in the last issue (Jan., 1967) of GUNS. Especially, I was glad that the comment was made on keeping the revolver loaded with two empties ahead of the real thing. You are on the right track in promoting this sort of information and the kind of selfhelp in defense which is being started by Orlando. For a long time I have felt that this instruction and arming of the citizenry is the only effective answer to the growing number of burglaries and rohberies. All gun magazines, the police, and for that matter, the state governments should keep aiding in this matter. I hope that you keep hammering away at it.

L. A. Ware Iowa City, Iowa

#### **A Reader Comments**

I would like to point out that Mr. Tom Bolack of "Big Man With A Small Gun" may be just that, but in his picture showing his weapons, he definitely shows a .458 Winchester Magnum rifle. This may helong to a close relative or it may be the rifle Mr. Bolack uses for those large and dangerous animals comprising a small percentage of his collection wherein a "Big Man With A Small Gun" does not suffice! I can well sympathize with Mr. Bolack's position in that he knows there are limits to both one's ability and bullets from small bore rifles especially at very close range in thick cover on massive or any dangerous game where a charge can occur. It is most misleading for shooters to read such an article which is so often held up as supporting the untenable idea that one weapon is about as good as another since it is the shooter who counts. Even the .375 Magnum 300 gr. load is too fast for proper penetration and controlled expansion at ranges under 25 yards and prematurely fragments.

Mr. Louis Weyers' article is equally misleading. Aside from the obvious error of captioning Wevers' photograph with the buff, "The author with one of nearly 3,000 buffalo taken by three hunters with .45 caliber bullets," Weyers concludes that one should use only factory softs and solids on buff with the Winchester .458 Magnum. The impression is created that Weyers, John Buhmiller, and Eric Rundgren, the ex-Kenya, now Botswana professional, conducted such a test involving 3,000 buffs on Rundgren's Chobe River concession in Botswana. This would be a physical impossibility for three men in one hunt and would not be allowed. Rundgren wouldn't do it since he doesn't shoot much anymore, and Weyers said he was armed with a Winchester Model 70 in .300 Magnum caliber. I know however of Rundgren's .458, which is his favorite rifle, but the article left it out.

Weyers attempts to present results of a controlled test, yet omits specific velocities of Buhmiller's .450 Magnum, along with details of powder, case origin, etc. He compares unfavorably the performance of Buhmiller's slugs which were presumably (with the exception of the 600 gr. Barnes) travelling around 2,700 fps with his standard Win. .458 ammo. Yet he apparently has not used Barnes bullets at standard .458 velocities. Certainly they won't hold up at such excessive velocities (for heavy calibers), but they will perform perfectly at standard velocities, even better than factory softs. This is most unfair to Barnes reputation as Weyers consigns them to the realm of the undesirable without just cause. Let Weyers try some of those standard factory .458 bullets at 2,700 fps and he will have to reach for new adjectives in criticism.

The impression is left that buffalo hit by Weyers' standard .458 dropped quicker than those of Buhmiller, yet it was never clear why. If there were differences in shooting ability, marksmanship would account for it or anatomical selection of aiming points, such as spine or shoulder versus the slower lung or heart shot. I am quite convinced of the superiority of the slower .458 slug over any similar slug at substantially higher ve-

#### And A Writer Replies

Thank you for the opportunity to comment on the letter from your correspondent, Jacques P. Lott.

I am afraid that the caption Mr. Lott refers to as obviously wrong, is quite correct and it is possibly his failure to read the article properly which misled him. If Mr. Lott had applied the same magnifying glass he used on Mr. Bolack's article to mine, he would have seen it in print on p.35 that I have been shooting huffalo with the .458 Win. Magnum since 1957, Rundgren and Buhmiller have both used it for a longer period. I dispute the suggestion that by saying, inter alia, that 1965 was a "red letter year . . . in the best buffalo country I have yet seen" I was creating the impression that Rundgren, Buhmiller, and I shot 3,000 buffalo on the Chobe River in 1965, and I doubt that any intelligent reader with a knowledge of English would so have interpreted it. Nor would Rundgren have countenanced such extralegality. Mr. Lott's microscope also misled him regarding the .300 Magnum-I did not say Rundgren "was armed with a .300 Magnum"; I said, and it's there in black and white, that "Rundgren had, inter alia, a .300 H & H Magnum Model 70 which he could use with devastating skill." For the sake of filling the view finder of Mr. Lott's microscope, the 3,000 buffalo were shot over almost 10 years in Kenya, Uganda, Tanganyika, Mozamhique and Angola by the three of us.

Regarding Mr. Lott's second criticism, that insufficient data was included in the caption to Plate B, I would like to say in this regard that the text was abbreviated a little in editing, that there was no chronograph on the Chobe, and that I am not convinced that data as to case origin would have helped Mr. Lott. But, to make Mr. Lott happy, Weatherby brass was used, and du Pont 4064 from 90 grains down in the .450 Buhmiller Magnum. Some limited tests in .458 Winchester calibre using 70 grs. of du Pont 3031 loaded in Winchester brass were also conducted but they were insufficient for assessment purposes.

It is not clear to Mr. Lott why the .458 Win. killed better and quicker than the .450 Buhmiller Magnum. This might well be surprising, but that's the way it was. Maybe Mr. Lott overlooked that we were shooting live flesh and blood animals, which don't always react the way a slide rule does. Both Rundgren and Buhmiller are superb marksmen.

Finally, Mr. Editor, I was astonished to read from the pen of Mr. Lott that Eric Rundgren "doesn't shoot much anymore." This is arrant nonsense. Eric not only has the busiest safari business in Botswana and inevitably does a lot of shooting, but he is always game for a crack at guinea fowl, blesbuck, or even clay pigeons on my estate.

Louis Weyers Irene, Transvaal

5

### **TOM GILLMAN** breaks records with our **VARMINT BULLETS**



Tom Gillman has broken 9 World Records (N.B.R.S.A.) with Sierra Bullets. Here are some of his record 5-shot groups: HEAVY VARMINT

- .1923" at 200 yds.
- (using Sierra's .22 cal., 53 gr. H.P. SPORTER

.137" at 100 yds.

.372" MOA; 200 yd. Aggregate Record. .4131" MOA; 5 groups 100 yds. & 5 groups

200 yds. (using Sierra's 6 MM, 75 gr. Hollow Point)

Mr. Gillman also won the following NATIONAL MATCHES with these record

5-shot groups:

•3-GUN AGGREGATE VARMINT & SPORTER 1964, Abilene, Tex.; 1966, Midland, Tex. **HEAVY VARMINT** 

- 1964, Abilene, Tex.; 1965, Johnstown, N.Y. •LIGHT VARMINT 1964, Abilene, Tex.

•SPORTER

1966, Midland, Tex."

Tom Gillman is the only shooter who has won all Varmint Class Gun Aggregates, Light Varmint, Heavy Varmint and Sporter, at the National Matches.



Here are a few examples of our Hollow Point Varmint Bullets. (We make 54 bullets of all kinds for all popular calibers.) When you go varmint hunting find out what real accuracy is. Reload and shoot Sierra **Bullets**.





S ELDOM DOES a neophyte get barely into the handloading game before he's wound up in the subject of case trimming. Somewhere along the line, a tremendous amount of significance has become attached to the length of cartridge cases. Naturally, there is a correct length for each and every case (caliber), established by the makers when it was designed. This length does have some importance, if for no other reason than that if it is too short, there won't be any place to put the bullet. We can't really ignore case length, but then, on the other hand, there's no great need to get too worked up over it.

We can assume that cases are of correct length when we buy them new, or when they are generated by firing factory-loaded ammunition. I know that someone is going to write a blistering letter telling me about how he bought a batch of brand-new .270 (or?) brass and found three of them .003256" too long or too short. There's always one like that around.

Assuming, though, that our cases start out the right length, why should they ever change? There are two basic and obvious reasons why bottleneck rifle cases increase in length. Firing is one. When the cartridge is fired, bot gasses are funneled out the case neck at high pressure and high velocity. Just as similar gasses will erode away the surface of a diamond-hard rocket motor exhaust nozzle, these exert force on the inside of the soft brass case neck. Being highly malleable, the brass flows slightly under this force in the direction of the gas flow. Result -some increase in case length.

The second reason is simply that when we pull a resized case back out of the die, it is dragged over an expander button considerably larger than the inside of the neck. Unless lubricant is present, the "drag" of the button stretches the neck ever so slightly. And ever so slightly, multiplied by a dozen or more times can mean a significant increase in length.

How much lengthening is caused by these two factors? I wish I could tell you, but I can't. Rules of thumb have been put forward by handloaders over the years, only to be proven wrong more often as not. Some references state that a case with a very sharp shoulder angle will stretch less than one with a gradual shoulder slope, all other factors being equal. Yet I know of no more stretching present in the old, slow-tapered .300 H&H than in our modern, sharp-shouldered .30 magnums of about the same powder capacity. No one I know will go out on a limb and predict that any one case shape will positively display more or less stretching than another.

### HANDLOADING BENCH

By DAVE WOLFE Editor and Publisher of The HANDLOADER Magazine

Can we predict that one always will or will not encounter stretching problems in a particular caliber? Nope, I'm afraid not. Let me cite a recent example. When the new 6.5 Remington Magnum became available, a friend and I both procured guns and did a good bit of handloading for them. His fired cases showed excessive stretching after only one or two firings and had to be trimmed considerably. Cases from one of my guns duplicated that; another showed only very minor stretching. A gun in the hand of another party produced so little stretching that after ten firings, his cases were still within maximum allowable length.

About the only hard and fast rule we can make is that bottleneck cases stretch more than straight ones, the latter hardly at all, and that the higher the chamber pressure, the more stretching will take place.

But all this doesn't really matter, since any



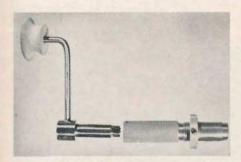
Crimp seat die adjusted for normal length case (right) will not crimp bullet in a short case properly.

significant lengthening is easy to spot and not at all difficult to correct. Since we do know that it happens now and again, we simply look for it as a routine matter when preparing cases for loading.

Checking length is quite simple, and contrary to the ads of many reloading tool manufacturers, you don't have to buy a batch of extra tools to do it. Keep in mind that you do not have to know how long the case is. You need only know whether it is too long. Simply keep a new, unfired case and compare your fired brass against it, and when they become visibly longer, trim 'em back to the same length. Of course, if it offends your economic sensitivities to keep on hand a case you can't load and fire, file a simple snap gauge out of a piece of thin sheet metal and keep it in the box with your dies for that caliber.

But what about cases that are too short? Well, they get that way only at the factory, or by your too-enthusiastic trimming. Such a condition can't be corrected by any practical means, but this presents no problem. If you've got cases that are 1/16" too short, go ahead and use them. This may fly in the face of tradition and some teachings of the past, but I've done it for a quarter of a century and have yet to see any harm result. I've owned a number of .270 rifles and have always used short, reformed .30-06 brass in them and have yet to see any damage to the chamber necks. When .223 military brass first became available, I formed several hundred of the .080"-longer .222 Magnum cases from it. No damage to the gun resulted, nor could any difference in accuracy or functioning be detected.

But back to over-length brass. When it is too long, how do we correct the situation? We trim it, and there are a dozen ways this can be done. First of all, a commercial case trimmer comes to mind, and rightly so, for



#### RCBS mill-type trimmer.

it's probably the most convenient way of getting the job done. Also the most expensive.

Bench-type trimmers consist of a frame or base to which is fastened a bearing, supporting a rotating cutter that looks much like a common, piloted, spot-facing tool. Also attached to the base is a means of holding the case solidly and in alignment with the cutter. The popular Wilson trimmer accomplishes this with die-like holder reamed to a snug fit over the case. Tapping the case in place causes it to be held by friction, then the holder is held by hand against the base to align case mouth with cutter.

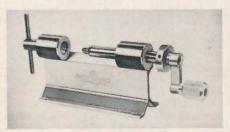
Bench-type trimmers have an adjustable stop which must be set to limit the travel of the cutter, producing the case length desired. On most this is simply a collar clamped on the cutter shaft. To insure smooth cutting and to prevent cutter drag from pushing the case mouth out of alignment, cutters are designed to be fitted with a short pilot that enters the case neck.

Another trimmer often seen is the filetype. Cheaper than a bench tool, this type has one inherent disadvantage—each cartridge requires a separate tool. But if you have only one caliber to trim, it's the best combination for economy and accuracy. It consists of but one piece, looking exactly like a resizing die someone cut a bit too short. Its length is such that when screwed into the press to touch the shell holder, any part of the case extending above the top is excess. This excess is removed with a large, fine-cut file. This trimmer is unique in that it is impossible for anyone to shorten a case too much. Then there is the mill-type trimmer. It is quite similar to the file-type, but the upper portion of the longer body is bored out to accept a cutter made like an end mill. Considerably more costly than the file-type trimmer, it also has the disadvantage of being suitable for only one caliber.

Forster-Appolt makes a trimmer designed to be attached to your drill press. I've used them for years when shortening reformed cases, and find it's possible to trim several hundred in an hour's time, with as much accuracy as any other trimmer on the market.

Micro-Precision has made a very interesting trimmer for use in its three-station loading press. A threaded bushing screws into the left die station, and a collet-type holder fits where one would normally place a shell holder. A hand-rotated cutter slips into the bushing, with its stop collar adjusted to produce the correct case length when tool handle is in full down position. This tool is particularly handy if you prefer to trim cases as they are loaded.

All of these trimmers work fine, but in visiting handloaders hither and yon, I've concluded that not one out of a thousand really needs a trimmer hadly enough to justify its cost. It wasn't just because I couldn't afford a trimmer that I hand-loaded for fifteen years without one. Sure, I trimmed cases during those years-many thousands of them-but never more than forty or fifty at a time. And that many I could do in a half-hour by holding the case in one hand and rubbing a ten-inch, flat, fine-cut, mill file across the case mouth with the other. You'd be surprised at how quickly you learn just how many thousandths of an inch three gentle passes of the file will remove-and it's actually faster than using a bench trimmer. When there was a lot of brass to be removed, as when making 7mm Mauser cases from free .30-06 brass, I used (and still often do) a cheap tubing cutter picked up at a dime store tool counter.



Forster-Appelt bench trimmer.

If you bappen to have a small electric grinder, there's yet another jury-rig trimming method that is extremely fast and simple. Make a bardwood guide that the case can be inserted into, consisting of a two-diameter hole just large enough to accept the case neck and body. Fasten this to the tool rest on the grinder so that when a case is pressed in with its shoulder butting against the bole shoulder, the grinding wheel cuts the neck back to proper length. This is one of the fastest trimming methods I've ever encountered. Of course, it works well only with bottle-neck cases that are long enough to get a good grip on.

As I've already said, there are at least a dozen ways to trim cases—if they really need it. But the average handloader has far less need to trim that the reams written on the subject would have him believe.

Often it happens that uniformity of case length is far more important than exact length. Many a fellow has been upset by the varying degrees of crimp produced by his crimp-seat die. This is usually the result of case length variations. Once the crimp die is adjusted, any case shorter than the one on which it was adjusted will get less crimp. A longer case will get more crimp, and if it's significantly longer, the case is quite likely to buckle under the extra pressure. When that happens you've got a loaded round that won't enter the gun chamber. This doesn't happen so often with straight pistol cases and lead bullets. However, bottle-neck cases and jacketed bullets are another matter entirely, particularly the old .30-30, with its require-. ment for crimp because of the tubular magazine. Only a very slight length variation can cause buckled cases or a crimp so light the bullet gets shoved back in the case. I have for many years made a practice of always trimming rifle cases to uniform length before attempting to crimp bullets in place.

So there you have a few comments on the length of cartridge cases, what to do about it, and how to go about getting the job done. No doubt when it comes to the latter, you've a few ideas of your own. If they're different or better than what we've said here, why not pass them along, via us, so the rest of the clan can have the benefit of your experience.





### POINT BLANK By COL. CHARLES ASKINS

THE HOTTEST THING in centerfire ordnance these days is the 7 mm Magnum. It used to be the .300 Mag. was tops but not any more. The 7 mm Mag. since it came along, has snowed all the other hotrock calibers. There are a lot of shooters who would like to possess the 7 mm because of its giltedge performance characteristics, but they hold off because of the recoil. The fact is the 7 mm mag. does not kick much but fellers who claim this are all akin to the Neanderthal man. I am one of them.

I am not here to try and sell the magnum

have more wood in contact with the cheek and shoulder. It is just that simple. The shotgunner must absorb from 20 to 30 pounds of recoil energy every time he touches the 12 gauge trigger. If he is a skeetman or a trapshot he may fire a 100 cartridges during a single session. He has demanded for lo these many years a stock that is designed to soften this blow. He's demanded it and gotten it.

A glance at these two sets of figures will show that the shotgun wood runs bigger, both in length and in breath, than the same



Straight line stock design reduces degree of muzzle climb.

-neither the seven nor any of the othersby trying to convince the skeptics. What I am going to do is to show the thinking sportsman who wants a magnum that there are a whole hatful of ideas on how to soften the blow. It *can* be done and this isn't hocus-pocus aimed at leading the gullible down the garden path.

The first thing that needs to be done to the magnum rifle, and it does not matter whether it is a Remington, a Winchester, a Savage or one from Schultz & Larsen, is to put a shotgun stock on it. Scattergun walnut comes in the super size. You'd think if you run a tape over a half-dozen shotgun butts and a like number of rifle stocks that two different sets of design merchants had whumped them up—with the laddy-os who write the specs for the smoothbores about 40 years in advance of their compatriots on the score of savy!

Why is the shotgun stock the better? Because it is bigger! And the bigger the base wood, the less it kicks. To make a magnum rifle feel more comfortable when the explosion comes means that we've got to hutt on the rifle. Take a look at the dimensions of the two Browning over/under scatterguns: one is 5% inches from the comb to the toe, running through the very middle of the buttplate; the other is 5¼ inches. Both are the same in width, that is, 1% inches. These are favorites of mine. I shoot both a good deal and the fit of the stock on both guns could not be more perfect. I could use a butt of these specs on some of my hard kicking magnum rifles. Like that Weatherby .460, as example, which revs up some 105 ft. lbs. of backward thump! And has a skinny butt end of only 4% inches length and 1½ inches width.

The moral of this comparison is that the manufacturers are letting us down in the matter of proper stock design for the hot magnum calibers. A butt piece is needed that combines the maximum of width with a reasonable increase in length. This, then, would spread that blow of the recoil over more shoulder surface and would thus lessen the apparent hurt.

The other place where the gunner catches hell is in the face. The heavy kicking firearm develops a turning movement and this causes the comb to wallop the shooter in cheek and jaw. The axis of support is below the axis of recoil which accounts for the climb of muzzle and stock. What can we do about it?

The most practical solution in the thumbhole stock. This new design provides the straightest stock of all. Reinhart Fajen also makes a stock which he has dubbed the "Regent." It is remarkably straight. Such muskets as the army's new M-16 rifle has a stock with no drop at all. The sights, howev-

STOCK MEASUREMENTS

| Shotguns   |   |  |
|--|---|--|
| t<br>kemington M 1100<br>Winchester M 1400<br>Winchester Model 12<br>Browning O/U 12 ga<br>Browning O/U 12 ga<br>AyA 10 ga. side-by-side<br>AyA 10 ga. O/U   | Butt,<br>top to<br>pottom<br>41%6"<br>41%6"<br>5%6"<br>5%"<br>5%"<br>5%"<br>5%"<br>5%"  | Width,<br>widest<br>point<br>17/16"<br>111/16"<br>134"<br>134"<br>134"<br>134"<br>134"<br>134"<br>134" |
| Rifles   |   |  |
| Winchester M70 '06<br>Winchester M70 .458<br>Winchester M70 '06<br>Winchester M70 .338<br>Remington M700 7 mm Mag<br>Remington M700 .300 Mag<br>Weatherby .460<br>Weatherby .340<br>Savage M110 .300 Mag<br>Mossberg M800 .308<br>BSA rifle '06<br>Schultz & Larsen .358 Mag | Butt,<br>top to<br>bottom<br>4 <sup>3</sup> /4"<br>4 <sup>3</sup> /4"<br>4 <sup>3</sup> /4"<br>4 <sup>3</sup> /4"<br>5 <sup>1</sup> /8"<br>4 <sup>3</sup> /8"<br>4 <sup>3</sup> /8"<br>4 <sup>3</sup> /8"<br>5"<br>4 <sup>3</sup> /8"<br>5"<br>4 <sup>3</sup> /8"<br>5"<br>4 <sup>3</sup> /6"<br>5"<br>4 <sup>3</sup> /6"<br>5"<br>4 <sup>3</sup> /6" | Width,<br>widest<br>point<br>1½"<br>1½"<br>1½"<br>1½"<br>1½"<br>1½"<br>1½"<br>1½"<br>1½"<br>1½"        |

er, are 2.5 inches above the barrel. While the rifle with these high-standing sights won't bust the marksman in the jaw, the upstanding design is as ugly as a jackass eating cactus and terribly fragile besides. Most all shooting men use a scope sight these days and the average mounts locate the glass from 11/4" to 18/4" above the hore. But on such rifles as the Sako and the English-built BSA, the top of the receiver is milled to accept the scope directly, thus eliminating the mount blocks. This effects a markedly lower scope position and is extremely worthwhile. When this type of mounting is combined with the thumbhole stock you get, in effect, virtually zero drop at the comb of the rifle. This is a great boon for the muzzle rises much less and thus delivers a weakened blow to the marksman.

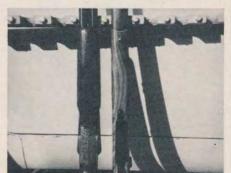
While everybody isn't going to go to these ends to reduce the kick of his rifle, the thinking gunner will use some discrimination in the selection of scope mounts. Get 'em just as low as you can with a comb as high as you can accommodate.

It goes without saying that the hombre who is allergic to recoil wants a recoil pad on his magnum. A smart selection of pads will account for an increased bearing surface on the shoulder. The Pachmayr Gun Works has a corner on pads, and along with a virtual monopoly a big selection. Go to a sporting goods emporium where you can look over a full selection and pick the biggest, hroadest, thickest, and fattest pad you can find. It pays off.



Butt of .460 Magnum (left) and a 10 guage magnum shotgun (right).

Recoil comes in a one-two sort of blow. It imparts both velocity and energy and the latter is the double-dyed villian in the piece. Recoil is measured on the basis of the weight of the rifle and the weight of the total ejecta, that is, the amount of powder, the weight of the bullet and in the case of shotguns, the weight of the wadding. By far the simplest way to lick that old hugger, recoil, is to increase the weight of the gun and similarily cut back on the cartridge loading. The modern rifle, to include the magnums, seldom weighs over 81/2 pounds, complete with scope sight. If that heft is stepped up by 16 ounces it does surprising things to the backward wallop. Or if the shooter is a real man and goes up to a 10-lb. gun he then has the complete answer. By the same token if the gunner is strongly allergic to recoil he can reload his ammo, or deliherately select lighter bullets, and again realize substantial downplay in his recoil equation. Take our before-mentioned 7 mm Magnum, the hottest thing in the mag calibers today, and avoid the 175 gr. loading, being content instead with the 150 gr. and the brand new 125 gr. and any shooter will



Beavertail forend of shotgun (left) would help a hard recoiling rifle.

immediately notice the lack of stomp at the buttend. It is just that simple.

There was once a full decade in the limbo of the past when muzzle brakes were regarded as the whole answer. Roy Weatherby, the west coast impresario, would equip any of his battery with a muzzle appurtenance. There were others besides the Weatherby innovation. Some of these were built after the Cutts comp and literally lifted the rifle away from the shoulder. Others made no

(Continued on page 15)





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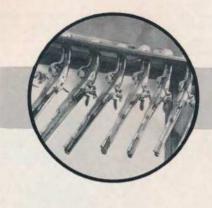
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### **GUN RACK**

#### **MAB** Pistol

The near-60 year old 9 mm Luger cartridge has hy now achieved far wider popularity and usage than ever envisioned Georg Luger. It is only fitting, then, that new service-type auto pistols be designed around this perennial favorite. And we've been working out with one that has a lot to offer. Manufacture D' Armes Automatiques (MAB) locked breech, this system safely and reliably handles breech pressures as high as 40,000 psi. We fired a number of such loads in our sample gun and experienced no trouble whatever. Also of particular interest is the fact that we were able to get reliable functioning with low-pressure, low-velocity loads. As little as three grains of Bullseye behind 114 grain bullets produced perfect function-



now has in production its P.15 Model, being imported by Mars Equipment Corp., 3318G W. Devon, Chicago, Ill.

The P.15 is unique in more ways than one. Probably the most impressive of its features is a capacity, fully loaded, of sixteen (16) 9 mm cartridges. The Browning-like magazine holds 15 'rounds, and another can be placed in the chamber. The magazine isn't the easiest to fill, but even when fully loaded it functioned perfectly in our sample gun. Some large capacity magazines don't feed properly when completely full and have to be underloaded, making a farce of their advertised capacity. Not so with the P.15.

Unusual also is the rotating-barrel, delayed-hlow back breech mechanism used. A cam groove in the roof of the slide engages a lug on top of the barrel. As the slide begins to move back out of battery, propelled by spent case projection, it must first rotate the barrel by means of that cam and groove. This action introduces a significant delay in actual opening of the breech, until the bullet has cleared the muzzle by a comfortable margin and gas pressure has dropped to a safe level. While not a true, mechanicallying with negligible recoil—a characteristic that might well lend this gun to refinement for target use.

While France has produced a number of self-loading pistols in the past couple of decades, this one can be considered the epitome of its pistol development, from both design and production viewpoints. It is nicely finished and blued, quite reliable and accurate in all the shooting we've done with the one sample we used (a similar report has been received from one other individual who's been shooting a P.15). Best of all, the price is quite reasonable at \$89.95 direct from the importer. Brochures are available from Mars at the address given above.— Maj. George C. Nonte, Jr.

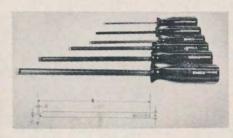
#### Screwdrivers

Anyone who owns a gun or two is certainly going to wind up with a hatfull of assorted screwdrivers. Top-quality drivers are essential to proper gun care. The common, hardware-store screwdriver is next to useless for gun work.

The solution is carefully heat-treated driv-

ers with short, stubby blades ground specifically to fit gun screw slots. When blades have parellel sides they do not try to jump out of slots, and if properly tempered will not bend or break in service. In the past I've made many of my own screwdrivers, grinding them to shape from drill rod. But this is no longer necessary. For the past month I've been using a set of properly designed and manufactured drivers bearing the name Bonanza, sold by Gopher Shooter's Supply, Faribault, Minn.

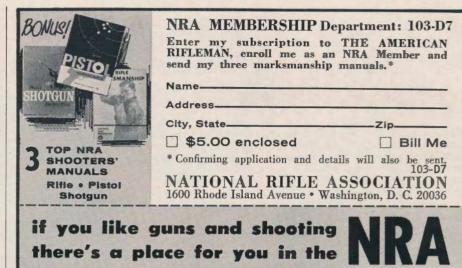
These are the best gun screwdrivers I've encountered. They come in six sizes, one of which will fit almost any screw found in standard guns. Heat treatment of blades is



excellent. Some 50 rusted-up 98 Mausers were recently disassembled, and almost every screw was frozen to some degree. The Bonanza drivers took them out without producing a single bent or broken blade, and without jumping out of the slots. One driver was cut off short and chucked in a variablespeed electric drill to go after a few recalcitrant guard screws. The screws came out, and the driver blade remained undamaged. Bonanza drivers come in six sizes to fit most gun screws, prices ranging from \$1.25 to \$1.75.—Maj. George C. Nonte, Jr.

#### **Zero** Bullets

Another new bullet company has recently sprung to life. The Zero Bullet Co., 7254G Farnum, Inkster, Michigan 48141, some time ago sent me some .308 caliber bullets. The obviously nonselected lot-there were 50 130 gr. HP and 50 150 gr. SP bullets in the same box--showed good expansion in the moist sand recovery box, and bullet weight and diameter was uniform enough to satisfy all but the benchrest shooter. Loading 55 gr. of 4895 and using three different brands of primers, I fired five shot groups with the 130 gr. HP bullet that averaged 1.5 - 1.75 inches at 100 yards. The test gun was a well used M70 in caliber .30-06, and I used oncefired GI brass for these loads. For the 150 gr. bullet, I used once-fired and full-length sized Remington brass, and my charge was 59 gr. of 4350. Again, I used the same three brands of primers to see if the various primers would alter group size. The change of primers affected group location, but group sizes were not affected to any marked degree. Average group size was 1.75 inches, and since the Model 70 usually turns in a better performance, it seems certain to me that carefully worked up loads with the Zero bullets would also produce better groups. Lack of an adequate number of bullets however precluded any further testing and I did not have enough bullets left after my accuracy and expansion tests to run meaningful chronograph tests. All in all, these bullets turned in a performance more than adequate for hunting purposes, and I believe that,



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with more carefully developed charges, the Zero bullets will do well in the field.

#### **Pistol** Ammo

Recently the tremendous demand for handgun ammunition, coupled with scare buying, and perhaps some lessening of supplies due to wartime demands on production facilities, have all combined to make smallcaliber pistol ammunition rather hard to find. New on the domestic market because of this situation is Hirtenberg ammunition in several popular calibers.

The Hirtenberg brand has been produced for many years by Hirtenberger Patronen-Zundhutchen-und Metallwarenfabrik, in the city of Hirtenberg, Austria. In Europe the name is highly respected, as are its products. We've been testing this ammunition in two calibers, 7.65 mm Browning (.32 ACP) and 6.35 mm Browning (.25 ACP). Functioning was completely reliable in both Browning and Colt .25's, and in Browning, Walther, and Beretta .32's. Accuracy and penetration were equal in both calibers to what was obtained with both Remington and Winchester cartridges.

Hirtenberg ammunition is loaded with smokeless (rauchloses) powder, non-corrosive (anticorrid) primers, and nickeled fulljacket (vernickelt vollmantel geschoss) bullets. Primers are lacquer-sealed to prevent (Continued on page 70)

GUNS . APRIL 1967

## **Guns has cornered the**

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COLLECTOR'S CORNER

By ROBERT MANDEL

A S NO SINGLE INVENTION has had as great an effect on the world's design as has the development of the gun, it is no wonder then, that the collecting of firearms has become the most interesting and fascinating of hobbies. The modern man has a great need for the past... and each antique arm holds its own story of adventure, the making of history, and the shaping and development of a nation. The gun has been the only key that has unlocked the door of bondage for the common man; it has also been the implement of liberty, the tool of the pioneer, and the instrument of justice in the hands of the law enforcer.

Fortunate is the collector of antique arms, for he belongs to a fraternity of over one hundred thousand others like himself who are entrusted with the care and preservation of arms for future generations of collectors to come; for no man really owns his own firearms, he is just the guardian of them during his lifetime.

In collecting, condition mated with originality is the most important factor from the collectors point of view; but when the market value of an arm reaches a point where it is worth the while of a fine craftsman to fake an antique arm, forgeries occur. The condition of many antique arms can be changed by refinishing the arm. Browning, blueing, silver, etc., can be reproduced to look much like an original. I have, over the years, seen barrels cut down, some removed from one type of gun and installed on another, new wheellock pistols that could hardly be told from old. Plain stocks have been redecorated and inlayed so that only an expert could determine if it were genuine. Plain steel barrels and lockplates of flintlock and percussion arms have been carved, etched, or engraved with odd and somewhat appealing decorations. Many plain military pistols that have been inlayed with ivory or bone have often been seen. Percussion muskets, rifles, and pistols have been converted to flintlock to increase their value; many with rare dates and names bogusly engraved or stamped on them.

Also over the years, and too many times, there have been Civil War revolvers of all types, especially Colts, on which the numbers have been changed to make a matched pair; many also have been seen with phony presentation names or dates. Remember, that with a very few cuts of an engraver's tool, the price of a standard antique arm can be raised double or more. Be sure before you buy . . . deal only with reputable antique arms dealers and collectors; and remember, if something just does not look just right . . . stop right there.

As a collector and dealer for many years,

I am always asked "How can you tell if a gun is a good one or not"; the only answer I can give is this: Read, go to all the museums that have firearms displays, read, go to the better collectors' gun shows-ones like the Sahara Gun Show in Las Vegas, the Ohio Gun Collector's Assn. meetings, and a few others that I will keep you informed on over the months. Again read, buy all the collectors firearms books that you can, and best of all, if you can, see and examine other firearms collections and talk to the collector himself. If you do all this, only then will you be able to know a good gun from a bad gun . . . and before you know it, when you hold a fine gun in your hands it will "talk to you." This sounds odd I know, but it is true. A fine or quality antique arm will always talk to me, in small ways, such as: look at my fine condition, my good blueing, my untouched screwheads, crisp action, fine markings, sound wood, honest aging, and many, many other words that tell me the gun is a true collector's item. This "gun talking" holds true with bogus arms, for they can sometimes shout.

Forgeries occur not only in the firearms field, but also in the edged weapon field. I have seen many plain import swords that have been stamped with Confederate markings and priced three times or more the value of the original piece. Here too, rare dates have been applied to increase the value. The much sought after Bowie knife can be changed easily, by new dates, inlays, or with a name. Many a Bowie knife or sword blade can be etched today with all types of mottos, names and dates, at very little cost.

It is unreasonable to expect a antique firearm or edge weapon to have lasted over a hundred years or more without some wear, no matter how slight it is. Sometimes, finding an arm in perfect or new condition can itself be reason for suspicion. So, all in all, I can only repeat this: read and examine. These should be your two basic words of value, and after a time, you too, will find collector's arm "talking to you."

In this, and future monthly articles, I will endeavor to bring you the true picture of what is happening in the collector's field: such as the building of a firearms collection, information on edged weapons, speculation as to rise or drop on certain arms, the care and restoration of your arms collection, interest and price rise on odd collector's items, other than Colt and Winchester; and always to keep you informed in all segments of the collectors field by continuously keeping my finger on the pulse of the collector's fraternity and reporting back to you. (Continued from page 13)

claim to the eradication of a portion of the rearward slam but simply kept the muzzle down. While at first blush this might look like getting short-changed, the facts are that it wasn't at all. The nastiest part of the recoil blow is that portion dealt out to the gunmer's chops. This happens when the muzzle climbs sharply. Keep the business end down and you don't get whacked in the cheek. This type of muzzle gadgetry was a help.

Today, however, the muzzle brake is like your maiden Aunt Tillie: a wall flower and mobody asks about her very much. The device didn't catch on because those that screwed onto the mouth of the cannon made the barrel so long as to give the gun unwieldly balance, though there are some which are an integral part of the barrel. About the shortest useable length in an honest-to-god magnum shooting iron is a barrel of 23 inches. When you add to this 2½ to 3 inches of muzzle comp you have an overall dimension that is slow, slow, slow.

I shoot magnums, hunt with them, live with them, cherish them. To shoot the hard-kicking maggie requires a different technique than the garden-run firearm. In the first place the rifle wants to be gripped hard. The tension at the pistol grip and on the forend wants to be plenty tough. Push the stock back into the cradle of the shoulder with plenty of English. When the recoil smacks you, the body needs to rock back in unison with the gun. The hands, when there



Left: A ten gauge magnum shotgun. Right: Hard kicking magnum rifle.

is plenty of muscle there, take up a lot of the blow. Don't put the left hand just forward of the floorplate. Extend the arm to the end of the forestock. When you shoot with a sharply bent elbow—as you do with a short hold out front—the recoil tends to bend the joint all the more and this hand does little or nothing to compensate the blow.

When the forward hand is well extended, it not only does its full share to soak up the kick, but it also provides a control and a swing on running game that is a real help.

The forestock on the magnum rifle ought to be a beavertail like we put on our trap guns before WW II. These forends were so godawful overfatted as to look freakish. Once the fad commenced one shooter tried to outdo his neighbor in making bigger and bigger beavertails. This hanky-panky has all come to an end now. The beavertail forestock on the shotgun is of normal dimensions, but for the magnum rifle it could be bulbous. It would look like Ugly Christine but it would sure be a boon to the bucko who knows he is going to get whaled and wants to do something about it.

| Comparative              | Recoil          |
|--------------------------|-----------------|
| Caliber                  | Recoil Energy   |
| .220 Swift               | 7.9 ft lb       |
| .222 Rem                 | 3.25            |
| .22-250                  | 8.42            |
| .243                     | 11.81           |
| .257                     | 6.9             |
| .257 magnum              | 21.0            |
| .270                     | 16.88           |
| .270 magnum              | 25.5            |
| 7 mm                     | 14.8            |
| 7 mm magnum              | 26.7            |
| .30-30                   | 11.             |
| .30-40                   | 11.59           |
| .308 Win                 | 19.48           |
| .30'06                   | 20.31           |
| .300 magnum              | 38.5            |
| .338 magnum              | 35.59           |
| .340 magnum              | 39.4            |
| .358 Norma mag           | 48.82           |
| .348 Win                 | 22.6            |
| .375 magnum              | 42.78           |
| .378 magnum              | 60.62           |
| .405 Win                 | 28.24           |
| .458 magnum              | 61.57           |
| .460 magnum              | 100.08          |
| NOTE: These are av       | verage figures. |
| Recoil depends on the    | weight of the   |
| rifle and the weight     | of bullet and   |
| powder charge. Variati   | ons of as much  |
| as 10 ft. lbs. can occur | r with changes  |
| in gun weight and load   | d.              |

There isn't much hope of getting any of the manufacturers to give us an over-fatted forestock. It would ruin the nice lines of the rifle and after all there has got to be a lot of concession made to the aesthetic. Forends, for all that, want to be picked out with a good deal of care from the current offering. The old style forend was pretty splintery and was rounded. This is dead wrong.

The proper forestock for the magnum is one that is flat on the bottom part and only very slightly rounded on the sides. It ought to be a big handful. It ought to be longer than the most of them are, so that the shooter can extend his arm almost to full length. It wants to be deeply checkered and not with any of this upside-down so-called "impressed" checkering. That grip out front has got to be as firm as a New Englander's conscience and unless there is a lot of wood to hang on to out there and the walnut deeply checkered, the forward hand won't provide the support it should in overcoming recoil.

#### THE ACKLEY-MAUSER

Parker Ackley, the very well-known Salt Lake City gunmaker, has been over to Japan and there persuaded the Nips to manufacture

a spittin' image copy of the German Model 98K Mauser action. These actions have been tested to destruction by Ackley, an expert in the business of proof-testing, and satisfied the Asiatic version of the world's most famous rifle action can take it, he is now busily engaged in importing the finished product. This Jap-built Mauser will be offered through Ackley's company in three versions, a) as a simple M98-type action, b) as a barreled action, the barrel attached by Ackley, and c) as a finished rifle. The last is contingent on Ackley going into a sort of merger with a very well-known west coast stockmaker. This stock man will pro-vide the walnut while Ackley does the barreling.

The Japanese action will be provided as both a standard right-hand type and also a southpaw version. Approximately one million port-siders will be happy to hear this!

An examination of the Nip-made M98 shows it has all the refinements peculiar to those improved Ninety-Eight actions which are dubbed the 1924, the 1924/30, the 1935, etc. The bolt has the third, or safety lug; too, there is a travel guide. The bolt is in one piece and the bolt head is not removable. The two locking lugs at the front end of the bolt turn into corresponding recesses in the receiver ring. The third, or safety lug, well toward the rear of the bolt turns into a recess in the body of the receiver. The bolt handle turns down and Ackley has purposely given it the gracefully flowing lines of the original Model 70 Winchester. The face of

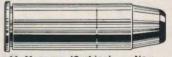
(Continued on page 74)



### norma

### Adds more great calibers for rifles and handguns!

.22 Hornet - This all-purpose cartridge is loaded with a soft-point bullet of 45 grains, with MV of 2690 fps.



.44 Magnum (Carbine) Now specially engineered for carbine use: Norma's famous .44 Magnum! Soft-point flat nose 240 grain bullet in barrel-lubricating, corrosion-preventive TRI-CLAD® jacket. MV in 18.5" barrel is 1705 fps.



25 ACP — This full-jacket round nose fills the bill for the popular pocket pistols in this caliber, with a 50-grain bullet developing 810 fps at the muzzle.



32 S&W Long — Norma answers world-wide requests for a factory load in this perennial favorite with a lead point round nose of 98 grains, with muzzle velocity of 705 fps.

Get these great new Norma factory loads at your favorite Sporting Goods Dealer's.

LOOK to NORMA for leadership in the world's most advanced line of • Pre-cision Bullets • Unprimed Virgin Brass Cases • Smokeless Powders • Loaded Ammunition

GET THE NEW EXPANDED "GUN BUG'S GUIDE" — Loaded with new ballistics and handloading info! Send \$1.00 to Dept. GM-4





CARL WOLFF

### D. C. CRIME COMMISSION RECOMMENDS DODD BILL

After some 18 months of work, the President's Commission on Crime in the District of Columbia issued its findings and recommendations. The report, issued just before Congress started, consisted of two volumes covering 1818 pages, and is considered a model plan for other cities to follow.

The conclusions, not to be confused with the National Crime Commission's report, yet to come, recommends a New York-type "Sullivan Law" for the nation's capital with authority to confiscate handguns and urges Congress to enact "such legislation" as the infamous Dodd Bill. A basic fault with the report lies in its authors having no practical experience. No mention is made of the fact that police now in effect license each handgun purchaser in Washington. In reality-and somewhat illegally-handguns are not released to purchasers until the police examine a request application. The process takes about a month. Yet, the report recommends changing the actual law extending a 48-hour waiting period which is now the actual law.

Specific recommendations on handguns follow:

(1), Require a license to purchase or possess any handgun under any circumstances; (2), Authorize issuance of licenses by the Metropolitan Police Department only after: (a) completed investigation of all applicants for licenses; (b) proof of the applicant's qualifications to use a handgun, and (c) an affirmative and specific showing of need to possess a handgun; (3), Provide for confiscation of handguns owned by applicants not qualifying for licenses; (4), Make possession without a license a misdemeanor for the first offense and a felony for subsequent offenses, and (5), Define need to possess a handgun to the end that it shall include responsible persons who show that their lives have been threatened; or that their dwellings, places of business, or similar places of business or residences in the immediate neighborhood have been victimized by housebreakings, robberies, etc.; or that they have handguns solely for target practice; or that they are bona fide collectors.

Thus, on one page the report recommends extending the now-existing waiting period from 48 to 120 hours. On the next it then recommends New York "Sullivan Law." Inconsistent? Here are a few more!

••• any person carrying a handgun while committing or attempting to commit any of specified felonies may be imprisoned for additional periods of time upon conviction of that felony or its attempt. Enforcement of these handgun laws in fiscal 1965 was actively pursued by police, prosecutors and courts ••• There was little use of the options which could result in additional penalties for users or possessors under the provisions of the Dangerous Weapons Act, presumably because experiences have indicated that addition of charges to the indictment does not influence sentences given to defendants convicted of burglaries or other serious crimes.

On one page the report states penalties for the misuse of firearms was "actively pursued by police, prosecutors, and courts." Next, it states, "sentences given to defendants convicted of burglaries or other serious crimes" were not increased when a firearm was used!

[Firearm] Sales may not be made to persons under 21 years of age, to persons whom the seller believes to be of unsound mind, to drug addicts, to convicted felons, to persons with prior weapons offense convictions, or to certain misdemenants. In effect, almost anyone who is willing to fill out a form and wait for 48 hours can buy a handgun.

Thus, two sentences, back to back, contradict each other. Again, no mention is made of the fact that the police too screen each purchaser before delivery!

We recognize that enactment of new (gun) legislation does not ensure reversal of this (crime) trend, but we believe that is an essential first step... The recommendations of this Commission, if adopted, will help meet one of the most serious enforcement problems in the District of Columbia.

Thus, on one page the report states gun laws do not ensure reversals in crime. On the other, it states it will help. No mention is made of the fact that firearms in the home deter intruders.

One of the most flagrant contradictions in the book is less easy to pin down. Yet, it is there. There is no recommendation on additional need for long guns. It points out that its "proposed (pistol) law does not restrain the purchase or possession of rifles or shotguns, which are the firearms used by most sportsmen and other legitimate users." On another page it states,

We believe these local (handgun) laws can be bolstered by enactment of legislation to amend the Federal Firearms Act such as that recently considered by the United States Senate. Among other important provisions, S. 1592 (the Dodd Bill), as reported out of the subcommittee dur-'ing the last Congress, would prohibit sales by Federal licensees of any handguns to persons who are not residents of the state in which the seller does business. We urge Congress to enact such Legislation.

It should be noted that the Dodd bill does offer "restraint (upon) the purchase of rifles and shotguns!" Over 1,000,000 shooters tested this action.

Well over a million, in fact. The Savage 22 automatic action is not new but it's constantly being improved. It will fire up to 22 shots as fast as you can pull the trigger. Feed it 22 long rifle, long or high-speed short cartridges. Mix 'em up if you like-no adjustment is necessary. The bolt can be locked to convert it to a repeater or single shot. Safety on the top tang, where a safety should be. See the rifle that over a million shooters tested - the Stevens 87-at your sporting arms dealer. FREE 40-page catalog, write Savage Arms, Westfield 13, Mass. 01085 (Division of Embart Corporation)

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Stevens 87 \$48.50

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## SHOOT BACK

MEETING THE CHALLENGE OF A RISING CRIME RATE, ORLANDO, FLORIDA, IS WINNING THE WAR AGAINST CRIME WITH GUN EDUCATION, IN PLACE OF ANTI-GUN LAWS

W ITH ONLY a few exceptions, the newspapers of our country have urged their readers to support firearms legislation as a panacea 'for the ever increasing crime rate. Through their editorial pages, they deplore the apparent ease with which criminals can prey on citizens, while at the same time they advocate strict controls over the sale and ownership of guns by the very same element of our society which play the role of victim to these criminals—the law-abiding citizen.

The reasons for following this paradoxical course are many and varied. For some, it is the easy way out. Rather than try to really understand the crime problem, they simply change its name, call it a gun problem, and label all those who fight for gun ownership as extremists.

### By J. RAKUSAN

In other cases, the anti-gun view may be politically motivated. Whatever the reason, there is little doubt that if we are to have, in this country, the gun-sterile environment which today enshrouds England, the State of New York, and the city of Philadelphia, the nation's press will have to be acknowledged as a major factor in bringing it about.

But, as we said, there are exceptions. One of these is the Orlando (Fla.) "Sentinel-Star." After the first announcement that the Sentinel-Star, in cooperation with the Orlando Police Department, would conduct firearms training classes for women, some 2,400 of them crowded into the Orlando Gun Club, carrying every sort of gun imaginable. To date, more than 4,000 Orlando women have attended these firearms classes. (To page 20)





### SHOOT BACK AT CRIME!

What began as an experiment to calm the fears of the weaker sex in the Orlando area, and to offer them an opportunity to learn how to handle firearms safely, and to become reasonably proficient in their use, has already proved to be an important step in reducing the crime rate of that city.

Carlisle Johnstone, Orlando Chief of Police says: "I believe that this is one of the most important programs in which we have ever participated. We had a lot of breakingand-entry, rape, prowlers and burglary just prior to the program. But in the short period of time that this training has been under way, we've already seen an impressive drop in the crime rate."

There are several important lessons to be learned from the experience of the City of Orlando. The first of these is that the citizens of our country are afraid. With each passing day, the chances of becoming a victim of an armed criminal are increasing for every citizen. Yes, the citizens are afraid; but they are not afraid to fight back at crime. And, given the incentives-the assurance that they have a legal right to fight back, and training with the tools neces-

### Sentinel, Police Department **Offer Gun Classes For Women**

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If women unfamiliar with firearms are buying guns for self-defense, who is going to teach them to shoot?

No one is unless the purchaser herself knows someone who can instruct her in assembling, dismantling, loading and unloading a gun. There is nowhere in Greater Orlando area the where public instruction in the use of firearms is available.

SO, AS A public service to teach women the use of firearms with safety and confidence, The Orlando Sentinel, in cooperation with the Orlando Police Department, is sponsoring the Pistol Packing Posse, a school for free instruction in handling and shooting firearms.

Classes begin Sunday, Oct. 16, at 4 p.m. at the Orlando Gun Club on Fairvilla Road off West Highway 50.

Women who wish to enroll in the class are required to provide their own gun (bring it unloaded, please) and ammunition.

**INSTRUCTION** will be directed by Capt. Jack Stacey and Lt. James Pitts of the Orlando Police Department, who will Samanananananananananan TTEITELESISTICTICS IN CONTRACTOR IN



inspect all weapons and who reserve the right to reject those they consider unfit.

If the individual does not own a gun but wishes to attend, Capt. Stacey and Lt. Pitts will advise what type and make is best for home protection.

THE CLASS IS open to all women 18 years of age or older. Children under 18 will not be permitted to attend.

The first lesson will be a lecture on the use and handling of firearms and a demonstration by an Orlando policeman. Practice by students will follow in subsequent classes to be held for the next three Sundays. numun

08010100



Handling a single barrel shotgun may seem simple to a gun buff, but many women, like Mrs. Thomas Keys, went to the class to get the essential first instructions.

sary to fight back-they will become the best anti-crime force a city could hope for. If you were a criminal, where would you prefer to try a holdup or a burglary: in Orlando, Florida, where some 4,000 or more women are armed, and know how to use those arms, or in New York City, where the chances of a homeowner having a gun handy are all in your favor?

The second lesson to be learned from Orlando concerns the image of the law enforcement officer in the eyes of the citizens. That the police officers of Orlando have gained a new respect from citizens is shown by the words of one young member of the "Pistol Packing Posse." In her college speech class, she stood in front of her classmates and said: "Think how you would feel if you were surrounded by 2,500 women who are carrying pistols, revolvers, derringers, rifles, and even double barrel shotguns! They are preparing to shoot, and they don't even know how to handle a gun. Now you know how Captain Stacey, Lt. Pitts, Sgt. Fuller and Sgt. Goode of the Orlando Police Department must have felt at the first lesson of the Pistol Packing Posse . . . These wonderful men, and the other officers who assisted them, cooperated with Emily Bavar and Mr. Wadsworth of the Sentinel-Star to teach us poor defenseless females how to handle firearms safely so that we would be able to protect ourselves against all types of criminals. These men had the patience and courage to teach us how to load and unload a gun, how to handle it safely, and how to shoot with reasonable accuracy. (Continued on page 67)

20

A behind-the-scenes look at Guns Magazine on the Move!

IT IS ONLY fitting that GUNS Magazine, America's first popular firearms magazine, continue to be first in every area of gun magazine publishing. First to be sold on the nation's newsstands, GUNS has continued to blaze new editorial and distribution trails. "Our Man in Washington" column was the first to bring gun magazine readers up-to-date legislative reports as they directly concern the right to own and enjoy firearms. GUNS was the first-and to date the onlyfirearms magazine to introduce life-like four color reproductions of firearms (not dead animals) on the editorial pages. And now, probably the most exciting "first" of all for GUNS Magazine. In an attempt to dramatically illustrate our latest advancement, we are reproducing below the actual departmental correspondence memo that was used in our publishing office to kick off our latest program. We feel it will help you share our excitement over these new plans.

### GUNS MAGAZINE DEPARTMENTAL CORRESPONDENCE

SUBJECT: New Editorial Plans for GUNS

Magazine

- To: J. Rakusan-Editorial
  - E. Pitts
  - R. Blomseth-Advertising
  - E. Pollock
  - J. Eisenberg
  - D. McEvoy-Sales Promotion

FROM: A. Arkush

This is by way of putting together in one memo all of the ideas and plans discussed in recent meetings.

Our goal is to accomplish the most comprehensive and up-to-date editorial available in any of today's gun magazines. We intend to do this by enlisting the best available writers on a regular monthly basis. In order to avoid overlapping, each man will be given a specific area to cover. Instead of featuring columns each month, we will feature a story by each, complete with text and pictures. These regular Contributing Editors will include:

Colonel Charles Askins-Shooting Editor George Nonte-Military Arms Editor Les Bowman-Hunting Editor Rex Applegate-Police Editor E. B. Mann-Editor in Chief & Legislative Editor Dave Wolfe-Handloading Editor These well-known names in the gun field should attract some readership, but most important is the fact that they will provide us with up-todate editorial every single month. In addition to the above, we will have as regular columnists:

Carl Wolff-Our Man in Washington Robert Mandel-Collector's Corner (a new column on antique firearms that we are instituting) Dick Miller-Pull! Wm. Schumaker-Gunsmithing Tips Shelley Braverman-Inside Look Panel of Experts Gun Rack Trigger Talk Crossfire Shopping With Guns

Additionally, we will, of course, continue to carry our four-color GUNS Gallery, and in the April issue we will be instituting a new section dealing with police information. This will be edited by Rex Applegate and will begin as a two-page section. This will deal with guns as they apply to today's policeman caught in the crossfire of civil strife. We feel we can get some timely, fresh and highly saleable material into the magazine by virtue of this section. In accomplishing all of this, we hope to continue the momentum that has been gathering from the upgrading done last summer and to keep GUNS Magazine out in front as America's first firearms publication.

> ASA/cj CC: G. E. von Rosen

UNS . APRIL 1967



This .25-06, with a maple and red birch stock, went through a series of rain storms and did not change zero.

### WHAT IS THE BEST GUN STOCK?

This Fajen thumbhole stock is of laminated maple and walnut.



I Canero Ophino

By CHARLES ASKINS

**D**URING THAT CONTINENTAL bloodletting which ranged from 1939 until '45, I was the battlefield recovery officer for First US Army. This was a good job and I enjoyed it. We worked all night and slept only a part of each day. I was a free agent and roamed up and down some 60 miles of front, into and out of three corps areas, and answered to a boss who was 25 miles to the rear.

We had made slow going of the Hurtgen Forest and with the winter full blown, had absorbed the best the *Wehrmacht* could throw at us during the Battle of the Bulge. Later we had thrown the Nazis back, and coming abreast of the Roar River we found the retreating Hitler legions had opened the headgates of the stream and flooded the plain before the City of Duren.

I used to journey up to the southernmost banks of the Roer, as it meandered in turgid tide past the city. Getting comfortably settled on the second floor of a bomb-pocked dwelling, I would wile away the afternoon sniping at krauts on the far banks. It was the interlude before the storm. We had pushed the Nazi beyond the stream, he had flooded the river, and our staff was content to rest our people a few days while the water subsided.

My rifle was no sniper's gun. Indeed, I had no business there and nothing makes the front line soldiery more unhappy than to have a quiet sector stirred up by some eager beaver who wants to take shots at the enemy. This sort of thing irritates the opposition and if they cannot decide where the sniper is located and turn two machine guns loose on him they usually compromise by saturating the area with a mortar barrage. I knew this but I was bored and I wanted something to do.

As I was saying, my rifle was not suited to sniping: It was a garden-run M-1, a rifle I'd picked up after the debacle which had befallen the 28th div. just before Schmidt on Thanksgiving. It was a rusted gun and I cleaned it up and sighted it in. The distance to the main stem in Duren from my comfortable seat in the 2nd floor window, hard by the banks of the river, was 320 yards.

I learned some interesting things about rifles during that gladsome week. It had snowed and rained throughout the winter and my rifle was continually soaked. I sighted it in before the sniping round and had it on the button, or so I thought. The very next day I got a beautiful shot at a Wermachter driving a Volkswagen—the military version which was topless—as it stalled at a street intersection. I missed him. I crawled out of my loft and dropped back a couple of miles and tried the rifle. It was a good 10 inches out of plumb at the range. This opened my eyes. Each day thereafter, and I kept at my plinking for a solid week, I always sighted in before I maneuvered my way into my upstairs aerie.

I knew very well what was the matter with that shifting zero.

It was the moisture soaked up in that M-1 stock. That rifle of mine had been continually wet from November until April. With every new snow and rain that fell the stock warped a bit more and there was nothing I could do about it except check out the new zero daily.

That service stock was walnut, pretty good grade, walnut at that. We think of walnut as being dense-grained, hard, and impervious to wetting. Actually it is not. Not, that is, resistant to soaking up the rains that fall. Since then in the monsoon season of Indo-China, I had another full dose of trouble with walnut that warps in the gunstock. In the high central mountains of Cochin China there is an annual rainfall of 300 inches. I hunted through this downpour and what it will do to a sight zero is a story in itself! In one case I had a stock warp so badly it finally adversely effected the trigger pull. The sear was bound up and I had to pull the action out of the stock and with my pocketknife free the swelling.

Stocks can now be waterproofed but I did not know about it then. Since, I have waterproofed many but before I get into that, I want to say a word about the stock I think is best for the hunting man who is bound to get gun and himself soaked. Not over a day or two but subjected (Continued on page 48)



These two Fajen laminate-stocked rifles have the grain of each 1/16-inch ply running at a right angle to the grain in the ply adjacent to it.

### Are Surplus Handguns Really a Bargain?

G OT A BARGAIN, you say, (chortled more likely) in a fine pre-war pistol? My, isn't it pretty—gleaming heat blue, gen-u-wine checked walnut grips, and such nice machining. They just don't hardly make 'em like that no more. Let's see what it is. M-m-m, just what the fellow told you, a Schanhauser 7.5 mm self-loading cavalry pistol. Friend, just what war did you say it was pre- to? Maybe the Boxer Rebellion? Cartridges for it? Didn't you get some with the gun? Only a hundred, huh? Well, don't plan on too much shooting, 'cause I'm fresh out of those today. Yeah, that was a good price, alright——, good for the fella that sold it.

SALE

And so it goes in case after case. Did that fellow get a bargain in his surplus military pistol, or did he get stung just a wee bit? Well, just what makes a bargain in the surplus market? That's a question we get asked more times than there are neon tubes in Vegas. Some of the more discerning readers come right out and ask, "Is the 9 mm Luger sold by Y shop for X dollars any good?" Others spend a couple of pages, building us up to give them the "honest" answer they ask for—with the obvious implication that we have two sets of answers depending on whether the questioner is "in" the select group or not.

No matter how it's (Continued on page 65)

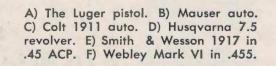
By Maj. George C. Nonte

### AUTOLOADING PISTOLS

| Model               | Caliber     | Ammo<br>Avail-<br>able |          | Comparable<br>Current Model | Used Price<br>Curent<br>Model      |
|---------------------|-------------|------------------------|----------|-----------------------------|------------------------------------|
| Astra 400           | 9 mm Largo  | SI                     | Yes      | Colt .38 Super              | \$55-70                            |
| Astra 600           | 9 mm Luger  | Yes                    | Yes      | Colt .38 Super              | 55-70                              |
| Ballistar Molina    | .45 ACP     | Yes                    | No       | Colt 1911                   | 55-70                              |
| Bayard 1910         | 9 mm Largo  | SI                     | No       | Colt .38 Super              | 55-70                              |
| *Beretta            | 9 mm Corto  | Yes                    | Yes      | Beretta .380                | 25-35                              |
| *Browning FN, 1935  | 9 mm Luger  | Yes                    | Yes      | Still Mfgd.                 | 65-75                              |
| Camp Giro           | 9 mm Largo  | SI                     | No       | None                        |                                    |
| *Colt 1911          | .45 ACP     | Yes                    | Yes      | Still Mfgd.                 | constants instructions advantation |
| *FN 1910            | 9 mm Kurz   | Yes                    | Yes      | Browning .380               | 27-35                              |
| FN                  | 9 mm Long   | SI                     | Yes      | Browning .380               | 27-35                              |
| Lahti               | 9 mm Luger  | Yes                    | Yes      | Colt .38 Super              | 55-70                              |
| Luger               | 9 mm Luger  | Yes                    | Yes      | None                        |                                    |
| Luger               | 7.65 mm     | Yes                    | Yes      | None                        |                                    |
| Mannlicher 1900     | 7.65 mm     | No                     | No       | None                        |                                    |
| Mauser 1896         | 9 mm Mauser | No                     | Yes      | Colt .38 Super              | 55-70                              |
| Mauser 1896         | 9 mm Luger  | Yes                    | Yes      | Colt .38 Super              | 55-70                              |
| Mauser 1896         | 7.65 mm     | Yes                    | Yes      | None                        |                                    |
| Mauser 1910         | 7.65 mm     | Yes                    | Yes      | Browning .32                | 20-30                              |
| Mauser HSC          | 7.65 mm     | Yes                    | Yes      | Walther PP .32              | 50-60                              |
| Radom               | 9 mm Luger  | Yes                    | Yes      | Colt .38 Super              | 55-70                              |
| Sauer M-38          | 7.65 mm     | Yes                    | Yes      | Walther PP                  | 50-60                              |
| Star Model A        | 9 mm Largo  | SI                     | Yes      | Colt .38 Super              | 55-70                              |
| Star Model B        | 9 mm Luger  | Yes                    | Yes      | Colt .38 Super              | 55-70                              |
| Steyr 1912          | 9 mm Steyr  | S                      | Yes      | Colt .38 Super              | 55-70                              |
| *Tokarev TT33       | 7.62 mm     | Yes                    | Yes      | None                        |                                    |
| *Walther P-38       | 9 mm Luger  | Yes                    | Yes      | Still Mfgd.                 | 75-100                             |
| *Walther PP-PPK     | 7.65 mm     | Yes                    | Yes      | Still Mfgd.                 | 50-60                              |
| Webley-Scott        | .455 Webley | SI                     | No       | None                        |                                    |
| Webley-Fosberry     | .455 Webley | SI                     | No       | None                        |                                    |
|                     | R           | EVOL                   | VERS     |                             | and the second                     |
| Colt M-1917         | .45 ACP     | Yes                    | Yes      | SW M-22                     | 55-65                              |
| *Colt Commando      | .38 Spl.    | Yes                    | Yes      | Colt O.P.                   | 55-60                              |
| Enfield             | .38-200     | Yes                    | Yes      |                             | 20-30                              |
| Husqvarna           | 7.5 mm      | ST                     | No       | Colt O.P32                  | 66                                 |
| Lebel M1892         | 8 mm Lebel  | SI                     | No       | None                        | 00                                 |
| Nagant M-1895       | 7.62 Nag.   | SI                     | No       | None                        |                                    |
| *S&W M-1917         | .45 ACP     | Yes                    | Yes      | S&W M-22                    | 55-65                              |
| °S&W Victor         | .38 Spl.    | Yes                    | Yes      | S&W M-10                    | 55-65                              |
| Webley              | .455        | SI                     | Yes      | None                        |                                    |
| *Webley             | .38-200     | Yes                    | Yes      | Still Mfgd.                 | 25-35                              |
|                     |             |                        |          |                             |                                    |
| °Currently Manufact | ured S=S    | Surplus M              | Ailitary | I=Imported                  |                                    |

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25



Sample models of the Texas Magnum looked good, functioned well.

KANGER AKMS

GUNS attends grand opening of new Texas rifle company...



fles Broman

By LES BOWMAN

TEXANS AND GUN INVENTORS generally have one thing in common; they both talk big. And when you come across a Texan who claims to have designed a new rifle, it's probably best you put on your ear protectors and just walk away, quickly.

About a year ago I was talking to a big game outfitter friend up in Montana and he told me about a newly designed rifle that a group of Texas hunters had been using on an elk, deer, and bear hunt they had booked with him. Because I knew he too had a habit of considerably embellishing the truth, I didn't give too much though to his report on this latest addition to the gun world, even though one of the hunters using it had been a well known and widely experienced hunter. On a visit to Texas later in the year, I did make some inquiries about this rifle but only came up with a few vague rumors.

I had completely forgotten about the gun when I made a trip to Fort Worth to attend an invitational big game dinner; and while there I received an invitation from the head of a new arms company in Texas to attend the opening of their new plant at Gainesville, Texas. It turned out to be the same gun.

This new rifle is the creation of a Gainesville businessman, sportsman, and inventor, Homer E. Koon, Jr., who also heads the new Ranger Arms Company. After several years of experimental work and the testing of many rifles he had finally frozen the design for production, formed a well financed company, and built a new, modern, well equipped factory at Gainesville. New and late type machine tools, as well as woodworking tools for stockmaking, were installed in the factory and actual production was started on the first run of guns before the official opening of the new plant was announced.

The official opening of the Ranger Arms Company, on January 7, 1967, was quite an event for Gainesville, Texas. It was attended by state senators, state representatives, big game hunters, a great many local and out-of-state visitors, and Governor John Connally of Texas, who cut the ribbon officially opening the new plant.

The Ranger Arms Company's number one rifle, a beautifully finished, engraved, and inlaid gun, was presented to Herb Klein of Dallas, Texas. The number two rifle, also a beautiful presentation model was given to Governor Connally.

Guests were taken on a tour of the new factory while it was in operation. After a noon luncheon of barbecued game at Gainesville Junior College, the presentation of the guns, and a speech by the Governor to the large crowd assembled there, the factory machines were shut down but the machine operators remained to answer questions and to show the many visitors around the factory.

Instead of showing or placing a few custom-made guns in the hands of a few writers or publicity experts, actual production was underway before any official announcement of the new gun was made. At the opening date several finished guns and actions had already come off the line, and the components for 400 rifles were following rapidly. Production schedules call for 500 rifles a month.

Actually, Ranger Arms Company plans to produce actions or barreled actions as their leading product. Their plans are to sell these items direct to the custom gunmakers and stockers, as well as direct to anyone who wishes to stock a rifle for their own use. They will, of course, produce finished rifles in whatever quantities the demand requires. For this, they will offer three grades of finished rifles: standard field grade at \$175, a semi-deluxe grade at \$225, and the deluxe at \$275. All rifles will feature hand checkered American walnut stocks, recoil pads, and swivel studs as standard. The deluxe grades will be (Continued on page 57)



Herb Klein (left) and Homer Koon go over details of the action used in the new gun.



The Texas Magnum's bolt assembly is husky, well finished, and efficient in operation.



#### EDITOR'S NOTE

The job of law enforcement today is a difficult one, and it is becoming more difficult each day. Complications escalate as more and more legal restrictions are placed on the individual officer. At the same time, the increased incidence of crime create new problems, and point out the need for advancement in training, discipline, and weapons technology.

The law enforcement officer of today must rely more and more on his ability to outsmart the criminal, outmaneuver him, or outshoot him. This can only be done if the officer has the added bit of knowledge and training, and the proper equipment which will give him the edge on his adversary.

This is the reason behind this special section of GUNS Magazine—to bring to our law enforcement readers whatever information we can which could some day give him that edge.

The scope, size, and intent of this special law enforcement section is not static. It can, and will, be changed to meet the needs of you, the law enforcement officer. Suggestions, criticisms, and even original material for these pages is welcomed.

### COMBAT FIRING OF SHOULDER WEAPONS

Most police departments require that their men fire handguns regularly; too few require that these men also be familiar with shoulder-fired weapons. The following is an excerpt from the book, "Crowd and Riot Control" by Col. Rex Applegate (Stackpole Books, \$6.95).

THE ACTUAL COMBAT life of the soldier or police officer who may carry a shoulder weapon is often measured in seconds—split seconds. In close quarter combat, or in-fighting, he must be able to use this weapon quickly, accurately, and instinctively. Close-quarter firing, in the case of shoulder weapons, is presumed to be any combat situations where the enemy is not over 30 yards distant and the elements of time, surprise, poor light and individual nervous and physical tension are present.

In street and jungle fighting and in police work, the opportunities for skilled close-quarter work with the rifle, riot gun, carbine and sub-machinegun are becoming increasingly frequent. It follows, then, that a method of shooting these weapons so that they can be brought into action with the least possible delay should be emphasized in training.

The aimed shot always should be made when the time and light permit. However, in close-quarter fighting there is not always sufficient time to raise the weapon to the shoulder, line up the sights and squeeze off the shot. Consequently, training only in the aimed type of rifle fire does not completely equip the man who carries a shoulder weapon for all the exigencies of combat. As in combat shooting with the hand gun, he should be trained in a method in which he can use a shoulder weapon quickly and instinctively and without sights.

Some authorities attribute the failure of certain known target-shooting experts to hit an enemy who is shooting at them at close quarters entirely to a lack of the fighting instinct. The real reason usually is that the target expert has not received the most effective type of training. A lack of moral qualifications, guts and courage will always contribute to poor closequarter rifle or hand gun shooting, but lack of combat training is the principal cause. It should be evident enough to most shooters that the formalized techniques learned on the rifle range cannot always be applied 100 percent in battle.

Rifle marksmanship training teaches the correct use of the sights and the aimed shot. These principles are correct when time and light are present, so that the rifle, carbine, riot gun, and submachine gun can be used in combat as on the range. However, dark alleys and streets, night raids, poor visibility and street and house fighting —all create combat situations where the opportunity for the aimed shot will not always be present. The soldier or

### The Lawman's Gun

By SHELLEY BRAVERMAN

Peace officers the world over generally carry guns, not only by official sanction, but by requirement, even when off duty. In those rare places where the "police don't carry guns," many do—"off the record." And as guns don't think, accidents happen. The accident index can be lowered by intelligent training, but elimination requires more care than is currently being applied.

If your department has a procedure regarding guns in the bathroom, follow it! If it doesn't, never take your gun out of the holster instead remove the holster with the gun in it when necessary. Removing only the gun has resulted in accidental discharges, as well as forgotten guns.

Some officers habitually lock up the gun or ammo they aren't using: Both should be safeguarded. Two officers who were neighbors recently had a close call. One always locked up his off duty gun, but not his ammo, while the other did the reverse. Their sons brought the available ammunition to the available gun; only sheer luck prevented injury.

Years ago in a large city, a rookie on his first night patrol drew an area where a series of armed robberies had occurred. Understandably tense, he noticed through the window of an all-night diner, a man pointing a revolver at the owner. Taking no chances, he shot the man stone cold dead. It turned out that the dead man had just bought a new gun and was showing it to his friend, the diner owner, who had raised his hands in mock fear.

Guns don't think; gun owners must!

### the LAW

law enforcement officer must be able to shoot a shoulder weapon in these situations without taking time to sight. First hits are the ones that count.

#### SNAP SHOOTING

There are two methods of closecombat fighting with shoulder weapons by which satisfactory man-hitting accuracy can be achieved. The first is



called snap-shooting, the other instinctive pointing. Snap shooting is a technique of weapon pointing in which a great amount of practice is needed to achieve individual proficiency. As in skeet shooting, the butt of the weapon must be snapped to the shoulder prior to firing, and the firing must occur at almost the exact instant that the butt of the piece comes to rest. The construction, balance, weight, mechanical characteristics and general design of various shoulder weapons differ greatly, and these variations affect their snapping qualities. A carbine is more adaptable to this type of shooting than a larger rifle. Submachine guns such as the Thompson, are much less adaptable, because of their design, balance and weight. The snapping technique takes a great deal of practice and must be largely self-taught. It follows therefore, that it is not adaptable to the training of large groups. Comparitively few men have been adequately trained in it.

For those individuals with the time

and interest to devote to the instinctive type of shoulder or snap shooting, a very interesting and effective new training system has been developed by B. L. McDaniel, which is clearly described in his book INSTINCTIVE SHOOTING (Dodd, Mead, and Company, New York).

A special practice kit built around the use of a Daisy air rifle, under the trade name "Lucky McDaniel Instinct Shooting Trainer Outfit," is now commercially available. The basic idea of the system and kit is to develop with a rifle the proficiency and ability instinctively to hit small, moving aerial targets without the use of conventional sights. It follows that the system once mastered would naturally be directly related to the use of more deadly shoulder weapons in combat.

#### INSTINCTIVE POINTING

Instinctive pointing, sometimes called hip-shooting or body pointing, is the best method of shooting shoulder weapons in close-quarter combat, when the time or light element is not great enough to permit the conven-tional use of the weapon from the shoulder position. Reports from recent combat theaters continually refer to hip-shooting in close-quarter fighting. In World War II the Allies trained their men intensively to use instinctive pointing when they reached the combat theaters. It is an effective method of combat shooting and its principles should be understood by all shooters, civilian and military, who are likely to engage in close quarter combat.

This style of shooting which can be mastered in a relatively short training period, is adaptable to all military and sporting rifles and to shotguns and light automatic weapons, such as the M3, Thompson and Reising submachineguns. With these or comparable weapons, a man-killing single shot or burst can be fired. Instinctive pointing is not an indiscriminate spraying of lead in the general direction of the enemy, as one of its critics have declared.

INSTINCTIVE POINTING TECH-NIQUE: To fire a rifle or any of the shoulder weapons mentioned above, by instinctive pointing is simple. The body is used to do the actual pointing of the weapon. The barrel is so placed and held that the muzzle and the eves are in (Continued on page 52)



### **Police News Wire**

Police in Richmond, Va., are now tape recording all interrogations of persons arrested on a particular charge or detained for further investigation. With these recordings they hope to provide conclusive evidence that the constitutional rights of the person have not been violated.

A policeman of Stockholm, Sweden, demonstrates the latest devices being introduced by the Swedish Police Board. The new gas gun is said to be effective at distances of



UPI Photo

300 feet or more, The bullet proof shield is equipped with runners so that the officer can push it ahead. The portable two-way radio is the type which will be issued to every patrolman in the near future.

Officers in Long Beach, Calif. are back on "two-wheelers." Not motorcycles, but bicycles. The "bicycle patrol," in operation for over two years, has been credited as a factor in the decline of larceny, robbery, and auto theft. Top: Winchester M92 used by Annie Oakley during European exhibitions. The Parker shotgun is typical of the type Annie used in outdoor shooting.

### SHE SHOT FOR ROYALTY, OUT-SHOT THE PROS, SHOT HER NAME INTO AMERICAN SLANG AND HER STORY INTO THE AMERICAN LEGEND

### By E. B. MANN

IF ANYONE SHOULD EVER challenge you to name the top ten shooters of all time—don't try it! No two experts would ever agree on such a list, and none could prove that he was right or others wrong. But I think most experts would agree that the list would have to include at least one woman: Mrs. Frank Butler. And considering how greatly men outnumber women in the shooting sports, and that women professionals are even rarer, that in itself is remarkable.

You say you never heard of Mrs. Frank Butler? Yes, you have; you are just letting the name confuse you. And it is easy to be confused by names, in the case of Mrs. Butler. I myself, in an article published twenty years ago, stated that her maiden name was Phoebe Ann Mozee. She would have okayed that; but family and legal records produced some time after that article was published proved that the paternal name was Moses, that "Mozee" was something she adopted, for reasons of her own, after her father died and the family scattered. Similarly, her stage name, "Oakley," was adopted simply because she and her husband "thought it went well with Annie." (Apparently no one but her parents liked "Phoebe;" she never used it, was known from childhood as Annie.)

She might have called herself "Annie Sitting Bull." Certainly Sitting Bull, the Little Big Horn nemesis of George Armstrong Custer, did adopt her, if not as his own daughter, at least as the daughter of the Sioux nation; and he called her "my daughter, Little Sure Shot."

She had another name, too. William F. "Buffalo Bill" Cody called her "Missie." Cody meant it only as simple courtesy, but others saw humor in it: she seldom missed.

You place her now, of course. Mrs. Frank Butler was Annie Oakley.

According to her niece, Annie Fern Swartwout, Annie was born "in a pioneer log cabin in Darke County, Ohio, on the 13th day of August, 1860"—not 1866, as elsewhere reported. (See "Missie, The Life and Times of Annie Oakley," Brown Pub. Co., Blanchester, Ohio, 1947.) As in countless other frontier cabins life was a struggle for existence for the Moses family, and the struggle became truly desperate when, in March 1866, the father, Jacob Moses, died. In such circumstances, even little children worked to help support the family in those days, and Annie did her share by trapping quail and rabbits—wondering meanwhile, her niece tells us, "how long it would be before she could use the forty-inch cap and ball Kentucky rifle that had been her father's."

Here, as is so often the case in the study of guns and gunners, questions arise for which there are no provable answers. Every reporter of Annie Oakley's girlhood shooting states categorically that she used "a long barrelled Pennsylvania (Kentucky) rifle," and that her game, birds and beasts alike, was shot invariably "through the head, so that no meat was spoiled." But later-day skeptics pounce gleefully upon Mrs. Swartwout's later statement that, when Annie "climbed upon the bench by the fireplace so that she could reach the gun . . . she took down the gun, the powder-horn, and the bag of shot." Those last three words, according to the skeptics, prove that the gun was a shotgun! ... Do they prove that? Or do they merely prove that Annie's non-shooting biographer was unaware of the distinction, in shooter's idiom, between "shot" and "bullets?"

Be that as it may, once she had obtained permission to use the gun, Annie learned very (Continued on page 32)

### GUNS OF ANNIE OAKLEY



Photographer posed young Annie Oakley with her trophies and some of her guns. Showing no favorites, she used Stevens, Spencer, and Parker guns.



Annie's steady eye takes aim through mirror in trick shot.

### ANNIE OAKLEY

quickly to shoot it with such skill as to draw admiring comment even in a time and place in which every farm-dwelling man and boy shot for the table if not for the market. According to journals not concerned with Annie Oakley, "wild turkey, geese, pigeons, grouse, and quail were plentiful in Darke County" as were "lots of coons, minks, foxes, muskrats, rabbits, and squirrels." By the time she was fourteen. Annie was fetching more game than her family could use, and was selling the surplus to a nearby storekeeper who resold it to a Cincinnati hotel managed by a man named John Frost. The sale of pelts provided additional cash income.

In 1875, Annie, age fifteen, was invited by her married older sister, Mrs. Joseph Stein, to visit in Cincinnati. Joseph Stein, as it happened, belonged to a gun club of which the hotelkeeper, John Frost, was also a member. Of such coincidence is history made! Stein, commenting on a day's shoot at the club, told Frost, "I have a kid sister-in-law who can beat them all." So Frost, amused, but remembering Annie's head-shot birds and rabbits, set up a Thanksgiving Day match between the kid sister-in-law and a guest of his hotel. Frank Butler. Such a match would, he thought, attract attention, since Butler was half of a theatrical team, Butler and Graham, who were doing a "fancy shooting" act at a local theater. Pitting the tall, handsome, and certainly skillful Butler against the little country girl would have wide local interest.

Annie appeared for the match, says Mrs. Swartwout, "in a new pink gingham dress, with a sunbonnet to match, her long chestnut hair braided and hanging down her back in two pigtails tied with pink ribbon." Mrs. Swartwout says Annie shot her father's old Kentucky rifle, carefully polished for the occasion. Research historian Walter Havighurst, in his book, "Annie Oakley of the Wild West" (Macmillan, 1954), says she used a shotgun furnished by Frank Butler.

There is confusion also about their targets. According to Havighurst, they shot at trap-thrown clay targets. One wonders about this, since clay disc targets, as we know them, did not appear until the mid-1880s. In 1875, the targets commonly used were either trap-thrown glass balls or trap-released live pigeons. Mrs. Swartwout also says that Annie and Butler shot at "clay pigeons," but she speaks also of a "boundary line" within which hit birds must fall-a condition commonly used only in shooting live pigeons. James Cranbrook, in an article in GUNS Magazine, May, 1956, states that Annie's match with Butler was fired at trapthrown glass balls. Whether Cranbrook had evidence on which to base this statement, or whether he made it as a matter of logical deduction, it is doubtless correct if one excludes live targets. Clay disc targets had not yet arrived; glass balls were the trap targets used by the Cincinnati shooting clubs and all others at that time, except when they used live pigeons. The point is, perhaps, a minor one except that Annie had never, at this time, shot at trap-thrown targets, whereas live pigeons would have been old hat for her. In any case, she won, as she was to do habitually in later years.

Butler won the toss and shot first. Firing alternately, the score went to 49 hits each, all even. Butler missed his fiftieth target; Annie hit hers. The crowd cheered; Butler smiled; Annie accepted the \$50 prize money. To her, it must have seemed a fortune—and an open door to a future far different from the world of grinding poverty she had known . . . That future began to take shape sooner than she could have expect. Less than a year later, in June of 1876, Annie Moses and Frank Butler were married.

Frank teased Annie, in later years, by saying that he missed that fiftieth target on purpose. Annie would toss her head and smile, without comment. But Frank Butler never once admitted, ever thereafter, that anyone in the world, himself included, could match Annie as a shooter. He taught her all he knew, and, when Billy Graham fell sick, Annie took his place on the stage



Early woodcut shows Annie as determined young performer.

with her husband. It was at this time that she adopted the name "Annie Oakley."

Until now, Annie had been a onegun girl—the famous long barrelled, cap and ball, Pennsylvania-Kentucky rifle inherited from her father. From now on, she was destined to own and use many guns—rifles, shotguns, and pistols—and Butler saw to it that she became expert with all of them. This was an easy task, for Annie was one of those human rarities in which one finds combined the visual-mental-muscular coordination essential to great shooting. Perhaps even more important was her competitive drive. This, strengthened (*Continued on page 73*)

## *"NOTHING SUCCESSFUL WITHOUT DIFFICULTY"*



#### By ROBERT N. MANDEL

IT WAS THE YEAR 1870, early in the month of October, and France was in a desperate position, put there by the invading Prussian army. They were short on food, and worse, shorter still on arms and ammunition. In the city of Paris, a munitions salesman in the employ of Schulyer, Hartley and Graham of New York was given an order of considerable size and with the order, payment in gold, also of considerable size.

The problem that confronted the munitions salesman, Mr. W. W. Reynolds, was a delicate one: How was he, his order, and the large amount of gold to leave the now besieged city of Paris, with every mile of countryside surrounded and closely guarded by the ever advancing Germans. A thinking salesman, he pondered his problem of escape. The only means of getting his order and payment past the watchful Germans was by air. Accordingly, he confronted the Minister of Finance with his problem, and eventually was given a permit. At an old theater converted into a balloon factory, he paid \$1,250 in gold for the construction of a balloon, in which he would drift over the encircling ring of German troops which were bent on making the city of Paris their next conquest.

The ordered balloon was to be completed in about 10 days, but during its construction the French Minister of War, M. Gambetta, decided that he would also leave Paris, for reasons of State, and as the American's balloon was near completion, it was requested. Reynolds again had one (Continued on page 64)

The revolver was presented to Reynolds in commemoration of his bold adventure.

DEAN PREDICTS A NEW GAUGE OR BORE COULD BE COMING AS HE DESCRIBES THE ODD AND THE NEW IN...

# Thy Shotshells

### By HARRY O. DEAN

Y ES, YOU READ the sub-title correctly! You thought it should say the old and the new, instead of the odd and the new, didn't you? Actually we are going to take a look at a few oddball shotshells and perhaps do a bit of forecasting in regard to some possible new developments in the scattergun scene.

We can start with the oddities in the paper shell field. In the illustrations you will see some real cuties. The diminutive ones are the unique paper tube shotshells in .22 caliber. These tiny loads contain Number 9 shot instead of the Number 12 which is used in the American cartridges. Instead of the full length copper case of their American cousins, these French multiple pellet loads utilize the conventional paper tube casings which are so characteristic of the "Big Brother" shotshells that all scattergunners are familiar with. They are longer, too. The charge is almost double that of our Yankee loads. They feature a tiny turned-over crimp with a wee bit of a round wad. Our own companies use a full copper casing which has a folded star crimp coming to a point. This

allows the American rounds to be loaded in the smoothbore .22 magazines and the tapered or cone shaped crimp allows smooth feeding in many repeating arms. The longer French rounds, on the other hand, have to be chambered individually. The copper base appears to be a "C.B." or "B.B." cap casing. Apparently these pee wee sized shotgun shells from France can qualify without any reservation or fear of challenge as the world's smallest paper shotgun shells. And dog-gone it, you have to admit that they are pretty darn cute!

In this writer's opinion the next pair of scattergun hulls are even cuter! These pretty little shells with their orange paper casings are in nine millimeter smoothbore caliber. They are certainly a handsome round as far as appearance is concerned. The neat little copper bases bear an upraised representation of an acorn on the bottom. Like their .22 caliber cousins, these 9 mm loads are rim fire. The shells shown here are manufactured in Belgium. Nine millimeter shotshells were made in the United States some years ago, but they have been dropped for quite a few years time now.

Some years ago the Winchester folks used to make a little ".22 style" single shot boltgun that was chambered and bored for the 9 mm shotshell. There were also a number of drop block and tip up actions available but not any more. In Europe, where the 9 mm shotshell is more popular, a larger choice of guns was available, including, I am told, a miniature double barrel for this diminutive scatterload.

A surprising number of center fire cartridges were once available in shot loadings, but most of these have now been discontinued. The casings were metal, rather than paper. The shot, in turn, was encased in a reversed hollow wooden plug which stuck out of the shell like a dowel bullet with slightly rounded edges. Many cartridges were available in shot loadings using this style of "lumberwork" to contain the pellets. In practice, the thin walled wooden shot retention contrivance was supposed to break up as it traversed the rifled bore and let the multiple pellet load go merrily on its way. As a modern twist on this ancient Modus Operendi we can cite the current trend



toward protecting the shot charge with a plastic sleeve or container.

While we are discussing our "Tiny Tim" shotshells, let's peek into the crystal ball. (I usually wrap a towel around my head for this act—but it doesn't help. You can still see all four corners!)

Anyway, a look into the misty future tells us that there are some real live possibilities for a good miniature shotshell. How about indoor trapshooting (outdoor, too) on a miniature scale? How about sub-caliber skeet?

Yes. I know it has been done. A dozen or more of you are waving your hands and want to remind me of "Mo-Skeet-O," a game where you fired at baby clay birds with .22 shotshells. Then there was "Targo," a Mossberg development, where the same .22 scattershot was directed at similar small targets flying at trapfield tangents. Trouble was, the dustlike number 12 pellets of our .22 bore sprayshot are sorrowfully ineffective under many conditions. They are too fine to retain an effective velocity over reasonable ranges. This rapid deceleration allows even light winds to wisp it about like so much metallic powder. The per pellet striking energy is so nominal that our target is tickled, teased and

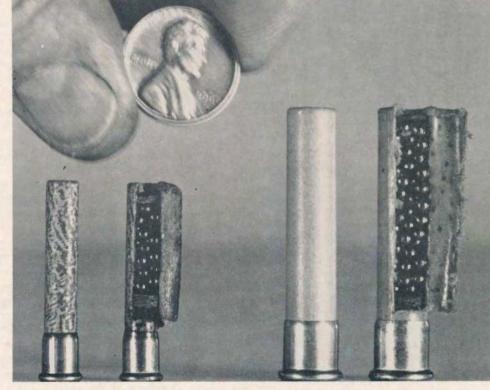
tampered with, but not pummeled, pierced and powdered!

Forget the bunny too, the shells we seek are not for big guys like HIM. What we do want is a baby shotshell that can spit slightly heavier shot shot that can reach! How about Number nine? That should get our foot in the door! Now, how shall we go about it?

First, let's forget the regular .22. Why? Well, for one thing it won't hold enough of the bigger balls. If we lengthen it we have created a new cartridge and we already have too many. Forget it!

Now let's look at the Winchester .22 Rim Fire Magnum. Aha! Now there is a nice long case that will hold a few more cookie crumbs (lead cookies, that is.) There are a number of guns already in production, so no new engineering or expense is involved. We just add a properly designed smoothbore barrel with a slight recessed choke in an oversize counterbore and "Voila, we 'ave eet!"

This time when we whip out our tey target, the shot will have enough energy to catch up to it and enough slap to shatter same. If any of my readers live in New Haven, would you please run over (Continued on page 70)



A closeup photo of the .22 paper shotshell and the 9 mm rimfire points up the relatively large number of pellets in these foreign shotshells.

### THE ENGRAVED GUN

### By E. C. PRUDHOMME

The author's engraving on this Colt Army tastefully blends with the gun's basic design giving a feeling of lightness.

M ANY MEN reject the idea of engraved guns for the same reason that they reject Rolls Royces. They say "I can't afford it." Then they justify themselves further by saying "Engraved guns don't shoot any better. My old woods-runner will shoot just as straight as your beauty."

There are flaws in both arguments. Gun engraving, though expensive, can be an excellent investment, one well worth "affording." And maybe engraved guns do shoot better. Saying they don't is like saying an ugly woman can bake a better pie than a pretty one. If true, send the pretty gal to cooking school. Beauty, even if only skin deep, has "fringe benefits." For example: most of us are too busy to spend all of our time shooting. During maybe fifty weeks of the year, our guns hang in the racks to be gazed at with longing, displayed to friends, fondled. See what I mean about "the pretty gal?" During those weeks at least, your gun will have "fringe benefits" and extra values to you if it's a "pretty" gun. It may even shoot better. Or you may shoot better with it. Give a man fine equipment in any sport, equipment that stirs his pride, and he is likely to play more, try harder. He seeks to match his skill with his gear.

As for the investment angle, let's leave that for the moment, for later mention. Just to whet your appetite—would you consider a  $33\frac{1}{3}$ percent profit a good investment? That's what engraving can mean, if it's good engraving. But how can you be sure that it's good. The dictionary says that engraving is "the act or art of cutting or etching upon hard material incised (or, by extension, raised) lines, characters, patterns, or figures (for the purpose of) decorating the surface." That's what engraving *is*, but the dictionary leaves a lot unsaid, at least for the gunman. Gun engraving is the most challenging form of engraving—or so any gun engraver will tell you. They back this claim by pointing to the complex surfaces to be engraved and the varying hardness of the metals.

Modern guns are made of tough alloy steels and some are very diffi-

### EDITOR'S NOTE

The following is an excerpt from the book "The Gun Engraving Review," by E. C. Prudhomme. Readers of GUNS Magazine already know Prudhomme from samples of his excellent engraving shown in our color gallery. In his book, Prudhomme not only covers his own work, but also the work of many of our country's top artists. The man who is thinking about buying a firearm rarely does so without reading a great deal about the various models available, prices, etc. Those who are contemplating having their firearm engraved should do no less—and the "Gun Engraving Review" is the one complete source of information.



The tools used in engraving work are deceptively simple.

cult to engrave, unless the steel is first softened or annealed. Some engravers do just that, then restore the steel to the correct hardness after the engraving is done. Some engravers do *not* reharden the annealed parts; they leave them soft. Others do not anneal the hardened parts, and their work suffers because of the difficulty of working the hard metal. The good engraver must do one or the other: he must reharden the steel after annealing—or he must do perfect work in the hard metal. He must, also, be able to organize an artistic and beautiful design on, and in harmony with, the complex surfaces of the gun or gun parts.

The value of a gun so decorated exceeds the combined value of the gun and engraving by at least one-third. For example, gun value of \$100.00 plus engraving to the value of \$200.00 for a total cost of \$300.00—becomes a total value of \$400.00, because of the inseparable combination of the two. The gun is now unique, one of a kind, an individual work of art, as well as a tool.

Even functional value may be added. As an engraver, it is my opinion that a shooter, given a fine gun with fine engraving, will learn to shoot that piece better. He will become a better shooter. The gun remains the same, but the compliments he receives on his gun, his investment in it, and his pride of possession will produce a psychological drive that will make him a better shot. The gun is now more than a gun—it is a work of art and he must "live up to it."

Gun engraving is being practiced today in all of the civilized countries of the world. The quality is not the same. The most outstanding engraving is produced in the United States, Germany, England, Austria and Belgium, with the United States and Germany on a par as to quality.

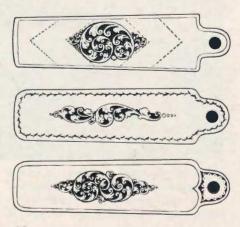
Poor engraving is produced in all countries in which the art is being practiced. This type of work serves a purpose, as it points up the things that should be avoided when buying an engraved piece or in having engraving done. Poor work can be detected by the overly large scrolls,



This floral scroll design is done in easy stages, yet the finished engraving requires great mastery of design and of the tools to cut it. Well-thought-out overall patterns, apparent rather than real depth, and balanced scroll work characterize Prudhomme's engravings.



Matting the background by using the beading tool gives the work depth.



usually cut too heavily; by large beading in the background, to simulate relief engraving; and by "sour" curves. This last is one of the most serious faults in scroll work, and can ruin an otherwise good job. It cannot be hidden, cannot be removed, and is readily seen. It is the result of poor art work and the lack of drawing ability. The art work is, of necessity, small. Many otherwise proficient artists who try their hand at gun engraving fail miserably to accomplish the simple drawings on guns; and they still have the engraving to do. There are rare exceptions, but in most cases, it takes 20 to 30 years to make a master engraver.

The modern engraver has problems never thought of by the early artisans. The chrome steels in use today are tough beyond the comprehension of the engraver of 50 years ago. The craftsman of long ago worked on dead soft steel which was heat-treated later, if at all. The modern engraver (those not working for gun manufacturers) must work the super tough steels without annealing. This poses a serious problem and makes the work long. hard and tedious. In the factories, the engraver gets the gun in the softened condition and his problem is lessened somewhat; but he still has it quite a bit tougher than the oldtimer.

The labor

A Stanting

All gun engraving that is worthwhile is done by hand. There are some substitutes; etching and stamping and combinations of both, plus some hard work. And there is pantograph work that is hand finished and sold as hand engraving. In Germany, one of the old gun manufacturers is using this method to some extent. It is being done on a mass-produced, so-called quality gun, and the work is being passed as "hand work." It is not. It is hand finished only, and many are done in approximately the same pattern. The hand finishing gives a very slight change from one piece to the other, so that they will not appear identical. This writer has the blue prints from which some of this work is done. This practice will put a premium on really fine hand engraving. Hand engraving cannot escape criticism either, as there is a disparity of talent. Only 60 per cent of all gun engraving is worthy of the name. The remaining 40 per cent is so poor that it should have been left undone. Its only value is that it makes the good work more valuable.

This article is written for the benefit of prospective purchasers of gun engraving, in an endeavor to assist them in obtaining (Continued on page 50)

# THE ENGRAVED GUN

#### BELOW

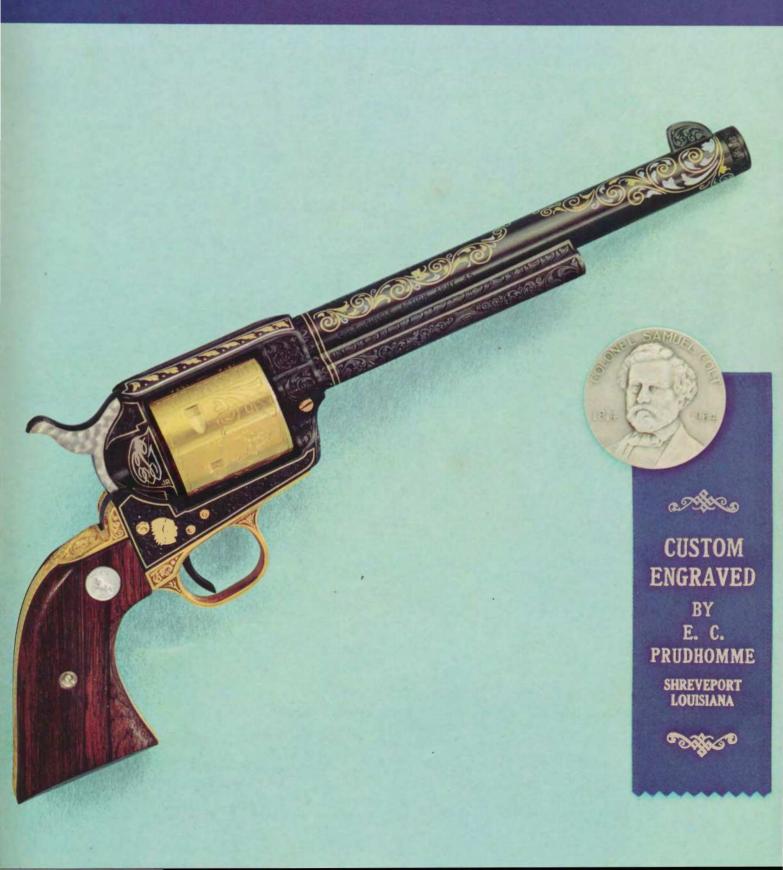
This Sesquicentennial model of the Colt Single Action, as en-graved by Prudhomme, is a classic example of excellent modern-day engraving. Photo by Thurman C. Smith

#### **PAGES 40-41**

This pair of French duelling pistols and their accessories typify engravings and inlays associated with an era when gunmakers worked for royalty. Photo by Harry C. Knode

#### PAGE 42

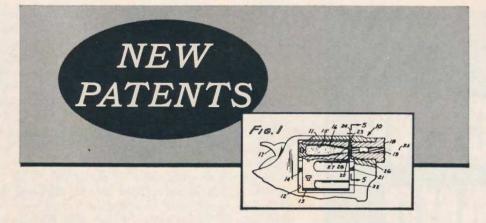
L. D. Nimschke engraved this presentation Winchester Model 1866 rifle for three officers of the 22nd N.Y. Regiment as a prize for marksmanship. Photo by Dr. R. L. Moore, Jr.









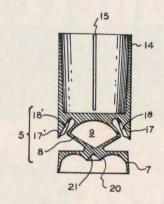


1. A one piece cylindrical wad column for shotgun shells comprising a lower generally cylindrical over-powder section and an upper generally cylindrical shot supporting section spaced therefrom, said shot supporting section comprising a generally tubular portion having a disk shaped closure closing one end thereof, said closure having a pair of outer lip members extending from the periphery of said closure toward said lower section and being spaced therefrom, an elastic intermediate portion having a pair of resilient inner members, spaced radially inward from said lips and extending between and connecting said closure with said lower section, and lower section having portions thereof being lesser and greater in diameter than the transverse distance between said lip members, said lower section upon being expelled from a cartridge casing compressing said resilient members and partially telescoping and expanding said outer lip members.

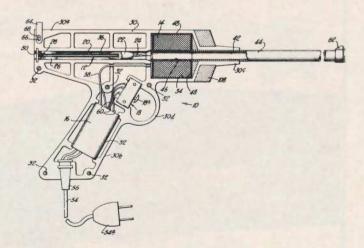
2. An electric gun energized by an undulating potential source for propelling a projectile having a magnetic portion comprising a housing having a barrel structure, winding means on the housing including an axial opening aligned with the barrel for receiving the projectile, control circuit means connected between the undulating potential source and the winding means for connecting the winding means to the potential source for a period of time no greater than one undulation in the potential supplied by the source, and manually operable means carried on the housing for controling the operation of the control circuit means.

When contacted, Mr. Doyle noted that his electromagnetically operated gun was still under development and that velocities which he was currently obtaining were at a minimum level, such as would be suitable for indoor shooting. He is at present using 60 cycle A.C. current for research purposes.

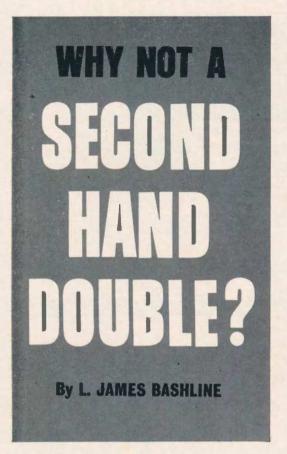




3,273,553 ELECTROMAGNETICALLY OPERATED GUN Richard H. Doyle, 104 S. Albert St., Mount Prospect, III.



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



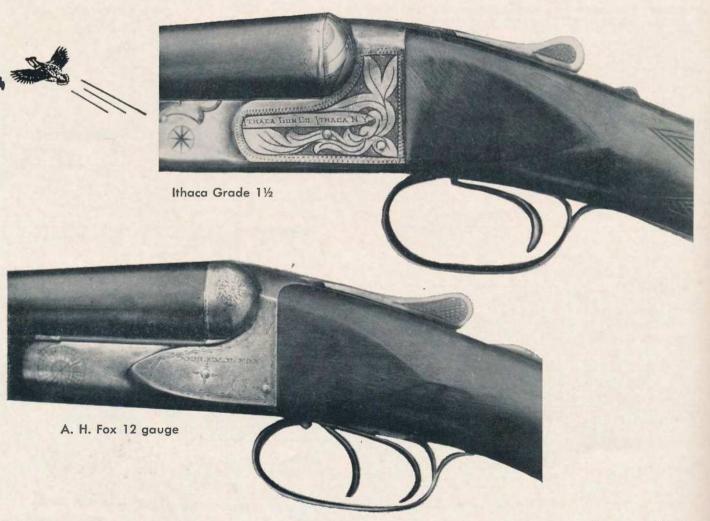
M OST GROUSE HUNTERS are Yankees and most quail hunters are Rebels. But these two groups have always found a common bond in the type of scattergun they prefer—you're right, it's a double. While the term is overused, the side-by-side is the "classic" bird gun.

Now I'm not quite sure what that word classic means when applied to shotguns and I won't attempt a definition. To most old-school upland gunners the double is the gun that they learned to hunt with, and nothing else feels quite right in their hands.

We have just gone through a period of hunting history when sheer firepower was the criteria by which shotguns were judged. Much ballyhoo was made over the rapidity of loading and shooting five shots out of an autoloader or pump gun. Just what the advantage of this is, I have never been able to discover. I think my reflexes are pretty good, and very seldom have I ever felt the need for a third shot at flying game. It isn't that I hit so often with the first two shots, it's just that the game is usually long gone by the time the second shot is on its way.

In popularity, the double gun has come full circle. From 1900 until the First World War the double was the gun most frequently seen in the field. The pumps shared the spotlight for the next 20 years. The late Forties saw the autoloaders coming on strong and the Fifties were dominated completely by them. But the past five years has seen an amazing comeback in double demand. It has now become a status symbol of sorts to be seen hunting with a good old American double. Some of the revived interest may just be pure snobbery, but I would like to believe that a new generation of shotgunners are discovering the true functional beauty of a well made side-by-side smoothbore.

The manufacturing of finely styled double barreled shotguns came to a halt with the Second World War. A few were made following



1945, but the death knell had sounded. The demand was not there for the double, and even if it had been the fit and finishing of a good double cost more in labor than the retail market would stand. The L. C. Smiths, Ithacas, A. H. Foxs, Parkers, and all the rest were almost forgotten —but just for a short while!

A few astute gun dealers and collectors gazed into their crystal balls and predicted that the double would reign supreme once more. They latched onto all the sound prewar doubles they could locate and the price war was on! Doubles which had previously sold for \$39.95 brand new, began to bring \$100 and more. Extra items such as selective single triggers, vent ribs, and ejectors shot the price up another \$50, and if a gun was blessed with a select piece of burl walnut, well, it nearly took a month's pay just to look at it!

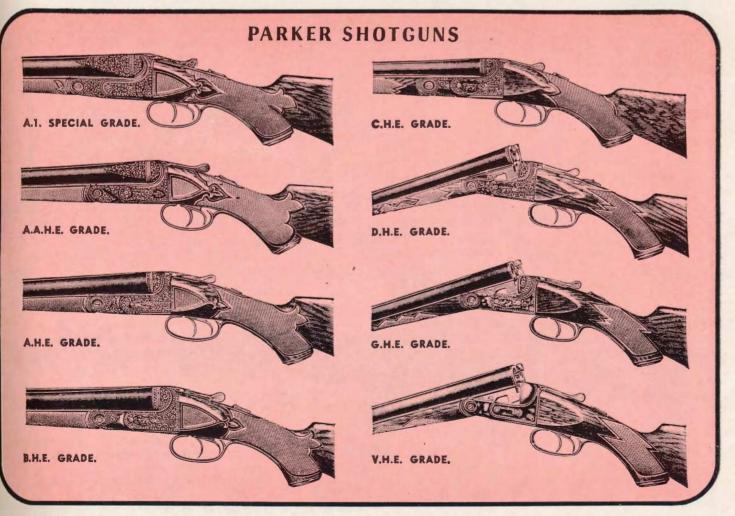
This wild selling-swapping spree, which was in no small way connected with the current rash of gun shows, led many would-be double users to shy away from acquiring a fine domestic double. Those without a bundle of green in their jeans began to study the imported shotguns which started to come into the U.S. by the boatload. Some of these imports were very fine field guns, and some were not (which hunters quickly discovered). Some of the shooters who bought the foreign junkers, and the real yankee-doodle types who still wanted a good U.S.-made double didn't have much choice. There were a couple of good sturdy American doubles being offered for slightly over \$100, and there was (and still is) the excellent Winchester 21 at a starting price of one grand. Not a very wide choice. And so, this leads us up to the dangerous part of the story. If a hunter wants a good discontinued model American double, what really is a fair price for him to pay?

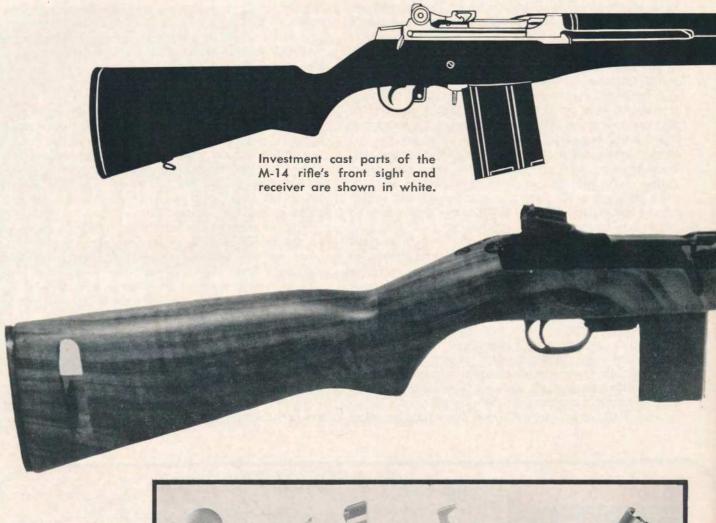
Quickly now, before you collectors and gun jockies grow pale, allow me to say that I don't intend to become involved in trying to quote figures for the upper grade doubles. Ornamentation, quality of wood, engraving, and historical significance mean so much here that price is determined only by whim. But on the lower grade guns (which are mechanically the same as the fancy ones) some average figures can be established, which would be considered fair if the gun were purchased for hunting purposes and not for speculation.

With no dents in the barrels, no wobble in the action, no cracks in the stock, a reasonable amount of bluing intact, and *no alterations of any kind*, a field grade Ithaca will bring \$75. The same gun with fine original bluing and no serious dents or scratches in the stock, will be worth \$115. Pay these prices only if the gun seems to be what you want.

In corresponding conditions, the L. C. Smith Field Grade and the Fox Sterlingworth should be purchased for \$85 and \$125. The Parker Trojan, and while I don't agree with these figures myself (it seems that the Parker name carries an extra bit of prestige), fetches \$95 to \$150.

These four guns are the tops in American doubles, and are probably the ones most (Continued on page 68)







Universal Arms Corporation confidently uses investment cast bolts, triggers, hammers, sears, as well as front sights in their commercial M-1 Carbine which is shown above.

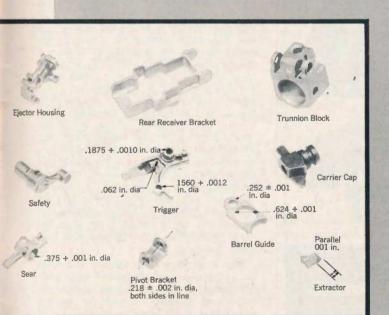
The Stoner 63—a six-in-one weapons system featuring interchangeability of many of its components – relies on close tolerance investment castings. INVESTMENT CASTINGS FOR FIREARMS

> By DONALD D. HARPOLD President, Casting Engineers

**PERSISTENT IN THEIR QUEST for improvements that contribute to greater flexibility in** design and ultimately to greater shooting accuracy, gun manufacturers have found investment casting of components an increasingly fruitful technique for accomplishing these prime objectives and gaining some collateral benefits in the process.

Investment casting—the modern version of the ancient process is about 20 years old—is a method for producing intricate, smooth-finished parts in a wide choice of alloys to extremely close tolerances and on a highly mechanized basis for volume output. Leading investment casters supply parts finished-to-print and ready for assembly by the manufacturer.

Gun components are particularly well suited to the investment casting process because of the maxi-



mum range of design freedom it permits in small, intricate shapes. The designer can exercise full functional creativity in specifying contours of great complexity, without bowing to the fabrication limitations typical of other methods. The more complex the part's shape, the more likely that it will be a prime prospect for investment casting.

Cast-to-print gun parts mean that the finish is smooth and that little or no additional operations are needed by the gun manufacturer. Today, often an investment caster will perform all of the fabricating functions—coining, broaching, piercing, shearing, sizing, tumbling, grinding, reaming, drilling, tapping and heat treating—in order to supply the completely finished part. Most of these operations can be handled by the investment caster at less cost than the gun manufacturer could perform them himself because secondary operations on minute investment castings are specialized operations, since only small amounts of metal need to be removed.

Another advantage of investment casting of gun parts is the wide choice in the alloy to be used. Almost any metal can be investment cast. Some investment casting companies have accumulated production experience with as many as 180 different alloys. Cast as finished parts, such metals as high-strength steels and wear-resistant alloys can be utilized to provide an excellent combination of properties and economy, since little or no secondary operations are needed.

Gun manufacturers—among them, Remington, Colt. and Universal Firearms—have found it possible to use more expensive alloys because they yield a greater percentage of approved parts. For example, it is almost always easier and cheaper to cast 8620 low alloy steel rather than 1020 carbon steel. The 8620 alloy (Continued on page 54)

# **BEST GUN STOCK**

(Continued from page 23)

to the elements for weeks if not months.

A laminated stock is made by slicing a

good stock wood, say walnut, or maple, or

birch woods, into very thin slices and these

are then turned, sheet by sheet at a 90-de-

gree angle to each other, are coated with an

phenol-resorcinol adhesive which is com-

pletely waterproof, clamped together under

about 350 pounds of pressure, placed in an

oven at 220 degrees, and left there until

thoroughly dry. The thing that comes out

has all sorts of virtues and only one mark

against it. Most laminate stocks are as ugly

I have in my cabinets, a hundred and fifty

shooting irons, these come in two kinds:

1) the using gun and 2) the looking ord-

nance. All the using arms are laminate-

stocked; the "looking" models just sit be-

hind the glass and are gazed upon by visit-

ing firemen. These are the numbers with

the two-hundred-buck walnut stocks. Pretty

to gaze upon but awfully sorry when those

slashing downpours on the Alaska Peninsula

The laminate is well nigh impervious to

wettings. The best of these stocks are those

with extremely narrow laminations. These

come in widths as narrow as 1/28" and go up

to slabs as big as 7/16". I'll take the narrow

drive down upon the huntsman.

This is the laminated job.

as Tobacco Road sin!

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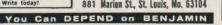
Hand Guns, here's the.

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ones, thank you. For the stock with many laminations has a greater quantity of the waterproof adhesive between the layers of wood and the more of this glue that is present, the less possibility of water entering.

The dodge practiced by such heads-up stockmakers as Fajen, is to turn each sheet of the wood at ninety degrees to the other. This means that soft spots in the wood, likely to pick up moisture, cannot transmit that absorption to the next sheet for the soft spots simply do not match up. It is not only a clever business but it gives the stock a bit more good looks. And God knows it can stand some of that!

The very Wehrmacht I was shooting at along the banks of the Roer were smarter than we were about gunstock wood. The German infantry fought the 1939-45 unpleasantness with a fine Mauser '98 that had a laminated stock. As a matter of fact I had never seen such a furniture piece until I commenced to recover these Mausers in Africa; lost by Rommel's Africa Corps buckos. I thought the stock was as homely as a spotted mule then and I still am pretty much of that opinion. When we pulled out of Bizerte enroute to Sicily, orders came down to destroy all the weapons in the corps collecting point. We layed several thousand of the '98 carbines in the street and ran over them with the M-5 tank-recovery vehicle. This was a full-track tank converted to do battlefield pickup of other tanks. It weighed 38 tons. The laminated stocks on the Mausers would not break. They would shred up and splinter but you could not break them. That was a revelation to me, I'll tell you! I have never forgotten it.

So besides resisting the elements the many-sided stock, the laminate number, is stronger than halitosis breath. In this case it is quite an advantage.

Few gunners, I think, really appreciate what happens to a solid wood stock. It need not be subjected to a downpour for a few days to commence to torque out of shape. If you will weigh your stock during a dry spell, just as it sits in what you think is a moisture-free cabinet, and then weigh it again after a few days of your spring rains, you'll be surprised at the difference. That gain in heft is nothing more or less than the moisture soaked up by the wood. Most of our socalled "solid" woods, and I am speaking now about our highly prized best walnut, runs from one-fifth to one-half cavities and all of these are either filled with air or water. There is an almost continual movement of this air and water in the stock wood, and when you get the gun out in the September weather of British Columbia and it is rained on for twelve bours daily for about three weeks, it is surprising what happens!

Most stocks have some figure in them and the better ones may have considerable burl. This accounts for a remarkably uneven absorption of moisture and with the swelling and sbrinking, the warping and twisting it

is small wonder that a rifle will not hold its zero!

A feller back in West Virginia who is quite a chuck shooter, Wes Lefler, is a great aficionado of the laminated stock. He has a dozen rifles made up with the slab-on-slab configuration. He has his stocks done by a stockmaker named John Brinkley, a sort of part-time technician, who takes the blank and starts from scratch. Brinkley cut a block of wood out of a laminated blank, 6 inches long and 3 inches wide. This particular laminate was walnut, 1/28" in thickness, each sheeting laid at right angles to its brother. This block was water soaked for 7 days, it was miked and there was no change in dimensions. It was then rammed in an oven at 400 degrees and cooked until the edges turned brown. It was left in the oven after the fire was cut off until next morning. Next morn it was miked for dimensions and inspected for shrinkage or warpage. There was none. It was again water soaked for 24 hours and then frozen. Again the mike showed no change. The frozen wood was plunged into a pot of boiling water. Still no change. It was again oven-dried followed by two days of air drying. Altogether this laminated hunk of walnut was punished for two solid weeks in this manner. It showed no substantial change in dimensions and there was no warpage and no shrinkage nor yet any swelling. I've never attempted any tests quite this tough on my laminated woodwork but, like Wes Lefler, I really believe in it!

I am not a target shooter and by the same token I do not believe in free-floating the rifle barrel. This seems to be alright for the hombre who is going to win the 1000-yd. Wimbledon, and I have no quarrel with him nor yet his compadres who cut enough wood out of the forestock so that you can stuff the barrel-to-forestock crack with a hatful of chewing gum wrappers. But it just ain't for me. Winchester, when it brought out the revised Model 70 rifle in '63, introduced the free-floating barrel on production guns. Some shooters howled about this, and one of the hombres doing the loudest squawking was me.

I like to see a forestock that snugs up to the barrel. I do not want the tube to ride in the bottom groove of the forend from the receiver ring forward but I most emphatically do not want a visible gap.

All my laminated stocks are made by Fajen. These stocks are purposely fitted to the barrel along the sides. On the under surface of the tube there is no metal to wood contacts. The barrel is free of the stock until it gets within an inch of the forend tip, here Fajen leaves enough wood so that the tube comes to rest on two supports, each support some 45 degrees off center from the bottom of the barrel channel. The barrel rests on these two points with a pressure of about 6 to 8 pounds. In other words the tube is resting on a V-block. On firing the barrel rises but once pressures have subsided it returns to the V-block support. This system eliminates any side play or changed location of the barrel from shot to shot. I like it.

Actually, however, in any consideration of bedding the barrel and bedding the action, the latter is the more important. The action must seat squarely, solidly, and firmly in the

its stock and this fit must be so perfect, so snug, and so minimal as to tolerances as to require is just one hell of a tug to pull the action out at of its mortises in the stock.

It is absolutely material that the receiver be substantially supported by the wood at all points of contact. When a rifle fires there is a torquing motion which is imparted not only to the barrel but also to the action. Unless the latter is seated with utter flatness, full bearing, and complete surfacing it will rise on the firing of the shot and then may—or may not—return to its original bedding when the pressures subside. Most The springiness is felt more markedly in the mortised portion of the stock which takes the recoil bolt than anywhere else. In bedding the recoil bolt in its mortise there must be a heavy and continuous union between wood and metal. This bond must be so exacting, so precise, and so fine as to achieve the fullest bearing from one side of the recoil shoulder to the other. Only in the very bottom of the mortise is there any relief. It is essential that the recoil bolt does not ride in the bottom of the stock cut. Not less than .003" to .005" of clearance must be included here. There should be some



Laminated thumb-hole stock on custom sporter.

of our rifles are magnums these days and regardless of how perfectly the action fits its stock there is movement in the metal on the firing of the shot. In such high-intensity numbers as the .300 Magnum this displacement of the action is in the nature of a full 1/16 inch. This is normal and is to be expected. The critical part of the equation is that the action must return to its original bedding after the recoil. clearance around the tang; if this is not allowed the possibilities of splitting out the stock directly behind is awfully good! This is all very well when the stock is

This is all very well when the stock is finished up by a master stockmaker. But a lot of stocks are anything but well made; machine turned and all too hastily inletted, and the resultant accuracy is apt to be pretty sketchy. Glass bedding is the answer. I glass bed many of my rifles and I believe in



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 D. Malayan - type throw knife, can also be used as skinning knife because of single abare adae and

B. English pottern throw knife with heavy doubleedge point, 9" overall, red fiber \$2.85

 Malayan - type throw knife, can also be used as skinning knife because of single sharp edge and blood groove. Handle wropped with cowhide band .....\$3.85

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the process.

The idea generally held is that the whole of the action and all the barrel right out to the forend tip is bedded in the compound. This isn't exactly the way it is done, not certainly by the technician who has had ample experience with the glass. Actually the most of the cases require glass bedding only in the area of the recoil shoulder mortise. It is critically important that there be contact here. The glass can accomplish this juncture. I one time glass bedded a barrel for its entire length. It was a light tube and it did not shoot well and I concluded I would carefully bed it from the receiver ring to the forend tip.

This improved the accuracy if I fired not more than 3 shots. If, however, I fired as many as 10 shots the light tube not only expanded but it stretched longitudinally and when this happened the taper just ahead of the receiver crept forward, and the unyielding qualities of the glass caused the barrel to rise erratically at the muzzle. After that accuracy went to pot.

If any glass is going to be added anywhere in the forestock, I favor only enough at a point one to one-and-one-half inches behind the fore-end tip. The barrel should rest lightly on this built-up portion, a pressure of 6 to 8 pounds being sufficient to lift it out of contact.

Glass bedding can be tricky at times. I have jerked an action out of a glassed-instock and because the compound is so terrifically hard I was pretty careless about the business. What I managed to do was to cast up some particles of glass in the bearing surfaces and when the receiver was dropped back into its place these particles, which have utterly no compressibility, stood up and prevented the action from seating fully. This gun gave me trouble and I could not discover where the trouble lay. Finally I searchingly examined all the surfaces which had been treated with a magnifying glass and this disclosed the glass particles. With another rifle, a .358 magnum, I glass bedded the recoil shoulder and all too hastily failed to dig out enough of the compound to give the needed clearance at the very bottom of the mortise. After repeated inspections which included coating the recoil bolt with machinist's blue, and an infinite amount of firing, I finally awoke to the fact that the glass in the very bottom of the mortise should be relieved. That did it. The gun promptly went to shooting good groups and it has ever since.

Those of my stocks that are not laminated have been, for the most part, weatherproofed. This is done by the application of an easy-touse compound which has been given the name "Poly-Form." It is produced by an outfit of the same name on the west coast. But for the many-ply kind of buttstock this just isn't necessary. You simply cannot get water to enter the wood. Two reasons account for this. The first is the slick way in which Reinhart Fajen slaps one ply onto the other. He turns 'em at angles to each other: and beyond this there is a fortifed urea resin between each sheeting which is waterproof and which acts as a shield between every layer of the walnut, or maple, or birch.

For strength, for dependability, for uniformity, for stability, for the maintenance of a sighting zero which, once found, will not shift from day to day, nor month to month, nor rain, nor snow, nor humidity nor drought; the laminated stock is tops.

# ENGRAVED GUNS

#### (Continued from page 38)

the class of work and artistry that they expect to receive for their expenditure. There are reams of technical knowledge necessary to the engraver, and no attempt will be made to convey any of this to the reader. We will, however, attempt to tell you what constitutes good engraving, and how to get it.

Good engraving is immediately pleasing to the eye. The overall pattern is well balanced in the area it occupies, and becomes functional when properly applied to areas having broken lines, joints, screws and the like. A gun properly engraved with an appropriate design never seems "smothered," regardless of the amount of coverage.

Assuming the reader to be a prospective buyer of gun art, you have already selected the piece to be engraved, and now are faced with the decision as to what and how much engraving to buy. The amount of coverage is usually governed by the amount the customer wants to spend for the job at hand. Remember at this point that good engraving is not cheap, although it may be moderately priced. Good engraving never depreciates in value. A very fine job with good coverage of the piece may be had for as little as \$50. Work at this price will not cover as much area as a more expensive job, but quality must be considered, and a \$50 job of good quality commands much more respect than \$150 worth of poor design and workmanship. We see currently many examples of engraving that actually are so bad that they should have been left undone. This type of work seems to be on the increase, and is easily recognized by choppy, snagged, irregular cut, bold scroll, and stamped uneven background where metal was removed for relief effect.

A fine engraving job can be done on a Colt Frontier Model in about sixty hours.



Using a plumber's scale of pay at \$3.50 per hour, it would total \$210 if a plumber engraved your Colt. Done by a capable gun engraver the cost will run from \$350 to \$375.

Now is the time to seek an engraver for the job you have selected. Write or visit several engravers, giving them information about your gun and what you want done. Ask to see their work of similar nature, and get comparative prices for each type of coverage. Remember, there are only two grades of engraving-good, and less than good. Less than good runs down to bad, and sometimes even fraudulent. Where not possible to see the engraver's actual work, ask for pictures, and compare them with the work of others. (Please return the pictures; they cost the engraver money that he does not figure in your job.) If pictures show the piece completely covered with large, heavy scroll work and heavy beading, it is not a fine job. Is the work consistent in texture and cutting? Do the lines flow smoothly and evently, imparting a feeling of movement? Scroll work denotes floral effects, or a vine. Any deviation from structures found in nature indicates a lack of artistic knowledge, and does not enhance the beauty of the piece or the value of the work.

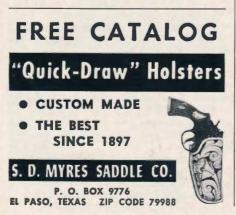
Look at the animal figures. Are the animals all pregnant, and the birds and fowls all snake headed? Is there small resemblance to the subject they are supposed to portray? If the answer is yes, the work is not good. Large, heavy scroll and extensive matting in the background is used to cover large areas of work with the least effort, and although it may be well executed, and pleasing to the eye, we do not consider it good engraving. This type of work, when compared with the work of a creative artist like Arnold Griebel, whom this writer considers the finest gun engraver in America today, shows itself for what it is.

Good engraving is smoothly and evenly cut. scroll work is symmetrical, never lumpy; cuts forming a leaf or tendril are always finished without leaving anything to the imagination. Cuts are well defined and sharp, never too deep. A fine engraving may be lightly polished without rounding or eating out around the cuts. A fine job leaves no burrs, and before polishing, a silk stocking may be rubbed across the work without snagging. Heavy scroll, with veining done by heavy lining tools, is in poor taste, and relegates the work to the mediocre. Each line should be individually cut with a tool cutting one line at a time.

UN ENGRAVING REVIEW

HA E C PRUDHOMME

Consider inlays of contrasting precious metals, such as gold, silver, platinum or palladium. Ask the engraver in plain words



GUNS . APRIL 1967

whether he does his own inlaying, or if he "farms it out" to another. Many fine engravers do no inlay work, and many capable men do inlaying who do not engrave guns. There is nothing wrong in "farming out" the inlay work, but you have the right to know who does your work, and what his work is.

Fine inlays are made by first cutting out the outline of the figure to be inlaid, then undercutting the edges all around to give purchase to the inlaid metal. The inlay is then cut to size and peened into the space provided, spreading the metal into the undercut sides after which it is cut and carved to shape. Inlays made in this manner are permanently and securely in place, and never become loose or fall out. At the present time, many so-called inlays are cut out and carved, and then affixed to the gun with soft solder. It is not as permanently fixed as a true inlay, and is properly an overlay. This is legitimate work, but again, you have the right to know what you are buying.

Recently, we have seen work that, by the most generous classification, falls into the category of "less than good." The sale of this type of work also seems to be on the increase. (There are too few men who do

GUN ENGRAVING REVIEW.

the type of work that you should expect and have the right to receive.)

At this point, you should be able to select a man for your job. If you have already purchased engraving, you should either be proud of it or extremely unhappy. In recent years the desire for, and the financial ability to pay for, fine guns and engraving has come to many, many people who were never before able to even think of owning a piece of art work. Just as opportunists follow any boom or upsurge promising a profit, this trend has resulted in an evergrowing number of hamfisted, chisel-minded engravers" who turn out gouged monstrosities without regard or thought for the things that make engraving an art and an expression.

Our song is this-be particular and critical! Know what you buy!



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## GUNS AND THE LAW

(Continued from page 29)



the same perpendicular plane. As long as the relationship of barrel and eyes is kept the same, the shooter will hit where he looks and his body points. He may not be able to hit a 4-inch bulls-eye at 20 yards, but he will be able to hit a center area of a man-sized silhouette. Changes in direction of fire are made by shifting the feet so that the body points at the target.

The position and technique which the shooter (right-handed) should practice are the same as those under which he would use the hand gun. The body should be in a forward aggressive crouch, the feet in a natural position, and the weapon gripped very tightly. The butt of the piece should be pressed firmly against the right side of the body just above the hip bone and should be held there by the elbow and right forearm, which should be pressing in toward the side. The grips of both hands on the stock and forearm of the weapon should be tight. In the case of the shotgun, submachine gun, or rifle, the forearm of the piece should be lying flat in the palm of the left hand, the elbow of the left arm swung in as far toward the body center as is comfortable. In this position, the eyes, the muzzle, and the belt buckle are about in the same vertical plane. From this position the gun is automatically in line, so far as windage is concerned. As long as the barrel of the piece is maintained in the same eye-body-center relationship, the shooter will hit where he looks.

There will be no need to look at the gun while firing, and the direction in which the body is pointing and the eyes are looking should be the same. Generally the barrel of the weapon should be parallel with the ground. With a little practice, elevation can be controlled for targets up to 30 yards. This position can be taken with any shoulderfired weapon slight modifications being necessary in the case of some submachine guns for example where the left hand grasps the magazine housing instead of the forearm. The M-3, Thompson and the Reising submachine guns can be fired by instinctive pointing with the stock collapsed or detached, by placing the end of the bolt housing in the middle of the body and resting both elbows firmly against the sides of the body. ALTERNATE POSITION: There is one alternative butt position which should be mentioned. All principles are the same except that the shooter crouches even more over his weapon. His head is lowered until his line of vision is on a plane about 10 or 12 inches above the barrel. The butt of the weapon is placed under the pit of the arm instead of resting above the hip bone, as in the first method. This position has the advantage of bringing the eyes closer to the line of fire of the weapon. Consequently some shooters, whose physiques are best adapted to this style can fire with more initial accuracy. Some instructors have advocated placing the butt of the piece in the center of the stomach instead of on the hip. This position will give accuracy but is not a natural one. It

is difficult to assume correctly when in combat and carrying full equipment. It is particularly difficult to place the butt of the weapon in exactly the same place in the body center every time, since it must be placed there quickly.

FOOT AND BODY POSITIONS. The stance should be a natural one. The feet should be placed so that a forward step can be easily taken, since the weapon may be fired either from a stationary position or while moving. Unnatural foot positions and set stances, such as a straddle-trench position, should be avoided in practice because they will be hard to assume in combat. Changes in body direction in order to shoot at angle targets should be done in any manner which comes instinctively. No rigid set foot position should be forced upon the shooter in practice, and when firing at angle targets he should be allowed to change the position of his feet naturally. If he is unable to move his feet, he still can get accuracy by twisting his body for gun pointing. As with the hand gun, jumping to change body direction is not advisable.

The normal "ready" or carrying position, of a rifleman who expects to use his weapon at any time, lends itself to quick adoption of the instinctive pointing type of firing. Most shooters carry theirs in some degree of a port position or with the butt of the piece near the hip; consequently the assumption of the proper position for hip shooting is simple and fast.

#### TRAINING METHODS

After the instructor presents the need for instinctive pointing and outlines situations in which it will be used, the shooter should be given a weapon and taught to assume the correct basic firing position. This can be done by either the coach-pupil method or the use of a full-length mirror in which the student can check himself.

After he has learned to assume the correct firing position, the student should be made to advance toward the mirror, or toward the coach, with his gun in the correct firing position. This is important, because shooting of this type is strictly offensive. The aggressive spirit must be further developed by having the shooter go in toward his target as he fires. He should be told that he can be hit just as easily going back from a bullet as he can if he were standing still or advancing. While advancing with the weapon in the firing position, the shooter should be checked to see that he moves forward in his crouch, without bobbing as he takes his steps. Most shooters will advance naturally, with the barrel of the weapon held steadily on the same plane, but a few have a habit of bouncing up and down by bending at the knees as they walk. This must be corrected at the outset.

The next step in training should be dry firing at angle targets. The shooter must be watched to see that there is no independent swinging of the arms when changing direction of fire. For this type of training, silhouette targets can be placed to the right and left flanks of the shooter, and he can be directed to wheel and fire at these flank targets, on verbal commands of the instructor. Jumping to change body position should not be permitted.

After the dry work has been completed, the initial firing should be done at a range not exceeding 20 feet against a silhouette target on a paper background, or against a stake target placed in a dirt bank so that the shots can be observed.

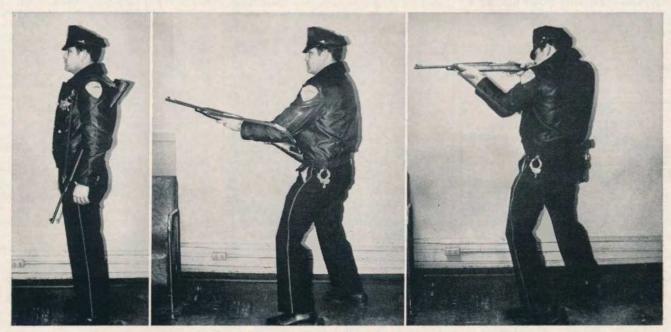
To be able to observe the impact points of bullets is particularly important in the early phases of actual firing so that correct conditions can be devised. He can be made to advance toward a stationary silhouette over all types of rubble and debris, firing as he goes in. In all cases, his eyes should be on the target. Bobbing targets and other surprise targets should be used in this training period. Courses can be laid out over various types of terrain, with silhouettes hidden at various angles to the path of the shooter, so that he is forced to fire at angles and at targets above and below the horizontal.

The ability to do this type of shooting is a prerequisite for the infantry soldier on the battle field and for the police officer in the performance of many of his combat misinto action smoothly. It can be done, but it takes an excessive amount of practice. The method portrayed here is a simple, easilylearned sling carry for use in combat and hunting. It is a good addition to the bag of tricks of any shooter.

It has the following advantages:

1) The muzzle of the piece is down; therefore rain, snow and other types of foreign matter are prevented from entering the bore.

2) The muzzle of the piece does not extend above the shoulder. It is easier for the carrier to make his way through dense undergrowth without having the weapon catch in



Patrolman Ron Smith of Maywood, Ill., P.D. demonstrates combat sling carry.

elevation and windage can be learned faster. After the shooter is able to place his shots in the center area of a ¾ silhouette, he can be permitted to shoot at frontal targets from greater ranges. Ordinarily these ranges should not exceed 30 yards, although accuracy at greater distances can be achieved through practice. After proficiency has been achieved, the shooter should then be made to face at a right or left angle from silhouette targets, wheeling and firing at the targets on verbal commands from the coach. He again the range can be increased as accuracy and proficiency grow.

The shooter is now ready for advanced work, and all types of practical shooting sions. It is not intended to be a complete substitute for the conventional type of aimed fire, but rather a method of shooting wherein the kill can be made when time and other conditions are lacking for the more deliberate type of aimed shooting.

COMBAT SLING CARRY. At times, a shooter has been unable to get a shot at a target of opportunity because he could not get his riot gun, or rifle into action in time from the customary carrying position on the shoulder.

When rifle, carbine, submachine gun, or riot gun is carried in the conventionally slung manner, ,barrel up behind the right shoulder, it is difficult to bring the weapon branches along the way.

3) The shoulder weapon carried in this manner conforms to the shape of the body and by placing the hand on the forearm, the weapon can be carried with more comfort and is in a faster ready position that when carried by the conventional method.

4) After a short period of practice, the average person can take a slung weapon from this position and bring it into action for a shot faster and more accurately than the ordinary man can draw a pistol or revolver from his holster and fire it.

5) It provides an alternative to the customary sling-carrying position when the shoulder tires.



# INVESTMENT CASTINGS

(Continued from page 47)

is more desirable because it has better hardenability and toughness. The cost relationships of investment cast alloys do not usually follow the cost relationships of the same alloys when fabricated by other processes.

A modern investment casting shop today can provide parts of structural uniformity and dimensional integrity, holding to tolerances of  $\pm$  .003 in. and even lower where required. Surface smoothness is as low as 60 microinches, and sections can be as thin as .025 to .030 in. or less. Another corollary benefit: the high reliability of the investment casting process makes possible sampling inspection, contributing to cost reduction.

While investment casting is a precision process, it has all the economies afforded by mass production. For maximum economy, the smallest production lot should be about 5,000 pieces on smaller parts. On occasion, however, just a few large parts will constitute an economical lot simply because there is no other way to make the piece. The complete range of part sizes needed in gun manufacture can be made by the investment casting process.

The unique advantages of investment casting is evident in its use by gunmakers to produce a number of their parts. On the Remington, bolt handle surface appearance is critical; a smooth surface is needed to keep polishing to a minimum. This part, which goes in the Model 700 Series, is cast of 4130 alloy with the knurl cast in; any other process would require machining to obtain the knurl.

An extractor for a Winchester rifle is cast of 4140 alloy to resist impact, wear and fatigue, and weighs only  $1\frac{1}{2}$  grams. It has an overall tolerance of  $\pm$  .003" and some dimensions must be held to within .002". The sear on the same rifle is of carburized 8620 alloy, since wear resistance and strength are a must. Sized and ground to achieve a maximum radius of  $\pm$  .002", the hole is held to + .001, -.001 in. by drilling and reaming.

Investment-cast triggers are often used. The trigger on a lever action rifle, also cast of 4140, has three holes; two cast and then reamed, the other machined. The slot also is cast. Hole diameters are held to + .001, - .000 in. tolerance. The alignment also must be held to + .001 in. and the relationship of the holes to each other must be kept to  $\pm$  .002 in. Winchester has triggers cast of 4140 alloy, hardened on the engagement surfaces. Many triggers are delivered



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finished to the gunmakers, ready for assembly.

Winchester has several other investment castings on its 12, 16 and 20 gauge shotguns. The extractor is of tough 6150 alloy to provide needed strength, and fatigue and impact resistance; tolerance is ± .003" as cast. The sear is of 8620 alloy, with the hole tolerance held to  $\pm$  .001" diameter. Other dimensions are within .003".

Colt 45 automatic pistols have the grip safety cast of 8620 alloy. Nestled against the hand when held, this part must have a good appearance. Tolerances, including the drilled hole, are  $\pm$  .003 in,

The M-2 Carhine also uses investment castings. Its recoil plate, which connects the receiver stock, is of 4140 alloy, finishedto-print, including phosphate coating, to tolerances of + .003, - .000 in. The M-2's disconnector, cast of 8740 alloy, has hole diameter tolerances of + .002, - .000 in. This part's thin section is held to  $\pm$  .002" by coining. The end is ground on the radius (1/2") to a tolerance of .003" total and 32 RMS

The commercial version of the M-1 Carbine manufactured by Universal Arms, has bolt, trigger, hammer, sear and sight all of investment castings. Previous preference on the bolt was for a forging, but now it is cast of 4140 alloy to precise dimensional and



Remington 700 bolt is a casting.

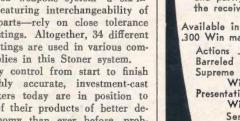
strength specifications. The trigger and hammer also are of 4140 to finish tolerances; the hole in the latter is held to + .002, - .000". The elongated hole of the sear is typical of shapes easily made by investment casting. The sight has the large inside diameter held to + .002, - .000".

Typical of a larger weapon part is the base sight on the M-79 Grenade Launcher, made of 8640 alloy. Overall tolerance is ± .002 in., but the inside diameter is + .002, - .000". The base frame in this military weapon is cast of 4140 alloy with tolerances as little as .001" total. Its lock sight is of the same alloy, held to .002" total, while its extractor is cast of 8640 alloy with a .003" total tolerance.

Other firearm manufacturers, such as Cadillac Gage Company, maker of the unusual Stoner 63 weapons system-a six-inone weapon featuring interchangeability of many of its parts-rely on close tolerance investment castings. Altogether, 34 different investment castings are used in various component assemblies in this Stoner system.

With quality control from start to finish of these highly accurate, investment-cast parts, gunmakers today are in position to assure users of their products of better design and economy than ever before, probably the most sought-after sales features. The technology of investment

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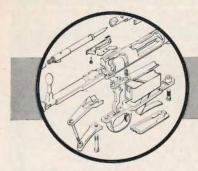
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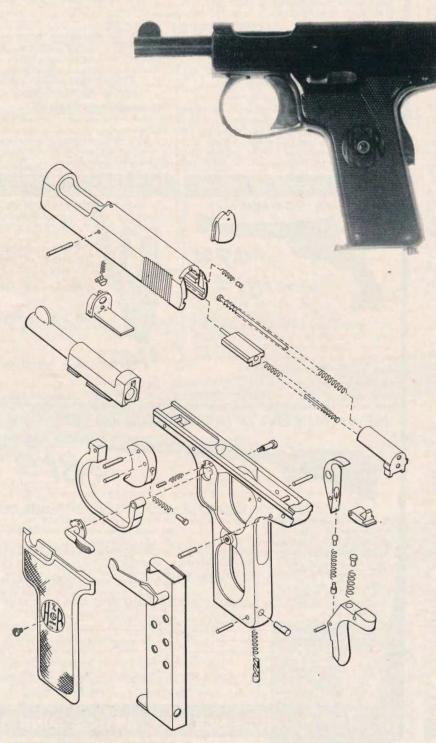
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# HARRINGTON & RICHARDSON .32 AUTO PISTOL



T HE RESEMBLANCE of the Harrington & Richardson .32 Pocket Auto and the Webley & Scott .32 Self-loader is much more apparent than real; externally similar, they are not "sisters under the skin."

Introduced about the time of World War I, it faced commercial competition by Colt, Ortgies, Remington and Savage —and although well made, it lacked "cosmetic" appeal for the American market and was soon discontinued.

It is a striker-fired design, with the firing-pin doubling as an ejector. The "breech" is actually made of several separate parts positioned in the slide and containing the recoil spring and its guide, retained by a sliding lock at the rear end.

For a pocket automatic, the H & R has a very high number of parts (43 exclusive of the magazine) and most of these require intricate milling and fitting; the result gives pleasure to the collector, but production gave economic headaches to the manufacturer.

ring; the result gives predsure to the collector, but production gave economic headaches to the manufacturer. To Dismount: 1) Empty gun of all ammunition, both magazine AND chamber; 2) Uncock gun; 3) Pull back and down on the FRONT end of the trigger guard; 4) Ease barrel and slide forward and off; 5) The retainer at the rear of the slide may be lifted up and off by depressing the detent by means of thin drift or wire clip.

Reassembly: In reverse order; the trigger guard should snap into place with a definite "click."

## RANGER ARMS

(Continued from page 27)

custom finished all over, with jeweled action, handhoned working parts, etc. A roll-over Monte Carlo comb, contrasting wood for forend tip, and grip cap are standard.

The first production rifles will be known as the Texas Magnum. They will all feature the standard length action and barreled or finished rifles will be chambered for any one of four calibers, the .270 Winchester, 7 mm Remington Magnum, .30-06, or .300 Winchester Magnum. Already in the works for future production is a new short action. This one will be known as the Texas Mustang. These will be chambered for a line of cases such as the .243 Winchester, 6 mm Remington, and .22-250 Remington.

One of the outstanding features of both models of Ranger Arms rifles is the fact that both right and left hand actions will be available. These will be furnished in actions, barreled actions, and finished rifles. Prices will be the same on both right and left hand models. On the barreled actions and finished rifles, Douglas premium barrels are featured. On the first Texas Magnum, barrel length is 24 inches.

Ranger Arms Company does, and will continue to, produce a real quality rifle as its finished product, but emphasis will be on the



Governor

Connolly

production of the action. The action assembly looks massive and husky when not assembled in the rifle, and it really is. The large diameter of the bolt is probably one of the reasons why it looks so husky. The action itself is of tubular construction and is machined from solid round 4340 steel. After machining, it is heat treated and normalized to relieve stresses. All steel parts in the action and bolt are magnafluxed and X-rayed. The round action beds easily in a stock. The recoil lug is a separate unit between barrel and action, much like the Remington. The action is held in the stock by three bolts. Properly bedded and tightened in the stock. it is highly resistant to being loosened by shooting. The completed rifle, with a medium weight Douglas barrel and walnut stock, weighs approximately 7½ pounds, less scope.

The bolt, which alone weighs one pound, is .870 inches in diameter and locks into the action by three husky lugs on the front end. The head of the bolt is deeply recessed, and large escape ports on the right side of the bolt allow easy escape of gasses. There are additional escape ports on both sides of the front receiver ring. The bolt throw rotates 60 degrees, 50 of that being camming action. This makes for ease of extraction. The rifle cocks on the opening stroke.

The streamlined bolt shroud, floor plate, and trigger guard gives the rifle a sleek and well-finished look. Many parts such as the trigger housing, floor plate, trigger guard, etc., are investment castings. Another unique feature is that the firing pin is adjustable for throw, in case of wear on the end. The floor plate has a smooth working, yet solid locking, release built into and protected by the trigger guard. The magazine holds four cartridges and it can be emptied quickly, without running them through the action. With one in the chamber, you have a five cartridge capacity. The extractor is of quite substantial construction.

The trigger assembly is fully adjustable for overtravel, creep, and pull, and its action is crisp and sharp. Overtravel can be seen through a port in the side of the trigger housing. The safety is a cross bolt situated at the front of the trigger guard. It is designed so that it works right handed on right-hand actions and left handed on lefthand actions. It positively locks the trigger, but not the bolt, so a chambered cartridge can be removed from the gun with the safety on. Coil springs are used throughout.

All actions are drilled and tapped for scope mounts and open sights are not supplied on any model. The holes are spaced the same as on the short-action Mauser actions. Bushnell Post Mounts will fit perfectly, with no extra work, but other mounts must he contoured to fit this new action. Several scope companies are working on this now.

Another thing I like about this gun is the length of the magazine, which is 3.625 inches. This length allows custom loads to be seated out as far as desired. The magazine side walls are designed to hold the cartridges rearward and prevent any deforming of the bullet tips through recoil.

The Ranger Arms Company looks like a going concern, with good management and a good product. I have always been reluctant to report on any gun product unless I have really tested it out in actual use. So far, I have not shot this new rifle and I would have to put in a great deal of actual shooting time with it before I could give anyone a definite okay as to the proficiency of this rifle under using condition. However, from what I have seen of the company, the management, the rifle, and the work and detail that have been put into it, I am quite well sold on the future of the Texas Magnum and the Texas Mustang. I am eagerly looking forward to shooting a production rifle.

#### New A.F. Cleaning Process

Two liquid-filled tanks and a bonk of electrical equipment are revolutionizing the necessary but time-consuming job of cleaning the 600 plus M-16 rifles used daily in marksmanship training by the U.S. Air Force Markmanship School at Lackland Air Force Base. The \$12,000 apparatus is an ultra-sonic weapons cleaner, using high frequency sound and soap and water to clean weapons faster and more efficiently than ever before.

The new method of cleaning is simple to operate. Partially stripped M-16 rifles are hung for some six minutes in a stainless steel tank of fluid. When they come dripping out of a rinse in a second tank, the weapons are sparkling clean. Except for the unusual efficiency and simplicity. the only sign that something mysterious is happening is a barely audible, highpitched sound.

If an observer ignores the "Do Not Put Hands In Water" sign on the wall, he discovers that the water feels like it is full of tiny needles.

"That," explains T. Sgt. Wilbur L. Busby, noncommissioned officer-in-charge



Basic trainees prepare M-16s for the Air Force's new ultra-sonic cleaning process.

of weapons maintenance and storage, "Is the feeling of bubbles caused by the high frequency vibration in the liquid."

T. Sgt. A. B. Anderson, noncommissioned officer-in-charge of weapons issue and storage, revealed that operation of the device:

"Three generators generate electric energy which is transferred to the tanks, where three transducers introduce high frequency sound waves into the fluid. The sound waves cause cavitation or bubbling. When the bubbles touch parts of the rifles, they implode, sucking dirt and debris from the gun. The cleaning fluid is hot water and a detergent."

According to Busby, advantages of the unit are many. "Previously, the rifles had to be disassembled and cleaned by hand, as a person would clean his own rifle at home. The ultra-sonic cleaner cleans much more thoroughly, reaching all parts of the weapon. "Furthermore," said Busby, "we now

"Furthermore," said Busby, "we now can clean the rifles every day. Before, we had only time to clean them every other day. Better and more frequent cleaning, of course, should increase the life of the weapons."

Although the ultra-sonic cleaner is still in the experimental stage, Busby and Anderson agree that it has cut the job of cleaning in half.

#### The Guns Magazine -



Handloading



Braverman Modern Arms



Mandel Antique Arms



Gunsmithing



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.

#### 24 and 32 Gauge Hulls

I am circling a reply made by GUNS Magazine to a Mr. O. S. Green of Ashland, Kentucky, as it appears on page 78 of the October issue.

The answer is 100 per cent correct in that there is no current U.S. manufacturer of 32 gauge or 24 gauge ammunition.

In order to be of service to the shooter, the Alcan Company has always attempted to keep a small stock of 24 gauge shotshells and 32 gauge shotshells, both empty and primed, for the reloader and as well as keeping a small stock of loaded shells using black powder with #6 or #8 shot.

I have just checked with our shipping department and find that currently we are sold out of the loaded ammunition, although we do have available a quantity of 32 gauge empty primed shells.

> Homer E. Clark, Jr. for the Alcan Company Alton, Illinois

#### .17 Javelina

I need some information. Can you supply me with some articles on the .17 caliber Javelina rifle. I need loading data and a name of a maker of such arms. What is the noise of a .17 compared to other rifles?

> Joseph E. Reshel Royal Oak, Michigan

My best load is 20 grains of 4198 behind a 25 grain Walker bullet, made by the Walker Bros., Louisville, Ky. using Federal small rifle primers. Velocity in my 20 inch barrel is 3710. One load recommendation by Ackley for the .17 Javelina is 17 grains of 4198 with a 25 grain bullet at 3705 fps. Recoil of my rifle is almost nil, and muzzle blast comparable to the Hornet or Bee with a sharper "crack." If you are in the market for a .17, write to the O'Brien Rifle Co., 324 Tropicana #128, Las Vegas, Nevada 89104. Vern O'Brien makes the .17 his specialty, but his rifles are of the modern design—similar to Weatherby's. He'll send you a brochure for the asking.—D.W.

#### **Old Doubles**

I have two double barrel shotguns, both in 12 gauge, that are both quite old. One is Belgian made with rabbit ear triggers. It was made by J. J. Weston and has the serial number 2610. The other was made by the American Gun Co., New York, and has the serial number 124280. I would like to know what these guns are worth.

> Stella Geyer Middleberg, Florida

Unfortunately your shotguns are not old or rare enough to qualify as collector's items—yet they are old enough to forego use as sporting arms. Their value is limited to their decorative value—about \$12 to \$15 each.—S.B.

#### Mauser Varmint Gun

I am thinking of buying an M98 Mauser action with a Douglas sporter barrel in .22-250 caliber. Would this be suitable for a beginning varmint shooter? If not, would you suggest a suitable one at a reasonable price.

> Marlin Vestal Independence, Missouri

A Model 98 Mauser with a .22-250 caliber premium Douglas barrel of 24 or 26 inch length, tapered to about .640 or .650 inch at the muzzle, is not only suitable as a beginner's varmint rifle, but for the advanced expert as well. For proper feeding the magazine will require blocking, and a shorter follower and spring installation. I might suggest a "fixed-power" scope such as a 6x Weaver or Redfield or a 7½x Leupold, with strong mounts of the Leupold Model 3, Buehler, or Redfield type.—w.s.

#### **Rolling Block Conversion**

I am considering converting and rebarrelling .43 caliber Remington Rolling Block actions to the following calibers: 6 mm Remington, .225 Win., .270 Win., .358 Win., and .444 Marlin. All work would be done by a good gunsmith. My question is do you consider any of these conversions unsafe and if so, which ones?

E. C. Mertz Omaha, Nebraska

Remington Rolling Block actions were made in calibers within the 44,000 to 45,000 psi category. Tests show that while the actions withstand loadings beyond this, the engineering nature of two moving units pivoting to two pins produces working tolerances that add up to excessive headspace under higher pressures. Support is not "in line" and the case heads actually bend, making case life extremely short. I personally do not believe in taking the risks involved in general conversion to the calibers you mention, as some of these would surely fall into the hands of over-anxious handloaders. The .444 Marlin would probably come the nearest to qualifying, provided it remained under gun-wise ownership. Page 49 of the 1964 Gun Digest has an excellent article on Rolling Blocks .- w.s.

#### **Colt Values**

Will you please advise me of the values of the following guns: Colt No. 285207 Bisley Model in fair condition, marked "Colts Pt F A Mfg. Co. Hartford Conn Pat Sept 9-1871 July 2-72 Jan 9-75"; and a Colt S.A.A. No. 25433SA in excellent condition marked "Pat Sept 19-1871 July 2-72 Jan 19-75." Each gun has matching numbers.

George Nester Alomosa, Colorado

Please keep in mind that actual condition is of great importance; if as described, your pair should be worth between \$225 and \$275 in the market place.—S.B.

#### Schmidt-Rubin

A few months ago I purchased a Schmidt-Rubin Model 1911 Straight-pull Carbine in 7.5 Swiss caliber. I am very happy with the rifle itself, but not with its cartridge. Ammunition for the rifle is hard to find, and when it is found, is invariably of poor quality and is excessively expensive. Can you recommend another, more easily obtained cartridge, that I can have my rifle rechambered for? I do not handload.

> Glen Baker New York, N. Y.

A 174 grain boattail military bullet increased to .308 diameter was adopted for the improved Model 1911 Schmidt-Rubin Straight Pull rifle that year. By setting the barrel back so the original chamber can be cleaned out, and extending the new chamber throat one caliber, no difficulty should result from converting your rifle to .308 Winchester caliber. You might bear in mind that this conversion was originally quite controversial. However, a number of firms have thus converted and sold large numbers of these rifles, and they are apparently stronger than supposed at first, and giving no trouble. Have your gunsmith measure the barrel's groove diameter before proceeding. Considering inconsistancies for foreign military arms, all work should be done with circumspection. Stick with factory ammunition or handloads not exceeding standard velocities and pressures.—W.S.

#### .40-82 Win. Ammo

I have a Winchester repeating rifle in .40-82 caliber. It's a big gun and in perfect condition. I would very much like to shoot this rifle. Can you please tell me how and where I can get some ammo for this gun?

Joseph R. Barr Buffalo, New York

Trying to find ammunition for the large caliber Winchesters seems to be getting more and more popular with shooters. I will give you the names of a few of the cartridges makers who should have the caliber you are looking for: George Spence Custom Loader, Box 222, Steele, Missouri, and Merrill Reloading Service, Box 249, Libertyville Illinois.—R.M.

#### .38 Shot Loads

I would like loading information on a .38 Spec. shot load. This would be fired in my .38 Special S&W M & P revolver with a four inch barrel.

Herbert M. Rosenberg Bronx, N. Y.

My favorite .38 Special shot load consists of 3.5 grains of Hercules Unique powder, a 3/16 inch wad column, plus all the No. 9 shot the case will hold, while leaving room for an inverted .357 gas check serving as an over-shot wad. Wads are available from the Alcan Co., Seminary Road, Alton, Illinois, as are gas checks. Wads should be seated tightly on the powder and this is easily done with a wood pencil or length of dowel. The case mouth must be well crimped over the gas check over-shot wad. The crimp can be applied with a standard crimp-style bullet seating die by running the seating screw down far enough to exert pressure on the over-shot wad to keep it in place while the crimp is formed. If you prefer, RCBS, Box 729, Oroville, Calif., makes special dies for this purpose .--- D.W.

#### **Browning** a Parker

I am in the process of reconditioning an old double barrel Parker shotgun. Can you advise me on the process for rebrowning. I am especially interested in how the Damascus effect was obtained on the barrels and miscellaneous parts. Is there someone who specializes in this type of work who could do the job for me?

#### John Brown

Palos Verdes Estates, Calif.

In regard to "browning" your Parker shotgun, I would suggest you write to Iver P. Hendrickson, 1211 South Second Street, Missoula, Montana. I understand he does the rust types of bluing work. Also, Angier's book on bluing formulas includes this type of finishing.—w.s.

#### S & W Model 3

I have in my rather small collection an S& W No. 3 New Model revolver in .44 Russian. It has the long cylinder, 6½ inch barrel, rubber handles, caschardened hammer and trigger guard, fine target sights. This pistol is positively all original: The bore and action are in new condition, all serial numbers are the same (1076). It has over 95 per cent of its original charcoal type bluing and case colors. All metal is perfect, no dents, rust, etc. The top of the barrel reads: "SMITH & WESSON SPRINGFIELD MASS U.S.A. PAT'D JAN 17 & 24 65 JULY 11, 65, AUG 24, 69 APR 20, 75 FEB 20 & DEC 18, 1877 REISSUE JULY 25, 1871."

The hard rubber handles are like new. Again, I must add, this pistol is exactly as it left the factory with no serial number which would indicate it was refinished. I understand this gun was manufactured from 1878 to 1908. This pistol is not the Russian model. I would like to know the honest value of this gun and also, is it a desirable collectors piece?

J. Charles Klinger Montclair, N. J.

Collectors value for your Smith and Wesson No. 3 New Model with American markings in the new condition that you state in your letter would be around \$250 to \$300. As for an answer to the question "is it a desirable collectors piece" the only answer I can give you is this; I find that of all collectors firearms, the Smith and Wessons are for some reason the hardest to sell. But if one is in really great condition, cased or engraved, it has good selling possibilities.—R.M.

#### **Bullet** Swaging

I have an A-2 RCBS tool and would like to swage .44 caliber bullets for my .44 Magnum. I was thinking of purchasing swaging dies from Bahler Die Co. or Frank Hemstead in California. Do both of these firms make a good quality swaging die? I want to swage bullets of the Spear 240 grain type with 3/4 or full length jackets so that no lead will bear on the bore. Do you know of a better swaging die than these for use in an RCBS A-2 tool?

> John D. Stewart Kaysville, Utah

Hemstead dies are among the finest production type dies I've run across and are certainly a good buy for the price. I have several sets that give complete satisfaction. Bahler 'dies show very fine workmanship, even better than Hemstead's, but cost a good deal more. In making .44 caliber bullets, I think nothing is to be gained by using the more expensive dies.—D.w.

#### Springfield Safety

I have recently purchased a .45-70 Springfield Carbine, Model 1884, serial number 99803. This gun is in excellent condition and I have been using .45-70 smokeless cartridges with 405 grain bullets manufactured by Western and also Winchester—both brands marked .45-70 Govt. Smokeless Powder. My friend who is an amateur gunsmith states that these smokeless cartridges are



Dana E. Best Mill Hall, Pa.

The "black vs smokeless powder" factor generally arises when Damascus shotgun barrels are involved and, of course, the answer is NO! Do not use modern (smokeless) ammunition in old Damascus barrels. In your case we have a different can of beans, since Damascus barrels are not involved. In good condition, your gun should accept modern .45-70 ammo, but for how long? Eighty-two years is a very long time. Would you stake your life on an 82-year-old piece of rope, or on an 82-year-old ladder? I have never heard of a .45-70 blowing up yet, but I wouldn't imagine that you want to be the first. Keep your gun for the honorable relic that it is and buy another, more modern one for use.-S.B.

(Continued on page 74)

WEBLEY 702 is a hand-crafted custom shotgun built in the tradition for which British scatterguns bave become famous. A well-balanced beauty that swings rapidly on any target, the Webley 702 exhibits a high degree of hand fitting and finishing that will satisfy the most discriminating gun owner and seasoned shooter. The stock is of highly figured, hand rubhed French walnut and has a gold oval inlay suitable for engraving with the owner's initials. As on every Webley shotgun, the hand checkering and tasteful



engraving are an harmonious example of the gunmaker's art and a tribute to the skill of the master custom gunsmiths of the Webley factory. The Webley 702 is available in 12 or 20 gauge, with 28 or 30 inch barrels with a choice of full, modified, or improved cylinder in the right barrel; the left in full choke only. A 26 inch barrel length is also available with the right barrel choked improved cylinder and the left modified. The action is a solid milled steel hammerless box lock, with top lever, solid tumblers, and automatic safety. A non-selective single trigger is available at a small additional cost. Other option. al extras include flat file cut rib, rubber recoil pad and swivels. The 12 gauge guns weigh an average of 6 pounds, while the 20s average 5 lbs. 11 oz. For further information on the entire line of fine Webley shotguns, write to Service Armament, Dept. G-4, 689 Bergen Blvd., Ridgefield, New Jersey.

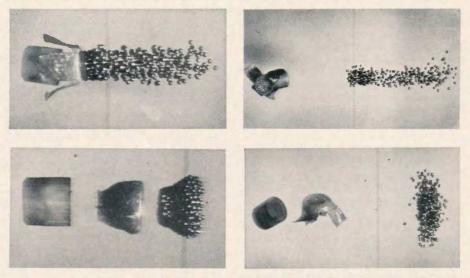
GUN-LOK is a new and revolutionary locking device for shotguns that absolutely prevents anyone from firing the gun. Placed and tightened into the barrel, this new safety device is the only make on the market today which guarantees complete protection from "I-d i d n 't-know-the-gun-was-loaded" accidents. Gun-Lok is core shaped, made of durable styrene plastic, and works on the simple principle of expansion. Applying an Allen wrench to the screw and turning slightly, expands the Gun-Lok tightly



against the barrel, locking it firmly into position. When not expanded, a slight lip on the front edge of Gun-Lok prevents the safety device from slipping down into the barrel. The slitted sides allow freedom of air travel thus preventing sweating. Available in 10, 12, 16, and .410 gauges, the Gun-Lok sells for \$1.00 from William E. Hartman & Co., Dept. G-4, 4780 Old Orchard Trail, Orchard Lake, Michigan.

# SHOPPING

HIGH-SPEED photography shows dramatically the shot column control which is achieved by the Ram-Wad used in C-I-L trap and skeet target loads. Canadian Industries Limited call this effect "controlled dispersion" and maintains it has now the most effective target breaking patterns in the industry. Here's how Ram-Wad works: When the propellant ignites, the interia of the shot working against the rising pressure of the burning propellant gases force the tapered solid base of the shot protector (top half of the Ram-Wad) into the matching taper of the overpowder wad, an open-mouthed, hollowed cylinder with a solid base and tapered sidewalls. The tapered base of the shot protector forces the side walls of the overpowder wad to expand hard against the shell casing to give a perfect seal. It was found possible, by using the Ram-Wad in conjunction with shot of varying hardness and appropriate shotgun choke, to produce extremely uniform patterns: "fat," with lots of "fringe" in skeet guns; and denser, rangier patterns with no strays from full choke trap guns.



The top photos show the effectiveness of the Ram-Wad in a trap load, No.  $7\frac{1}{2}$  shot, when fired in a full choke gun. The photo at left shows the wad and shot column  $2\frac{1}{2}$ feet from the muzzle, while at right the column is  $5\frac{1}{2}$  feet from the muzzle. The lower photos show a skeet load of No. 9 shot fired from a skeet choked gun at the same distances. C.I.L. skeet and trap shells are available at fine sporting goods stores everywhere.

HIGH RESOLUTION 1.75x15 pistolscope with 19 inch non-critical eye relief is the newest addition to the long Tasco line of hunting and target scopes. Hard-coated, shock-mounted, this precision optical system includes an Opti-centered crosshair reticle, positive 1-minute click stops for windage and elevation adjustment, and a  $\frac{3}{4}$  inch



tube with an integral mount. Weighing just 5½ ounces, this top quality pistolscope retails for just \$24.95 at department and sporting goods stores and gun shops. For more information on this and other top quality scopes, write Tasco Sales, Dept. G-4, 1075 N.W. 71st Street, Miami, Florida.



VARMINTERS and targeters alike are partial to the flat-shooting performance of the .22 Hornet. As loaded by Norma, this soft point, semipointed bullet of 45 grains has a muzzle velocity of 2690 fps. Velocity retention is excellent, 2030 at 100 yards, 1510 at 200 yards, and 1150 at 300 yards. With a suggested retail price of \$7.05 per box of 50, Norma .22 Hornet cartridges can be found at all fine sporting goods stores.

# WAY IT FIEL Guns

DOLAN & BULLOCK CO., a Providence, R. I., firm noted for its prestige line of men's jewelry in precious metals, has just released a new sports series of solid sterling cuff links, tie tacs, and slides. For the hunter the cuff links have shells for a motif and a shotgun replica for the tie slide, authentic even to the grain in the stock. Together the set

provides a note of distinction whenever the sportsman dresses for civilization. They also furnish the necessary lead-ins for members of the Liars Club. Nationally distributed in finer jewelry and department stores, the hunting set retails for just \$20.00, handsomely gift boxed. For the store nearest you, write directly to Dolan & Bullock Co., Dept. G-4, 75 Oxford Street, Providence, R.I.



BEN FORRESTER Sportsman Case offers a stylish and practical way for the sportsman to transport, protect, and store his prized weapons. Designed to hold either a rifle with mounted scope or two shotguns, the light weight, two-piece hinged case was specified in Cycolae brand ABS thermoplastics which can withstand the rough treatment at both high and low temperatures encountered in jet air travel and on hunting trips. Cycolac CG grade ABS, which has a low gloss matte finish, is manufactured by Marbon Chemical Division, Borg-Warner Corp., and is supplied in sheet form by Purex Plastics Div. to EMC which vacuum forms the 48 inch polyurethane foam lined case. The case is available in charcoal grey at \$39.95. For further information write: EMC Co., Dept. G-4, 3817 Rutledge, Fort Worth, Texas.

DURAFLEX BOOT is cut from silicone treated cowhide and comes with a waterproof guarantee. Between the glove leather lining and the cowhide exterior is a foam insulator which keeps feet warm in winter and cool in summer for maximum comfort. A special long-wearing combination of natural rubber and synthetic is thermo-sealed to



the boot body, eliminating leaks by eliminating seams and stitches. The Duraflex Boot is 10 inches high and requires no oiling, polishing, or rubbing—just clean with a damp cloth. In sizes from 6 to 13, including half sizes, the Duraflex Boot is \$32.95 postpaid exclusively from Norm Thompson Outfitter, Dept. G-4, 1805 N.W. Thurman, Portland, Oregon.

SCALE MODEL WAGONS lend a note of Western charm to den or living room, keeping children and grown-ups alike fascinated for hours. The perfect decorators touch, these wagons are perfectly reproduced down to the last detail. Vividly bringing back to life the era of "When the West was Won,"



these collectors items were built by Missouri craftsmen on a scale to two inches to a foot. An old time Wells Fargo stagecoach is shown, and a chuck wagon is also available. Each \$50.00 from Baekgaard & Butler, Ltd., Dept. G-4, 1920 Waukegan Road, Glenview, Illinois. MERMAC MINK OIL, the instant leather conditioner and waterproofer, was developed in the heart of the Pacific Northwest's evergreen rain country to preserve and protect all types of leather from water damage, and now it's better than ever. Reformulated, improved, and dressed up in a bright new package, Mermac Mink Oil not only completely waterproofs but also really conditions leather, leaving it soft and pliable. It is particularly recommended for hunting boots, golf shoes, ski boots, and all leather goods which are exposed to any amount of wet weather. Mermac Mink Oil softens leather



and eliminates the "break-in" period for new shoes, and in hot, dry climates it provides the moisture and softness to prevent breaking and cracking. Compounded from the natural animal oils, Mermac Mink Oil is colorless when applied and will not stain clothing. It works wonders on all types of leather goods from women's fine leather jackets to saddles and harnesses. Its thorough penetration stops rot, mildew, and mold common to water damaged leather. Mermac Mink Oil is sold nationally at Montgomery Ward, Sears, Penneys, and other leading shoe and department stores, direct for \$2.00 postpaid from Mermac Distributors of Oregon, Dept. G-4, P. O. Box 5068, Salem, Oregon.

GUN TAMER is a selfcontained device that reduces recoil. What appears to be a solid aluminum cylinder is actually a new device that scientifically reduces recoil and muzzle whip. Manufactured by Precision Products of St. Louis, Michigan, the mechanism is only six inches long by % inch in diameter and weighs only 9 ounces. It is easily inserted in the stock of any rifle or shotgun without defacing it. It can be transferred from gun to gun and never needs adjusting.



Women and children will be especially pleased that it reduces recoil to a gentle nudge. Gun Tamer is widely used by professional trap and skeet shooters for faster second shots. Selling for \$18.50 retail, Gun Tamer is unconditionally guaranteed. For further information write: Precision Products, Dept. G-4, 902 Michigan Avenue, St. Louis, Michigan. ERMA M-22 CARBINE is a dependable, fast-firing .22 caliber version of the famous M-1 carbine that U.S. troops are carrying in Viet Nam. Identical to the M-1 in size, weight, and balance, the Erma M-22 is so authentically reproduced that you won't believe it is a .22 until you see an ejected



cartridge case. Supplied with a 10-shot clip with 15-round clips available, the Erma M-22 has a grooved receiver, dovetailed for standard American scope mounts. For further information on this and many other interesting firearms, write: LA Distributors, Dept. G-4, 1983 W. 10th Street, Brooklyn, New York.



NEW BARRELS by Numrich Arms Corporation in .45 caliber for the 1917 Colt, the New Service, and the Shooting Master revolvers are available. The barrel is completely finished in a custom deep blue with target front sight and ramp. Available in 8 inch length only, they are crafted from the finest gun steel with precision rifling. Fully guaranteed, these barrels are priced at only \$9.95 plus 50 cents for postage and handling from Numrich Arms Corporation, Dept. G-4, West Hurley, New York.



N. FLAYDERMAN & CO. have just issued their 1967 Book Catalog which undoubtedly offers the finest coverage of the gun book field. This years edition is the second and represents a 50 per cent enlargement over last year's edition. Whether you collect books or guns, whether you have one or one hundred, you owe it to yourself to get this invaluable aid to the collector and neophyte gunman alike. There is nothing quite like it available anywhere. Literally every gun book in print can be found in this catalog. For just 25 cents, you can have at your fingertips an invaluable guide to the literature on firearms from the handcannon to the M-60 machinegun: N. Flayderman & Co., Inc., Dept. G-4, Squash Hollow, RFD 2, New Milford, Conn.

WEAVER MODEL V-7 riflescope has been designed especially for the shooter who wants all the sighting versatility of a variable without sacrificing the compact qualities of a conventional fixed-power scope. The V-7's 2½x to 7x power range offers the magnifications most used for general hunting and shooting, yet the V-7 is no larger than most four-power scopes and, complete with Weaver mount, will add less than 14 ounces to the overall rifle weight. Important V-7 features include: Precision-ground, hard-



coated optics; large objective lenses for maximum light; clear, sharp focus at every power; long, safe eye relief; quick and easy eyepiece power changes; a constant;size, centered reticle for fast aiming; sturdy construction from the finest materials by American craftsmen. Write to W. R. Weaver Co., Dept. 58, El Paso, Texas 79915, for your copy of Weaver's latest catalog, containing complete information on the Model V-7 and all Weaver riflescopes and mounts.



SILICONE GUN MITT by G-66 provides an easy way to care for guns. Its rust inhibitor formula displaces moisture and prevents rust, fingermarks, and salt water corrosion. The mitt cleans, polishes, and protects all metal surfaces. In a new easy to slip on design, the mitt keeps hands clean while you're caring for your gun. It can also be used on sights, fishing tackle, reels, scopes, and automobile accessories. The mitt retails for \$1.39 and is packed in a reusable snap lock poly bag. At sporting goods store everywhere. Olt Company realistically simulates the true tone of the crow. Carefully shaped and balanced, it is hand-made and hand-finished of Black Walnut with a polished hard Maple mouthpiece. The shape of the call allows it to fit the cupped hand easily, and its tone, slightly lower than other crow calls, makes it easier to produce the sound of an injured crow. By biting down on the mouthpiece, it is possible to get the higher pitched fighting or rallying call which quickly agitates crows.

SPORTSMAN "44" CROW CALL by P. S.

SHOPPING

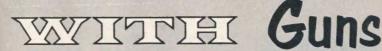


This call has a give and resilience which will furnish years of effective calling. The Olt "44" Crow Call has a list price of \$3.95 and is available at fine sporting goods stores everywhere. Information on the full line of Olt game calls can be had by writing P. S. Olt Company, Pekin, Illinois.

DESIGNED TO ELIMINATE the need for wearing shell vests and bulky uncomfortable jackets, the new Chaparral small-game carryall is a hit with hunters who like to travel light. The Chaparral is worn easily from the shoulders or at the belt. The pouch carries two boxes of shells, while the metal-looped game straps carry up to eight birds. Deer



hunters can convert the Chaparral into a pouch to hold ammunition, lunch, snakebite medicine, etc. by simply removing the game straps. The Chaparral is 9½ inches high, 8 inches wide, and 3½ inches deep. Crafted of the finest oil-tanned Latigo leather, it is guaranteed rain repellent. Not sold in stores, the Chaparral is shipped post paid for \$15.00 (Californians add 60 cents sales tax) : Chaparral Products, Dept. G-4, P. O. Box 1771, Indio, California.



#### KARA KORAM PARKAS from Eddie Bauer were chosen by the 18 scientists who wintered for six months at the South Pole to withstand the coldest temperatures ever recorded by man—averaging 70° below Zero and reaching 102° below Zero. The Kara Koram parka's outer fabric is a tough, longwearing blend of nylon and cotton. The body,



sleeves, and parka hood are all insulated with prime new mature northern goose down to deliver a comfort range for the wearer from 50° above to 70° below Zero. For information on the Kara Koram parka and many other fine products, write: Eddie Bauer Expedition Outfitter, Dept. G-4, 417 East Pine, Seattle, Washington,



SAFE-SITE BORE SCOPE is a new device for safe and easy inspection of rifle and shotgun bores at home or in the field. Simple to use, the round end of Safe-Site is tapered like a bullet and is easily inserted into the gun chamber. When the square end is placed under a good light source and the barrel is viewed from the end, diffused light shows clearly the detail inside. To check the barrel for obstructions, simply reverse the procedure. Point the barrel at the light source and look through the square end in the chamber. Safe-Site fits guns from caliber .270 on up and is priced at \$1.49 from Marble Arms Corp., Dept. G-4, Gladstone, Michigan.

GUNS . APRIL 1967

SILENCING muzzle blast is an easy way to up scores, whether you're shooting a rifle or a pistol. These brand new ear muff type protectors offer positive sound control, to protect your hearing and thus reduce flinching. These are the same type of muffs that airlines personnel wear when they go close to jet engines during start-up. Developed by



Mine Safety Appliances, in conjunction with the Radio Corporation of America, the Noisefoe Mark II offer the ultimate in hearing protection. With every comfort feature imaginable, the Noisefoe is adjustable to fit everyone, regardless of age or build. Priced at just \$6.95 postpaid, they are available from Mine Safety Appliances, Dept. G-4, 201 No. Braddock Ave., Pittsburgh, Pa.

KLEIN'S SPORTING GOODS has just issued their spring and summer catalog of values. This is a special giant size catalog containing many, many bargain priced items of interest to the sportsman. Featured are guns, fishing equipment, golf and camping equipment, radios, walkie-talkies, luggage, watches, tape recorders, record players, cameras, knives, books on all sports, sun and fishing glasses, clothing, etc. To get your catalog, simply write to Klein's, Dept. G-4, 227 West Washington Street, Chicago, Illinois.



ALASKA Ruff-Out oxford shows many of the refinements and styling ideas of a dress oxford, yet serves perfectly as a casual, lightweight walking shoe. The welt finished upper is made from tough, scuff-proof steerhide, rough side out, and is lined with soft glove leather. Genuine Cush-N-Crepe rubber soles with well-defined heels, give long wear and buoyant walking ease. In sand color only, the oxford comes in half sizes from 7 to 12, and in B to D widths at \$13.95 postpaid from Alaska Sleeping Bag Co., Dept. G-4, 334 N. W. 11th Avenue, Portland, Oregon 97209. SHOOTERS WANTING A MORE POWER-FUL scope for long range open country shooting will want to take a close look at the new Bushnell 6 power ScopeChief II riflescope. This handsome, rugged scope gives you power and quality plus the tremendous advantage of having two separate reticles in one scope, crosshairs and instant Magnetic Command Post. Changing reticles, crosshairs to post, takes only a split second



with just a fingertip touch on a control ring. Both reticles are always centered in the field of view. Nitrogen filled, fog and moisture proof, the Bushnell ScopeChief II with crosshair and Magnetic Command Post reticle, lists for \$69.50. For complete specifications and information on the entire Bushnell line, write to D. P. Bushnell & Co., Inc., Dept. G-4, 715 Bushnell Building, Pasadena, California.



P. S. OLT COMPANY is making a dove decoy designed to fool even the most suspicious dove. These decoys are weather resistant and have a self-balancing anchor rod. Listing at  $85\phi$  each or \$9.48 a dozen, Olt dove decoys are sold at sporting goods stores everywhere.



THINGS ARE LOOKING up for the shotgun hunter who uses slugs. The Redfield Gun Sight Co. of Denver has introduced the new Micro-Steel Shotgun Receiver Sight that combines target precision with good looks and durability. Painstakingly crafted of the finest machined tool steel, this handsome new sight fits most flat-sided shotguns. It utilizes Redfield's MS RE-SG attaching base which allows for quick and easy attachment or removal. When the sight is detached for bird shooting, only the slim flat base remains. Priced at a suggested retail cost of \$16.95, the Redfield Shotgun Receiver Sight can be found at fine sporting goods stores everywhere.



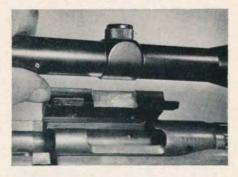
# **GUNSMITHING TIPS**

#### By WILLIAM SCHUMAKER

S copes having turrent enlargements extending around their bodies will not fit into ring brackets of Weaver detachable side mounts, yet it is almost imperative that this mount be used on the factory-drilled M-340 Savage. The mount can, however, be altered by cutting a clearance slot in the lower section of the ring unit.

Start by attaching the No. 1 Weaver side mount base to the rifle action. Fasten ring bracket to base by turning its two thumb screws tight. Remove top halves of rings. Unless the wood interferes, it isn't necessary to remove barreled action from stock.

Hold scope onto lower ring halves, check for proper eye relief, and scribe fore and aft edges of area to be cut out. Lock the rifle in a rubber or padded jaw vise. Remove bolt, and pack inside of action with oil dampened rags to catch metal cuttings. A hack saw will rapidly cut to required bulge clearance depth. After first cut, hold a discarded hack saw blade in it to guide the next cut closely along-



side. Continue in this manner across the turret span.

The saw can be used at an angle to remove remaining metal fins. A medium cut flat rasp will take the notch to bottom of saw cuts, and level it. Smooth with any flat file and finish with emery cloth. Deburr along edges, then paint the notch with black model airplane lacquer.

Clean cuttings from action and mount, place scope in position and install top halves of rings. Scarring of scope body can be prevented by placing a piece of scotch tape or tough paper under mount cap hooks when they are snapped over scope body. Remove tape or paper and tighten the four ring screws after checking crosshairs for horizontal level.

Boresight the rifle. If it is over 6" off at 50 yards, vertically or windagewise, a shim placed under the scope in rear end of bracket will raise point of impact; and will lower it if placed under front. Shims should be no thicker than necessary and not exceed .015" or difficulty will be encountered in aligning, starting and tightening the ring screws. A shim under rear end of attaching base will move shot group to LEFT, and give opposite effect under front end of base.

Final zeroing should be done via the scope's adjustments. If you've degreased and treated the base attaching screws with Loc-tite, applied a little grease to the bracket-to-base thumb screw threads, and cinched up the mount cap screws, you have a professional installation, without loss of strength or visible evidence of mount alteration.

#### BALLOON PISTOL

(Continued from page 33)

started for him. Poor weather and bad wind conditions halted the War Minister's departure so long that by the time that the weather and winds were favorable, Reynold's new balloon was finished.

At 11:08 a.m. on October 7, the two balloons were made ready for flight. Large crowds of people gathered on the field shouting, "Long live the Republic," and under Gambetta's balloon rippled a tricolor streamer. The white balloon that carried Reynolds also held his friend from New York, C. W. Way; a French officer, and the balloonist, Durevillio. The ropes were thrown off and soon the two balloons had risen high into a cloudless sky. With a fine breeze, they were soon over the Prussian lines.

The Prussians spotted them almost immediately, and bullets began whistling through the air around the balloons—missiles of all sorts were fired at the balloons, including rockets and cannon. For a time they were in the greatest of danger, for far below them galloped a group of German cavalry in hot pursuit, expecting that at any time the voyagers would be forced to descend. But now a freshening breeze bore them, it seemed, out of danger. No sooner than the danger of dropping into the hands of the still pursuing German cavalry from lack of breeze seem over, than Gambetta's crew momentarily lost control of their balloon and it seemed certain that the balloon would fall to' earth. Only quick action halted a landing and the balloon shot back into the sky and drifted slowly toward Amiens.

At one time, Gambetta tried to land at Criel, but found out in time that they were dropping into a German camp. The War Minister frantically did everything to lighten the basket, including throwing out his personal baggage. During this escape back into



the hand by rifle fire. The Gambetta balloon later came down safely in a tree top near Amiens. The Reynolds balloon remained safely aloft for another 95 miles and made a fine landing at Ville Roy, where the passengers boarded a train for Amiens.

the safety of the sky, he was wounded in

Much later, Mr. Way, who accompanied Reynolds in his balloon, told the correspondent of the Bordeaux Daily News that he had very much enjoyed the trip, except that the bullets whistling around the gondola and the smell of the gas escaping from the bag had annoyed him. Gambetta's impressions of the trip were entirely different. He was, to quote him, "almost stunned by the overpowering idea of Nature's strength and man's weakness, and I thanked Heaven when we reached earth again."

Upon his return to New York, Reynolds was given a lavish dinner by Hartley, his employer, commemorating his fantastic adventure and the successful completion of a difficult mission. Reynolds was presented a handsome gold watch engraved with a picture of the balloon, the date of the memorable escape, and inscribed with the motto, "Dieu proteg," God protects. At the same time he was given a Smith and Wesson .32 revolver engraved with a balloon, his initials, the date of the flight, and with the inscription, "Nul Bien Sans Peine." This is a most fitting inscription for an adventure rare in the history of salesmanship and a credit to the firearms industry, for translated the inscription reads, "Nothing successful without difficulty."

#### SURPLUS PISTOLS

(Continued from page 25)

put, the question is legit. Are there any bargains among the many surplus military handguns on the market today? Sometimes yes, sometimes no. In regard to individual makes and models, value is greatly dependent upon mechanical condition—and we can't determine that unless the gun is here to look at. Sometimes even that isn't enough, and the gun has to be shot to really find out if it's any good.

But let's forget about condition for a moment and take a look at the field. For the sake of comparison, we'll assume the guns are all NRA Very Good Condition and work from there. Then we can concentrate on the merits of individual guns without being confused by variables.

There is a way to determine whether a surplus gun is worth its price, assuming that you want it for average handgun use. (If you're a collector, or want a gun for serious target use, then that's another matter-far beyond the scope of this short dissertation.) First we compare the gun in which you've become interested with a currently-available commercial model that possesses the same general characteristics. For this we pick a gun that approaches it as closely as possible in design, caliber, quality of workmanship, reliability, accuracy, durability, and general suitability for your purpose. Since you're a real dyed-in-the-wool bargain-hunter, let's don't get too excited about styling or aesthetic appeal.

Once a gun is selected for comparison, look around and see what that gun is worth on the used market. Check in at a couple of local shops that carry a goodly amount of used merchandise and if that doesn't produce results, get a copy or two of the Shotgun News and check prices of guns offered there. If possible, average out several prices so as to have a good representative figure. Now we learn something. How does the surplus gun price compare with what you've found out? If it's the same or higher, then obviously you'll do better to forget the surplus gun and go shopping for the current model. There's no need for further comparison.

But for the sake of discussion, let's say the surplus gun turns out to be priced, say 1/4 or 1/3 less. Sounds good, doesn't it? Wait a minute, though-there are a couple of other things we have to check before we can say it's really a bargain. First and foremost is ammunition. Is it chambered for a cartridge that is currently loaded and readily available in this country? After all, a gun without ammunition is just about as useful as a pregnant mistress or a wife in Reno. Many of the older military cartridges were never widely distributed, and quite a number of them haven't been produced for over twenty years. Of course, the purveyor of the gun will normally have a supply, but it is usually limited and of rather ancient vintage. Probably corrosive and Berdanprimed also, introducing other problems later. When only old military ammunition is available for a surplus gun, you'll need to buy a large supply to avoid running out

extra money that usually more than wipes out the price advantage of the gun. And even then, you'll still run out some day, ending up with a piece of pretty iron that doesn't even make a good trotline weight. But even if ammunition supply is assured

for a lifetime, the evaluation still isn't over. What about parts? Sure, I know you don't expect anything to break-but you have no way of knowing what that gun has already been through. Any one of its parts might be just ready to let go. This applies in particular to firing pins, sears, hammers, and extractors. Magazines, too, go bad, but can usually be repaired. If, like the Brownings, Walthers, and Colts, an identical commercial model is still being produced, you've got it made. Those parts will be available for a long time to come. If, however, like a Luger or Mauser, the gun's been completely out of production for a score or more of years, parts may be a problem. When this happens, check a couple local shops and ask if they can get parts. Normally if large quantities of the gun were made, fellows like Bob Lovell, N. F. Strebe, and George Numrich will have bought and torn down a batch of them to sell as parts. If so, all is well. They may be used parts, hut they will be serviceable, and more important, available.

soon-and that means spending a batch of

If the gun passes all of these tests and is still priced significantly below the cost of a similar currently-produced model in like condition, it represents a bargain. Get it and learn to love it. Tell mama how much money you saved and maybe she won't be too upset about the whole transaction (that is if you can't keep her from finding out you've got it).

The entire process isn't as complicated and drawn-out as it might seem from reading these ramblings. Let's take a look at a few representative cases and see what happens.

Not too long ago a goodlly number of Husqvarna 7.5 mm revolvers were offered for sale. They were very nicely finished guns, reliable and accurate, and generally in excellent condition. The design dated from more than half a century back, but was sound. About the only current guns that could be compared to it were the S&W .32 Hand Ejector, Model 30, and the Colt Police Positive in .32 caliber. Both were priced at around \$70 new, and worth \$45 to \$60 on the used market. Well, the Husqvarnas were selling for only around \$20, and so looked like a real bargain-except for the fact that only a very limited amount of military surplus ammunition was available for them, and it was no longer being produced. To top it off, no parts. Not much of a bargain after all, unless you cared to have a special set of dies made up to form cases from some other caliber, then handload every round.

Another example: Currently the Astra Model 600 selfloading pistol is in good supply at the Interarmco warehouses. It is chambered for the 9 mm Parabellum (Luger) cartridge, a very popular, high-velocity number currently produced all over the



world. While no current design can be well compared to its unique blowback system, in all other characteristics excepting appearance, it can be compared to the Colt .38 Super Auto or the Beretta Brigadier in 9 mm, or even the Colt 9 mm Commander. All sell new for \$90 or more, and will bring \$55 to \$70 used. The Astra 600 beats that by a goodly furlong, selling at the moment for about \$27. That's less than half what you'd expect to pay for one of the others, and can really whet a fellow's appetite.

Ammunition is OK, too. Both major producers in this country crank it out all the time, and there is still plenty of cheap surplus 9 mm Para. around if you want to use



it. Parts? Any one of several vendors of military parts can furnish you with anything from a barrel to a receiver—and likely will be able to do so a decade from now. With this all in mind, you know what to tell the fellow who says you paid too much for that Astra 600. In fact, you can buy a pair of them and still be ahead of the game.

Whenever the big Astras are mentioned, someone is certain to mention the M-400, which appears identical to the 600. Chambered for the 9 mm Largo (9 mm Bergman-Bayard) cartridge generally available only as surplus, this gun has the reputation of being able to fire a half-dozen or more 9 mm cartridges. That the gun will fire .380 ACP, 9 mm Para., 9 mm Long, .38 ACP and a few others is established fact. But so will a Colt .38 Super. The M-400 was not designed to shoot other than the 9 mm Largo, and its performance with the other calibers is neither particularly reliable nor predictable. It will, however, function perfectly with the .38 ACP or .38 Super cartridge which is nearly identical to the Largo in both velocity and dimensions. If you want a little more zip than given by the 9 mm Para., by all means get the Astra M-400-but don't expect it to digest perfectly all those assorted 9 mm cartridges claimed.

How about a modern revolver? Large quantities of Colt Commando and S&W Victory models were turned out for various countries during WW II. Figures are hard to come by, but I suspect that the total numher was well over a couple million. These guns are frequently offered as surplus, having come back from the country for which they were originally made. The Commando is identical, except for finish, to the Cok Of-

#### Weatherby Award

Dr. W. Brandon Macomber. of Albany, New York, veteran of scores of big game hunts on three continents, was presented with the Weatherby Trophy on Dec. 2, 1966, during ceremonies at the Weatherby Big Game Trophy Award Dinner in the Beverly Hilton Hotel. Dr. Macomber, who has been on hunting expeditions to Kashmir, Alaska, British Honduras, and countless other parts of the globe, becomes the 11th recipient of the highly-prized Weatherby Trophy, and the third American so honored in the past six years. He was selected from among seven internationally-known big game hunters. Last year's winner was Francois Edmond-Blanc of Paris.

Through more than half a century of hunting, Macomber has accumulated an extensive film library that has been used for education purposes in schools, service clubs, and museums. Over the years, he bagged more than 200 trophies, many of which were donated to museums and are currently on exhibit. Trophies in his residence are separated by "continents" —such as the African room, Indian room, etc. His outstanding trophies include Shapu, Barasingha, Asiatic buffalo, Gaur, elephant, Greater Kudu, black-maned lion, and Nyala.

The Weatherby Trophy is presented to stimulate continued and increased interest in sportsmanship and conservation. Nominees are judged on such factors as type, quality, and amount of game collected, efforts in behalf of conservation, sportsmanship, number of hunts and continents visited, and character.



Macomber (right) receives the Trophy for 1966 from Roy Weatherby.

ficial Police Model of today. The Victory Model is nothing more than our old friend, the S&W Military and Police Model, now known as the Model 10. Some improvements have been made since the military guns were produced in the early '40s, but nothing that effects general utility. The current models sell for over \$70 new, \$45 to \$60 used. The last offering of Victory models I saw a few weeks ago was at \$37.50. Not as great a difference as in our last example, but enough to buy a couple fifths of acceptable Scotch. Ammunition presents no problem, being the ever-available .38 Special produced in most of the Western World. Parts for both Victory and Commando are still listed by the makers, and likely to continue so for many years. Unless you just have to have a shiny commercial finish on your new .38 Special, the surplus gun is an excellent buy.

One thing will be encountered, though, in the two guns just mentioned. Many Vietory (and perhaps Commandos too) were made for the British, chambered for the .38/200 revolver cartridge. That's nothing more than the old .38 S&W with a blunt, 200-grain bullet and was the Limey service pistol cartridge during WW II. When offered in the original caliber at about \$30, they are a fine buy, with ammo always available, though this caliber is far less popular than the .38 Special. Thus the lower price.

Because of this lesser desirability, it has been common practice to do a fast (and not always careful) rechambering job on the .38/200s, adapting them to use the .38 Special. It works, and is perfectly safe with factory loads, but there are subtle differences in chamber, throat, and bore that combine to make the conversion rather indifferently accurate. The bore and throat are larger than called for in .38 Special, and the larger rear end of the new chamber allows Special cases to expand considerably more than most shooters care for. True, the .38 S&W can still be used in such altered guns, but a goodly portion of the stabilizing chamber throat bas been removed and the bullet tends to be deformed passing through the resultant void and accuracy suffers. The practice seems to be to offer such converted guns at the same price as original .38 Specials and when that happens, you'll be better off to spend a few bucks more and get a current gun or else wait for some original Specials to show up.

By now, perhaps, you begin to get the idea. A surprisingly low price is often an indication (under the age-old law about getting what you pay for) that maybe the gun *isn't* particularly a good bargain—yet, look at the Astra 600, which is just one exception to any general rule of that type we might try to draw up.

Webley and Enfield revolvers in various models and marks have been plentiful ever since the beginning of the surplus handgun influx. Surplus parts are still plentiful, and imported Canadian ammunition isn't hard to get. The gun has an excellent reputation for durability and reliability, and is, in fact, far quicker to reload than any of our modern, solid-frame revolvers. But its generally bad case of the "uglies" and the hinged-frame design so long associated in this country with cheap, shoddy guns resulted in its being sold for as little as \$15 in a near-new condition. And the only *new* D.A. .45 Revolver to be had, cost upward of \$70, perhaps \$50 used. If that didn't make the wicked Webley a bargain, I'm confused.

Then there are the Webley and Enfield .38/200 revolvers in various marks and numbers, all of the same general design as the .455 above. They too sold for ridiculously low prices for the same reasons and represented just as good a bargain. Discounting aesthetics, as we said in the beginning we would, these guns are excellent buys, even at the slightly higher prices asked today. Now bringing around \$25, both .38 and .455 guns are little less plentiful, but still offered by several suppliers. One new batch of .455's is being sold for \$34.95, converted to use .45 ACP or .45 Auto Rim cartridges. My own experience indicates they perform best with the lead bullet A.R. ammunition.

The best revolver buy I have ever encountered on the surplus market has been the U.S. Colt and Smith & Wesson M-1917, .45 ACP guns. Ammunition and parts for these will be available yet for many years. The guns have been priced variously for as little as \$22, on up to \$35, depending on when, where, and condition. Then, one often finds the same guns at a somewhat lesser price, chambered for the British .455 Webley cartridge—still an excellent buy. I own several at the moment, and have had dozens of them over the years.

Rather than go over all the various makes and models that have been and are being offered as surplus, we've prepared a chart. Please keep in mind that it disregards condition entirely, assuming all guns are NRA Very Good. Enough information is given for you to make up your own mind whether any of the guns is a bargain at the price currently offered. Since prices of surplus guns fluctuate a great deal, no attempt has been made to assign a value to them. If you're interested in a gun listed on the chart, determine first if parts and ammunition are available, then compare its price with the value shown for a comparable, currently produced gun. The answer will then be staring you in the face.

Remember, no one can say that all surplus guns are bargains; neither can he say they are all not worth the price. Each one has to be evaluated in light of the factors we've mentioned. Simple arithmetic does the rest.

### SHOOT BACK!

#### (Continued from page 20)

I know that 2,500 women feel more secure in their homes at night because of these men."

Where would you rather live? In Orlando, where the police ask you to bring in your guns so that they might teach you how to handle them safely and shoot with some degree of accuracy; or in New York, where they ask you to bring in your guns, and offer only amnesty against prosecution for owning that gun?

There is a side effect showing up because of the Orlando training program that must be taken into account. Because of the renewed interest in defense against the criminal, rather than trying to reduce crime by other less effective means, the citizens of Orlando-even those not participating in the program-have regained the incentive to fight back. Charles Wadsworth, who is handling the newspaper's part in the program said that there has been only one attempted break-in reported since the training sessions started. He said: "The woman in the house was not a member of our "posse" but she set after this guy with a hammer and nailed him over the bead as he was coming through the window. I think this is indicative of the new attitude among women here since this training started. People are tired of being kicked around by the criminal element."

Are the people of your city tired of being kicked around, too? If so, why not a firearms training program for your area? All that it takes is a group of citizens with the foresight to see that this is the real answer to crime; a newspaper which is really concerned about the crime rate; and a police department with guts enough to get behind such a program. It worked for Orlando, why not for your city?

Let me tell you why it might not work GUNS • APRIL 1967 for you. First, it may be that your city is not yet plagued by a high crime rate. If so, consider your area one of the fortunate few. But remember this; the criminal of today is highly mobile, and when he sees that his chances of success are small in Orlando, he'll travel somewhere else—perhaps to your area. Will you be prepared?

Perhaps the police department in your city will say that they don't have the time or manpower for such a program. Let them listen to the words of Orlando Police Chief Carlisle Johnstone: "Although the policemen are putting in their own time on the program, it will lighten their work in the long run, due to the tremendous deterrent upon crime." Then ask your police where their proper place should be; on the range, instructing the citizenry on the proper use of a gun against a criminal, or behind a desk, telling this same citizen that his application for a permit to own a gun has been denied-while nearby another officer explains to the victim of a criminal attack that "the police can't be everywhere at all times"?

There is yet another reason why a program such as this might meet with opposition in your area. Perhaps the editor of the local newspaper has been spouting anti-gun propaganda so long that he either believes it enough to balk at the idea, or be has gone so far out on the limb that he feels he would be admitting that all of his ranting about guns killing people was based on his misinterpretation of the real facts.

If the citizens of your area are really concerned about the rising crime rate, there are three basic steps that must be taken.

First, the criminals must be disarmed—but only the criminals. Almost every gun bill offered today, whether it be federal, state, or local, bas this intent. But intent and actual effect are two different matters.



Second, we must re-examine our judicial system; a system which permits statistics such as those recently published from Washington, D.C., where more than 50 per cent of the homicides and assaults with deadly weapons were committed by persons with previous criminal records.

The third step is to give the law-abiding citizen the incentive to defend his life and family against armed criminals. This includes the assurance that he has the legal right to shoot back; the arms with which to shoot; and the training necessary to face criminal adversaries with confidence.

Unfortunately, this last step cannot be taken in areas where strict gun controls have all but disarmed the law-abiding citizens. How many people do you think would show up for such a program in Philadelphia? The city of Orlando, Florida, has lead the way, and has shown that a pro-gun attitude is not radical. And they have shown that the crime rate can be decreased without strict gun controls. How about your city?

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### WHY NOT A USED DOUBLE

(Continued from page 45)

frequently exchanged at the gun shows and between individuals. I can already hear the pens scratching and the typewriters pounding out a protest to my blasphemous quotation of prices. Some will cry too high and others too low. I won't apologize for anything. If someone has a shotgun that you want and you quote these prices to him, please don't mention who advised it.

Naturally, the guns described can sometimes be purchased for less than the figures quoted. And there could conceivably be individual guns that because of "like new" condition will bring slightly more. Condition is all important when shopping for a used or discontinued gun.

Be especially on guard against alterations. Barrels that don't measure 26, 28, 30 or 32 inches should be carefully studied. When you bring out the tape measure, the seller will usually tell some great long winded tale concerning the life history of the weapon, how it was a special order gun, and made for this or that particular reason. Listen politely, but still measure it.

Anything on a shotgun that is other than standard factory equipment should be carefully avoided unless you fancy yourself somewhat of a shotgun expert. You may want to swap the gun later, and it's a shocking surprise to discover that the "custom" stock job that some huckster made you cough up an extra \$50 bucks for just isn't worth that much to anyone else. Recoil pads, unless installed at the factory, usually lower the value of an old American double. They have usually been mounted by a kitchen sink gunsmith, after he chopped off a couple inches of pretty good walnut.

While the big four in pre-war doubles get most of the play these days, there were some other mighty fine field guns that we don't hear too much about. The Lefever Nitro Special, the Western, the Fulton, and the Hunter Special were a few of these rugged, economically priced doubles. During their final days of manufacture, these guns sold for around \$40. They were a whole lot of gun for that kind of money. Many of these are still kicking around these days and currently bring a price of between \$45 and \$65. Also unknown to many shotgunners are the side-by-sides made by Iver Johnson. They offered three grades of doubles that went for \$50 to slightly more, during the late thirties. These guns in tight condition are worth around \$75.

I said previously that I wouldn't get into attempting to price the higher grade American doubles and I won't. But most manufacturers made a gun just slightly finer than their field grade model that deserves a special mention. These guns usually had a



small amount of fair quality engraving and often had much better than average wood. In fact, I have seen many of these slightly better grade sbotguns with figured walnut that would equal that found on the finest guns ever manufactured. One of these guns can be a real pleasure to own, and they deserve to be hunted with. So we'll live dangerously again and mention a few prices.

Without any extra factory equipment, the Ithaca Grade 11/2 in very good condition is worth in the vicinity of \$160 and lower. The Parker VHE Grade \$190 and lower, and the L. C. Smith Ideal Grade \$150 down, and the Fox SP Grade \$175 and down.

If you haven't studied the old gun cata-



Good doubles seldom exhibit wear.

logs enough to be familiar with what these guns look like, or have not handled enough of them in the flesh to be sure of the grade, by all means ask a friend or seek out a knowledgeable gunsmith or collector. As the old saying goes "all gun traders are dishonest except me and thee, and sometimes . . . " well, you know the story!

The case-hardened double gun dealer knows it, but the hunter who is looking for one of the guns mentioned in this piece chambered for the 20 gauge, should expect to pay a little more for this preference. There were more twelves manufactured during the double days than all other gauges put together. And from the number of them on the market, I would suspect that there were quite a few sixteens made, too. Twenty gauges were not roaringly popular in dad's day, but my how the picture has changed. With the modern trend toward the lighter gun the old twentys fill this bill nicely. When a good double happens

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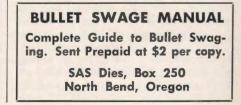
to be a sixteen the opposite is generally true. That is, the sixteen will bring somewhat less, or the same as a twelve. For some reason or other, U.S. shooters have developed some peculiar aversion to the 16 gauge. As a hunting gun, the 16 is certainly superior to the 20, so don't overlook the bargains that are sometimes available in this "off-breed" gauge.

Before laying your money on the line for a second hand double try twisting the barrels in one hand, while holding the grip of the stock in the other. There shouldn't be any side to side or up and down movement at all. The action should close with a positive "ka-chuck." To the everlasting credit of American double gun makers, you will seldom find one of the top four that has been worn loose. It has always been a revelation to me to pick up an old Smith or Ithaca that externally looks like it had been used as a canoe paddle, and discover that it locks up as tight as a bank vault. Careful, honest use will seldom knock a good old double out of commission. A hammer spring might break, but a good gunsmith can remedy this in short order.

Naturally all of the prices quoted exclude any gun with damascus barrels. Some real fine guns will be found with the old twist tubes, but leave them alone unless you want to have new fluid steel barrels installed. Some firms in England specialize in this kind of work, and if you have an extra hundred bucks or so handy it might be worth it-if the gun is fine otherwise.

There are some beautiful firearms being manufactured in this country today. There are likewise some outstanding guns coming from abroad. But few lovers of fine, functional, and yes, beautiful sporting arms, can deny that the golden age of the graceful American double produced some of the finest products that the smoothbore fancier could hope for. Other examples of bright pages in U.S. shooting history have been mostly retired to museum shelves, and private collector treasure troves. The graceful Kentuckys, the tradition laden percussion revolvers, and the old lever action big game rifles, are destined to pine away their days wishing for action that will never come again. Not so with the doubles of yesterday. They are the same fine bird and bunny shooters that they ever were.

They were made to be used, and used, and then used some more. It may be a bit corny, but there's a certain chest stuffing feeling that goes with carrying a fine old side-by-side into the briars or through the hemlocks. And then, (to your delight, it invariably happens) you come upon a hunter and, as you pause to compare results, his eye will drift to your shotgun and he'll say something like . . . "Say, isn't that an old \_\_\_\_\_ (insert the name of your double)? That sure was a good gun!" To yourself you then say . . . . "Whadya mean was? It still is a good gun."





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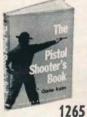
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# TINY SHOTSHELLS

(Continued from page 35)

to that OLIN building on the corner of Henry Street, knock on the door marked "MEN," and tell the men we got a great idea! If you get thrown out, it means that they are already working on it.

While wandering through an unnamed gun plant with an unnamed engineer, I felt some unnamed cartridges dropped into my unnamed pocket. (I have since named the pocket. I call it "right hand.")

At first, the brass hulls looked like .32 caliber rim fires. They weren't. They might be one or two calibers smaller. They were probably experimental. We slipped outside, with me holding a one-at-a-time bolt action. We mumbled secrets. To test the pattern, I aimed at a certain packing crate at a certain distance. The gun mumbled "bang." We ambled up to examine a certain circle of small holes. The holes were not too small. The circle was nice.

Lacking game, like rats, we desired to test potential power. Our attention was directed to two evil starlings with distinct criminal tendancies who were at that moment plotting to overthrow the balance of power and who had just called us a vile name. In loud voices we screamed "We are not!" This caused them to fly. I "swang" a slight lead on the one carrying the stolen documents. At the sound of the gong, he immediately forgot how to fly. When he hit the ground, he likewise forgot how to get up. His erstwhile companion, realizing the error of his ways, flew to the top of a pole carrying the American flag, spread his wings and turned into gold!

The chance that we might have a new

# GUN RACK

(Continued from page 11)

entry of oil from the gun's innards, which in the case of seldom-used pocket pistols are often dripping with the stuff.

Mars Equipment Corp., 3318G W. Devon, Chicago, is importing the Hirtenberg line in calibers .25, .32, and .380 ACP at competitive prices. If you're having trouble finding what you need, drop this outfit a line. Also



of interest is the fact that Hirtenberg does manufacture most other popular calibers such as .45 Colt, .38 Special, etc. Perhaps Mars will make other calibers available and they are, incidentally, boxer primed.— Maj. George C. Nonte, Jr.

#### **All-Around Firearm**

Savage Arms Corp offers us the nearest thing to the all-purpose shooting iron. This is the over/under rifle-shotgun combo, which they like to call the 24-V. On the Continent these kind are fairly common, especially among the Germans who are some of the most clever guns designers. The Savage has an upper barrel chambered for the hot .222 and the lower tube is the 20 gauge, with 3inch chamber. This gun, literally, is the most flexible, the most versatile, and the nearest thing to the all-around firearm.

I ride horseback every morning just at daylight. I pack this Savage over/under in preference to anything in my battery. Yesterday I shot two hawks and a javelina with the upper .222 rifle tube; and two miles farther down the trail I got into a fine covey of blue desert quail and took three roosters. This morning I knocked off a skunk that was taking dead aim at my hound, not with the .222 but the 20 gauge, and just in the nick of time too! A mile farther on I shot one cottontail after the other with the shotgun tube until there were three bunnies swinging from the saddle. The .222 accounted for a red fox caught stalking my favorite covey of cotton-top quail. Truly a remarkable little rifle-shotgun this Savage! The outstanding feature of this gun is of



course the combination of calibers. Other features include a checkered walnut stock and fore-end, decorated receiver, and folding leaf rear sight. The receiver is drilled and tapped to accept the Savage B-5 scope base and scope. List price, \$79.50.—Col. Charles Askins.

#### Mark I and II Crosman Pellguns

Two of the most handsome air pistols to hit the market are the new Crosman Mark I (.22 caliber) and the Mark II (.177 caliber) CO<sub>2</sub> guns. They are look-alike copycats of the popular Ruger Mark I .22 rim fire target pistol. This accounts for the good looks. To account for the good shooting, we toured the Crosman plant at Fairport, N.Y., to see how they were made. To go a step further, we snatched up a Mark I or II at various points along the production line for an on-the-spot checkout. Here is what we learned: breed of short range shotshells could open many doors. Doors to public shooting shops where you and I could take our friends (who might never have tried our sport) and introduce them to some low cost fun with flying targets. Minimal report and lack of recoil would allow quick learning and extra enjoyment. Sound absorbent walls and ceiling, plus simple far-wall deflectors (perhaps like horizontal venetian blinds) could make any walk-in shop adaptable as a range. Some larger locations could offer supervised booth-and-lane gallery shooting for smallbore rifles or  $CO_2$  guns.

Would this be the answer to the uninformed public who seek to condem shooting because they do not understand it? This may be wishful thinking, but whether it happens or not, we could certainly use a sub-sized shotshell to replace the almost useless .22 scattershot.

Keep your eyes open—and if you hear a creaking sound, it means that the door we have just kicked ajar is slowly beginning to open.

The two guns are pretty much identical except for caliber. It was felt that the .22 caliber version would be more favored as a low cost practice gun for target shooters. The .177 caliber version is expected to appeal to plinking addicts because it can shoot either pellets or steel B.B. shot. This model features a special magnetized bolt bead to hold the steel spheres. The B.B.'s aren't quite as accurate but they are considerably cheaper to shoot. When Crosman super pells are used, either model shows surprising accuracy. This is due to the fine button rifled 7<sup>1</sup>/<sub>4</sub> inch barrel which is mounted in a husky die cast frame. The externally adjustable trigger adds to the accuracy factor. The fully adjustable, square notched rear sight offers a sharp frame for the undercut wide front blade. A large positive safety lever is standard on this man-size, 43 ounce handful.



A variable power adjustment allows a velocity range of 300 to 400 feet per second in the .22 caliber Mark I pellgun and about 20 fps faster with the .177 Mark II version when pellets are used. The use of B.B.'s adds about 70 fps more for a top range that is just under 500 fps. That's power aplenty!

The .22 caliber version features rosewoodgrained plastic grips of ample size and shape plus left or right hand thumb rest. A neat eheckering design is featured on these and on the ebony grips used with the .177 model.

Our test gun shot right and low until we cranked in a little correction on the rear sight. This was easily done and thereafter the .22 caliber super pells went where we steered them. The single shot was fun to shoot and we found the shooting economy of  $CO_2$  and pellets to be a desirable factor in a practice gun. All in all, the new Cros-

man Mark I and II are fine performers with the look and feel of their live ammo counterpart.-Harry O. Dean

#### The Heritage Rifle

Sears, the mail-order giant, has a test program going on the west coast to sell the Spanish military arsenal-made Mauser. This is the action which was formerly imported by Golden State Arms Corporation, rebarreled by them using a domestic tube, and thereafter dubbed the Centurion. Seymour Ziebert, who owned Golden State, acts as the go-between for Sears and the Spanish miltary. The barreled actions are turned over to Royal Arms, Inc., Santee, Calif., who attach one of their Claro walnut stocks in a fancy, although semifinished, state. The buyer then does the sanding, checkering, and final finishing. There is a considerable savings to the purchaser for these chores really run up the going price. Sears will go nationwide with the sales program. The rifle is called the "Heritage Rifle" by the mail order firm.

Reinhart Fajen, our largest stockmakerhe turns out upwards of 100,000 GUN-BUTTS ANNUALLY-is seriously considering the same bit. He will take the Centurion in its barreled version and attach his stock. The semifinished stock will be completely inletted and outside-shaped for final sanding. The socalled kit will come complete with instructions on how to sand down the wood, how to finish it, and how to checker. In discussing this with Fajen he told me, "This will permit us to offer a good rifle, properly fitted, at a reasonable price. Our biggest cost on a finished rifle stock is the sanding and finishing. If the customer can do this the savings to him will be considerahle."

#### Hyrdroflo Pump

Hydrofio Pumps come in two sizes, are made of a tough plastic that resists most of the chemicals and other stuff that most of us use. It has many uses, such as siphoning out the gas tank of your outboard motor to name only one. These pumps are operated by hand, roll up into small compact package, and are well worth the few dollar's investment. Although the plastic does get stiff in extreme cold, it does not get brittle, and with some care, it is possible to "thaw" the Hydroflo Pump enough to be able to use it. I found that by sticking it under my jacket when it is very cold, enough flexibility is restored to make the pump operational. You should be able to get these pumps in your local sporting goods store or hardware shop, but failing those two sources, write to Renco, Dept. G, 3111 North 6 Cicero Ave., Chicago 41, Ill.









THE UNITED STATES topped Canada and England in the 1966 Wheater Cup Match, hosted for Yank and Canadian gunners at the Vancouver, B. C., Gun Club. English aspirants for the Wheater Cup fired their targets at Bygot Wood, Cherry Burton, Yorkshire, England, on a day plagued by fluctuating light conditions. Weather at the Vancouver club was ideal for the international event.

High individual honors went to Mr. M. L. Freeman of England, for his 47x50. Cliff Hatton, Bob Revia, and Vern Revia of the Renton, Washington, Fish and Game Club, Chuck Hawkins of the Kenmore, Washington, club, and Jim Callihan, shooting for the Cowlitz County (Washington) Gun Club fashioned the winning United States effort. Terry Gjernes, Duncan Hay, Russ Young, Jimmie Couse, and Earl Caldwell carried the colors for the Mapleleaf contingent. Many of the top International trapshooters from Western Canada and Northwestern United States attended the Wheater competition at Vancouver. The match was shot on targets from the Laporte trap and a Simulated International trap, using hard Continental type targets.

The North American Continental Trapshooting Association newsletter brings word that the 1966-1967 NACTA Winter League is under way. Last year 15 clubs in six states were represented in the 50-bird Continental Olympic matches. The Ent Rod & Gun Club team from Colorado Springs, Colorado, made up of John Shoemaker, Bob Padgett, Jim Haynes, and Bob Kuhns were the 65-66 victors.

1966 State Champions in NACTA events were: Washington-Tad Kumasaka, Champion; Jack Miller, Jr., Runner-up; Oregon-W. J. Thomas, Champion; Daryll Whitehead, Runner-up; Colorado-Don Axton-Champion; John Shoemaker, Runner-up; British Columbia-Jack Wiley, Champion; Russ Young, Runner-up; New Mexico, Gene Stites, Champion; (no runner-up listed).

The top shooters in 1966 NACTA All-Star ranking are listed by states. A 90% average for men on the best 400 combined M-O and C-O targets was set for all-star ranking. 1. Bob Kuhns, Colorado, 99%; 2. Daryll Whitehead, Oregon, 99%; 3. George Payton, Oregon, 98%; 4. John Shoemaker, Colorado, 97%; 5. John Bickett, Colorado, 97%; 6. Larry Faist, Oregon, 96%; 7. Jim Carey, Oregon, 96%; 8. Merlin Martin, Washington, 96%; 9. Del Jeske, Oregon, 96%; 10. Fred Jones, Washington, 95%; 11. Rolla Boughan, Oregon, 95%; and 12. Bob Padgett, Colorado, 95%.

Other gunners achieving NACTA All-Star rating with 90 or more averages are: Jack Roberts, Cliff Hatton, Bob Revia, Russ Greenway, Tad Kumasaka, Russ Van Skike, Tom Mahan, Pat Sloan, Roy Markwell, Wendell Way, Don Voight, and Chet Rasmussen.

NACTA All-Star Ladies and Sub-Juniors scoring 75% or more on 200 targets were: Ladies: Jo McMahon, Colorado, 89%; Carolyn Kuhns, Colorado, 85%, and Jessie Bylund, Oregon, 75%. Sub-Juniors: Bob Haugen, Washington, 92%, and Hugh Bowie, Washington, 87%.

A NACTA Committee is working on a brief but formal rule book for Mini-Olympic, Cont-Olympic, and Sim-Intl trapshooting. Because I am sure that the names Mini-Olympic (not to be confused with miniskirt), Cont-Olympic, and Simulated International trapshooting are confusing terms to many clay target fans across the North American continent, I will make one more attempt to explain the activities of most groups allied with or associated with clay target shooting.

The North American Continental Trapshooting Association has awakened tremendous interest in the international type clay pigeon shooting. Oddly enough, the last sentence is a direct quote from a letter to me from Michael Tipa, Director of Shotgun Activities for the NRA (National Rifle Association of America), in which Mr. Tipa explains the position of NRA in shotgun activities, which has been the subject of previous PULL! columns, in answer to letters from readers indicating confusion regarding the functions of the several groups concerned with regulation and/or promotion of clay target shooting programs.

Another direct quote from a letter to gun clubs from Mr. Tipa of NRA will be help-ful. The letter says, in part, "To better understand the role the NRA plays in the international shooting program, a summary of the organization of the world shooting federation, the International Shooting Union, is necessary. The ISU is the controlling body for all world championship level shooting programs. It is now composed of 76 nations, each represented by their respective national shooting federation. The ISU sanctions all shooting events, in World Championship, Olympics, Regional type games such as the Pan American, and every fourth year, a separate World Championship for Moving Targets, i. e. International type Skeet, Clay Pigeon, and Running Deer or Running Roebuck. The NRA is the United States shooting representative for all guns in the ISU."

The Amateur Trapshooting Association (ATA), with headquarters in Vandalia. Ohio, is the United States governing body for domestic trapshooting. The National Skeet Shooting Association, (NSSA) with headquarters in Dallas, Texas, is the United States governing body for domestic skeet shooting. Both of these organizations have conducted and promoted championship programs in International-type targets, as distinct from domestic games, and both organizations have cooperated with the NRA in the selection of teams to represent the United States in ISU events such as described in the quote regarding ISU regulation.

After attempting to place all of the clay target groups in proper focus, it is appropriate to mention some preliminary information on the 5th Pan American Games, at Winnipeg, Canada, and the World Moving Target Championship in Italy. The 5th Pan American Games are scheduled for the period July 22 through August 7, at Winnipeg, Canada. Initial scheduling of the shooting events for the Pan-Am Games is July 26 through August 2. The shooting event of interest to clay target gunners is a 200-target International Skeet match. International Skeet is shot from the same type of installation as domestic type skeet, except that it is shot from a low gun position and uses a delayed release. (The gun butt must be held against hip or stomach when the target is called for and the target may be delayed up to three seconds.)

Only those preliminary tryouts sanctioned by NRA, ATA, or NSSA will be valid to determine eligibility to the final tryouts for the 5th Pan American Games and the World Moving Target Championships. Clubs may conduct preliminary tryouts anytime between now and May, 1967. Complete results of all preliminary tryouts, regardless of by whom sanctioned, should reach NRA headquarters in Washington, D. C., before May 31, 1967. The tryouts should be scheduled as early as possible to assure completion before the May 31 deadline.

The World Moving Target Championships are scheduled by the ISU for sometime during September in Italy, with exact date and location to be announced. These championships include 300 targets, International Clay Pigeon; 200 targets, International Skeet, and Running Boar, 50 meter, Slow and Fast Runs. Final Tryouts will be shot concurrently with the NRA's Annual United States International Shooting Championships during the period July 1 and July 15 at Fort Benning, Georgia.

On the domestic skeet shooting scene, I am pleased to learn from my friend Paul Shepherd that the Peninsula Sportsman's Club of Menlo Park, California, has a new location in East Palo Alto, off the end of University Avenue, East of the Bayshore Highway. The new layout sports six skeet fields and seven trap fields, all blacktopped and very good looking. The club may add two more skeet fields, and become a candidate the host the 1967 state shoot.

The Pacific Coast Open registered skeet program provided a christening for the new facilities, and drew a total of 217 entries (74-12 gauge, 51-20 gauge, 45-28 gauge, and 47-.410 gauge). Phil Murray was High Overall Champion, with 294x300. The club's mailing address is Peninsula Sportsmen's Club, Inc., Station A, P. O. Box 1003, San Mateo, California.



## ANNIE OAKLEY

(Continued from page 32)

by girlhood memories of poverty and hunger, gave her a grim, unswerving determination to excel that would astonish all who knew her. No practice session was too long, no gun too heavy, no trick too hard. Shoot she could, and shoot she would, and neither ill health nor mangling injury nor near-fatal accident would stop her! And shoot she did.

If she used one of Butler's guns in their first appearance together there in Cincinnati, it was probably a Parker 12 gauge side-byside double; a double-hammer, double-trigger breech-loader. Certainly she did use a gun (or guns) of this description in her appearance with Butler during the early 1880's. Later, she would own and use an almost infinite variety of guns, including many custom-made presentation pieces. One of her favorites at one period was a 16 gauge double, probably a Parker. Also probably a Parker was a light, straight-shanked 20 gauge double with which she made some of her best records.

Butler was clever in devising variations of the usual "fancy shooting" outlines for their on-stage appearance, and a pretty girl in the act delighted the crowds. Match shooting was an added source of income. It was a rare community in those days that did not have its "champion" of local or wider reputation, and Butler missed no opportunity to match Annie with all comers. Sometimes she lost, but not often. With \$50 or so as a "prize," and the near certainty that Frank would have side bets on the outcome, Annie would face these challenges with the appeal of a petite femininity but with a cool concentration and an iron determination to win that made her a very tough competitor.

Newspaper carried the stories of these matches, each setting the stage for another at their next place of appearance: "Annie Oakley defeats John Lavett at Exposition Park, 23 birds to 21 at 30 yards." "In a match for \$50 to shoot at 25 pairs of clay birds, Annie Oakley broke the 50 birds straight, beating all records." "Annie Oakley defeated Miles Johnson, Champion of New Jersey, in a match of 50 live pigeons." Once, with her left hand so badly mangled in an accident that she could not use it, handling her 12 gauge double with her right hand only, she shot to a draw with an Englishman who had won the championship of Europe and had come across the ocean to add the American championship to his laurels. To be tied by a small girl with one hand useless in a bloody bandage was an experience of which he never boasted!

Circuses and wild-west shows were big attractions at this time, and Frank Butler saw them as ideal media for Annie's talents. Their first connection was with a wagon show, "The Four-Paw and Sells Brothers Circus."

By this time, Annie was shooting rifles, shotguns, and pistols with equal mastery, doing all the "tricks" standard to exhibition shooting, plus others of her own and her husband's invention. She split playing cards edgewise with rifle or pistol, hit small flying targets with rifle or pistol bullets, broke multiple aerial targets. One of her stunts was to break six simultaneously thrown targets, hitting them one at a time with six shots from three double-barreled shotgunsor five targets with five shots, the first from a rifle, the remaining four from two doublebarreled smoothbores. A standard feat was to trip two target traps, run ten feet, vault over a table, snatch up a double shotgun and break both targets with two shots before they reached the ground.

Annie's first rifles after her entry into show business were almost certainly Stevens single-shots of the 1872-75 vintage, with the tip-up-breech derign, probably .22 Short caliber. She had several of these, all plain sporting pieces, with open factory sights. Two or three or more of these, loaded and spread on a table before her, enabled her to break multiple targets in what then passed for rapid fire.

Her first favorite pistol was also a Stevens tip-up, .22 caliber, with a ten-inch barrel. It too was originally plain, as-issued, blued, with factory wooden grips. Later, as money became more plentiful, she would have this pistol "prettied" with silver plating and pearl grips. Later too, makers would vie with each other in giving her handsome presentation pieces, replete with gold and intricate engraving ...

Later, when she became the protegé of Buffalo Bill Cody and Sitting Bull, when she shot before the crowned heads of Europe, when she was internationally famous and her name a byword in the language, these local triumphs would seem picayune and hardly more than amusing. But "later" must wait for another installment.

To Be Continued





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#### POINT BLANK

#### (Continued from page 15)

the bolt is slightly recessed to accept the base of the rimless cartridge. This recess is continuous except for the space required by the extractor. The firing pin is one-piece and of a quite substantial size. The firing pin has a pair of flanges diametrically opposed; when the bolt is locked the flanges fit into corresponding grooves within the bolt. When the lock is opened, or only partly open, the position of the grooves prevents the firing pin from any forward movement, regardless of slam, jar, or blow. The Ackley Mauser has the customary and highly desirable gas flange at the tail end of the bolt.

Both bolt and receiver are of nickel steel; the bolt is polished but not chromed. Ackley states the actions have been heat treated to between 35 and 38 Rockwell C hardness. Whether this is on receiver or bolt, or both, he does not say.

The Japanese manufacturers in cutting the threads for the barrel in the receiver ring have done a highly peculiar thing. The threads are interrupted. It makes the action look like it was for a takedown, a type of firearm long since gone by the board. Ackley tells me he tried to dissuade the Nips from this but could not. They insist they were forced to cut these interrupted threads in the manufacturing process. This, in effect, gives only half the bearing surfaces between guntube and receiver that is normally found in the Mauser. There is no safety factor involved, nor any lack of strength, but it gives the inspector a start to glance inside the receiver ring and find half the threads missing on either side! Prices have not been broad-



cast as yet but you may be sure these will be on the appealing side. The Nips have a penchant for beating out the competition price-wise. Gun Rack has two of these Ackley-Mausers a-building; more on performance later.

#### SCOPE MOUNT SHIFTS

Here lately there has been a fine rash of new single-base scope mounts. This is the kind that has just one anchor, a fastener on the bridge of the receiver. The customary forward lock at the receiver ring is missing. A field test of three different mounts of this design shows that by the application of thumb pressure on the forward end of the scope tube the zero can be thrown out from 1½ to 4 minutes of angle at 100 yards. The failure to remain in zero can be checked by the use of the Site-a-Line collimator. This device spuds into the muzzle of the rifle and presents, through an optically arranged crosswire reticle, a check on the zero of the rifle whether it be equipped with telescopic, aperture, or common open iron sights. It also happens to give the true facts on such hidden faults as scope mounts that will not stay put, reticles within the scope that are adrift, and either internal or external adjustments for windage and elevation which move erratically.

Many a rifle has been extensively overhauled because it would not group consistently. Frustrated owners have tried literally dozens of handloads, rebedded the stock, glassed it in after such bedding efforts have failed, and sometimes in utter desperation rebarreled the gun, assured it was inaccurate. All the time the fault has been in that weakest link in the accuracy chain: the flimsy scope mount.

Experience indicates that upper and lower mounts made of aluminum or Dural and attached to the rifle by blocks, one on the receiver bridge and the other on the receiver ring, will after little firing develop errors of as much as 31/2 minutes at 100 yards. The standard 6-48 screws are another serious fault. These are simply not adequate. A new mount just arrived on the scene has only TWO SCREWS to hold it to the rifle-two. mind you, in place of the usual four. Under test this economy number indicated movement of 4 minutes on its bases. This shifting and variable zero is created by the shooter placing a broad thumb against the objective of the scope and shoving laterally with reasonable force. Thereafter the movement can be measured to as fine as 1/2 MOA by the use of the Site-a-Line collimator.

Bridge type mounts, usually regarded as the very epitome of strength and ruggedness are offenders too. These mounts are usually removable by backing off on a big cap screw whereupon the scope is rotated 45 degrees and may then be lifted out of the lower mount. Checks by the Site-a-Line show up not only errors of from 1 minute to 3 minutes but shows these movements may occur in both upper and lower portions of the mount.

One solution is the prompt elimination of the 6-48 screws. Scope mounts should be attached with nothing smaller than 10-48 screws! There should never be less than 4 of these screws and 6 would be better. Mount bases should be made of steel and I advocate silver soldering them to the action. Better than all this, however, would be to pressure the arms manufacturers to groove the tops of all receivers to accept the scope without the use of mount bases at all. Weatherby, Sako, and the English firm of BSA all do this and it is, after all, the best system.

# QUESTIONS & ANSWERS

(Continued from page 59)

#### Winchester Revolvers

Recently I purchased an old revolver for my collection that is very similar to the Colt of 1873. It is a single action .44 caliber, loads from the side the same as the Single Action Colt, has a five inch barrel, and holds six cartridges. The serial number is 168 and on the left side, just beneath the cylinder, are the words, "44 Calibre, Winchester 1873."

There is also an insignia in the frame on the right side which is so badly worn that it cannot be made out clearly, but the engraved letters appear to be either HQ or HO. Also, there is some printing on the top of the barrel, but this too is so worn that it is impossible to make out. There is a ring mounted on a pivot on the bottom of the handle also. Despite the wear, the action of the gun is in excellent shape.

Going through my back copies of GUNS Magazine and other reference books that I have, I am unable to locate any information concerning any revolvers made by the Winchester Arms Co., though I once read someplace that they did make a few about 1873. In questioning the owner of a gunshop, I was told that this is true and that GUNS Magazine published an article on Winchester revolvers about three or four years ago. My question is: What can you tell me about this revolver as to whether it might have been one of the original Winchester revolvers or not?

> William D. Cutsinger Crestwood, Illinois

There were many imitations of the Colt Single Action. Over the years I myself have run into at least seven or eight; some of them have been Spanish imitations, some of foreign manufacture, a few have been found made by William Mason and Hugo Borchardt.—R.M.

#### Wildcats

I have a M-1 Garand rifle which I would like to have rechambered to .35 Brown & Whelen or .30 Gibbs. Is the action strong enough to be rechambered to these calibers? I also have a Beretta Silver Snipe shotgun

in 12 gauge. I was wondering if a special set

of barrels could be made up, .444 Marlin over 12 gauge, and approximately how much would these barrels cost? What gunsmith would you recommend to do this job?

I also have an M-1 Carbine which I would like to have rechambered to 7.9 mm Kurz necked down to .223. I know that these modifications are going to be expensive, but to me they are practical and I would like to have them done.

Charles D. Haynes Eglin AFB, Florida

Rechambering your Garand M-1 rifle to .30 Gibbs would involve difficult, perhaps impossible, feeding problems due to the fatter Gibbs case. Because of increased pressures the gas port in the barrel would have to be smaller. The action would probably be strong enough but the conversion is not practical. A complete new barrel would be required for the .35 Brown-Whelen in addition to the other problems. "Guess-a-mated" cost of fitting a special set of .444 Marlin and 12 gauge barrels to your Silver Snipe could go \$500 to \$1,000. Because of approximately tripled pressure, the rifle barrel should be on the bottom. Write Westley Richards & Co., Ltd., Grange Road, Bournbrook, Birmingham 29, England; the Berretta company, and Holland & Holland, 98 New Bond Street, London, England.

The .30 M-1 Carbine can't be merely rechambered to 7.9 mm Kurz necked to .223. A new .223 barrel would be required. The Kurz .30-06 size case head would all but wipe out the carbine bolt face shroud and extractor! Besides such a wildcat cartridge would perhaps develop pressures beyond the carbine's safety limits. The discontinued Kurz brass would be difficult to procure and forming it would be a job. Furthermore, proper feeding alterations could well be impossible. Suggest you contact Johnson Guns, Inc., 152 Temple Street, New Haven. Connecticut. They have a tested M-1 conversion called the Johnson Spitfire .223MMJ. based on necked-down .30 Carbine,-w.s.

#### Le Chasseur by MAB

Recently I purchased an automatic pistol marked "Le Chasseur" which was made by MAB in France for "WAC" in .22 LR. The grips are molded of hard rubber with a very prominent thumb rest on the left grip, both being marked "Winfield." Fit and finish on the pistol is very good and I have had no malfunctions in several thousand rounds fired. Condition is good or better throughout. Can you tell me the reasonable market value of the pistol or at least if it is worth the \$25 I paid for it?

Gerry Nygaard Seattle, Wash.

A used good condition Le Chasseur goes for about \$25 in today's market. If yours functions as described, it would seem that you got your money's worth.—S.B.

#### **Double Maker**

I am attempting to locate a firm who can supply me with an action for an over and under rifie plus octagonal barrels in .30-06 and .218 Bee calibers. These rifles are being built for a particular type of shooting and



require a scope of somewhat high power, like those for reaching way out there. I believe Bushnell makes a target scope but it does not quite fill the bill. I have drawn below a picture of what I have in mind. I would appreciate any information on over and under rifles you may have. I believe England has some models on the market but can't seem to locate the information.

William J. Bouton Grovetown, Ga.

The adjustable butt plate setup according to your drawing is supplied with the Anschutz Super Match No. 1413, Model 54, 22 Long Rifle target rifles. In the U.S. these are distributed by the Savage Arms Co., Westfield, Mass. Very similar units can be had from Freeland's Scope Stands, Inc., 3737 Fourteenth Avenue, Rock Island, Illinois. It is known as their No. 61 International butt plate and comes with interchangeable off hand hook and rubber shoulder plate at \$45.

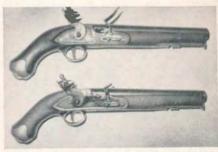
Flaig's, Millvale, Pa., import various foreign weapons and could perhaps help you on the over and under rifle. In England, Westley Richard & Co., Ltd., Grange Road, Bournbrook, Birmingham 29, England, specializes in double barrel firearms.

The scope you illustrate would almost have to be a target scope, such as made by Lyman, Unertl, or the Davis Optical Company. Any sporting goods dealer can get these for you in powers of your choice. These have precise focusing arrangements for distance. To my knowledge Bushnell does not make a target type scope—W.S.

#### North Flintlocks

Just recently I acquired two very old pistols. Stamped on one is "S. North," and dated 1802; the other is stamped "S. North," dated 1809. Since then I went to the library and purchased hooks on early pistols and read up on North and his development. I believe these to be old "tower" horse pistols. On the barrel of one is "180—," cannot make out the last number.

Someone, either recently or years ago, restamped these pistols to make them look like North guns. Enclosed is a photo of the guns, which are 15% inches long and .69 caliber. I paid \$125 for the pair and I would like to know approximately what they are worth.



Also, the side plates have been ground off to hide their true identity, but you can still make out part of the markings, the tower and crown, if you look real close and know where to look. Other than being ground off they are in good condition. I have been offered my money back for them.

Howard Little Anderson, Indiana

It is often said: One photo is worth a thousand words. In your case it holds more than true. Your supposed 1802 and 1809 stamped flintlock pistols look to me as though they are really only the reproduction of the British Tower Pistol made in Japan and sold here for \$25.00 each. The real British Land Service Pistols look nothing like the ones in your photo and they are NOT in any way the S. North Military Service Pistol. Return them to the one that sold them to you; they are not worth the owning.—R.M.

# THE GUN MARKET

Classified ads, 20c per word insertion including name and address. Payable in advance. Minimum ad 10 words. Closing date June 1967 issue (on sale April 26) is March 7. Print carefully and mail to GUNS MAGAZINE, 8150 North Central Park Blvd., Skokie, Illinois.

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NEW COLLECTOR SERVICE — Rare military books, manuals, war relies, weapons, uniforms, helmets, accourtements, metals, insignia, documents, photos, painting, prints. 60 Page Illustrated Catalogue 50¢ refundable with purchase. Peter Hilmka, Historical Americana, Dept. G, 226 East 89th Street, N.Y., N.Y. 10028.

CARTRIDGES FOR COLLECTORS . . . New 1985-86 Illustrated catalog featuring hundreds of rare cartridges, including a .58 Schubarth, \$1 postpaid. Al Kelley-Jack Malloy, Inc., Ridgebury Rd., Ridgefield, Conn. 06877.

VISIT DIXIE GUN WORKS, for Antique Arms. Sorry, no lists.

NAZ1 MEDALS, Books, Pictures. 10¢ for list. Das Oberst, 1345 E. 34th St., Tulsa, Okla.

ENAMELLED ORDERS — Nazi Medais, other relics. Dealers inquirel International, Box 208, Jamaica 82, New York.

#### ENGRAVING

PRUDHOMME'S ARTISTIC ENGRAVING. Folder \$1.00, 302 Ward Bidg., Shreveport, La.

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#### FOR SALE

STATE PISTOL LAWS. Booklet describing current pistol regulations of all states \$1.00. Federal Gun Laws Booklet \$1.00. Henry Schlesinger, 415 East 52nd St., New York 22E, N.Y.

Seguin, Texas 78155

CANNON FUSE 3/32" diameter, water proof, 25 feet \$1.00-125 feet \$4.00 postpaid. Free catalog. Zeller, Rox 633, Hudson, Mich.

FIRECRACKERS, EXPLODING FIREWORKS. Complete instructions for easy home manufacturing, \$1.00. Mailmart, Box 373-EE, Soquel, Calif. 95073.

FIREWORKS FUSE, 25 feet for 25¢. Make your own underwater fuse, simple instructions 25¢. Mailmart, Box 373-EF. Soquel, Calif. 95073.

LUGERS, LUGERS, LIST .25¢; Luger Manual \$1.00. Shattuck, Box 471, Franklin, Michigan.

GOOD USED G.I. .45 hip holsters. \$2.00 ppd. Steve Nicholls, 6662 Steiner Lr., Sacramento, Calif. 95823.

#### GUNS & AMMUNITION

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FREE: M-2 and M-1 Carbine Illustrated Discount Catalogue. Receivers \$25.20, Paratrooper Stocks \$29.95, etc. Powder Horn, 330G Perrine Ave., Piscataway, N.J. 08854.

PISTOLS \$7.15, DERRINGERS \$9.65, Many Others. Buy Wholesale! Become Dealer! American, European Sources. "1987" Directory, \$1.00, Continental, Box 26034-GP, Indianapolis, Indiana 46226.

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#### THE GUNNER'S BIBLE

#### By Bill Riviere (Doubleday & Co., Inc., New York, N.Y., 1965, \$1,95)

Claimed to be a complete quide to sporting firearms, ammunition, and shooting, this book falls far short of its goal, contains much erroneous material that shows author's lack of research or familiarity with the material at hand. So for instance, author claims that fast draw shoots are often fired with live ammo, that the .44 Magnum is available in but one rifle make; there are many similar oversights and misfakes.—R.A.S.

#### A COLT BIBLIOGRAPHY

#### By G. M. Lord (G. M. Lord, 10419 Spruce Street, Bothell, Wash., 1966, \$3.00)

This extensive bibliography on Colt Firearms covers articles appearing in such diverse magazines as GUNS and Time. It lists dozens of books which deal only with the Colt and dozens more which contain only minor references to Colt arms. Covered here are articles for the most recondite of collectors, and beside them are articles for the beginning Colt collector. This bibliography is not limited, as well it might be, to the SAA, but covers the entire range of books and articles on Sam Colt and his guns. Needless to say, this is an important addition to the wealth of Colt material.—E.P.

#### OUTDOOR PHOTOGRAPHY

By Erwin Bauer

(Harper & Row, Inc., New York, N.Y., 1965. Paper ed. \$1.50, cloth \$3.95)

Erwin A. Bauer is a professional outdoor writer and photographer and in this book he gives you a chance to look behind the scenes—he tells you how to take the most effective pictures, the tricks that are used, why pictures turn out poorly, and what equipment he uses and how he lugs it around. If you want to improve the quality of your photographs, get this book—it's much better to learn the tricks of the trade at home from an expert than to try for professional effects in the field without knowing what you are trying to accomplish. —R.A.S.

# SMALL ARMS OF THE MOUNTED POLICE

By R. Phillips and S. J. Kirby (Museum Restoration Service, Box 2037S, Station D, Ottawa, Ont., Canada, 1965. \$1.50)

This 32-page booklet offers a great deal of information about the Mounted Police that has, up to now, not been widely known. The authors trace the development and the growth of the Mounted Police with special emphasis on the guns and the sources of the guns issued to the men in the field. This volume is extremely valuable since the guns of the N.W.M.P. and the R.C.M.P. have, up to now, been little known and efforts to trace the arms issued to this Canadian police force have almost invariably been doomed to failure. Illustrations, so important in a hook of this kind, are excellent and gun information is detailed and complete .--R.A.S.

#### INTRODUCTION TO MODERN GUNSMITHING

By Harold E. MacFarland (Stackpole Books, 1965, \$6.95)

This is even more than a working textbook for home-workshop craftsman; it is a handy reference guide also for the professional gunsmith, complete with pictures, drawings, and tips from a master of that profession. But it also has values for the gun

(Continued on page 78)





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#### A TREATISE OF ARTILLERY

By John Muller

(Museum Restoration Service, Box 2037S, Station D, Ottawa, Ont., Canada, 1965. \$17.50)

Muller's work has long been a collector's item, and this limited edition reprint will make it possible for 850 historians and collectors to acquire a copy of this classic. The publisher went all out in this reproduction and the reprint of the book was sponsored by the Company of Military Historians. Add to this the preface by Harold L. Peterson, and you have an unbeatable combination. If artillery is your interest, then don't miss this opportunity of obtaining a copy of Muller's classic.—R.A.S.

#### REMINGTON HISTORICAL TREASURY OF AMERICAN GUNS

By Harold L. Peterson (Grosset & Dunlap, 1966. Paper, \$1.00; Hardbound, \$4.95)

A readable, enthralling history, replete with pictures, of Remington's hundred-andfifty-year contribution to firearms development and to the growth of this nation. Paper-bound or in boards, a little more than "pocket" book size, with 160 pages and several times that number of pictures, this is just about the biggest gun book yet for the money, and a "must" for every gun library.—E.B.M.

#### AN INTRODUCTION TO BRITISH ARTILLERY IN NORTH AMERICA

By S. James Gooding

(Museum Restoration Service, Box 2037S, Station D, Ottawa, Ont., Canada, 1965. \$1.50)

Here is something for the lover of the cannon—complete descriptions with photographs and drawings, plus a detailed text on the British artillery of the last half of the 18th and the first half of the 19th centuries. Although the author does not lay claim to completeness, the booklet does a creditable job in providing information that is not readily available.—R.A.S.

#### **BOOKLETS:**

BAUSCH & LOMB, INC., Rochester 2, N.Y., offers a revised and updated booklet, called "Facts About Telescopic Sights," for only one dollar. This handy little volume contains a wealth of information about telescopic sights, some of it somewhat technical, all of it helpful and important.

WINCHESTER-WESTERN, offers for only 25 cents and at all of the Winchester Franchised Public Shooting Centers a handy and valuable booklet called "The Fundamentals of Claybird Shooting." Exceptionally well done and amply illustrated with line drawings, this slim volume covers trap and skeet basics and some facts which are really not basics and which many shooters would do well to review every so often.

MINUTIAE MEXICANA, S.A. de C.V., Av. Alvaro Obregon 286, Mexico 7, D.F., now has "A Guide to Mexican Animals." Well illustrated and written, this slim volume should prove helpful to any hunter bound for Mexico. Cost is only \$1.60 U.S. currency.

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#### CALIBERS

22 Rim LR - L - S 22 WMR 22 Jet Center Fire 22 Hornet **38 Special** 

121/2" with 83/4" barrel. Weight 43 oz. approx. Priced at \$135 - one caliber.