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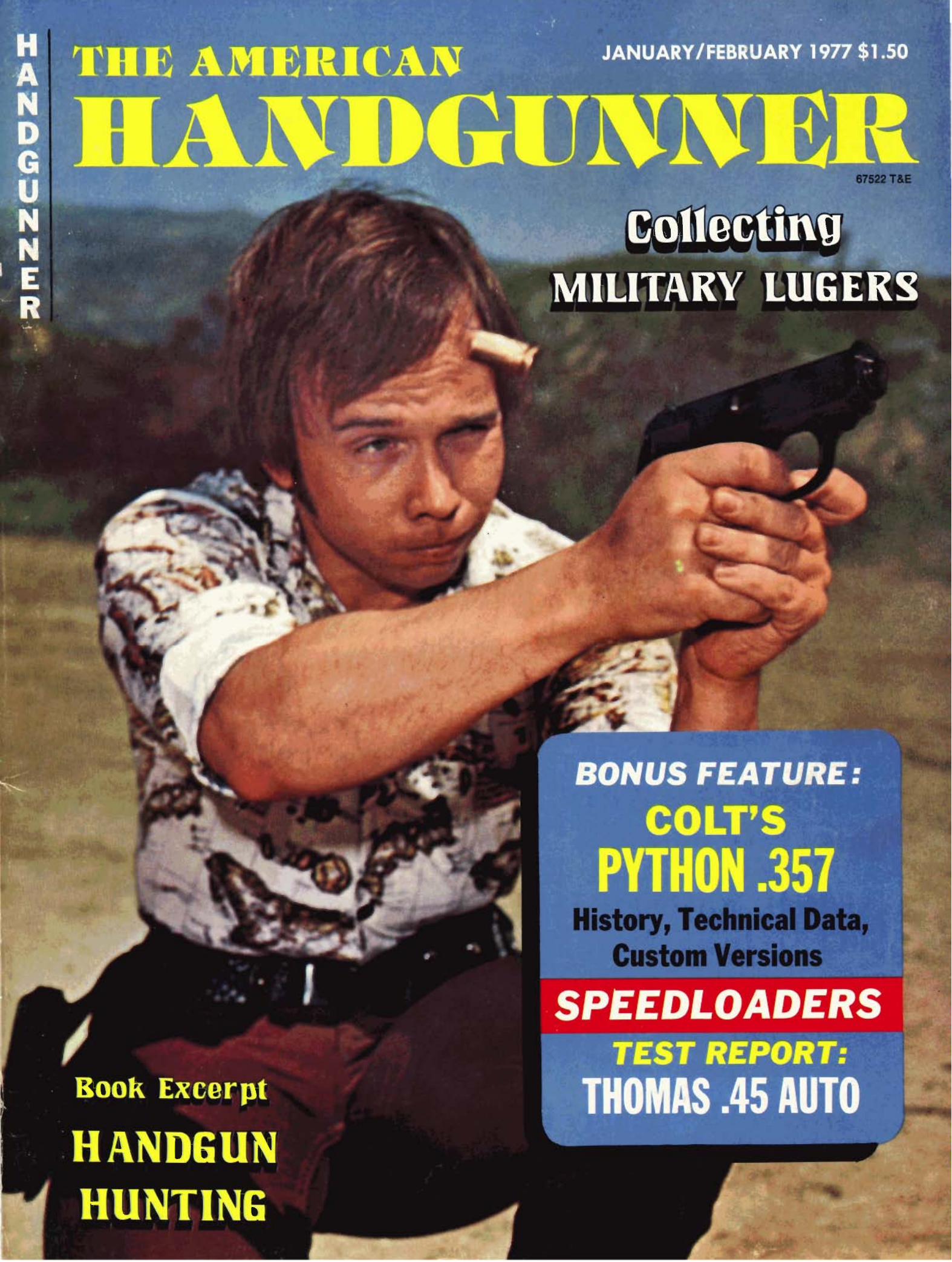

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THE AMERICAN
HANDGUNNER

JANUARY/FEBRUARY, 1977
Vol. 2 No. 1-7

George E. von Rosen
Publisher

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HANDGUN PROFILE BONUS SECTION: THE COLT PYTHON BY MASSAD AYOOB

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WEST COAST ADV. REP.: Jess M. Laughlin Co., 711 S. Vermont Ave., Los Angeles, Ca. 90005 (213) 383-7697.
EAST COAST ADV. REPS.: BUCHMAYR ASSOCIATES, DARIEN, CONN. 06820 (203) 655-1639

THE AMERICAN HANDGUNNER is published bi-monthly by Publishers' Development Corp. 8150 N. Central Park Avenue, Skokie, Illinois 60076. Application to mail at second class postage rates is pending at Skokie, Ill. 60076 and at additional entry office. SUBSCRIPTIONS: One year (6 issues) $7.50. Single monthly copies $1.50. CHANGE OF ADDRESSES: Four weeks' notice required on all changes. Send old address as well as new. CONTRIBUTORS submitting manuscripts, photographs or drawings do so at their own risk. Material cannot be returned unless accompanied by sufficient postage. PAYMENT will be made at rates current at time of publication and will cover reproduction in any or all AMERICAN HANDGUNNER Magazine editions. ADVERTISING RATES furnished on request. Title to this publication passes to subscriber only on delivery to his address.

FEEDBACK:

The response to the first issue of The American Handgunner was tremendous! In addition to the comments below, excerpted from only a few of the letters received, almost all who wrote in offered suggestions on the types of articles they want to see in future issues. Many thanks to all who wrote, and keep the suggestions, criticisms and ideas coming — Ed.

I'm just about finished with the first issue of your new title, and I like it — a lot. I liked what Massad Ayoob said about stainless Smith .357's jamming; I liked the full coverage of the P-38, and I'm going to file Nonte's .45 conversion piece as I plan to convert a S&W .455 as soon as funds become available. This beats the hell out of the annual handgun issue of another title.
Jim Williamson
Dallas, Texas

I just wanted to let you know that I thouroughly enjoyed the first issue of The American Handgunner and that I'm looking forward to receiving the following issues.
Jay Brown
Trenton, N.J.

I must compliment you on your (first) issue of The American Handgunner. It is about time a magazine has been printed that centers on the handgun and its accessories. The American Handgunner should very easily live up to the reputation of its sister publication, GUNS Magazine.
Donald Crawley

I would like to compliment you and your staff for a fine first edition of The American Handgunner. I feel that if you maintain this beginning and improve on it, you will have a "2700" magazine.
W. E. Meachum
Odessa, Texas

I have just read your new magazine . . . It is great! I enjoyed all the stories. Read Handgunning Leather and just ordered a Bianchi holster for my S&W Model 28, my first .357 Magnum.
Richard Trullinger
Valley, Nebraska

Just completed a perusal of the first issue of The American Handgunner and think the magazine will be received by handgunners in general. We (American Big Game Handgunners Assoc.) thank you for mentioning our association and also for the announcement regarding MMC's metallic handgun silhouette matches. Overall, the first issue is good. The only article of questionable value was ".357 Magnum Bullet Tests." In spite of that shortcoming your magazine has been long overdue in coming and we hope you can bring to its readers attention the fact that they must get involved and become active in this fight against the anti's.
George Bredsten
ABGHA
Wrangell, Alaska

A few days ago I came across the first issue of The American Handgunner. This has got to be an "Instant Success."
Edward Real
Rome, N.Y.

Looks as if you've got a winner! The American Handgunner is what the scene called for. All I can say is "What took you so long?"
W. E. Sabo
Valparaiso, Ind.

I have just finished reading your first edition of The American Handgunner and I am convinced that I didn't waste my $7.50. It's about time someone took up for the positive side of the handgun issue. The handgun is definitely a legitimate sporting arm in its own right.
John Roberts
Fredonia, Texas

Setting it Straight

In John Warren Giles' article entitled "Guns and the Law" (*The American Handgunner*, Vol. 1, No. 1, p. 66, Sept.-Oct., 1976), there is a misstatement as to the common law on carrying weapons. Contrary to what Mr. Giles writes, the offense of carrying weapons at common law had nothing to do with *carrying* these arms concealed. The common law offense of carrying weapons involved the *intent* of the person carrying the weapons "to terrorize the King's subjects."(*) In the absence of such an evil intent, there simply was absolutely no offense committed.(**) In short, the common law allowed a person to carry a pistol, so long as he carried it in a manner that was not "calculated to produce terror and alarm."(***)

David I. Caplan, PH.D.

(*) *Sir John Knight's Case*, 87 Eng. Rep. 75, 76 (1686)
(**) *King* v. *Smith*, 2 Irish Rep. 190, 191 (1914)
(***) *King* v. *Dewhurst*, 1 State Trials, New Series 529, 602 (Lancaster, England, 1820).
See also: *Town of Lester* v. *Trail*, 85 W.Va. 386, 101 S.E. 732, 733 (1920): "It was not a violation of the common law to carry a pistol about one's person."
See also: *Judy* v. *Lashley*, 50 W.Va. 628, 41 S.E. 197,200 (1902): "So remote from a breach is the carrying of weapons, that at common law it was not an indictable offense, nor any offense at all. 5 Am & Eng Enc Law (2d Ed.) 729."

GUNS and THE LAW

Reprinted from the Minnesota Police Journal, August, 1976 issue.

By GORDON N. JOHNSON
Deputy Chief of Police, Minneapolis

Concern for appropriate firearms legislation in this country is often misdirected, and for reasons of importance to all citizens. I'll briefly discuss what I think are the right and wrong approaches.

I tend to view this issue from a civil libertarian standpoint. We've been highly sensitized to civil libertarian concerns in arrests, in protest demonstrations, suspect searches, confessions, and the like. For all the talk about civil liberties, gun laws tend to be a civil libertarian blind spot.

The most obvious misuse of firearms is in crime, although the percentage of firearms so used is very small. Concerning handguns, a comparison of ownership estimates made by the Eisenhower Commission with handgun crimes reported in the F.B.I.'s annual Uniform Crime Reports typically show that only a fraction of 1% of handguns are used in crime. Common sense thus dictates that our laws should be directed toward the criminal use of firearms rather than to restrict the overwhelmingly legitimate use by the citizenry.

For realistic enforcement, we must recognize that laws perceived (or misperceived) as violating the rights of tens of millions of firearms owners may well be popularly nullified in much the same manner as prohibition was nullified. The government cannot legislate out of existence that which a substantial number of citizens believe to be among their rights.

THE CENTRAL PROBLEM

All police are concerned with the armed criminal. An armed criminal is an incipient killer and must be dealt with accordingly. A substantial mandatory and consecutive sentence, without parole, should be imposed upon criminals who are convicted of violent felonies involving firearms or other weapons. The mandatory sentence would serve as a deterrent to some types of criminals who might otherwise carry weapons and would allow the much needed time to rehabilitate the criminal while at the same time protecting society from him.

A Minneapolis Tribune editorial recently declared that mandatory sentences were useless because they are imposed only after the crime and have no preventive value. How could such a font of wisdom as the Tribune editorial department overlook recidivists? The mandatory sentence prevents crimes by recidivists. Keep in mind that from 1963 through 1973, 59% of 1,207 persons involved in killings of Police Officers had been convicted on a prior criminal charge. If those "gun control" proponents who so glibly beg the question about "saving one life" would help pass substantial mandatory sentencing laws, more than one life would be saved.

TYPES OF LAWS

With tens of thousands of firearms laws already on the books, the country does not need a flood of new laws. Present federal regulation of dealer sales is adequate. The record-keeping requirements allow us to trace firearms from manufacturers down to the owner or owners without registration, i.e., the recording of information on the owner and his firearms in a central governmental source. I haven't seen any evidence to justify the national administration's attempt to put most dealers out of business.

Licensing of all firearms owners or requiring special permits to purchase firearms would be a waste of time and resources better allocated in starting at the right end of the problem with judicious discovery and treatment of the mentally deranged and drug addicts and alcoholics, all of whom are a potential danger to society, even without regard to firearms. Those of you who have had your time wasted by the new state handgun law will have a lot more time wasted if the proposed permit to purchase a handgun is added to the license to carry.

I support a license to carry a firearm upon the person in a municipality, but

laws of this type should not be directed toward raising barriers against the legitimate carrying of firearms. The law should give minimal supervision over the carrying of firearms and afford the opportunity to arrest criminals who could not pass the qualifications, saving Law Enforcement officials and prosecutors the embarrassing problem of dealing with illegally-armed citizens who break up robberies, or foil assaults, for example.

There should be a minimum safety test and a background check for the specific legal disability of felony convictions or adjudication as a mental incompetent, drug addict, or alcoholic. These conditions met, the license should be granted. If all the information cited is not available in a computer bank, the police should be required to check only for criminal record. Requiring a check of many types of information but not providing the means wastes the time of departments that do the laborious research and incurs legal liability to those that do not. The new state handgun law has made all of you familiar with this dilemma.

A license to carry a firearm should involve a minimal safety test in addition to a check for the specific disabilities mentioned. As long as the test is minimal, no liability is incurred any more than in the administration of a driving test, but let's not get placed in the position of certifying that someone can handle a firearm safely. There's nothing wrong with using the DNR firearms safety course certificates as evidence of minimal safety training—except that adults cannot take the courses! The legislators overlooked that little detail in passing the new law. A change in the firearms training law, however, should easily remedy the situation.

DISCRETIONARY POWER

I cannot support a permit system in which most citizens cannot qualify because of subjective discretion as to occupational need, personal safety hazard, or character as assessed by the issuing authority. This kind of discrimination in civil rights matters is unconstitutional and should be ruled such, when any of the usual sufferers ever find the money to appeal a case, or a group of attorneys who specialize in civil rights violations decides to handle such a case.

The great variability in discretionary power has been shown by a substantial study recently completed by The Committee for Effective Crime Control, a pro-gun group. Questionnaires were sent to the chiefs of the 52 largest departments and to all sheriffs to determine how the new state handgun law functioned in its first six months. Only one official failed to reply. Chiefs rejected 39% of applications for failure to prove need, while sheriffs rejected only 10.8% for the same reason. Chiefs also restricted 63.5% of permits, while sheriffs restricted only 32.2%. The wide disparity is most likely due to the attitude of the issuing officers, not to a difference in need or in the requirement of a restricted as opposed to a general permit. City residents presumably have as great (or greater) need for protection as rural folks. Furthermore, some cities and counties' have not granted a single permit to carry.

HANDGUNS

Handguns are today being subjected to special vilification. A few basics about handguns and their use should be kept in mind. Before playing devil's advocate, however, I'll add the caveats that I have never urged any citizen to possess or carry a handgun or any other firearm and I firmly believe that anyone who owns a firearm should know exactly how and when to use it legally, safely, accurately and prudently. I also feel we Police Officers have no business discouraging gun ownership.

Handguns differ from other firearms not by function but by mobility. They do not have purpose, unless one believes in amimism. Very often a handgun is the only practical firearm for self-defense. A long gun is awkward to store and cannot be cleared for action as quickly as a handgun. Those who keep handguns for self-defense tend to view them not as threatening instruments but as precautionary devices akin to fire extinguishers; there if needed, but hopefully not, objects of psychological assurance if nothing else. The handgun is an equalizer against the criminal, and the right to use a handgun is often the right to life itself. Contrary to apparent popular belief, however, most cases in which handguns are used in self-defense do not involve killing or bodily injury.

Often the sight of a handgun is all the "action" needed to nip in the bud an attempted assault or criminal violation.

Opponents of handgun ownership assume the defender is always the loser in an encounter, as is always shown on television. Although there has never been a scholarly, broadrange study done on handguns actively used in self-defense, it does not appear valid. But even if it should be, who has the right to say a citizen may not defend himself or herself?

Police forces were never designed to provide general personal security; that reliance has of necessity rested with the people. Who provides protection in the ninety seconds before the squad car arrives? It would be an ultimate madness of the bleeding heart to disarm the public for the peace of mind of the criminal.

POLICE WOULD BE BLAMED

I'm quite concerned that the police may end up taking the rap for misguided totalitarian zeal. I'm worried that if we're forced to act like the Gestapo, we'll get an appropriate reception.

I'd rather fight crime than try to take the firearms from 40,000,000 Americans who believe they have a 350-year old right to have them.

THE "GUN LOBBY"

When the proponents of repressive legislation fail, they invariably ignore the faults of the legislation and project blame upon the "gun lobby," particularly the National Rifle Association. Without commenting about public ignorance of the stand of the NRA, let me say that the pro-"gun control" people badly misapprehend their opponents.

An active 5% of gun owners (not including myself) belong to the NRA, but the majority also opposes repressive legislation, and on essentially a civil rights basis. It should be evident that the basic freedoms of speech, press, religion, and the right to have and use arms are probably the most fiercely defended civil and constitutional rights.

". . . I'd rather fight crime than try to take the firearms from 40,000,000 honest Americans . . ."

RECOMMENDATIONS

1. Peace Officers must become active in making their opinions known to legislators or they will end up with both the busywork and public resentment involved in enforcing repressive legislation.

2. The new state handgun law is a crude and ill-considered piece of legislation badly in need of major repairs. Every Peace Officer should read the catalog of woes from respondents in the survey done by The Committee for Effective Crime Control. Copies of the report are free. Write to Survey Report, 1538 Circle Lane, Burnsville, Minnesota 55337.

3. Determinate sentencing is an idea whose time has once again come, but a careful watch must be kept for amendments negating the benefits.

4. The legislature may make an attempt to force a police check on every handgun buyer. If you liked checking permit applicants, you'll love having your load multiplied many times.

5. The legislature will make an attempt to restrict police use of firearms against criminals. Though you probably won't have to file an environmental impact statement first, you'll find that an unwatched legislature can produce many unwelcome surprises.

THE PISTOLSMITH

By GEORGE C. NONTE

NO-NONSENSE COMBAT SAFETY

As pistolero Bill Jordan once told me, "George, the best place for your gun when you're expecting trouble is in your hand." Bill went on to say that inasmuch as this ideal state could seldom be obtained, the next best thing was to have the gun as accessible as possible and as near ready to shoot as possible.

We won't get into accessibility here, but many of those who carry big-bore autoloader such as the Colt GM, Star, Llama, Browning HP, and the like, often find themselves in a quandry as to the state of readiness in which the big gun can be carried with adequate safety.

Numerous opinions have been voiced, but when it is all said and done, Jeff Cooper's classification of "Condition 1; round chambered, hammer cocked, safety engaged: Condition 2; round chambered, hammer down *all* the way: Condition 3; chamber *empty*, hammer down," puts it succinctly and in descending order of readiness.

You'll note that nowhere in Jeff's classifications is the hammer listed at "half-cock" over a chambered cartridge; this is a potentially dangerous condition, for the so-called half-cock notch is *not* intended to function as a carrying safety, but is instead an intercept device to prevent firing if the hammer slips during cocking or becomes inadvertently disengaged from the sear.

In any event, "cocked and locked" represents the ultimate readiness with a big-bore, single-action, exposed-hammer autoloader; though some carriers insist they can cock the hammer on the draw from Condition 2 as quickly as they can disengage the manual safety, the fact remains that cocking does require movement not associated with getting the gun properly in your hand, a problem which does not exist if the safety is disengaged during the draw. The only trouble with "cocked and locked" is simply that the thumbpiece on most manual safeties is a bit too small in area and a bit too far to the rear for maximum ease of operation. Size wouldn't present any great problem if the thumb piece were farther forward where it would offer greater mechanical advantage for disengagement and also fall more nearly under the ball of the thumb as the gun is grasped. All this is corrected by what has become known as the "combat safety."

A combat safety is simply the original safety with its thumbpiece extended forward and usually enlarged in area. Such safeties are readily available from several custom pistolsmiths, either as new-manufacture or as a modification, at prices ranging upward from about $20. If you've got money to burn, be my guest — order one from Swenson or Custom Gun Shop, etc., install it yourself, and enjoy. On the other hand, if you nurse nickels like I do (good Scotch costs money), you can save that double sawbuck by modifying your gun's existing safety in two or three hours some quiet evening. All you need for the job is an assortment of files, a small piece of 1/16-inch or thicker scrap steel, assorted grits of abrasive cloth or paper, silver solder and flux, a propane torch, such as the Bernz-O-Matic, and maybe a hacksaw.

Start by removing the safety from your gun and laying out the tools. Clamp the safety in a vise, taking care not to bend any protrusions or its shaft, and begin filing the thumbpiece and body, creating a seat for the extension. Give some thought to this, for it offers you the opportunity of raising or lowering the new thumbpiece; simply by angling the seat up or down at the front, you can change the position of the new piece. When the seat is *almost* but not quite finished, get your piece of scrap steel and file it roughly to shape so that it will fit snugly into the seat you're forming. Then, file it to roughly an elongated, teardrop shape, extending 1/2-inch to 5/8-inch forward of the original thumbpiece. Better to make it too long than too short, because you can always trim it back later. If there is any doubt, simply epoxy the rough part into its seat, reinstall the safety on the gun, and see how it feels. In fact, this is a good idea anyway — it will enable you to determine more accurately the angle and shape, as well as length, that will best suit your hand.

Complete filing the seat and file clean all areas of the extension that it will contact. For a more perfect solder joint, use layout blue or something similar to carefully spot the two parts together. The closer the fit, the stronger the assembly will be, and the less solder that will show in the finished product. The latter is especially important if you want a blued finish.

When this is all done, you might want to again epoxy the extension to the safety, assemble it to the gun, and check it out. If so, take special care to insure that you have scraped *all* of the epoxy residue off the mating surfaces after breaking the bond by applying heat.

To obtain a close, tight, solder joint,

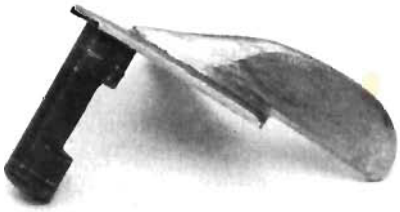
some pressure must be applied to hold the extension snugly against the safety. Their irregular shapes preclude the use of the usual clamps, so position the safety in a vise or some sort of holding fixture (vise-grip pliers will do) and then bend about 2 inches of the end of an 18-inch rod or strip of some metal as shown and file the end to a point. Attach a crossbar of some sort or a large C-clamp to the unbent end of the rod to give it more weight and to hold it upright.

Now, carefully position the extension in its seat on the safety and lower the point of your bent bar into the extension to hold it in place. You may have to do a bit of juggling and perhaps pile a bag or two of shot over the end of the bar to hold it securely in position and to apply pressure to the extension. Do whatever is necessary to insure that the bar will hold the extension snugly in its seat.

With that all checked out, apply a thin but uniform coat of fusion, silver-solder paste to all the joint surfaces, put the extension back in place, and hold it there with the bar.

Fire up your propane torch, adjust it for the hottest flame, and apply the hottest part of that flame to the top of the extension. Keep the flame on the extension rather than the safety body to minimize alteration of original, safety heat-treat-

ment. Apply heat *only* until you see the solder liquify completely and flow into all of the joint surface. If the extension should shift at all as the solder liquifies — and sometimes it will — have a pointed scribe (an ice pick is a good substitute) handy, and use its point to press the extension firmly into position. In any event, remove heat as quickly as possible, and as soon as the solder can be seen to solidify, pluck the assembly from the vise and drop it into a can of light oil. This oil quench has the effect of compensating for



damage to the original heat treatment.

Wash off the oil and remove scale with steel wool or a wire brush, then scrape away any excess solder. Actually, the solder will probably be removed in final shaping of the extension, so don't worry too much about it at this time.

With assorted files, clean up the extension, radius its edges, and give it a gentle, front-to-rear curve on top. Assemble the safety to the gun, and you'll *probably* find that the extension bumps into the underside of the slide so that it cannot be rotated far enough to properly engage the safety. That's normal; simply file off the inner edge until it barely clears the slide and permits full, upward rotation. File a generous bevel on the upper, inner edge of the extension so that in the event it gets pushed in, it will cam over the edge of the slide instead of being stopped solidly.

Next, if you install the grip, you'll find that it blocks downward movement of the modified safety. With a sharp knife, carving tools, or a rotary file in a handgrinder, such as the Dremel Moto-Tool, clear away just barely enough wood to allow full safety travel. On some guns, particularly the Star when a long extension is fitted, the upper grip screw may interfere with safety movement. Shortening the screw and sinking it deeper into the grip may solve this problem, but it still may be necessary to relieve part of the extension to pass over the screw head. After all, a combat safety is of no value whatever if it cannot be freely and *quickly* disengaged as the gun is drawn. Particular care must be taken to insure that nothing whatever interferes with full safety travel.

After you've made certain the safety functions correctly on the gun, finish filing the extended thumbpiece to the shape and dimensions that suit you best. The most common mistake I've seen in this area is to make the extension too wide. I see little excuse for it being any wider than the original, and if it is made as wide as some I've seen, it will interfere with easy reaching and manipulation of the slide stop in rush reloading.

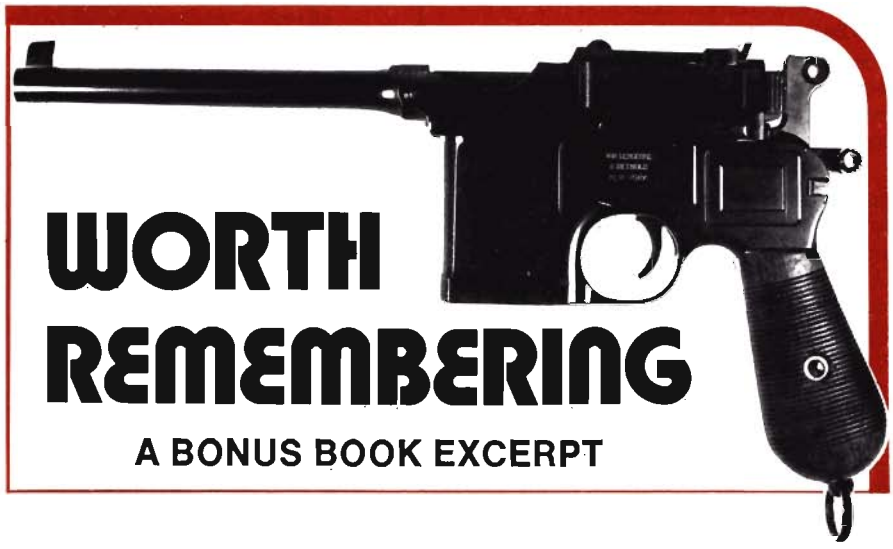
With the final shape and dimensions established, polish everything at least as smooth as the rest of the gun with successively finer grits of abrasive cloth. Aluminum-oxide cloth works best and 400-grit is usually as fine as you'll need. In final shaping and polishing, avoid sharp edges that might wear or cut a holster or clothing, or even your thumb.

When everything is polished to suit, roughen the upper surface of the thumbpiece by whatever method you prefer. Stippling is easy and entirely satisfactory, but I normally cut parallel, longitudinal

serrations with a needle file or a 64-line, metal-checkering file (available from Brownells).

Finish the job with a good, touch-up blue or Birchwood-Casey's latest bluing kit. Of course, if your gun is plated bright, you'll probably have to send the safety out for a matching refinish. You might, though, own — or have a friend, who owns — one of those economical, brush-plating kits. If so, by all means use it. The resulting finish might not exactly match the rest of the gun, but it beats sending the safety away for a couple weeks for a plating job.

Once all that's done, the safety could be installed and used normally. However, you might improve its action by carefully polishing the detent notches and any other surfaces that can generate excessive friction. Just make certain you don't destroy its safetying action or polish the detent so much that it does not stay positively in either of its two necessary positions. Unless it's unusually rough, you're probably better off just to assemble it to the gun with molybdenum disulphide lubricant; the lube alone will probably produce a substantially smoother movement.



WORTH REMEMBERING

A BONUS BOOK EXCERPT

Editor's Note

Just as surely as *The American Handgunner* had to happen, so did a comprehensive book on handgun hunting. This excerpt is from the book *"Handgun Hunting"* by Major George C. Nonte and Lee E. Jurras. Available from Winchester Press, 205 E. 42nd St., New York 10017. The price is $8.95 plus 35¢ postage and handling.

After this chapter, and several others on the general topic of handgun hunting, the authors get into the selection of a hunting handgun, ammunition, handloading, customizing and hunting techniques. This book gives the reader everything he needs to get started in handgun hunting, including a couple of articles on hunts that will have you seeking out guides or outfitters.—J. R.

WHY HUNT WITH HANDGUNS?

"Why under the sun would anyone want to go out and hunt a deer or a bear with a revolver or automatic?"

"You must be out of your mind. Nobody can count on killing winter meat with a sixgun."

"You're gonna do *what* in Africa? Better pay up your insurance before you go messin' after a lion with that puny sixgun . . ."

Those are just a few of the typical reactions I've heard after mentioning casually that I had done, or was planning to do, a particular type of hunting with a handgun. And those remarks didn't always come from non-hunters or from people who knew nothing about handguns. They came from ardent hunters and shooters, including some who make their living with handguns. Many a policeman who accepts the idea of using a piddling little .38 Special revolver to defend his own or other lives against dangerous criminals will shudder at the notion of coming along into the swamps with that same revolver to help kill a wild hog for a barbecue. Conventional rifle and scattergun hunters have heard and read so much about the difficulties and supposed ineffectiveness of handgunning that it is almost impossible for them to visualize a sixgun or auto as a practical hunting instrument for anything bigger than a field mouse. And so they ask, "Why?"

"Sportsmanship" is a much overworked word, but I can't think of any word that describes one aspect of handgun hunting more accurately. When we think of sportsmanship, we think of achieving a particular goal by fair means within a framework of legal and moral rules and in such a manner as to give us a personal sense of satisfaction and accomplishment, along with the pleasure of knowing we are developing a skill to a high degree. Sportsmanship is playing a game to win, developing and sharpening our skills and abilities toward that end. And the demonstrable fact that a handgun *is* a most inefficient hunting arm and a difficult one to use makes it that much more sporting if used safely and with regard for the game. A good hunter holds his fire if he doesn't think he can make a clean kill, which means that a good handgun hunter holds his fire even more often than a conscientious rifle hunter. In short, the more difficult the accomplishment, the more "sporting" we consider it to be. There are those who hunt squirrels and rabbits only with .22 rifles, sneering at others who go after the same game with shotguns—insisting that the rifle with its single projectile is more sporting than a basket-size spread of pellets hurled in the general direction of the target. The shotgunner's answer is that his method is just as sporting because he shoots at moving targets. True! He could probably save ammunition while putting more squirrels in the pot if he restricted himself to stationary targets, but that would be too easy, not challenging enough, not "sporting" enough. The sporting content of a particular endeavor is generally conceded to connect directly with the difficulty of accomplishment. And if you think hunting with a handgun is not more difficult than with rifles and shotguns, then, friend, you just haven't tried it yet.

Let's take a look at the relative difficulty of handgun hunting. Where small game is concerned, let's compare the handgun with the shotgun most commonly used on rabbits and squirrels. A typical setup will be with the hunter moving slowly in a known game area, gun loaded and at the ready, eyes and ears alert for a target. Suddenly, out of the brush at his feet or out of a leafy clump up in a tree, a furry animal bursts from cover and attempts to escape at full speed. In the very short time the quarry remains in sight, the hunter quickly unsafeties his scattergun, swings on target, and pulls the trigger—and a charge of shot 18 or 20 inches (or more, depending on range) in diameter and containing a couple hundred or more pellets is hurled at the animal. So long as the gun is aligned well enough on target for any portion of that circular shot pattern to hit it, the animal will most likely be bagged. This isn't to say that shots won't be missed, for they will, but no particularly precise alignment of gun on target is required to achieve a hit. Now place a hunter armed with a handgun in the same circumstances, and let's see what he must do to avoid being skunked.

First of all, he must move much more quietly and covertly, and be much more alert. If he simply walks in until an animal is spooked, he may never be able to even fire a reasonably well-aligned shot before it disappears. He must locate his quarry *before* it attempts to flee, then freeze and avoid giving alarm; then wait and watch or stalk until the animal gives him a reasonably good chance for a killing shot. He must wait until the animal is still and presents a certain target, and then must bring his gun into alignment and squeeze off the shot without frightening his quarry. He must align the sights and squeeze the trigger to deliver the single, tiny bullet precisely to a target area less than two inches in diameter—and that is a hell of a lot more precise operation than blanketing the target with a cluster of pellets. In short, the successful use of a handgun on small game often requires a higher degree of concentration, marksmanship, observa-

tion, and woodscraft than the use of shoulder arms.

When it comes to larger game, let's say deer and black bear, we can compare the use of a handgun with the rifle. The typical rifle hunter will cruise the timber where he has reason to expect game, alert for tracks and other signs, and will eventually hope to locate his quarry in a reasonably clear area, unalarmed and offering a standing shot. He'll then get his rifle into position, aim carefully, and squeeze off the shot. His rifle and cartridge will usually be capable of placing all shots within at least a three- or four-inch group at 100 yards, and at that range the bullet's trajectory will be so flat that he needs simply hold or aim on the point he wishes to hit. In addition, the cartridge will possess at least as much energy as the old .30-30 Winchester, and most likely will be even more powerful. In short, there will be no doubt whatsoever about the bullet's ability to penetrate and kill the animal with any reasonably well-placed shot.

The handgun hunter possesses nowhere near that many advantages of accuracy, power, and flatness of trajectory. While his actions until he spots his quarry will be nearly the same as the rifle hunter's, at that point things change. First of all, the combination of hunter/gun/cartridge is probably capable of delivering no better than 10- to 12-inch groups at best at 100 yards, and with any conventional sixgun or auto, the 100-yard trajectory height will be several inches. This combination makes it essential that the hunter not shoot at 100 yards or more, but that he revert to careful stalking until he's within *certain* hitting range without alarming the animal. While a reasonably good rifle shot with a modern high-velocity rifle may take his deer wherever he sees it up to as much as 300 yards, the handgunner must close to within 50 to 75 yards at the outside, and closer is even better. Any woodsman will tell you that the closer you get to an animal the more likely you are to alarm it by your scent, sound or sight. If the wind is right and there is even a little concealment, a rifleman can sit back at 300 yards, smoke a cigarette and eat his lunch without alarming a feeding deer. That means he has plenty of time to get into a good solid position and take the deer with little effort other than the concentration of the shot. But if you are a handgunner, you must begin a slow and laborious stalk that might take hours, and you run a high risk that by the time you get close enough for a sure shot, the animal will move on or become alarmed and take off, leaving you with nothing to show for your efforts but bruised knees and sweat.

To top it off, the handgun is far less powerful than the rifle, and unless the shot is very precisely placed you stand a good chance of only wounding the animal. I'm well aware that much ado is made about the power of Magnum handguns. However, in the final analysis, even the much-vaunted .44 Magnum possesses a good deal less power than the .30-30 Winchester. And it possesses less than half the power of the popular .30-06 and comparable cartridges so much in use today.

So, handgun hunting for large or small game *is* difficult, more difficult under normal conditions than taking the same game with a scattergun or high-power rifle. Handgun hunting therefore presents a greater challenge to the skill of the hunter, and it is this challenge that many sportsmen seek.

Danger, too, enters into handgun hunting of at least some species. Virtually any potentially dangerous animal can be shot at 100 yards or so with a modern rifle in a caliber suitable for the purpose—without any danger to the shooter under normal circumstances. Even if a poor shot is made and the animal charges, the time it takes it to cover the distance allows for careful follow-up shots. But with even the most powerful handguns, one must approach game much more closely, and if a poor shot is made, far less time is required for the quarry to reach the hunter in the event of a charge. The reduction in time is not all that increases the danger. The fact that even the .44 Magnum possesses so little power in comparison to modern big-game rifle cartridges makes it far more likely that any really big animal will be able to charge after the first shot. It also makes it far more likely that in the event of a charge even several follow-up shots may be insufficient to stop the animal before he reaches the hunter.

Therefore, when one takes a handgun after any potentially dangerous species—bear, boar, big cats, and some of the larger hoofed and horned species—there is a certain anticipation of danger. The *actual* danger is probably a good deal less than it looms in our mind, but danger there is, raising the hunt to a new level of adventure. Perhaps the element of danger has been exaggerated occasionally by self-glorifying writers, but even a 15-pound dik-dik has been known to kill a man with its diminutive needle-pointed horns when he didn't finish it off properly. And I've had a wounded 275-pound wild boar charge and fall so close at the last shot that I could reach out and touch his snout with my hand without moving from the spot where I fired.

Game conservation must also be considered. Pseudo-"environmentalists" have accused hunters of being ravagers of nature. *True* conservationists, those properly educated and experienced in game behavior, biology, habitat, etc., know and can prove that sport hunting has not ever seriously threatened *any* North American species. Yet the common claim of the sidewalk conservationist is that hunters "kill too much." These self-appointed critics generally believe that if hunting were completely prohibited no species would ever again become extinct (defying irrefutable historical evidence) and all wild animals would live happily ever after in an idyllic Bambi-filled woodland devoid of any hazard. Hunters are constantly under pressure to show evidence of their conservation activities. Actually, they are the most productive true conservationists in that *their money* pays for almost all worthwhile conservation efforts.

When a hunter takes to the field with a handgun, he becomes a game conserva-

tionist not only in terms of this financial support but in terms of a self-imposed restraint on his harvesting of game: That is, because he chooses to use a handgun, under identical conditions he will be able to kill less game than a rifleman. An area reporting, say, 70 percent hunter success on whitetail deer among riflemen will probably show a handgun-hunter success rate of 25 percent or less.

What we've already discussed are fairly tangible reasons why people hunt with handguns. But while they are the most obvious, there are many, many more which are not so easily identified or explained. For instance, I feel that some of handgun hunting's appeal has its roots in the legendary days of the self-reliant, woods-wise, pistol-carrying frontiersman, whose handgun was kept ready for any emergency, including Indian attack, unexpected meetings with bears, encounters with road agents, stock raids by predators, or maybe just an occasional opportunity to collect extra meat for the table.

Another intangible reason for hunting with a handgun is merely an extension of one of the basic motivations for all hunting. In distant times, man lived by hunting and gathering. To provide food, he faced the dangers of the wilderness, fought for meat, and carried it home in triumph that his family might survive. The urge to do so is still strongly present, though in these times man's traditional "hunting" for food to support his family ends at the supermarket.

This primeval—perhaps instinctive—urge to capture one's own food is surely felt by *all* hunters and fishermen alike. The young lad, such as my own, who visits the river bank daily to bring home a string of bullheads and an occasional bass is satisfying the same yearning as the wealthy attorney on a pack trip after elk in the Rockies. Even the fly-fishing purist who returns most of his catch to the water is satisfying that primeval urge. The handgun hunter is no different, except that he wants the stalking and the killing to be more difficult and more dangerous so that he can satisfy the urge more fully and feel a deeper sense of accomplishment. I, for one, would hate to see this primeval urge bred out of man. If the day comes when it disappears entirely—when men no longer sally forth to the wilds—that day will mark the beginning of man's decline.

HANDGUN INDUSTRY INSIDER

NEWS, MOVES & GUNNING GOODIES

By MASSAD F. AYOOB

GWINN FIREARMS is moving their plant from New Hampshire back to Maine, where their first Bushmasters were built. Sales are growing by leaps and bounds, inventor Mack Gwinn, Jr. reports, and so are the number of choices in the Bushmaster catalog. This unique weapon, classified as a handgun though it's really a miniature assault rifle, is now available in full-automatic version for police departments and licensed collectors. Though previously listed as available in selective fire, very few had been built, until recently. We had good luck with the several we tested at random during our factory visit; because of the "bullpup" design, there's no muzzle climb. You just point your hand toward the target, hold the trigger back, and your arm shudders a little bit while the .223 slugs chew out the center of the target. Look for an in-depth test of the Bushmaster in these pages soon.

SMITH & WESSON LEATHER has made a lot of advancements since Dan Donahue took over production management. Once comparable in quality to low-price lines, the S&W product has, in this writer's opinion, finally gotten up into the upper brackets. All pieces are vat-dyed for uniformity; before, the leather was bought pre-finished, and by the time you had your belt, cartridge carrier, and holster together, nothing quite matched. Quality of leather and workmanship looks better, too. The new model 42 Security Plus holster looks like it'll be a big winner among police; it combines conventional drawing angle with snatchproof security.

Secret is two-fold: a plastic shield secured over the back of the trigger guard, and a spring in front of the gun's topstrap. Gun has to be tilted forward to clear, and is then drawn straight up, as from an FBI-style holster. The plastic guard is attached permanently with rivets: to the eye of the uneducated, this looks like a snap-release retainer. Therefore, a suspect making a calculated gun grab attempt just breaks off his fingernails trying to unsnap it, while the officer prepares to break the turkey's wrist for his troubles.

Straight-draw design will make this more acceptable to a lot of police departments than the breakfront holsters currently in vogue. Latter are faster, maybe a shade more secure, but out-through-the-front draw is un-natural for a lot of cops who've been trained on standard holsters. Hartford, Connecticut was the first city to buy the Security Plus for all its cops, and they're raving about them. Seems they had about fifty guns bounce out of their standard Border Patrol holsters in the past year, during foot chases . . .

Still waiting on *RUGER'S* Security Six revolver in 9 mm. Parabellum. No half-moon clips necessary, as with the 1917 .45 revolvers, or the 9 mm. wheelguns that have been used in the past by the Israeli armed services. Secret is a cammed extractor star that turns sideways and engages the extractor groove as the ejector rod is pushed, thus hooking the "rimless" 9 mm. shells and dragging them out of the chambers.

The DA 9 mm. is to be available in fixed sight Speed-Six snubbies and Service-Six four inchers only, and no plans have been made for .357/9mm. convertibles as offered in the single action Blackhawk line. Blue or stainless will be optional, though.

Also from *RUGER* comes the news that, despite an announcement in the gun column of one of the big three hunting and fishing magazines, the Super Blackhawk isn't slated for production in stainless steel. Steve Vogel assures us that there's no problem with handling .44 Magnum pressures in stainless; it's just that Ruger is already over its head with advance production orders. "We hope to produce the Super in stainless eventually, though," Steve says wistfully. "I think it will be an ideal sportsman's handgun, if we can ever find time to make it." . . .

It seems that the freeze-up problem with the *SMITH & WESSON* Model 66 stainless Combat Magnum has indeed been alleviated in recent production runs. In the early guns, police departments

across the country reported some jamming, when hot .357 ammo was fired through them rapidly. Problem was in the gas ring, the built-in washer at the front of the cylinder, through which the ejector rod passes. It was binding on the cylinder yoke when the guns got hot from as little as a gunload of full-charge .357s fired fast, and would lock the cylinder up tight as a drum.

The gas ring has now been moved to the yoke, where it receives much less heat than it did as a part of the cylinder, and this seems to have solved the problem. Model 19 Combat Magnums are now being produced the same way, and a source at S&W confided to us that this had occasionally happened with the 19s as well over the years. Since S&W never published a list by serial number of the 66s that might have been affected, you may want to test your own early 66 by firing a box of full Magnums through it as fast as you can reload and pull the trigger. If it stands up to that, you've got no worries.

No sweat if your stainless S&W is .38 Special caliber; these cartridges won't generate enough pressure to cause the seize-up that occurred in the early 66's . . .

Are you one of those Colt or Ruger owners who has always looked with envy at that handsome white-outline rear sight on your buddy's Smith & Wesson? Beat your breast no more: Larry Kelly of *MAG-NA-PORT* has come to your rescue with white- or gold-outlined leaves that fit Ruger or Colt adjustable sights, sold through his subsidiary Omega Sales (PO Box 1066, Mt. Clemens, Mich. 48043) at $5.95. Larry hints that Omega will be getting into a lot more handgunning goodies. An optional post front sight or ramp with colored plastic insert, to complement his latest offering, would be a good start. The present sight blades have a sliver of black between the colored outline and the sight opening, which some shooters will find a help in rapid combat fire.

Speed, Accuracy, Power . . . You Need Them All To WIN . . .

Second Chance II

By MASSAD F. AYOOB

One of the most electrifying episodes in handgunning last year was the Second Chance Street Combat shoot in Central Lake, Michigan. GUNS Magazine readers goggled in amazement when they read the stories. It was a clean and simple match: the shooter had to raise his drawn gun on the signal and blast five bowling pins off a wooden table six yards away. The guy who did it fastest, won.

It sounded like plinking for prizes. Then most shooters read that the winning time was a shade under five seconds, they collectively gasped, "My God, what a bunch of turkeys! I could do it in three . . . or maybe two, I bet!"

When Second Chance gave shooters a second chance the first week of June, '76, I was one of the many eager comers who queued up to pay the $30 entry fee for five chances at the pins, plus the banquet, with visions of three-second times dancing in our heads. My friends on the NRA police combat match circuit had looked at me in surprise: "You're going out there to shoot at *bowling pins*?" "For six thousand dollars in prizes," I answered, "I'll shoot at little rubber duckies."

The rubber ducks would have been easier. What I and the other hopefuls who had been doing three seconds in practice hadn't counted on, was the fact that Richard Davis, inventor of Second Chance body armor and director of the match, had put in some real-life factors that changed the game considerably from what we first-timers had expected.

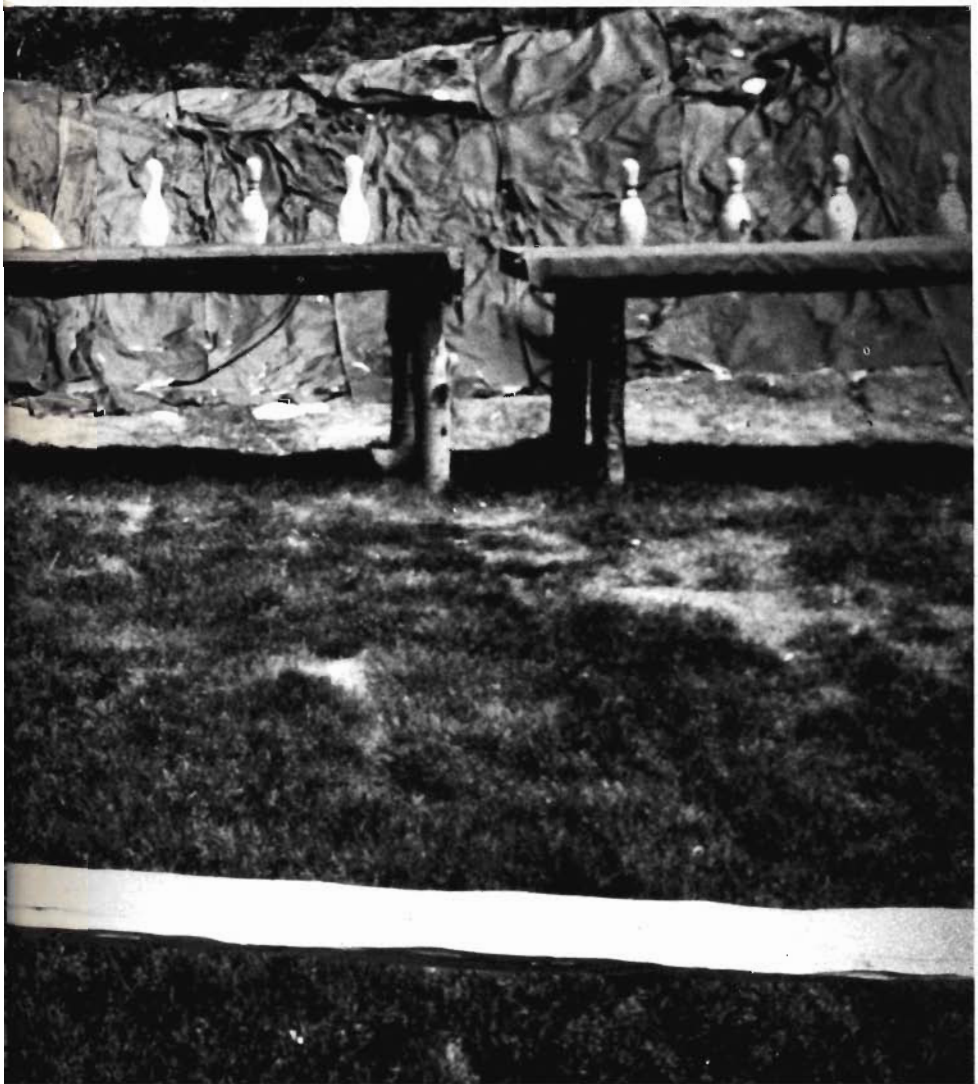
Let's backtrack a bit and tell you about Richard Davis. His flexible body armor, designed to be worn beneath the uniform, has saved 73 police officers to date from bullets, knives, and potentially fatal auto and motorcycle wrecks. That, I understand, is more than all other types and brands of "bulletproof vests" since the Dillinger days—and Second Chance has only been in business since 1972.

Davis, an enthusiastic shooter and sup-

Davis asks: "Is the shooter ready?" as he prepares to fire the blank gun as the signal to begin firing.

porter of the freedom to keep handguns for civilian self-defense, decided three years ago to create a match that would simulate real-life alley fights with guns. He could remember his own nightmare in an alley when two robbers opened up on him, hitting him once in the leg and creasing his scalp with a .25 slug. His fast response with his .22 Harrington & Richardson had saved his own life, and ultimately, the lives of 73 cops who would buy the vests he was yet to invent. It also turned two vicious stickup artists into basket cases.

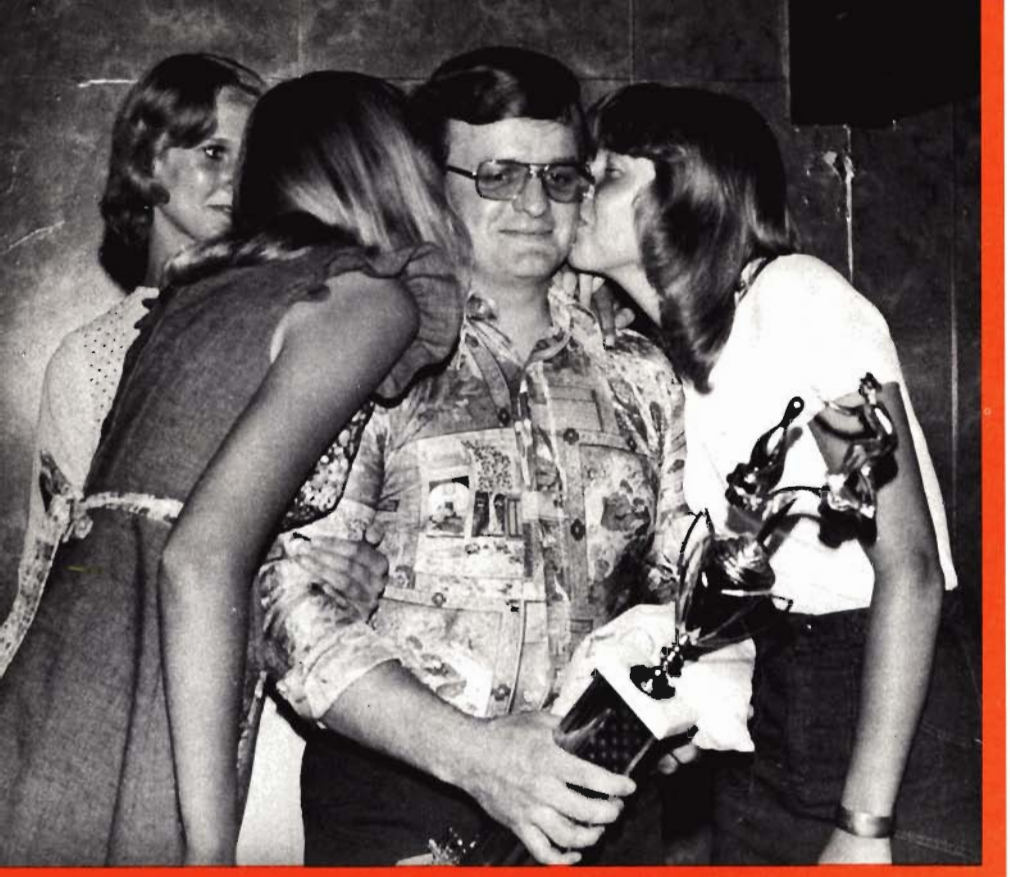
"I wanted to combine speed, accuracy, and power with elements of practicality," Davis recalls. "You had the quick-draw matches that were all speed and no accuracy. You had the standard police combat matches, which were all accuracy and no power. Later, you had the metallic silhouette handgun matches which were largely a matter of raw power. I wanted something that would combine these three important factors, while simulating a close-range, multiple target situation." Thus, the bowling pin format was born.



And it does what Davis wanted it to. The speed is there, because that's what you need to win. Accuracy is needed, because a peripheral hit won't knock the pin off the table; it'll only knock it down into a position that's probably harder to hit—much the way a peripheral hit will effect a gunman who is shooting at you for real. And finally, fight-stopping power is essential: a .357 Magnum or .45 is the minimum that will knock the pin "out of the fight," and that seems to be true in real life gunplay as well. Sometimes even a direct, hard hit won't completely neutralize the wooden target, and that too is in keeping with what can often happen.

This year, the range was 25 feet. The pins had to be blasted three full feet back-

Steve Gadzik, a police officer in Chardon, Ohio, was guest of honor. He survived two point blank .357's thanks to the "Second Chance" vest.



Ron Chiles, Sidney, Ohio police officer, reaping the rewards of his win using a full load .44 Magnum. In his hand is the trophy and $500.

ward, instead of 2¼ feet as last year. Another major change was that the fronts of the tables, and the backstop, were covered with sheets of the ballistic nylon and Kevlar that Davis uses in his vests. This had a two-fold purpose: to keep a low hit from taking the target by ricochet, and to prevent bullet bounceback from nailheads in the table, which had stung a few competitors during the '75 shoot. The protective covering worked perfectly.

The signal had been changed, too. Last year, the blank-loaded gun which started the action (on the theory that most cops don't get to shoot until they've been shot at) was clamped in a vise and pointed at the competitor for extra realism. Safety factors made Richard and his executive vice president Alex Jason nervous, however, and this year, the starter gun went off into the air or the ground behind the shooter. They used the famous Colt Trooper with the head missing off the ejector rod, the one seen in the Second Chance ads, which Davis has used in most of the estimated one hundred demonstrations in which he has shot himself while wearing his products.

Shooters begin with the gun drawn and ready, resting against the rail of the wooden fence that marks the firing line. A lot of competitors wondered why it didn't start from the leather. "There are two reasons," Davis explained. "The first, of course, is safety. These guys are going for speed, and a lot of them are nervous, and there was always the possibility of a kneecap being blown into the ground. We could have made bullet-resistant chaps or aprons for the shooters to wear, but they'd have been bulky and unsightly. The second reason is that any officer going into a danger situation will already have his gun out of the holster, anyhow."

Reaction time plays a part. Few shooters got their first rounds off within a second of the signal, and most went almost two seconds. Combat competitors are accustomed to a target shooter's "ready on the right, ready on the left, all ready on the firing line" sequence of range commands, each an even two seconds apart. At the Second Chance shoot, you're asked if you're ready, and when you nod assent, you wait an indefinite period that can seem like minutes until that signal shot finally goes off.

But the real thing that kills your fantasies of the three-second times is the nature of the targets themselves. I had cut the magic three seconds once in practice, but my pins had been set in a sandbank, and I was going on the naive assumption that a .45 hit that knocked them over into the sand would be potent enough to blow the same pins off a wooden table.

HAH! On my last string, I had five pins down in four seconds, but only one off the table. I had to go back and carefully snipe three of them off with the last three shots in my BoMar-sighted National Match .45. The last one had its head toward me, the most difficult shot because bullets tend to glance off without expending enough energy to blow the pin completely out of sight. I switched the empty .45 to my left hand, drew my backup 1911 from its Bianchi Shadow holster, and desperately threw five hardballs downrange at the recalcitrant piece of wood. It went off the table 14.5 seconds after the sequence had begun. Another half second, and I'd have "scratched" on the time limit. It was a frustrating lesson in the reality of gunplay: sometimes, no matter how much faith you have in the power of your handgun, a downed target that presents a small surface just may not agree to a one-shot stop.

"Frustration is one reason it's so enjoyable," fellow gun writer Mason Williams laughed on the first morning of the four-day match. "I was gritting my teeth here last year. I shot better this year, but I'm *still* gritting my teeth." Jeff Cooper, up from his new facility in Arizona, expressed the same sentiments. Famed for his advanced work in gunfight training, Cooper did not place in the event; he was shooting fast and well, but some of the pins just didn't want to leave the table. "In a way," said Davis, "it was gratifying that even a man of Cooper's stature, skill, and experience could have trouble over the course. But you can see the measure of the man: he got progressively faster in each try, and by his last string, was taking them off the table in a respectable eight seconds. Next year, I'm sure he'll break five seconds, and quite possibly four."

The gun writer who really shone was Mason Williams, firing a two-week-old MK IV Government Model and GI hardball ammo. Mason's first try on the first morning of the four-day event left spectators in awe: as the gun sounded, his .45 came up into the Cooper version of the Weaver stance (shooting arm straight, support arm bent), and exploded in a rhythmic cadence of five shots that not only blasted all five pins off his table but took two off the adjacent one, by virtue of a flying pin. His time, 4.975 seconds, stood up for second place and a nickeled Model 29 S&W .44 Magnum. Williams, who helped design this course with Davis, is sixty-five years old.

Two other gun writers were in attendance. Evan Marshall of "Gun World" took a solid 26th, and yours truly wound up in twelfth place with 5.8 seconds for an ounce of gold. Davis's $6,000 in cash and merchandise prizes were spread through fifty top places out of 130 shooters, a hundred more than competed the first time.

But phooey on gun-writers. Early on, Davis had predicted, "The guy who wins this match will be someone you've never heard of: a guy who doesn't compete much, but who is a terrific alley cleaner." He was right. On Saturday came the highlight of the event: Ron Chiles of the Sidney, Ohio police department racked up a

Ayoob missed the first pin; will continue his rhythm and go back for it later. Backup .45 in Bianchi Shadow rig had to be used for clean-up.

devastating 4.950 seconds—with a full-loaded .44 Magnum! Davis describes it this way: "Ron is a stocky guy, about 230 pounds and five-ten. He wore a 'Diesel Power' cap and believe me, he looks the part. Ron just wrapped himself around that 6½" Model 29 and cut loose. He was using Winchester factory ammo, and his gun wasn't even Mag-Na-Ported.

"Ron scratched his first three tries: he'd blow four off in about three seconds, but that fifth one just wouldn't go completely off the table. Everyone was watching, and you could feel the tension. His control of that gun, which no one thought could be tamed enough for this kind of shooting, was just awesome. On his fourth try, he got them all with his first five shots, just blasting them right off the table and slamming them against the backstop. His time was 4.5 seconds from the signal to the moment the last pin hit the ground. The cheers and applause were deafening!"

Deafening, and well deserved! Chiles shot double action, arms locked straight out rather than in the Weaver stance; he shot from right-to-left, as did many competitors, on the theory that a hard kicking gun moves itself to the left naturally.

Chiles' victory was a jolt to many, who didn't believe that a .44 Magnum could be fired so rapidly with such accuracy. The vast majority of shooters, including almost all who placed in the final count-up, shot 1911's. The next best time with a revolver was sixth place, taken by Pete Engblack, who used .45 ACP handloads in a worked over 1917 Smith & Wesson (5.6 seconds).

The .45 automatic does have obvious advantages. First is the eight-shot capacity, which allows you to go back and finish off any target that's down but not out. Many a wheelgunner "died" in the match when his gun ran dry with an "adversary left standing." Surprisingly few of the shooters took advantage of the rule permitting a backup gun, but those who did were grateful they had their #2 piece on. I expect to see a lot more two-gun cops on the line next year, because Richard is changing the format to include cash awards for the high average instead of high individual score. My disastrous 14.5 second string was still a skin-of-the teeth save that I can attribute to my backup piece; you can draw a second pistol faster than you can reload *any* handgun, and when you shoot as badly as I did (I never cleared the table with less than six shots) that quickly-accessible reserve firepower is comforting—yet another of the "street lessons" that Davis's shoot brings home to you graphically.

"Why second guns?" many ask. "Why not a Browning High Power or MAB or Smith 59 with 14 to 16 shots?" The only reason is that 9 mm Parabellum, no matter what the load, doesn't have the punch to do the job on the heavy pins. We witnessed several who tried. The result was pins that quivered and stood, then finally fell over and lay there on the table as bullet after 9 mm bullet drilled ineffectually through them. There are those who argue that this wouldn't compare with street performance on human targets, but I'm skeptical of that; the day before I arrived for the Michigan shoot, I had tape-recorded the reminiscences of an Illinois State Trooper who emptied his Model 39 into a gunman, who reacted not at all; after the eighth kill-zone hit, he simply swooned and dropped dead from loss of blood. The bowling pins relate more to real life than you'd think at first.

Next year is gonna be even better. Cash prizes will go to the guys with the high average, computed on their best three or four strings out of six that will be bought, along with the banquet, for a $40 entry fee. ($40 sounds exhorbitant to non-competitors, but the fact is that a lot of NRA Regional Combat Shoots end up costing about that, for nowhere near the volume and value of prizes that Davis gives).

(Continued on page 66)

A hot .41 Magnum load shatters the pin at far right. Pin at 12 o'clock is from previous string, lodged in backdrop made of bulletproof fabric.

PISTOLSMITHING AT:

NU-LINE GUNS

Components of a conventional bull-barrel/top rib installation on a Colt OP frame. Under rib not shown.

By GEORGE C. NONTE

RECENTLY, I paid a visit to a young gunsmith I hadn't seen in 15 years. I used to spend quite a bit of time in his father's shop in St. Louis, back in the days when we all spent most of our weekends at gun shows around the country, buying .45 autos for twenty bucks and trying to sell them at a five dollar profit. Roy Stevens ran pretty much of a general gunshop in those days and did a lot of trading. Anyway, he turned the shop over to his son, Jerry, who now runs it purely as a service operation.

Jerry had invited me down to Jennings, Missouri to look at some of the custom handgun work he has been doing. Basically, Jerry begins with a standard, medium-frame, Smith & Wesson or Colt .38 revolver, removes the original barrel and sets it aside. This doesn't mean it isn't practical to use it to produce the kind of gun that Jerry is aiming for. It is worth noting that Stevens feels better accuracy is obtained if a .38 Special cylinder is used. Its shorter length (than .357) reduces bullet travel in the throat, putting it into the rifling sooner.

The next step is the fitting of a one-inch diameter, straight, untapered, bull barrel. Bore and twist are special, not standard, as developed by Jerry for best results with the .38 Special cartridge. This new tube is turned from a premium-grade barrel blank rifled to Nu-Line .38 Special specifications. A barrel of this diameter interferes with the extractor rod, so a clearance cut is made on the underside, precise dimensions depending upon the particular gun model.

At this point, the barrel is ready for rib installation—and that is where Stevens' procedures differ from those of most other smiths, who do revolver bull barrel work. Stevens machines a heavy, square-section rib which is to be attached to the *underside* of the barrel.

This rib is made in three different sizes, depending upon the gun weight and balance desired by the customer. The lightest (3 ounces) and middle (5 ounces) under-ribs extend only from the front of the extractor rod to the muzzle. The heaviest version extends from frame to muzzle and a pocket is machined in the left side for the extractor rod. Its weight is 7 ounces in original form (called MK III) and 8 ounces in the latest MK IV form.

When installation is on a Smith & Wesson revolver, the original front locking plunger is fitted into an appropriate recess in the rib. The under-rib is then screwed solidly to the barrel. Lockup is checked and regulated, if necessary. Holes in the barrel are deep with plenty of threads; screws are hardened and fully countersunk. The 8x40 size, drawn up tight, are more than adequate for the job. Note that no soldering is done on the barrel as in some other heavy-barrel installations. Stevens feels localized heat reduces a barrel's accuracy potential.

Depending upon total weight and sights desired, a top rib is then machined from bar stock. The standard rear sight is a Bo-Mar Target unit and the rear of the rib is machined for its installation. A matching front sight blade is let into the muzzle end of the rib. Rib length is set so that when flush with the muzzle, the rear face of the Bo-Mar unit falls even with the rear of the top of the hammer. Since Stevens cuts the rib from bar stock (rather than using a standard piece), length, sight position, and sight radius can be varied on special order.

Barrel diameter is such that the rib, radiused on the underside to match, carries right on back, hugging the top strap closely. This avoids special machining to fit the top strap. This rib, too, is secured to the barrel with hardened, countersunk screws. If the customer wants to retain the original rear sight or doesn't want a rib, a ramp with choice of blade shape (and of proper height) is screw-attached to the barrel. Unless the original rear sight is to be used, it is better to start with the lower-cost, fixed-sight gun for the conversion. Ribs adding 3, 5, 7, or 8 ounces can be added to the bull barrel. This is a much wider weight range than offered by any other heavy-barrel conversion I have encountered. With the 8-ounce rib, top rib and bull barrel, the K-frame S&W weighs

Left to Right: Various under and top ribs on S&W Model 10, with lightest rib on left, medium rib in center and heaviest under rib on a bull barrel; latter allows infinite weight variation by paring off bottom of rib.

58-60 ounces. A Colt OP would be about 3 ounces heavier.

After barrel and rib installation, the gun is function-fired and timing is checked. Any timing, lockup, and alignment deficiencies are corrected and end-play is reduced to minimum. The result is a gun in which the individual chambers align better with the barrel than before. Cylinder throats are then reamed to a uniform .358 inch diameter.

The job is finished by a new blue finish on the new parts—after polishing, of course. The balance of the gun will be polished and reblued at this time, if the customer desires. A polished finish is standard, but Stevens is prepared to furnish any conventional type as an option.

The result of all this is a target-grade revolver with the weight increase, muzzle-heavy balance and feel that have become popular for some types of target shooting. Over the past decade, a particular form of revolver with these characteristics has evolved for police-type, competitive shooting. This is not "combat" shooting as espoused in some circles, but a purely paper-punching game which has evolved from the old PPC (Practical Police Course). This course was originally intended to prepare officers for actual, armed encounters with criminals. Today it bears little resemblance to the original concept, particularly in that guns and ammunition totally impractical for service use are required if one wishes to be competitive.

The PPC as currently employed places a premium on reduction of recoil and muzzle jump, also on reduction of muzzle flip during double-action trigger pull. Additional weight out front helps in all these areas, as long as the gun doesn't become so heavy as to be unwieldy. Simply adding weight almost anywhere tends to damp recoil through its inertial resistance to that recoil. However, upward muzzle jump, the vertical component of recoil, is most reduced by a given amount of weight when that weight is placed as far forward toward the muzzle as practical. Theoretically, placing the entire weight-increase right at the muzzle reduces jump most, but hasn't been accepted by shooters.

Placing the weight well forward also makes for better damping of double-action muzzle flip. By being farther from the pivot point, a given amount of weight acts through a longer moment and therefore has a greater inertia effect. Depending upon the load used, the full-house Stevens' conversion reduces jump as much as 60-75% from that of the factory-issue gun.

Up to now we've said nothing about the effect of any particular location of the additional weight. Traditionally, a larger (heavier) cylindrical barrel is used, centering that weight around the bore centerline. Then more weight is added in the form of a sighting rib on top of the barrel. Jerry Stevens believes that a given amount of weight will have *more* of the desirable effects, if placed so as to lower the gun's center of gravity. Since the bore centerline of a revolver lies well above the shooter's hand, the gun tends to rotate in the hand during recoil. Jerry places a portion of the added weight beneath the barrel—hence the name "under-rib"—to lower the gun's center of gravity and thus reduce this tendency for the muzzle to rotate upward.

Theoretically, if enough weight were hung far enough below the barrel, there would be no upward component of recoil, and thus no muzzle jump; recoil would move the gun straight to the rear. That isn't practical on a revolver, though it has very nearly been accomplished on .22 Short International Rapid-Fire pistols; some of them have weights hanging well below the trigger, placing them on-line with the resistance offered by the hand.

All of this is the reason why Stevens places a large portion of the weight increase beneath the barrel in the form of a square rib. It has greater jump-reducing effect there than if placed on top.

Shooting "feel" can be deceptive, particularly when attempting to identify small changes in recoil level. All too often one feels what he *wants* or *expects* to feel, rather than the actual change. Nevertheless, shooting an unmodified S&W M10—one with a bull barrel and top rib—and then one with bull barrel and the Stevens' under-rib, did seem to verify Stevens' claim of reduced jump. At the present time, Jerry is installing his complete conversion on a S&W M10 for us to perform more extensive tests in a fixture which will measure the actual reduction.

In the meantime, the idea looks fine to me. Several PPC shooters now using it are convinced that the under-rib gives them better double-action control. Anyone wishing to give the idea a try, should write to Nu-Line Guns (3527 Jennings Road, St. Louis, MO 63121) for details on prices and delivery.

While I'm not fond of the PPC course—I feel that it has been perverted to the extent that its original purpose has been entirely destroyed—this conversion appears to offer advantages over all others for this type of shooting.

Stevens has also entered the big-bore, caliber-conversion field. I don't recall having ever heard much about this type of sixgun work until I wrote an article about the conversion of my .41 caliber M58 to .45 Colt. Since then a considerable demand has developed for such work.

Stevens handles this work a bit differently than most shops. While he will install a customer-supplied barrel—new, relined, or rebored—he much prefers to rebore the barrel in his own shop. Having

made barrels in his shop for many years, he is equipped to do the job in-house. Barrels of smaller caliber can be rebored and re-rifled to .38-40, .41, .44, or .45 caliber. This is done in the accepted manner, first drilling the bore larger, then reaming the bore size, then rifling. Initial enlargement of the bore is done with a piloted drill, insuring that the new bore's relationship to the barrel exterior will not change.

The cylinder is set up in a vertical mill, and the cylinder throats are reamed to the new diameter after being carefully aligned and indexed. This reaming is done from the front of the cylinder. The cylinder is then inverted and the chambers are cut in the same manner on the milling machine, using a long-piloted reamer to insure concentricity with the new throats.

Following this, the barrel and cylinder are refitted to the frame and things like forcing cone, barrel shortening, new sights, etc., are attended to. Any discrep-

S&W Model 28 converted to .44 Special and given an Armoloy finish.

ancies in timing, alignment, or cylinder end-play are corrected, and the gun is test-fired. Naturally, any bugs that crop up are removed, and the gun is ready to go.

The most popular of such conversions at this time is the S&W M27/28 to .44 Special or .45 Colt. Incidentally, this job makes just about the nicest, big-bore six-gun one could want. All the same, Stevens will do the job on any N-frame S&W or Colt New Service. Smaller frame guns can be converted in the same fashion, within the mechanical and dimensional limits of their ability to handle larger calibers, but Stevens reports hardly any demand in this area.

Stevens also does other custom handgun work, such as long, heavy barrels on Ruger single-actions, sight installations on Colt .45 autos, and other jobs.

Such conversions may be accompanied by a double-action tuning job. This is another shop specialty, developed primarily to go with the under-ribbed PPC conversions.

Nu-Line Guns has a fairly extensive brochure which describes their work in detail and lists current prices. It's available on request.

HANDGUN LIBRARY

A selection of books of interest to handgun shooters, collectors and reloaders. Compiled from catalogs of leading booksellers.

CENTERFIRE PISTOL AND REVOLVER CARTRIDGES—H. P. White, B. D. Munhall and Ray Bearse A. S. Barnes, N.Y., 1967. $10.00

THE COMPLETE BOOK OF PRACTICAL HANDLOADING, by John Wooters, Winchester Press. N.Y. 1976. 320 pp., illus. $12.50

FIREARMS IDENTIFICATION, by Dr. J. H. Mathews, Charles C. Thomas, Springfield, Il. 1973 3 vol. set.
Vol. 1—THE LABORATORY EXAMINATION OF SMALL ARMS—400 pp. illus. $44.75
Vol. II—ORIGINAL PHOTOGRAPHS AND OTHER ILLUSTRATIONS OF HANDGUNS. 492 pp. Illus. $44.75
Vol. III—DATA ON RIFLING CHARACTERISTICS OF HANDGUNS AND RIFLES. 730 pp. Illus. $69.50

*HANDLOADERS DIGEST, 7th Ed., edited by John T. Amber, DBI, Northfield, Il. 1975. 288 pp., paper covers $7.95

THE HOME GUIDE TO CARTRIDGE CONVERSIONS, by Maj. George C. Nonte, Jr., The Gun Room Press, Highland Park, N.J. 1976. 404 pp. illus $12.95

LYMAN CAST BULLET HANDBOOK. Lyman Gunsight Corp. Middlefield, Ct. 1973. 260 pp. Illus. Paper covers $4.95

MODERN HANDLOADING by Maj. George C. Nonte. Winchester Press, N.Y. 1972. 416 pp. Illus. $10.00

THE NRA HANDLOADER'S GUIDE. Ashley Halsey, Jr., ed. Natl. Rifle Assn., Washington, D.C., 1969, 312 pp. illus. $4.95

*THE BOOK OF COLT ENGRAVING, by R. L. Wilson, Wallace Beinfeld Publ., Inc., Studio City, Cal. 1974. 422 pp. illus. $39.95

COLT COMMEMORATIVE FIREARMS, by R. L. Wilson, Robert E. P. Cherry, Geneseo, Il., Deluxe edition $10.00, paper covers $5.00.

COLT FIREARMS from 1836, by James E. Serven. New 7th ed. Foundation Press, La Habra, Ca. 1973. $19.95

LUGER TIPS, by Michael Reese II, Pioneer Press, Union City, Tn. 1976. Paper covers. $6.50

SAVAGE AUTOMATIC PISTOLS, by James R. Carr. Publ. by the author, St. Charles, Ill. 1967. $6.50

WORLD OF LUGERS: VOLUME I, Serial Numbers of Lugers Issued to German Agents in the U.S. 1913-1916, by Sam Costanzo, Sam Costanzo, Wickliffe, Oh. 1975 Paper Covers. $5.50

DEAD AIM, by Lee Echols, Acme Printing Co., San Diego, Ca., 1972. $5.00

*THE GUN DIGEST BOOK OF EXPLODED FIREARMS DRAWINGS, edited by H. A. Murtz, Digest Books, Inc., Northfield, Il. 1974. Paper covers $5.95

*NO SECOND PLACE WINNER, by Wm. H. Jordan, publ. by the author, Shreveport, La. 1962. $6.50

SMALL ARMS OF THE WORLD, 10th EDITION, by W. H. B. Smith and J. E. Smith, A. & W Books, N.Y., 1975. Paper covers, $9.95. Cloth $12.50

TRIGGERNOMETRY, by Eugene Cunningham. Caxton Printers, Lt., Caldwell, ID, 1970 $7.95

*GUNSMITH KINKS, by F. R. (Bob) Brownell. F. Brownell & Son, Montezuma, IA. 1st ed., 1969, $9.95

*HOBBY GUNSMITHING, by Ralph Walker, DBI, Northfield, Il. 1972, 320 pp., Illus. Paper, $5.95

*HOME GUNSMITHING DIGEST, by Tommy Bish. DBI, Northfield, Il. 1970. Paper covers. $5.95

THE NRA FIREARMS ASSEMBLY GUIDEBOOK TO HANDGUNS. National Rifle Assn., Washington, D.C., 1973 206 pp. Paper covers $4.00

*PISTOLSMITHING, by George C. Nonte, Jr., Stackpole Books, Harrisburg, Pa. 1974. 560 pp., $14.95

*BOOK OF PISTOLS & REVOLVERS, by W. H. B. Smith. Stackpole Books, Harrisburg, Pa. 1968. 758 pp. $7.98

BROWNING HI-POWER PISTOLS. Normount Armament Co., Wickenburg, Az. 1968. 48 pp., paper bound $2.00

COLT AUTOMATIC PISTOLS, by Donald B. Bady, Borden Publ. Co., Alhambra, Ca. 1974. $12.50

COMBAT SHOOTING FOR POLICE, by Paul B. Weston. Charles C. Thomas, Springfield, Il. 1967. $12.50

COOPER ON HANDGUNS, by Jeff Cooper, Petersen Publ. Co., Los Angeles, Ca. 1974. Paper covers, $5.95

*THE FAMOUS AUTOMATIC PISTOLS OF EUROPE, compiled by John Olson. The John Olson Co., Paramus, N.J. 1976. Paper covers, $6.95.

*GUNS ANNUAL BOOK OF HANDGUNS, ed. by Jerome Rakusan, Publishers' Dev. Corp., Skokie, Ill. 1976. 98 pp., paper covers. $2.95

THE HANDBOOK OF HANDGUNNING, by Paul B. Weston, Crown Publ., N.Y.C., 1968. $4.95

A HANDBOOK ON THE PRIMARY IDENTIFICATION OF REVOLVERS & SEMI-AUTOMATIC PISTOLS, by John T. Millard, Charles C. Thomas, Springfield, Il., 1974. $12.50

HOME GUNSMITHING THE COLT SINGLE ACTION REVOLVERS, by Loren W. Smith, Ray Riling Arms Books Co., Philadelphia, Pa. 1971. $7.95

(continued on page 27)

External modifications of the Pachmayr job are obvious; internal improvements are not, but they are extensive and well engineered. Inset shows Slide Tightener fitted to gun.

Pachmayr Signature Super

By J. D. JONES

The Signature is Pachmayr. The Super is .38. Put them together and it's one hell of a handgun.

The Pachmayr Signature accuracy job has been around for several years and is well proven. In fact, Frank Pachmayr started on his career of improving the Colt .45 in 1936. Three years later the U.S. Treasury Department five man team used .45s accurized by Mr. Pachmayr to break the existing five man team world record by 23 points. By the standards of the many excellent gunsmiths of today, the 1939 job was pretty primitive.

The basic methods of accurizing the Government Model Colt are well known. In general, they all consist of precise fitting of all mating surfaces to return all parts to exactly the same position each time the gun is fired and the action cycles. Over the years the basic methods have become well known and are used in conjunction with the talents and ideas of the men who specialize in accurizing the .45.

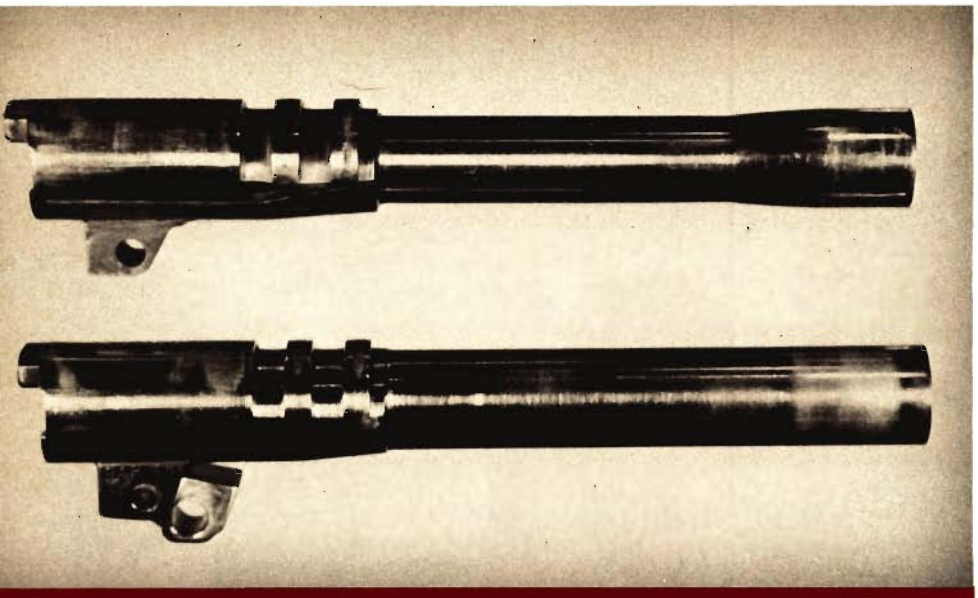
And, consistently, the Pachmayr accuracy jobs have been as good as they come. I've been fortunate enough to have used .45s built by Jimmy Clark, F. Bob Chow, Austin Behlert, the Advanced Marksmanship Unit of the Army and an untold number of fine, not so fine and pretty rough guys calling themselves gunsmiths.

With few exceptions, the guns built by professional "big name" gunsmiths out performed those of the others by a wide margin in accuracy and reliability.

The 1911 Colt Government Model .38 Super has pretty much been a dud in the accuracy department. The Government Model MK IV improved it a lot but it still wasn't up to match accuracy. Converting it to shoot flush seated .38 Special wadcutter ammo was considered the only way to go for NRA center fire matches for many years. Many individuals felt the .38 Super just was not an inherently accurate cartridge. Granted, due to headspacing on its ridiculous "semi-rim" it is difficult to make shoot properly. However, it is easily converted to headspace on the case mouth as the .45 does. I do not believe in the theory that any standard cartridge is inherently inaccurate. Many gun designs are not conducive to extreme accuracy but any cartridge can be made to shoot accurately provided proper ammunition is used in an accurate gun.

In any event, a conversation with Ed Lomax of Pachmayr Gun Works, Inc. (1220 South Grand Ave., L.A. CA 90015) led to my Colt MK-IV .38 Super being sent out for a Signature Accuracy Job.

No other accuracy job contains the improvements in accuracy work of the Signature job. It is so unique nine patents have been issued to cover innovations found only in the Signature system. Pachmayr literature states, "Work is so precise that overall accuracy from a machine rest



Original Colt Super .38 barrel (shown at top) had to be replaced with the Bar-Sto stainless steel barrel (bottom). Note the massive Broadfoot link. The inside of frame must be cut away to accommodate this linkage.

measures one inch and better at 25 yards, with 75% grouping ¾" or better."

Most of the operations performed in the standard accuracy job are performed and the Signature system is then added.

First, the barrel itself is tested in a test fixture for accuracy. If it won't shoot a three-fourth inch group or better at 25 yards from the test fixture, the customer is told that a new barrel is recommended.

Step one stopped work on the Super .38. The Colt barrel just wouldn't cut it with any ammo. A Bar-Sto stainless barrel was recommended. I immediately gave the go ahead with the stipulation that I wanted the original Colt barrel also fitted for further comparison tests somewhere down the line. This was a mistake—I'll never put the Colt barrel back in it. The .355 diameter Bar-Sto barrel passed the accuracy test with ease and was installed so that the cartridges would properly headspace on the case mouth.

The Patented Slide Tightner is an adjustable "block" which has beveled edges to mate with matching beveled edges of the slide. Properly adjusted, the slide tightener removes all side and up and down play between the slide and frame of the gun. It also has another useful function we'll discuss later.

The barrel bushing assembly is patented and is certainly unique. It is precision fitted to the front of the slide. It contains a precision fitted radial type self-aligning bearing which fits the bushing housing and the barrel. The radial type bearing-bushing eliminates any binding and wear associated with some tightly fitted bushings. The front sight and recoil spring plug are also incorporated into the unit. Its appearance is striking.

The inside of the frame is cut to accept a new "broadfoot" link. The broadfoot link is BIG, precision fitted to the barrel lug, slide stop pin and frame, effectively eliminating any looseness.

The Zero headspace unit is fitted into the breech face of the slide. It is a stainless spring loaded plunger with .050 inches forward movement exerting eight ounces of pressure on the rear of the cartridge case to fully seat it in the chamber. The obvious advantages of this unit are improved uniformity of ignition, better alignment of the cartridge in the chamber and elimination of case trimming. Signature grips and re-finishing of the outside complete the basic job.

The options Pachmayr offers on .45 work are staggering. If you can think of it; they can do it. I'm especially fond of the low profile Bo-Mar rear sight and just can't get along with the short Colt trigger. The slide was modified and the Bo-Mar sight and a long National Match trigger installed by Pachmayr 'smiths.

When it arrived, my first impressions were highly favorable to say the least. The general appearance was excellent. The slide moves back and forth without play and locks into battery with a solid feel. In battery, neither the slide, rear or front end of the barrel has any movement. The sight picture, trigger pull and balance can only be described as superb. The Signature grips are the most secure in your hand of any I know of. They are made of steel, covered with neoprene, wrap around the frame and with the optional mainspring housing present a resilient, checkered surface to the entire hand. They have no rust problems as does a stippled frame.

Polishing of the feed ramp as well as all other polished surfaces resulted in mirror finishes. The enclosed machine rest group was .500 by .500 inches extreme vertical-horizontal spread with 107 grain Super Vel factory ammo. A blueprint of the Signature System accompanied the gun.

I'm not a target shooter. I do spend as much time as possible in the field with handguns. In my opinion, the .38 Super just leaves the .45 in the dust as a field gun. Its velocity considerably faster than that of a .45 and its trajectory is practically as straight as a string. It's capable of handling all varmint class animals but really isn't in the class of a hunting handgun capable of reliable performance on deer and the like. Neither is the .45—but both will do the job in good hands under the right conditions. Due to its higher velocity it is less wind sensitive than the .45 and hitting at unknown and long ranges is easier due to its flat trajectory.

I'm sighted in to print just above the front sight blade at 100 yards. At medium ranges—50-60 yards, I hold 6 o'clock on a broadside groundhog and center at around 100 yards. I've only had one hit groundhog move after being hit and that due to lousy shooting at about 30 yards.

Prior to having the Super worked over a considerable number of loads and bullet tests were conducted. One of the drawbacks of the Colt barrel was the excessive amount of unsupported area at the rear of the case and the fact that the gun would not feed reliably the excellent Speer 125 grain soft point .355 diameter bullet. Cases tended to expand into the unsupported area and gave an early "stop" signal. The Bar-Sto barrel and Pachmayr porting and polishing cured both of these problems. Significantly higher pressures can be utilized without running into any of the danger signals to back off. My working loads must be approached slowly in Colt barrels as great variations exist in barrels,

Extensive machining must be done to slide to fit Bo-Mar rear sight.

brass, primers and bullets. If you have a Super .38 don't just jump right into these loads or even the max loads in any reliable loading manual. Chances are that you can get away with it—but you might not!

The slide tightener has another not quite so obvious advantage. Pressure on the slide can be readily adjusted by simply turning an allen screw. This enables you to increase friction and slow down the movement of the slide to avoid unnecessary battering of parts induced by heavy loads. Simply backing off on the adjustment screw frees the slide for sure functioning of light or normal loads.

Obviously, any highly tuned firearm should be properly lubricated. Stainless is subject to galling with petroleum base lubricants under high coefficients of friction. I've used L-1100 Automatic Firearms lube exclusively on the Signature. (Lawrence Products Inc., P.O. Box 17689, Memphis, TN 38117) After about 2000 rounds of heavy loads there is no sign of wear. Mirror bright bearing surfaces have dulled somewhat, but the gun is still as tight as the day I received it.

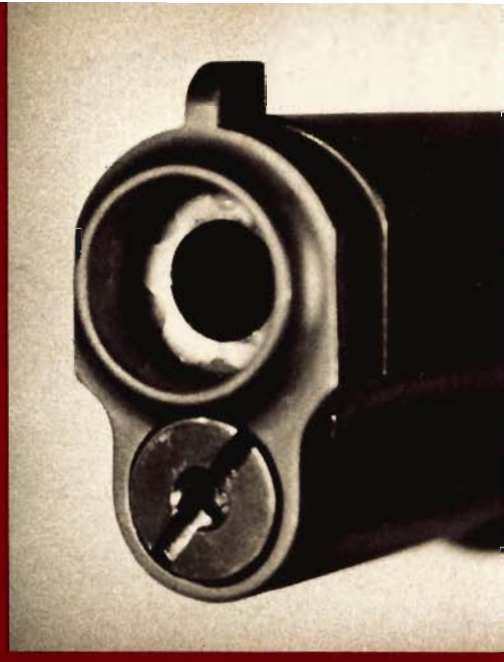
The Super Signature was obviously performing in the superior department accuracy-wise with factory W-W and Remington ammo from the beginning. A couple of boxes of my dwindling supply of Super Vel factory loads really improved things. The .355 diameter Bar-Sto barrel was selected for maximum efficiencies with .355 diameter 9MM bullets. A great variety of handloads were resurrected and fired. Things were brightening up and the accuracy-power package was surpassing anything I'd ever experienced in a service type automatic in the past.

Then with about 200 rounds down the spout accuracy began to fall off. The rigidity of the barrel bushing assembly is dependent upon the plug that contains the recoil spring and locks the bushing assembly to the slide. The front sight is an integral part of the bushing assembly and if the plug works loose the whole assembly is free to rotate slightly, allowing movement of the front sight from side to side. In assembly, the plug is screwed into the slide, a cross pin inserted and the plug tightened down. The plug is "coin" slotted and easily tightened in the field but this one turned into a nuisance.

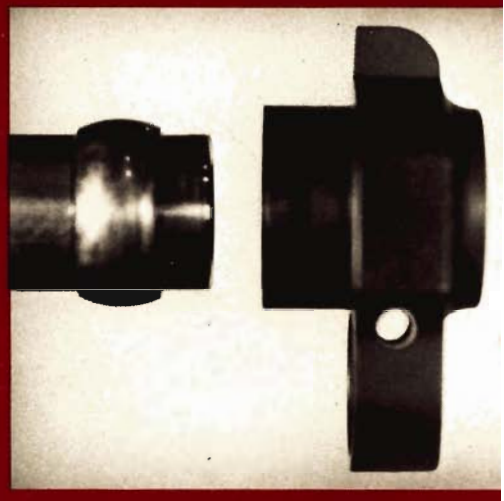
The end of the plug was broached to provide a socket for a hex wrench. The bushing was properly assembled and a hole drilled through the bushing housing and into the plug. It was then tapped and a hex head screw inserted. Problem solved, courtesy Jim Herringshaw. As far as the gun itself is concerned, this is the only problem that came up. It has not yet malfunctioned with any load or bullet I've put through it. The Super .38 magazine is superior in design to the .45s and I suspect in combination with the Pachmayr feed ramp it's going to be hard to beat.

The Super .38 cartridge really isn't much with factory loads. The Super Vel isn't made anymore. W-W has announced a 125 grain hollow point and it may turn out to be a good load. I haven't seen it yet. Some lots of the standard 130 grain F M J round nose loads are downright puny. The last lot of factory ammo I ran through the Oehler M-32 chronograph only averaged 1112 feet per second and extreme variation was 151 feet per second.

Handloading the Super isn't difficult. R.C.B.S. makes two types of full length sizing dies for the Super. One die must be fed lubricated cases and necks the case to provide maximum bullet tension. The other is certainly more convenient and uses a tungsten carbide insert to size the case. Both do a good job and making sure the expander plug in any die set is not over .353 in diameter will provide adequate case tension on the bullet.



A muzzle-on view of the Signature job shows unique appearance given by the barrel bushing which protects muzzle.



The unique barrel bushing is designed so that it can tip, and thus remain in alignment with barrel as action cycles.

Here's proof of the performance of the Pachmayr Signature .38 Super: a 25-yard machine rest group with the 107 grain Super Vel loading.

Quite a few powders and bullets do well in the Super. After having tried at least 50 different loads I've settled on three. The 90 grain Sierra hollow point ahead of 8.0 grains of PB gives an average velocity of 1634 feet per second with 27 F.P.S. extreme variation. 9.0 grains of Unique duplicates the velocity and gives 75 F.P.S. variation. Unique is a good powder but does not drop uniformly from a measure. I drop powder from a measure for test loads as that is the way I load normally.

The 115 grain Sierra H.P. gives 1585 F.P.S. ahead of 9.2 grains of 4756. Extreme variation 30 F.P.S. It doesn't make much sense to me to trade off 25 grains of

(Continued on page 65)

By JERRY AHERN

GEORGE LAWRENCE

(306 S.W. First Ave., Portland, Ore. 97221)

The George Lawrence Company is next, makers of quality leather goods since 1857. Watch an old movie some time on television. All the shoulder holsters worn by good guys and bad guys are usually the George Lawrence #7, one of the most famous holsters manufactured and still in production today. It is the classic right side up snap draw.

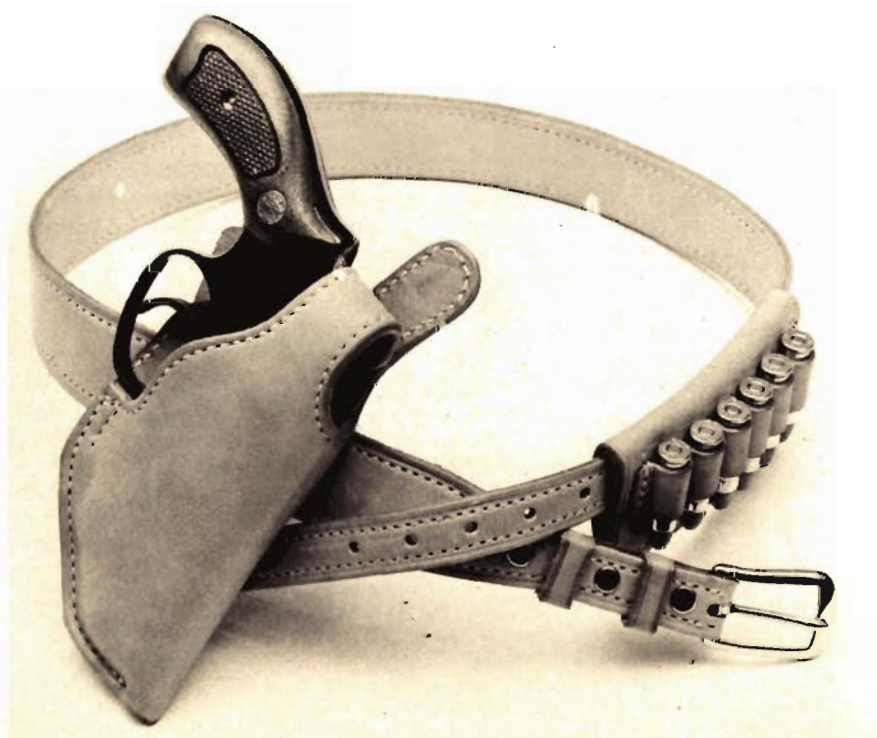
Lawrence is one of the few makers crafting Buscadero style rigs for DA revolvers as well as SA revolvers. Vice-President Bill Lawrence picked the following holsters to meet our categories.

For speed holsters, three were chosen, the first being the #32, a thumb snap holster for revolvers with barrels not exceeding 6½" and for medium and large frame semi-autos. Made of special unoiled leather for high glaze polish and smooth surface, the #32 is lined with English kip glove leather. Called the Defender, the closed end holster rides high on the belt and close to the body for maximum concealment, but the forward pitch and thumb snap permit a fast, natural, easy release. Each holster is individually hand-fitted over an exact form of the gun it is designed to carry. The two position belt loop accommodates widths from 1½ to 2¼ inches. Available in brown or black leather with plain, basket weave or floral design.

Also selected in the speed category were the #34 and #37, the #34 an FBI draw style for revolvers with 4" barrels or longer. It, too, rides high on the belt and pitches the gun forward at the butt. Also available with full hammer guard for protection when worn under a coat, no safety strap is provided, speed the ultimate concern. The #37 is made only for .45 and 9mm Autos, with open end, exposed trigger and sight. An optional safety strap is also available. Both holsters are available in plain, basket weave or flower carved finish.

For protection, the #14 was the top choice. A full flap holster, the entire gun is completely protected. The #14 features a closed end and polished nickel snap on the flap. The loop fits belts up to 2½ inches wide. For slightly less protection but a faster draw, the model #100 is recommended. For revolvers with 4" or longer barrels, this snap flap holster is of unique design. The flap is held down by a snap coming up which can be released by a flip of the thumb, following somewhat the same principles as a thumb snap. The open end and exposed trigger guard offer a compromise between protection and speed. Both are available in plain, basket weave or floral design.

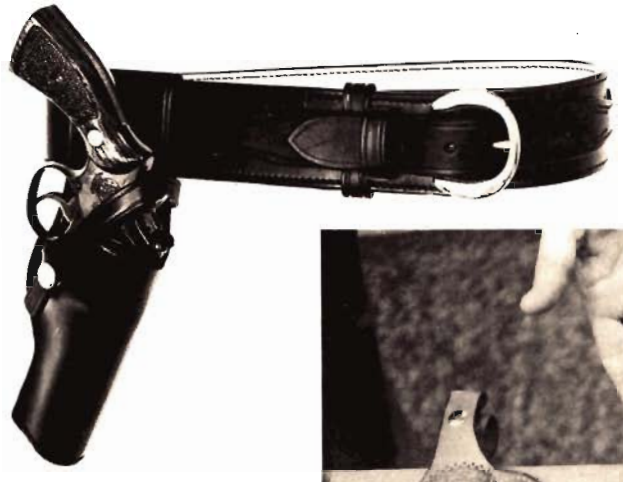
For concealment, Lawrence selected their #23, an inside waistband holster with the unique feature of a leather covered spring clip to slip over any size belt or beltless waistband. In plain unoiled leather only, the leather covering the clip can be dyed to match the normal belt or the color of the pants, thus hiding the telltale flash of metal usually associated with metal clips; made for small frame Colt and S&W 2" barrel revolvers and some .25 and .32 or .380 autos. Also selected for concealment was the #5, an upside down shoulder holster with fully adjustable harness of soft, pliable leather. The exterior of the holster is glazed leather with a smooth grain leather against the gun. The handgun is held in place by a heavy elastic gusset, this protected from wear by a leather panel. In unoiled finish, available in brown or black, it is made for fixed sight two-inch barrel revolvers only.



DON HUME

(Box 351, Miami, Okla. 74354)

Next on the list of holster makers is Don Hume, whose leather goods enjoy an enviable reputation for quality and rugged dependability. Hume's interest in making leather goods came from a hobby of making billfolds and other leather items while stationed with the Navy in Guam from 1948-52. After discharge, Hume spent seven years as a peace officer in California. As with John Bianchi, friends started asking Hume to make holsters and soon his thoughts turned to a business. When faced with problems his skills had not yet mastered, he turned to an old saddle maker named Konkus, not only Hume's teacher but his friend. Hume's most famous Holster is his version of the Jordan rig, designed by GUNS Shooting Editor, Bill Jordan. Hume approached Jordan about making the holster and River Belt and Jordan, with his customary forthrightness, said, "You can use my name and design as long as you make a quality holster." For nearly two decades Jordan has dropped in on Hume from time to time, inspected the product bearing his name and never told Hume to stop making the holsters. In fact, the last time I spoke with Bill, he was visiting the Hume booth at the '76 NSGA Show.



Don Hume selected two holsters to fit the three categories we'd requested, the first of course being the Jordan holster. It features a hand sewn-in plug in the end of the holster to protect against moisture, hold the shape of the holster and minimize wear of blueing at the muzzle. An 18-gauge galvanized metal shank reinforces the drop loop and is contoured to the waist and gun, also bent to fit the hip.

The safety strap pivots behind the holster and out of sight and can be snapped permanently out of the way. The welt is hand sewn and the welt plug places the gun in position for a smooth straight draw. Hardware is available in brass or nickel and the holster itself is available in plain or basket weave finish.

The second Hume holster fits the bill for concealment of revolvers or automatics. Called the Agent 9, it is a belt slide, skeletonized to provide just enough holster to carry the gun efficiently and still minimize bulk. Made for any type DA revolver or large frame automatic, it is also available with a safety strap. It is comfortable; when worn on the belt without a gun it is hardly noticeable and provides no drag on the draw.

ROY'S CUSTOM LEATHER

(Box 852, Magnolia, Ark. 71753)

We next checked with Roy's Custom Leather Goods, makers of only one basic holster, designed to accommodate all types of revolvers and automatics, except small frame .25s, with barrels ranging up to 8⅜". The holster is the Pancake, for either hand, with or without safety strap, in plain or basket weave finish, in black, light brown, russet or mahogany. The gun is carried high, with center of gravity above the belt line, putting the bulkiest part especially with cylinder guns, in the recessed waist area of the body. This feature enables the user to feel comfortable and still have easy access to the gun whether standing or sitting. The safety strap is a thumb break and designed for natural release during draw. The Pancake features three belt slots, enabling one holster to be used for crossdraw, FBI style carry or a straight up and down carry. As the belt is tightened, the holster curves to fit the contour of the body and this slot design makes the pistol carry lighter because of more even weight distribution.

Baker is a believer in partial molding to avoid the drag encountered with more precise, detailed molding. High quality leather is used, but no heavier than seven-ounce, to insure proper construction without having a holster that won't let go. This minimizes holster weight. Each holster is very lightly oiled to keep the leather supple and protect it for longer life.

MORE HANDGUN LEATHER IN NEXT ISSUE!

CHAMBER VARIATIONS . . .

How do they affect accuracy?

By MASON WILLIAMS

It is not at all unusual for some of us older and more experienced writers to pontificate upon subjects on which we know we are definite authorities. From time to time we sit down at the typewriter and pound out an article before getting out on the range and doing a bit of firing. We know far ahead of time that things will turn out as we predict. Unfortunately—and my batting average is perfect—whenever I do this I end up throwing away the copy and starting all over again writing about facts, not traditional misconceptions. This article is a good example.

As everyone knows, it is almost impossible for a revolver to line up each of its six chambers perfectly every time from the day the handgun leaves the factory to the day it goes back to the factory for service. This *must*, obviously, influence accuracy. The purpose of this testing was to discover how much accuracy is affected by individual chambers. Further, everyone assumes that the same chamber will always affect accuracy the same way all the time. Shall we now get down to facts?

In order to run the tests, we set up a Ransom Machine Rest to take a Smith and Wesson K-38 and a K-22. The rest was mounted according to instructions and bolted solidly to a bench rest, the front of which is precisely fifty yards from the target faces.

Both revolvers were thoroughly cleaned prior to firing and all possible lead removed from throat, barrel and the chambers. I had several hundred rounds of handloads that I had run through my Star Reloader. These cartridges had proven to be extremely accurate. They fired the 3-D wad-cutter 158 grain bullet ahead of 3.0 grains of Bullseye and CCI standard primers. The cases were R-P and fired about a half dozen times. We checked all ammunition before firing to make certain that each cartridge was clean and had no visible defects such as split necks.

We then set up the Redfield variable power spotting scope and commenced firing to seat the Ransom Rest solidly into the bolts and bench top. This takes about a dozen rounds. Firing run-of-the-mill handloads chosen at random, we obtained a set up group of twelve shots that put eleven inside 2⅞" and one 2¼" below the main group.

The first control group gave us a six shot 3¾" group. The second control group ran 2¾" for six shots.

We checked the K-38 and discovered leading so we cleaned it thoroughly. We then laid out the ammunition selected for the tests. Next, we numbered each chamber so that the six shots from each chamber could be fired with a minimum of difficulty. We decided that due to the rapid accumulation of leading it might be advisable to clean the barrel after each six shots. We did this during the first run.

First run. Barrel and throat cleaned after each six shots.

Chamber #One—4¼"
#Two—4¼"
#Three—five in 1⅝". One shot 2¼" low.
#Four—five in 2". One shot 1½" low.
#Five—five in ⅞". One shot 1¼" low.
#Six—2½"

Second run. Barrel and throat cleaned after each series of shots but one shot was fired as a fouling shot. Thus, each group contained seven shots, however, the fouling shot was not included in the group size. The fouling shot often went completely out of the group.

Chamber #One—2⅛"
#Two—4⅜"
#Three—2½"
#Four—2⅞"
#Five—3¼"
#Six—3⅜"

Note that the second run produced far more consistent groups with basically no fliers; however, it is difficult to relate the performance of some of the chambers such as Chamber #five that put five shots into ⅞" with one bad flier on the first run and then gave a 3¼" group on the second run. We will have more on this later.

We then fired two six shot groups:

Group #One—We thoroughly cleaned the K-38 and then, loading the cylinder with six cartridges, we fired the six shots. Group size, 3" with the first shot out of the cleaned handgun 1⅜" out of the group.

Group #Two—We did not clean the revolver. We loaded the cylinder with six cartridges and fired them to obtain a group of 2⅜" with no fliers. All groups were measured center to center outside shots.

Each of the chambers were numbered before tests began with the K-38.

Obviously many questions arise at this point. I cannot answer most of them, such as, if chamber #Two gives groups that average larger than 4" how can we obtain a composite group of 2⅜"? Why should six shots fired from six chambers produce a group that is smaller than most groups fires from a single chamber? It would appear that there is basically little relationship between a group fired by a single chamber and a group fired by all six chambers.

We then did quite a bit of firing, moving the cylinder so that it would rest evenly on the cylinder bolt. Quite often when cocking the hammer a cylinder will rest against one side of the bolt. We believed that perhaps this might affect the group size of a chamber, but it made no

difference and no trend showed up.

We then removed the K-38 from the Ransom Rest and replaced it with a Smith and Wesson Model 65. This is the heavy barrel, Military and Police, stainless steel in caliber .357 Magnum with service sights and 4" barrel. Mine is a new handgun. We wanted to determine what such a handgun would do with factory ammunition and attempt to discover if there was any relationship between the performance of the older K-38 and this new revolver.

Using Winchester 200 grain, round nose, lead bullet ammunition in the .38 Special service loading we fired:

Chamber #One—8½"
#Two—5"

and then stopped. There appeared to be no future in continuing this firing. Even though we were not interested in determining the accuracy of this revolver we believed that it was definitely not suited to this type of ammunition.

We then broke out the following ammunition: Remington, 125 grain hollow point, high velocity, long jacket bullet ammunition in caliber .357 Magnum.

Chamber #One—2½"
#Two—2⅛"
#Three—2⅝"
#Four—1⅞"
#Five—2⅞"
#Six—1⅞"

A six shot group using each chamber of the cylinder produced a group measuring 1⅞". Truly superb accuracy, and the ideal mating of handgun to ammunition.

Note one consistent result, namely that the six shot group fired using the six cylinder chambers again gave a group size small than the average group size obtained by firing six shots with any one chamber. Why?

We removed the Model 65 from the Ransom Rest and installed a K-22 revolver for testing. We used Federal standard velocity ammunition in .22 Long Rifle. We cleaned the barrel, throat and chambers prior to firing and then shot in the revolver before commencing test firing.

First run:

Chamber #One—4¼"
#Two—3"
#Three—4⅝"
#Four—3⅛"
#Five—2¼"
#Six—2"

A six shot group using all chambers produced a group measuring 2½". Again we have an aggregate group size smaller than those fired by individual chambers.

Second run:

Chamber #One—1⅞"
#Two—2"
#Three—2⅜"
#Four—2⅝"
#Five—3⅝"
#Six—2⅝"

A six shot group using all chambers gave us a 3¾" group despite the fact that group sizes of the individual chambers were smaller than the groups fired on the first run. Why?

We then fired a thirty-six shot group, firing six shots from each chamber to give us a 5⅜" group.

These tests have raised many questions. It would appear that some of the discrepancies are caused by ammunition but some type of trend should have resulted from the hundreds of cartridges that we fired. Anyone who attempts to predict certain results should give a lot of thought to empirical results rather than anticipated results based upon traditional thinking. I learned a great deal from these tests. I also appreciate the fact that I have cleared my mind of lots of false assumptions.

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(Continued from page 20)

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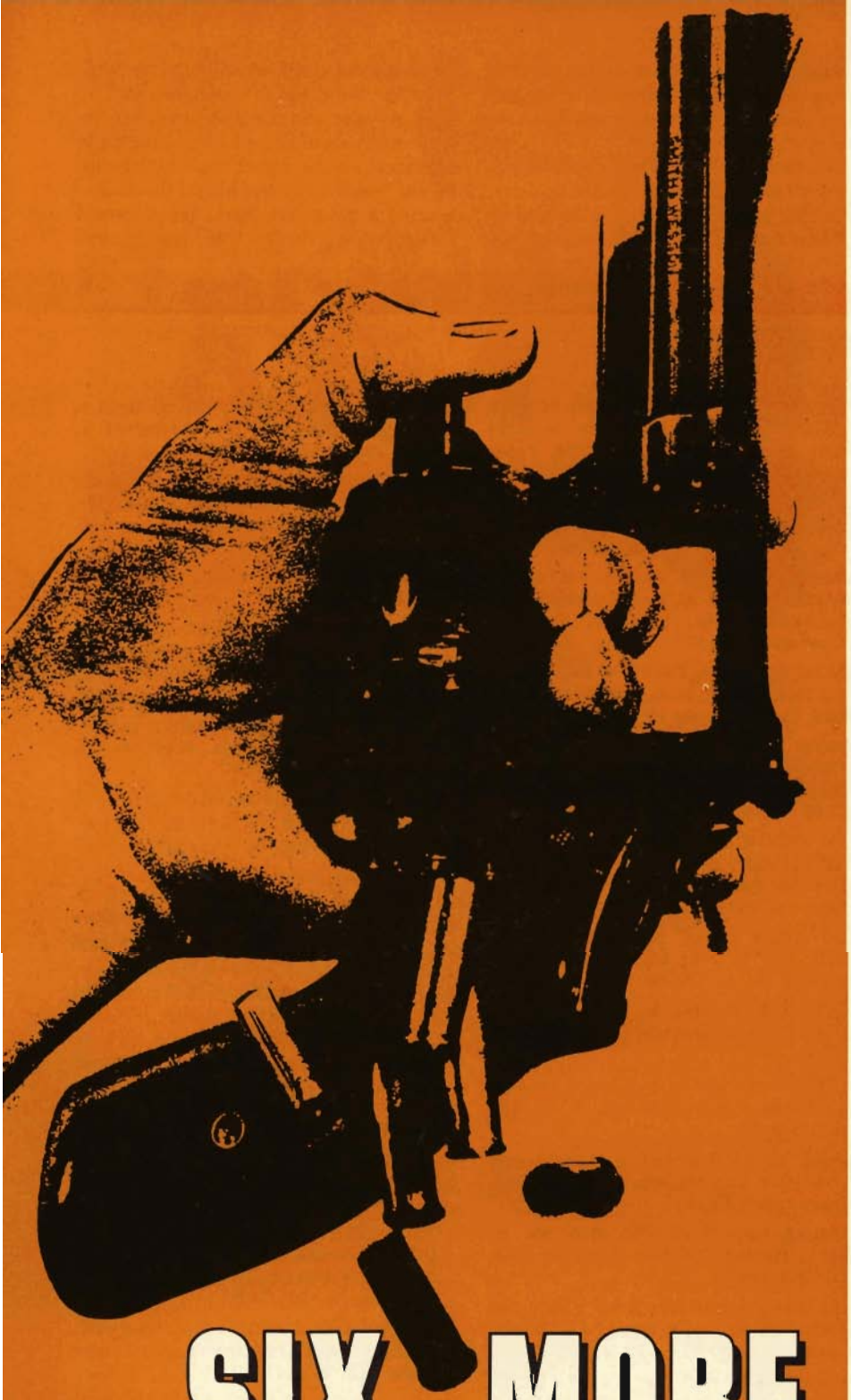


SIX MORE SHOTS FAST!

When you need 'em most!

A review of the most popular revolver speedloaders on the market

By JAMES D. MASON

Cartridge revolvers have been around for a long time, but the idea of quickly reloading them using mechanical devices has caught on only in recent years. The speedloader, a device made to organize ammunition so as to quickly reload revolver cylinders, is very nearly as old as the crane-frame revolver configuration. Advertisements from around the turn of the century depicted such devices for use with the new swingout cylinder guns. The well-known half-moon clips for using rimless .45 ACP rounds in the Colt and S&W 1917 Army service revolvers served to organize ammunition and decrease revolver reloading time. Over the years, a number of linear strip speedloading devices have surfaced, only to sink into oblivion.

The need for speedloading has not always been well recognized. Indeed, today the vast majority of revolver shooters carry spare ammunition loose in a pocket, pouch, or in those god-awful belt loops that corrode brass cases. (Nickled revolver cases were introduced to relieve the formation of corrosion on ammunition carried for years, sometimes, in police service belt loops.) At best, such loops should serve only as temporary repositories for ammunition.

Since almost all felony shootouts involve expenditure of less than six rounds, little official police attention has been given to speedloading equipment and techniques over the years. Many departments *required* patrolmen to reload their revolvers with loose rounds, feeling that training should involve the most adverse service conditions. The trouble is that it's one thing to be a cool hand on the training range and quite another to shell-out loose rounds when lead is being exchanged in the heat of a combat situation.

Deficiencies in training and equipment for peace officers was tragically underlined by the shooting deaths of four California Highway Patrolmen at Newhall, California in 1971. During the shootout, patrolmen were slain by flanking

Each of these four popular speed loaders has virtues and faults, demanding thorough training for best performance. Left to right: Kel-Lite Multi-Loader; the Dade; Second Six and Six Second model.

assailants while attempting to reload their service revolvers. Since that day, increased emphasis has been placed by police training programs on speedloading equipment and techniques.

The revolver's posture as a slow-loading gun has added grist to the autopistoleros' contention that wheelguns are inherently inferior. Of course, the autopistol is always assumed to have plenty of loaded spare magazines! But it is precisely this planned spare magazine routine of the combat autopistoleer that revived interest in speedloader technology for revolvers.

The truth of the matter is that although revolvers require more coordinations to reload, the task can be accomplished in a short interval, nearly as fast as an autopistol for practical purposes. Testing by the author with accomplished combat masters as subjects revealed one second required for autopistol reloads, three seconds for the revolver with a speedloader.

The first "modern" speedloader was the Hunt Multi-Loader, still in production by Kel-Lite and distributed by Safariland. In recent years, other units have been offered such as the Dade, Bianchi, Matich, Second Six, and Six Second speedloaders. Each complete system will be evaluated individually following a discussion of what revolver speedloading is all about.

Increasing delivered fire from revolvers is accomplished by organizing the spare ammunition in a device so it can be quickly and predictably introduced into cylinder openings, then released. Although the loading process is simple in itself, several critical coordinations must be accomplished with the gun to assure a smooth, uninterrupted operation.

Cylinder opening and ejection of spent cases is accomplished first. This operation is done by lowering the revolver from its shooting position, cradling the frame with the left hand (for a right-handed shooter) while manipulating the cylinder latch device with the right thumb. When the latch opens, the middle and third fingers of the left hand push out the cylinder; the right hand leaves the gun to pick up the speedloader. As the cylinder swings fully open, the left thumb depresses the ejection rod smartly, while the middle and third fingers rotate the cylinder slightly to prevent the innermost case rim from hanging up on the wood grip.

Meanwhile, the right hand grasps the speedloader and brings it to union with the cylinder while the left hand rotates the revolver so cylinder openings face the bullet noses; in this operation, a light finesse works better than brute strength. Cylinder and speedloader can be rotated slightly to align bullets with the cylinder openings. The cartridges are pushed home, and the device is manipulated to release the case rims. Closing the cylinder renders the gun ready to fire again.

Failure to properly manipulate the gun and speedloader will add precious seconds to the process. Any shooter will improve with practice; a set of empty cases and dummy rounds will provide several evenings of entertainment and challenge to wheelgunners who take the time to perfect speedloading skills. A full description of this speedloading process is included in my book, *Combat Handgun Shooting* (Charles C. Thomas, Publishers, Springfield, Illinois), along with extensive discussions of revolver shooting techniques.

With six different speedloaders currently on the market, eternal arguments will arise regarding the merits and deficiencies of each. One thing can be said: so far, no one has produced a *perfect* speedloader. That is, none of the current devices is totally free of deficiencies related to human manipulation. Because of this fact, a really objective review of each type is called for; all have virtues and all have problems in different conditions.

Bianchi Speed Strip

Bianchi's Speed Strip is made from molded neoprene material having a spring steel stiffener integral with the spine of the unit. Cartridge receptacles have soft, flexible flanges that accept rims of .38/.357 cases; Speed Strips are made only in this one configuration. The narrow linear arrangement of cartridges makes ammunition concealment easy, especially for detectives using a flat belt bandoleer. Rounds can be loaded singly or in pairs in K-frame S&W revolvers and small frame Colt revolvers. Ammunition so organized can be carried in standard service cartridge boxes or in soft, flexible drop pouches, providing ready access.

While loading with the Speed Strip is slower than with comparable circular loaders (it requires a separate bullet/cylinder alignment for each cartridge or pair of cartridges), a well coordinated speedloading can be made in six to eight seconds. For a novice or shaken shooter, however, it is easy to fumble during repeated cylinder alignments when under the pressure of a shootout. Case rims strip out of the Bianchi unit easily, requiring only a light graphite dusting or Silicone spring to avoid adherence of the neoprene to brass cases that may be left in the holder for long periods of time.

Matich Quick Loader

Probably the most unique device is the Matich Quick Loader, a simple non-mechanical configuration, designed to load all revolver chambers simultaneously. Made from a molded single strip of soft, pliable vinyl, the Quick Loader has a metal crosspin and a two-fingered frog fabricated as part of the unit. The frog fingers engage the crosspin to form the strip into a circular band. Cartridges are pushed into receptacles formed by the rosette of molded projections from the coiled strip. These projections have core holes on their ends to allow compression that conforms to the shape of the cartridge case; natural friction holds cartridges securely, and positions them to match cylinder geometry.

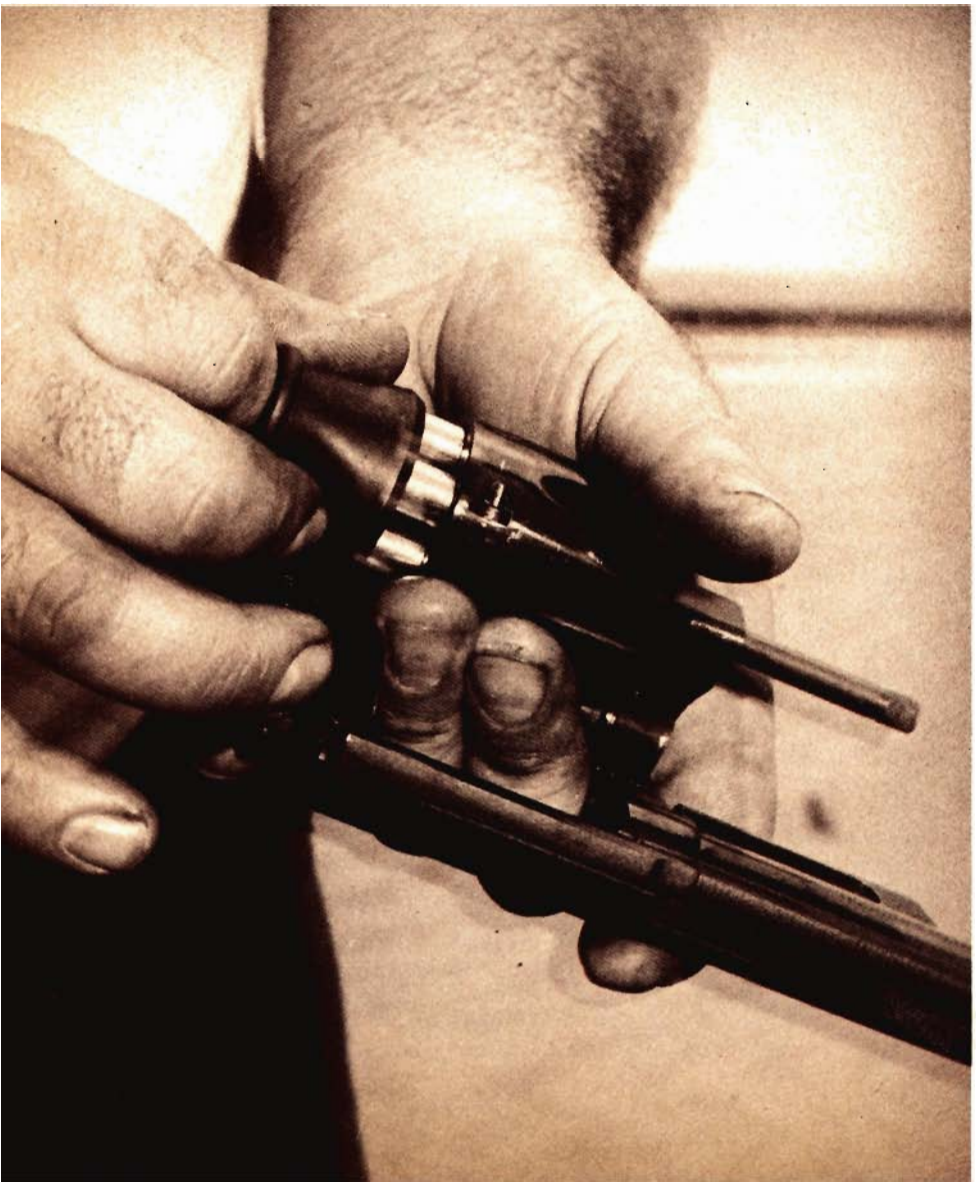
Upon opening the cylinder, chambers are charged and seated to the depth of the Quick Loader strip. Thumb and forefinger grasp the serrated tab of the strip; pulling away from the cylinder releases frog fingers, rotates the cylinder, releasing each cartridge which must then fall into the chamber by gravity. For this reason, the gun should be loaded muzzle down. Gravity feed has its attendant dangers, especially with reloaded ammunition.

Every speedloader design has its own idiosyncrasies which must be understood and mastered. The shooter should grasp the Matich unit as it comes out of its carrying pouch, so as to position the pull tab between the thumb and forefinger. Otherwise, precious time is lost fumbling for the tab after cartridges are inserted into chambers. The Quick Loader is not the thinnest unit, but is a definite improvement over the Dade and Six Second rigid loaders as regards finding its way around frame and grip projections during the loading process. Releasing cartridges from the Matich spins the cylinder, which must be arrested before closing the crane. While this cylinder spinning antic looked impressive in Class B movies, it plays merry hell with cylinder stops, notches, and revolver timing when the crane is closed with the cylinder in motion.

In using the Matich (which is available to fit nearly all revolvers), the unit was found to be positive and reliable, but only moderately fast due to handling characteristics and the cartridge release procedure. As with any speedloader, however, practice is a function of proficiency. Manufacturer's literature illustrates a passive loading technique which is not compatible with the recommended combat practices described earlier. The leather carrying pouches for the Matich are little jewels, well-made and exceptionally small and neat on the belt. Snap tabs should be extended below the bottom edge of the holder, though, to aid acquisition and the unsnapping movement by the reloading thumb.

Kel-Lite Multi-Loader

Kel-Lite's Multi-Loader is the oldest design currently used. The device is molded from neoprene and holds rounds in circular configuration, ready to align with all cylinder openings simultaneously. Belt pouches hold a pair of loaders, either upside down or rightside up, depending on the shooter's choice. A small metal button having an undercut center hole is mounted in the center of the holder. A set of spring fingers in the pouch engages the lips of this button and holds the device in the pouch under light spring tension. To withdraw the Kel-Lite loader from its holder, the forefinger tip presses on the center of the holder to disengage the retaining fingers; spring tension then pushes



A light touch aligns bullets to the cylinder openings. Here, a Kel-Lite Multi-Loader is about to be driven home and the cartridges released.

the unit clear of its catch. Inexperienced or uncoordinated hands have been known to fumble this release phase, fouling up the whole loading sequence. Also, unless the catch is fastened securely, it can release inadvertently, a fact that has led some shooters to reject use of the Kel-Lite unit. A competition model holder provides friction recesses, eliminating the spring catch feature.

To charge any of the Kel-Lite units, fresh cartridge rims are worked under the neoprene holding recesses molded in the face of the loader. After all rims are secure, rolling the unit between the hands seats the rims uniformly. A light dusting of the holding recesses with powdered graphite or silicone spray will help keep the metal/neoprene surfaces releasing uniformly. Too much lube will reduce holding power of these molded recesses.

The Multi-Loader is removed from its holder between the thumb and middle finger, tension being applied to the outside rim of the device to secure it. The forefinger is placed in the center to release the catch and provide a natural "feel" for centering the loader on the cylinder before pushing the rounds home.

When the cartridges are fully down, the unit is then stripped with a peeling action that releases the cartridge rims from their flexible neoprene holders. This action is a tricky maneuver and requires understanding and practice. Novices tend to lift the holder off the cylinder during the stripping operation, resulting in cartridges being withdrawn from the chambers. The correct movement is much like tearing a piece of paper as it lies on a flat surface; roll the wrist slightly, and move the hand parallel to the face of the cylinder. A quick, positive movement does the trick, releasing the cartridge rims and allowing them to fall the short distance down into each of the cylinder chambers.

Despite its age, the Kel-Lite unit has many real virtues that offset any potential faults. The device is pliable and narrow, allowing flexible, forgiving manipulation with a light touch. The unit is not difficult to slide between handgun grips and the side of the frame. Its faults arise out of improper manipulation, and so it tends to be rejected by shooters who will not take the time to master the system.

Dade Loader

The Dade Loader is a rigid, molded plastic device made from several parts assembled and held together by a screw. The assembled unit provides receptacle holes for the cartridges with a coil retaining spring for case rims that rests in an external, annular ring near the top of the body. A spring-loaded ejector plunger is thumb operated to push the cases past the retaining spring, after which action they fall by gravity into the cylinder chambers. For this reason, the gun must be loaded with the muzzle down.

The Matich Quick Loader is unique in construction and function. The metal frog fingers engage a cross-pin to form a single strip into a circular receptacle. Pulling the serrated tab unwinds the strip and releases individual cartridges into the cylinder chambers by gravity.

The thumb-actuated release plunger of the Dade unit is quick, and gravity feed works well with factory ammunition. Occasionally, however, reloads will fail to seat in the chamber and will require individual thumb pressure before the cylinder can be closed. The Dade unit is relatively large in diameter and rigid, so it may hang-up on grip panels or cylinder latch thumbpieces. If it is dropped during the reloading operation and lands on the ejector end, all rounds will be released and scattered on the ground. Of the four major loaders, Dade is the least secure regarding the holding of rounds under rough handling conditions. The design of the standard Dade belt pouch does not lend itself to fast, single-motion accessibility of the loader during timed operations. The Dade's main appeal is its speed of cartridge release in the hands of a practiced user. In this regard, it has an edge over all other similar devices except the Second Six unit.

Second Six

The Second Six loader has a number of unique features and virtues that has made it a favorite for many police departments. Currently it is sold only to law enforcement agencies and is made only in .38/.357 for K- and N-frame Smith and Wesson guns. It will also fit other revolvers that have the same cylinder geometry as the K- and N-frame guns. The Second Six has a patented two-pieced molded plastic construction. It is a simple, rugged unit, light in weight and fast to manipulate. The body holds cartridges by springy molded projections that engage case rims. The ejector ring is an annular piece resting at the bottom of the cartridge guides. No matter how the unit is grasped at the rear, thumb and forefinger will always be on this ejector ring.

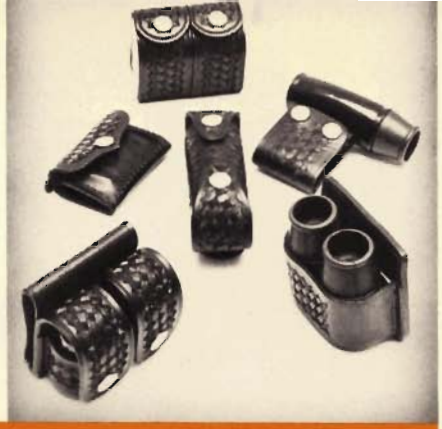
In operation, the unit is mated to the cylinder openings, then by pressing forward on the ejector ring, cartridges are driven completely into the chambers in one continuous, natural motion. No gravity feed is required, so the gun can be loaded in any attitude including upside down. There is a characteristic "click" as cartridge seating is accomplished, and the unit can then be "wiped" away as the cylinder is closed by the left thumb. The time and motion aspects of manipulating the Second Six loader are well conceived. Speed and reliability characterize its use.

The Second Six is also the most compact of all of the loaders. Its leather belt pouch, made by Triple-K Manufacturing Company, is among the smallest, along with Matich, and is one of the most accessible of all the enclosed speedloader carriers. The whole system is human engineered to minimize necessary movements and shorten application time. As an example, the closing flap lip extends below the bottom front edge of the holder; the right thumb finds this lip and actuates the snap. Loaders are carried slanted forward in the pouch and are readily grasped by the thumb and forefinger. It is hard to fault the Second Six unit, although it ranks somewhat behind the Six Second loader in rough handling tests.

Six Second

The Six Second speedloader is a rigid unit that features a rotating camlock rim holding device. Ruggedness and simplicity of design and operation make points for this unit. Also, it has been effectively mer-

Bianchi's Speed Strip is a compact, convenient way to organize ammo for a controlled reloading. This can be an important factor for concealment.



Belt pouches for both the strip and round type speedloaders are made for police service and for the handgun hunter or sportsman.

chandised through a national dealer network, and this gives it a broader exposure and representation compared to other devices, some of which are sold direct only to police organizations.

The Six Second body section is rigid and relatively large in diameter, giving it some of the same cylinder alignment problems of the Dade Loader. The rotary camlock holds cartridge rims more securely than any other loaders; release is effected by a simple rotation of the knob on the end of the unit. Cartridges then fall into the chambers by gravity, which will require occasional assistance for seating reloaded ammunition. The rugged, quality construction, availability for practically all revolvers, coupled with rough-handling reliability and a good dealer set-up, have made this loader popular.

Police departments like the ability to toss ammunition to stranded officers without rounds flying out of the loader. Dropping or abusing the Six Second unit has little effect on it. While the Six Second system is not the fastest or best in many particular considerations, it may very well suit overall police service requirements best for the average duty officer.

Mechanical conditioning of revolvers is very important to maximizing speed and reliability using any of the loading units. Metal-to-metal surfaces on the gun should be smoothed to allow positive cylinder release without catching or drag. Wood grips should be hollowed out behind the cylinder opening to allow unobstructed manipulation of the loader and positive ejection of spent cases.

Chamfering of chamber openings to eliminate burrs and sharp corners allows lead bullets to slide in without snagging. Round-nose or spirepoint bullets are most forgiving of slight misalignments with cylinders during the loading process; if semi-wadcutter or other blunt bullet designs are used, extra practice is needed to perfect flawless loading techniques. Straight wadcutters can be loaded with a slight, controlled jiggering motion which is helped if the bullets are seated fully and the casemouth has a nice round crimp.

Practice is the key to reliable speedloading. Strive for economy of movement and consistency of technique. Time is not important at first; only after the techniques are polished should the shooter strive for a four to five second reload. Some well-coordinated shooters can get down to three seconds after working out all the flaws in their technique. While speedloading is not the end-all for revolver shooting, it must be considered an integral part of polished gun handling skills. Fire power is no substitute for marksmanship, but for the defensive handgunner, competent speedloading can save your life or the lives of others who depend upon your skill.

Fast, controlled ejection must be practiced to cut down the over-all time required for reloading. See the text for description of this system.

SUPPLIERS

Bianchi
100 Calle Cortez
Temecula, CA 92390

Safariland (Kel-Lite)
1941 S. Walker Ave.
Monrovia, CA 91016

Dade Screw Machine Prod.
2319 S.W. 7th Ave.
Miami, Florida 33127

Matich
Box 958
S. Pasadena, CA 91030

Second Six
Box 215
South Laguna, CA 92677

Six Second Reloader
132 Fifth Street
Dayton, Kentucky 41074

To Engrave

OR NOT TO ENGRAVE . . . THAT IS THE QUESTION

Colts are a favorite for engraving. This handsome Python .357 Magnum was artistically engraved by Gun Reblue Co. more than twenty years ago. The hands above are those of Colt engraver R. Burt.

By RONALD SWARTLEY

To engrave or not to engrave, that's the question — at least to some gun enthusiasts it is. A gun owner might have a Colt Python pistol. He sees a similar handgun at a shooting meet, with the only difference being that the other gun has a beautiful hunting scene adorning its cylinder. Well, the thought could well cross his mind: "Why can't I have my firearm beautifully engraved like that?"

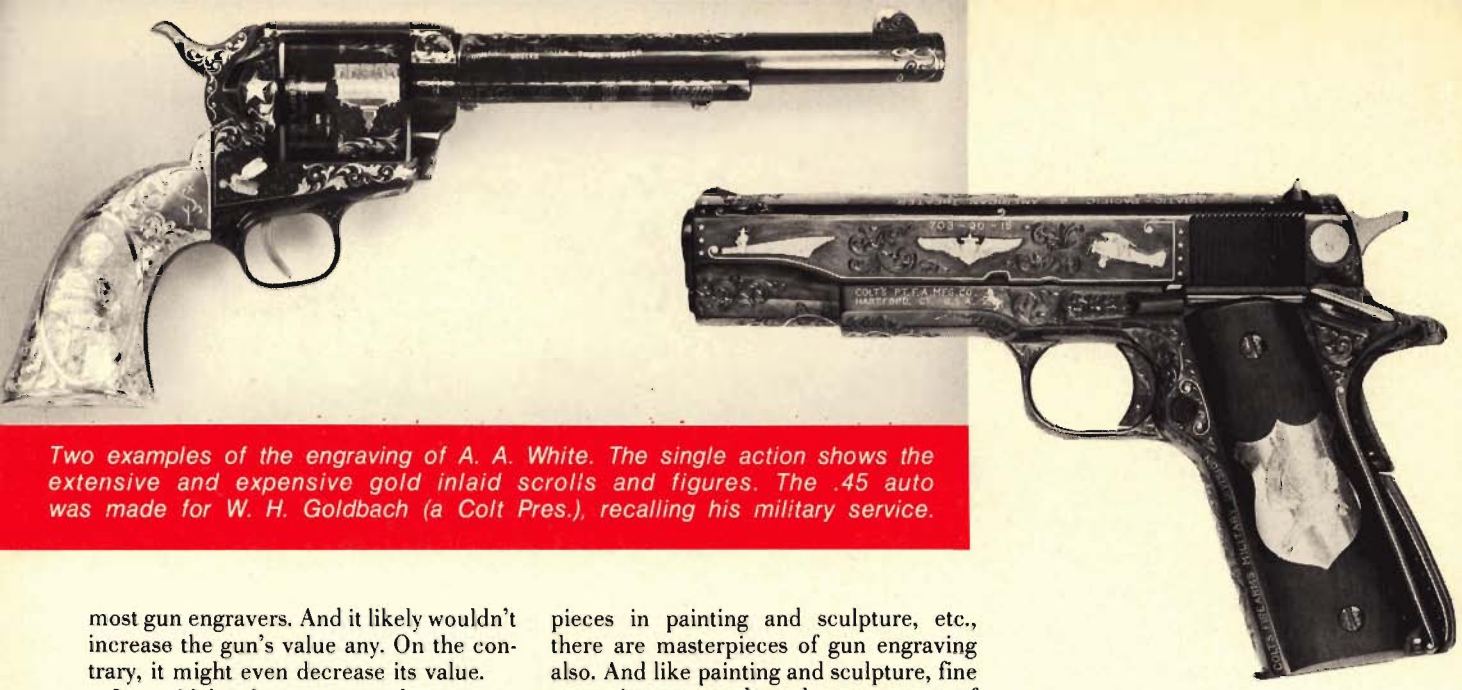
Well, why not? There are a number of good reasons for having a firearm engraved. However, there are some factors arguing against having a gun engraved, too — especially some guns. Let's consider the "against" factors first.

Expense: If you think gun engraving comes as cheaply as having a name engraved on a special friend's bracelet, you're dead wrong. Gun engraving just doesn't come cheap. The engraving on a Colt Python could cost over $300, depending on the intricacy of the design. To be sure, this figure represents pretty much the top dollar, but even simple scrollwork designs or coats of arms could probably not be gotten for less than $150. In other words, the decision to engrave should not be made too casually. If you send the gun to one of the small engraving firms it's liable to cost even more than if you try a self-employed engraver. But the best craftsmen of either persuasion command top prices for their work.

A Long Wait: Depending on who you send the work to, you can figure your gun will be out of action for at least several months. The small engraving firm will tend to have it out quicker than the self-employed engraver. However as mentioned, the cost is liable to be greater, and these firms don't have a monopoly on talent. Some of the best gun engravers in the country are working in their own one-man shops. These top men — wherever they work — commonly have a long waiting list, and two years is not an uncommon wait for a piece to be done by them. But whether it's two years or a few months, that's a long time to tie up a shooting iron.

Finding A Gun Engraver: Finding someone to do the engraving job on your gun isn't as simple as it may seem. One well known engraving expert estimates that there are no more than 60 active professional gun engravers on the U.S. scene. Of these, probably no more than ten do work that could be called the best. So, getting one of these pros to accept your gun in the first place is no small task. Here again the engraving firm would probably give a faster acceptance, though at a slightly higher price for work that isn't necessarily better in quality. (For the name of various self-employed gun engravers try asking your local gunsmith, or keep an eye out for this rare breed at gun collector confabs and shooting meets. Often you can find out who the better ones are from publication of their work in various firearms magazines.)

Not The Right Gun: To you a treasured firearm may seem like a prime candidate for an engraving job. However, this isn't necessarily the case. For instance, if you're the proud possessor of an eighteenth century musket, you may have trouble finding an engraver who will accept an assignment to engrave it. Putting a modern engraving motif on an antique firearm would seem too inappropriate to



Two examples of the engraving of A. A. White. The single action shows the extensive and expensive gold inlaid scrolls and figures. The .45 auto was made for W. H. Goldbach (a Colt Pres.), recalling his military service.

most gun engravers. And it likely wouldn't increase the gun's value any. On the contrary, it might even decrease its value.

It could be that your gun happens to have been made with hardened alloys or case hardened steel. This will often eliminate the gun — or at least certain parts of that gun — from possible engraving. Even the tough gravers of the gun metal artist cannot do an efficient job on ultra-hard gun metals. A gunsmith should be able to tell if your gun is in this category.

If your gun already has engraving on it, and you want to leave it on there while adding still more engraving, you run the risk of inconsistency of workmanship and style. Gun engravers are artists, and they have distinctive styles. Two obviously different styles on the same gun could have the effect of decreasing its overall beauty. However it is usually possible to remove old engraving in preparation for replacement engraving.

Worries About Damage: Another thing to take into consideration is the effect the new engraving work will have on your use of the gun. If you just spent $1,500 on scrollwork and gold inlaid scenes on a hunting gun, is that fact going to restrict your field use of it? If you're the type who will worry about accidently butting the gold inlay work against a tree, this is going to cut down on your enjoyment out in the field. If you *won't* worry about it too much though, or if you have another gun to take the engraved gun's place, then this isn't anything to be concerned about.

So there you have some of the negative factors to bear in mind when considering the engraving of a gun. Now let's look at some of the positive factors.

Beauty: An obvious reason why engraving can be a big plus is that it will more than likely enhance its appearance. A high quality gun engraving job on a high quality firearm can produce a truly marvelous combination of technology and art. The finest in engraving on a good quality gun can produce an heirloom that could well last and retain its usefulness and beauty for centuries. As there are masterpieces in painting and sculpture, etc., there are masterpieces of gun engraving also. And like painting and sculpture, fine engraving can produce the same sense of universal awe and appreciation these more traditional arts can.

Makes It More Personal: When you have a one-of-a-kind engraving motif on a gun, it immediately separates it from all other guns of its kind ever made. It gives it an individual touch, making it no longer the mass produced item it once was. With your own personal emblem or coat of arms added, this individual feeling is even more enchanced. And if the engraver who does the work is one of the few outstanding engravers around, his name signed in steel can make it that much more special.

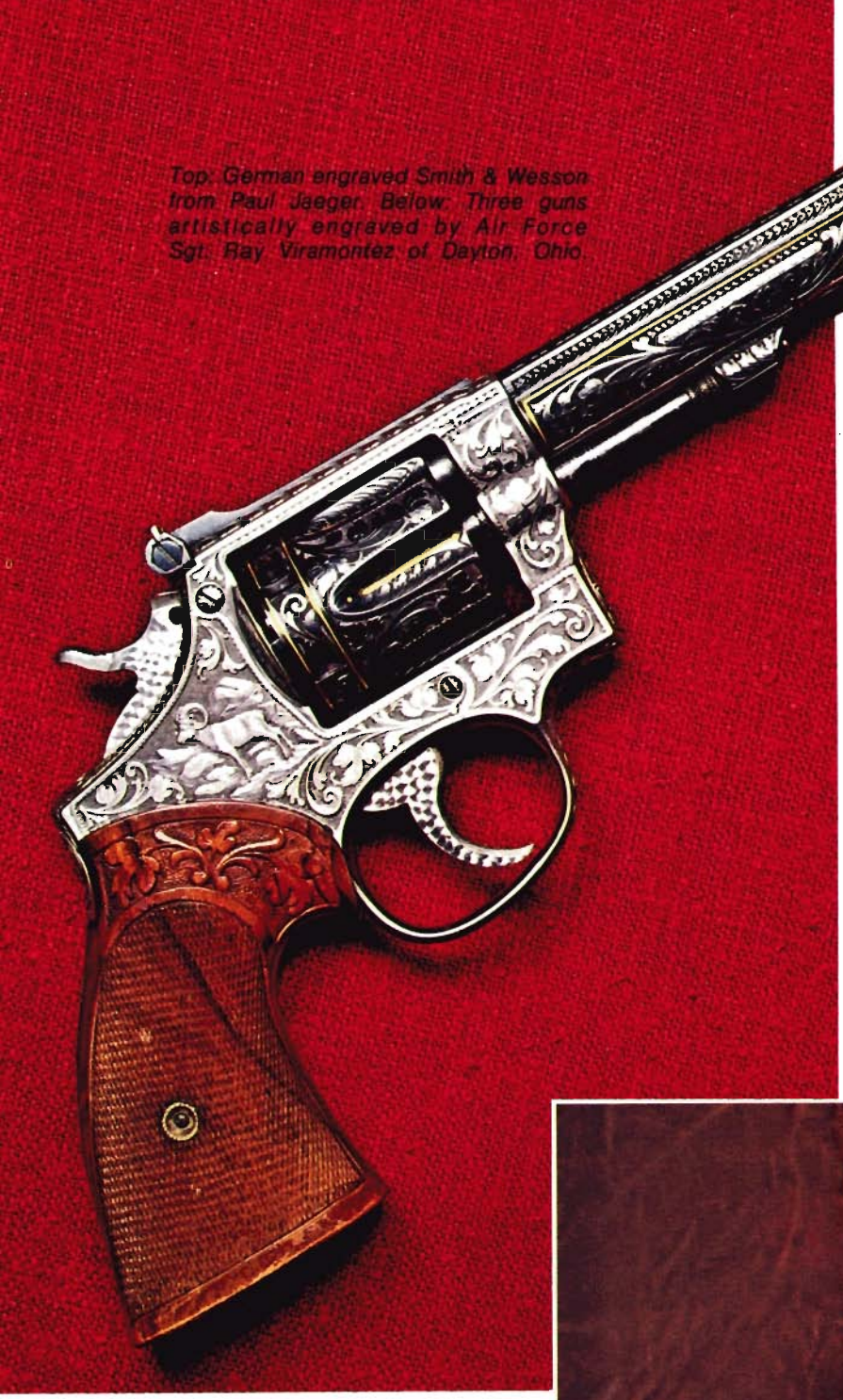
There is no doubt that a particular firearm can come to have a great deal of meaning for its owner. Maybe a prized gun accompanied the owner through 20 seasons of good weather and bad; plentiful game and sparse — and never let him down. It becomes as comfortable and secure to be with as a favorite hunting dog. He gets to be very attached to it in other words, and by having it engraved in a unique way it can become even more cherished.

Enhance Its Monetary Value: A good quality gun engraved by a superior gun engraver can mean an appreciation in

FIREARMS ENGRAVERS

Alpen Engraving Service, 39 Horseshoe Rd., Gilford, CT 06437
E. Averill, 60 Chestnut St., Cooperstown, NY 13326
Joseph Bayer, Sunset Ave., Sunset Hill, RD 1, Princeton, NJ 08540
Bill Dyer, P.O. Box 75255, Oklahoma City, Okla. 73107
Ken Eyster, Heritage Gunsmiths Inc., 6441 Bishop Rd., Centerburg, OH 43011
H. H. Frank, Rt. 1, Mountain Meadows, Whitefish, MT 59937
Frank E. Hendricks, Rt. 2, Box 189J, San Antonio, Texas 78229
Paul Jaeger, 211 Leedom St., Jenkintown, Pa. 19046
Kleinguenther's, P.O. Box 1261, Seguin, Texas 78155
London Guns, 3005 Wilshire Blvd., Santa Monica, Calif. 90403
Lynton McKenzie, Box 26087, New Orleans, La. 70186
Rudy Marek, Rt. 1, Box 1A, Banks, Ore. 97106
Franz Marktl, c/o Davis Gun Shop, 7211 Lee Hwy., Falls Church, VA 22046
James B. Meek, 405 E. 10th St. S., Newton, Iowa 50208
Pachmayr Gun Works, 1220 S. Grand Ave., Los Angeles, CA 90015
Hans Pfeiffer, 286 Illinois St., Elmhurst, IL 60126
E. C. Prudhomme, 513 Ricou-Brewster Bldg., Shreveport, La. 71101
John Rohner, Sunshine Canyon, Boulder, Colo. 80302
Robert Runge, 94 Grove St., Ilion, N.Y. 13357
Robert Swartley, 2800 Pine St., Napa, Calif. 94559
Ray Viramontez, 4348 Newberry Ct., Dayton, OH 45432
Floyd E. Warren, Rt. 3, Cortland, OH 44410
John E. Warren, Box 72, Eastham, Mass. 02642
A. A. White Engraving, P.O. Box 68, Manchester, Conn. 06040

Editor's Note: The above list is just a starter. We have tried to list some engravers from every part of the country. There are, I'm sure many other fine engravers. As mentioned in the article, check with your local gun shop. Most engravers have pamphlets and price lists; some are free, others run from $1.00 to $3.00.



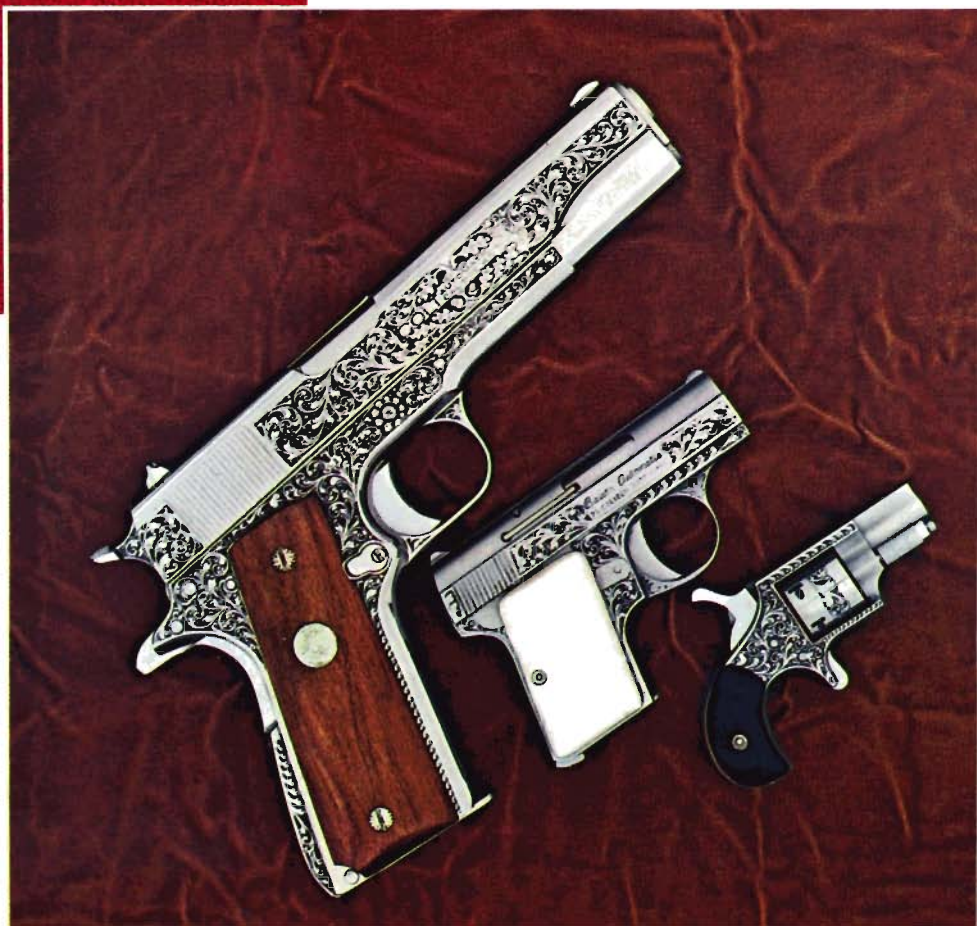
Top: German engraved Smith & Wesson from Paul Jaeger. Below: Three guns artistically engraved by Air Force Sgt. Ray Viramontez of Dayton, Ohio.

its value beyond the combined cost of both gun and engraving. It's like combining oxygen and hydrogen to produce something new — water. When you combine a good firearm with fine engraving you can create something more than just the sum of the two parts. Besides the quality of the engraving, the quality of the gun and "name" of the engraver are important variables affecting appreciation.

Investment: The same reasons that an engraved firearm can appreciate in monetary value serve to keep its value from declining over time. For this reason such a firearm can actually be a wise investment. Gun collectors do it all the time. It seems to be an era of inflation and planned obsolescence. Many people these days are putting their hard earned money into more enduring types of collateral, such as diamonds, or gold and silver coins. Finely engraved firearms can work the same way. Needless to say, however, one shouldn't launch himself into this type of an investment until he's learned a bit about it.

Commemoration: Another sound reason for having a gun engraved is to commemorate an important event. Arms manufacturers have long done this in remembrance of important national events. An individual can do this also. He may want to remember a favorite hunting trip, or high score in a match, or a favorite game animal. Having the likeness of a hunting scene or individual recreated in the hard metal of a firearm will immortalize that individual or event in a particularly effective way.

So there you have a few of the pros and cons regarding the "engrave, or not to engrave" decision. For my money, a quality gun, engraved by an artist, is a thing to be prized much more than that same gun not engraved at all:

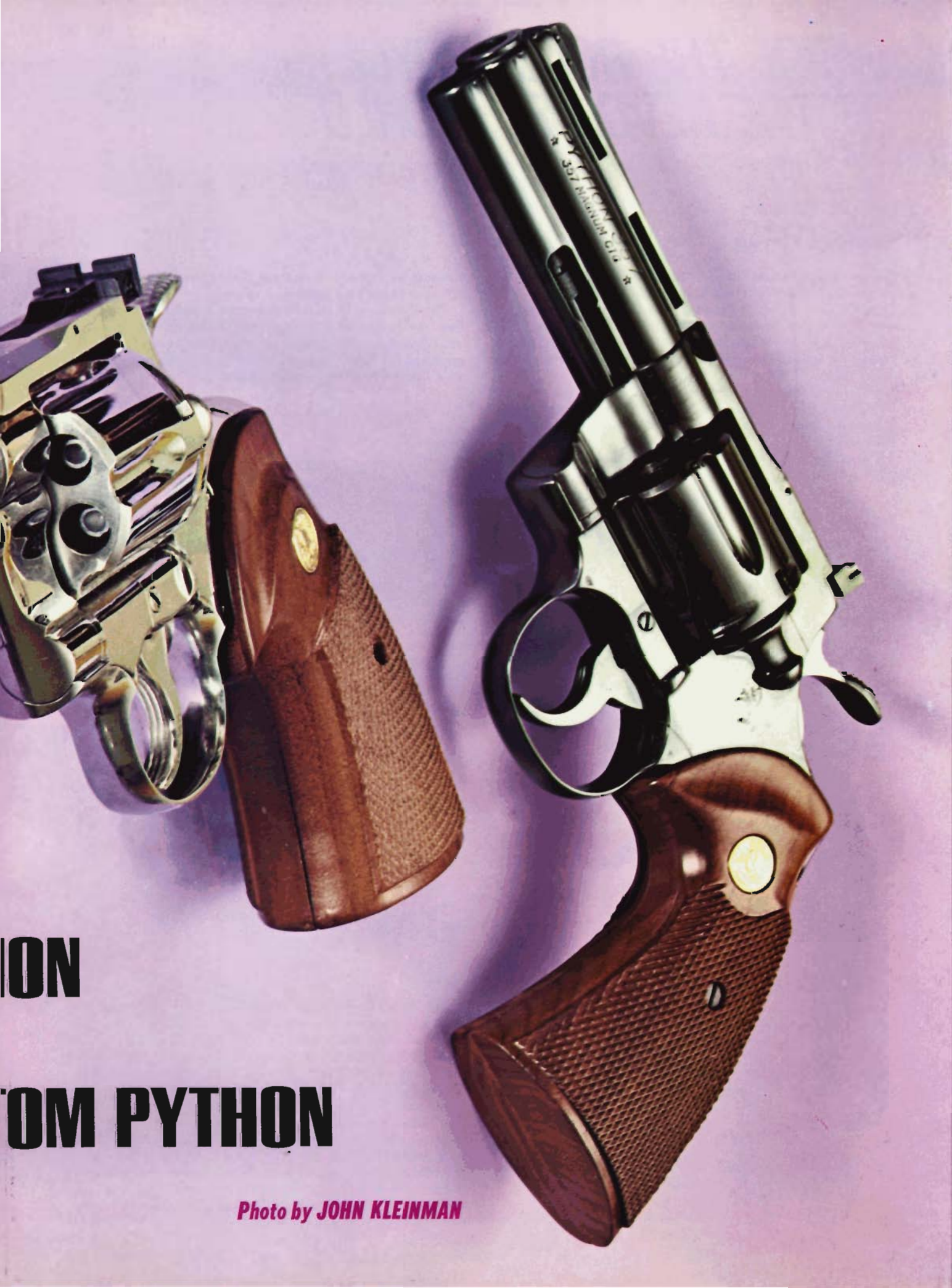


THE MIGHTY COLT PYTHON

HANDGUN PROFILE:

THREE full length articles by Massad Ayoob tell you everything you want to know about the Colt Python!

- **INSIDE THE PYTHON**
- **THE FIRST PYTH**
- **THE CUST**



ION

TOM PYTHON

Photo by JOHN KLEINMAN

INSIDE THE ROLLS ROYCE OF THE REVOLVER WORLD . . .

THE COLT PYTHON

By Massad F. Ayoob

I was a prepubescent kid when I saw my first Colt Python and promptly fell in love with it. It was too heavy and too powerful and too expensive for a youngster my age, but that didn't prevent me from appreciating a superb piece of shooting machinery. It took only one look and one heft of a Python to tell you that in the world of handgun design, this one was a classic that stood apart.

Colt called it the finest revolver made. They may have been right. Even the most die-hard S&W aficionadoes have always seemed to find a soft-spot for the smooth-actioned, perfectly balanced Python.

I've always had a soft spot for it, too. I took my first Police Combat trophy with a six-inch Python, and bagged my first handgun-hunted big game with another.

The Python is, by all odds, the most popular gun in the Colt line. Not the biggest seller (the Detective Special is), but the one most desired by the consumer public, the only one of which Colt president Ed Werner can say, "If we could make twice as many, we'd still never catch up with demand."

The Python has its faults, of course, but in the collective judgment of schooters, what one man sees as faults, another construes as advantages. I never liked the Accro sight, which is really just a Micro on a Colt base, because the adjustments were mushy and not really target-precise. At the same time, the Accro is probably the most durable adjustable sight ever mounted on a production revolver, and seems never to lose its adjustment. The Python's double action is not great, having a tendency to stack, or offer greater resistance as the trigger nears the rearward part of its cycle. Even so, the careful fitting the gun receives at the factory smooths out the stack considerably, making the gun, out of the box, often slicker than competitive revolvers designed with straight-through trigger pulls. The Python has come for years with a mainspring especially designed not to

Top of the Colt line and first in the hearts of revolver buffs everywhere, the Python combines slick handling with the rakish good looks which have become its trademark among knowledgeable pistoleros.

grate one leaf on the other as the hammer comes back, a feature I'd like to see on all leafspringed Colt guns.

There are three factors that make the Python so highly regarded amongst the shooting fraternity: Accuracy, Balance, and Workmanship.

There are several good reasons for its accuracy, which has been proven time and again in machine-rest tests, in which the Python invariably groups tighter than any other .38/357 production revolver. First and foremost is the barrel. All Colt centerfires were changed from a one-in-sixteen inch twist to a one-in-fourteen in 1953, and all Pythons have this rifling. Sophisticated tests of late have concluded that this is ideal not only for stabilizing the .38 wadcutter, but for optimum accuracy with hot .38 and .357 loads as well. Add to this the fact that the Colt Python barrel is actually tapered at the muzzle and you have a bullet perfectly formed to perfectly-designed rifling. Also important to Python accuracy is the action design, which locks the cylinder with no play whatever when the hammer falls. This prevents the chamber from misaligning with the barrel, and shaving lead when the bullet goes into the forcing cone, which would make for an asymmetrical, less-stable projectile.

Colt no longer machine-rest tests their revolvers, and such a device is not to be found in the factory. (The same, incidentally, is true of S&W). But leading revolver smiths agree that the Python will group with the best custom Douglas barrels, given the same rifling twist. That means less than two inches at fifty yards with midrange, match-quality wadcutter ammo, and often closer to an inch and a half. This is comparable to the best match-accurized .45 target autos, and the S&W model 52 .38, and somewhat better than the Gold Cup.

Balance is another Python strong point. Because so much weight is forward, it kicks less than even the heavier framed S&W models 27 and 28. This means less flinching, faster recovery time in rapid fire, and a steadier hold while aiming. For years before the Douglas Barrel and BoMar rib made their entry in the world of police combat shooting, the Python was the choice of champions, and in many parts of the country was seen more often on police competition firing lines than the S&W, even though the latter dominated the police market eight or nine to one.

Finally, the workmanship was and is outstanding. I have seen Pythons that left something to be desired as they came out of the box, with rough, grating triggers, but not many. The average Python in the fitting room at Colt's Rocky Hill, Connecticut facility will take more than a half an hour to assemble and adjust, bearing surface to bearing surface. There was a time when Smith & Wesson's Bright Blue could rival or exceed the Python's Royal Blue in smoothly polished beauty. This is no longer the case.

I recently chaired a round table discussion on the old "Colt-versus-Smith" question for another gun magazine. Present were four of America's leading revolver experts. Three were dyed in

PYTHON

Al DeJohn examines an example of current Colt Python production. With remarkably few variations, the Python is still considered by many to be the premier out of the box DA revolver.

the wool S&W buffs, but all agreed unanimously that the best workmanship and finish on an out-of-the-box revolver today is to be found on the Colt Python.

PYTHON VARIATIONS

In the twenty-one years since its initial production, the Colt Python has gone through relatively few engineering changes. You will notice perhaps four real differences between a first-run and latest-run snake. Early on, the flat Accro sight was replaced with a slightly humped one, to raise the sight more. At the same time, the part of the ramp atop the vent rib was lowered slightly, and the front sight blade made correspondingly higher. This permitted more latitude in sight adjustment for those who engaged in long range shooting, or took advantage of the many disparate loads that .357 chambering can handle.

In 1963, the original fully-checkered grip was replaced by the current style, which is cut away around the top to alleviate a problem caused by the earlier stocks, which were cut in such a way that ejected shell casings would hang up on them. There is less checkering on the new style grips, and that is extruded rather than impressed. To my hand, it's a thicker grip, and not as comfortable as the early ones, though admittedly more practical. The other change, which came around the same time, was a "dog-leg" kink put in the top half of the mainspring, to prevent the notorious tendency of Colt mainspring leaves to bind upon one another during the cocking stroke. This smoothed the action considerably.

On the record books, the Python has never been chambered for any cartridge other than the .357 Magnum. Unofficially, however, we have learned of at least five other calibers in which Colt has experimentally built Pythons at the factory. In the early Sixties, when Winchester introduced the .256 cartridge to compete with the .22 Remington Jet, Colt built at least one or two snakes in that caliber. They performed well enough, but the management decided that the .256 didn't have enough commercial potential to warrant tooling up. They were right; only Bill Ruger, with his single-shot Hawkeye pistol, took a chance on the fledgling hot load, and the Hawkeye proved to be a commercial failure and a collector's delight.

When S&W introduced the .41 Magnum in 1964, labelling it as the ideal police service revolver, Colt looked long and hard.

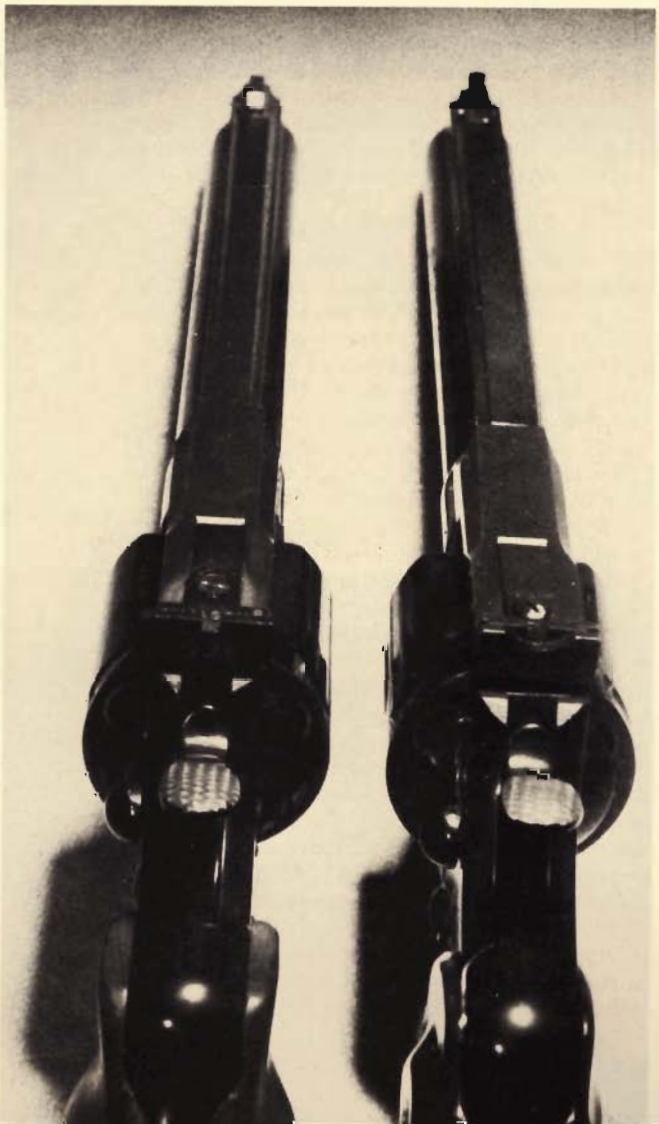
Top Colt execs Dick Brown, V.P. of Engineering and Ed Werner, President of Colt's Firearms Division listen to a review of Python manufacturing steps.

The I-frame Python, after all, is technically a .41-frame, and would have been ideal for the new load. Again, one or more Pythons were experimentally produced in .41 Magnum caliber, and again, they performed perfectly. But the Colt decision makers concluded that the .41 would be only a flash in the pan. And again, they were right, at least in terms of mass marketing.

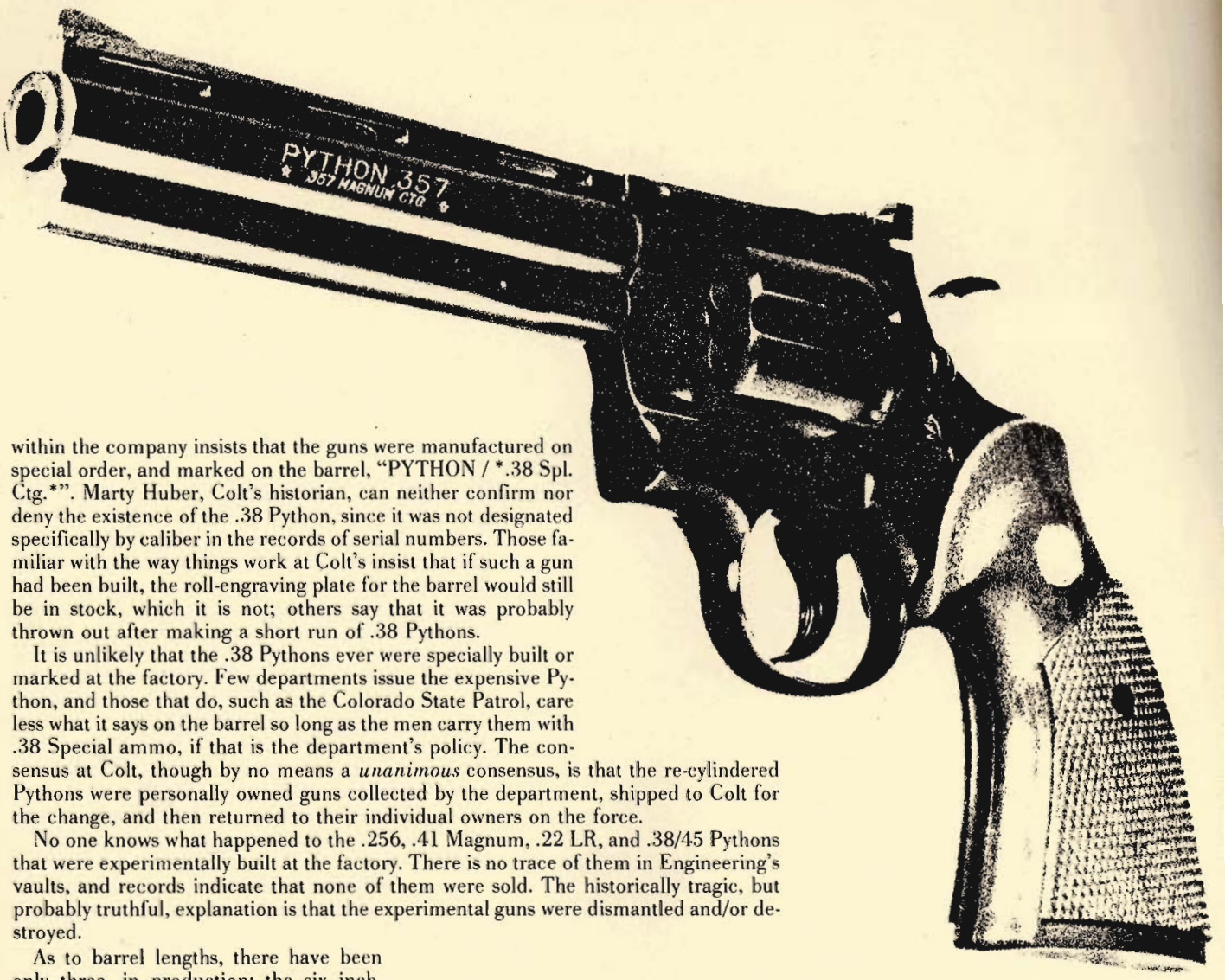
Early in the epoch of the Python, someone suggested that if this was indeed the ultimate target revolver, it should have a companion gun in .22 caliber, as did Colt's Officer's Model and the competitive S&W "K"-Masterpiece" series. Some who were at Colts back then will tell you that a .22 Python was never assembled, but Al Gunther, the man who handled the original Python Project, recalls building at least one or two. Colt turned thumbs down on it, though, because with so little metal cut away for chambers and bore, the already-heavy gun became simply too cumbersome. There were only a few ounces difference between the .357 Python and the .22 Officer's Model, and Colt decided that the latter was sufficiently close in weight and balance to make an adequate practice gun.

In the late Sixties, we're told, a single Python was built for a wildcat, bottlenecked 45/38 load. The first round jammed the gun by flowing the primer back in around the floating firing pin. The testers cleared the gun, and with only one chamber fired, consigned it to a drawer someplace in the vault in the Engineering Room.

The only caliber variation that may have gotten out of the factory would be a four-inch .38 Special. In the Sixties, Colt got at least one large order for Police Pythons, but the law enforcement agency that submitted the order didn't want their men carrying Magnums. The stories differ on this: one party who was at Colt at the time recalls that the department shipped them a quantity of already-owned Pythons which were refitted with .38 Special cylinders and sent back, but another source



The Eliason rear sight unit is compared to the older Accro on the right. Many shooters prefer the accurate Eliason unit.



within the company insists that the guns were manufactured on special order, and marked on the barrel, "PYTHON / *.38 Spl. Ctg.*". Marty Huber, Colt's historian, can neither confirm nor deny the existence of the .38 Python, since it was not designated specifically by caliber in the records of serial numbers. Those familiar with the way things work at Colt's insist that if such a gun had been built, the roll-engraving plate for the barrel would still be in stock, which it is not; others say that it was probably thrown out after making a short run of .38 Pythons.

It is unlikely that the .38 Pythons ever were specially built or marked at the factory. Few departments issue the expensive Python, and those that do, such as the Colorado State Patrol, care less what it says on the barrel so long as the men carry them with .38 Special ammo, if that is the department's policy. The consensus at Colt, though by no means a *unanimous* consensus, is that the re-cylindered Pythons were personally owned guns collected by the department, shipped to Colt for the change, and then returned to their individual owners on the force.

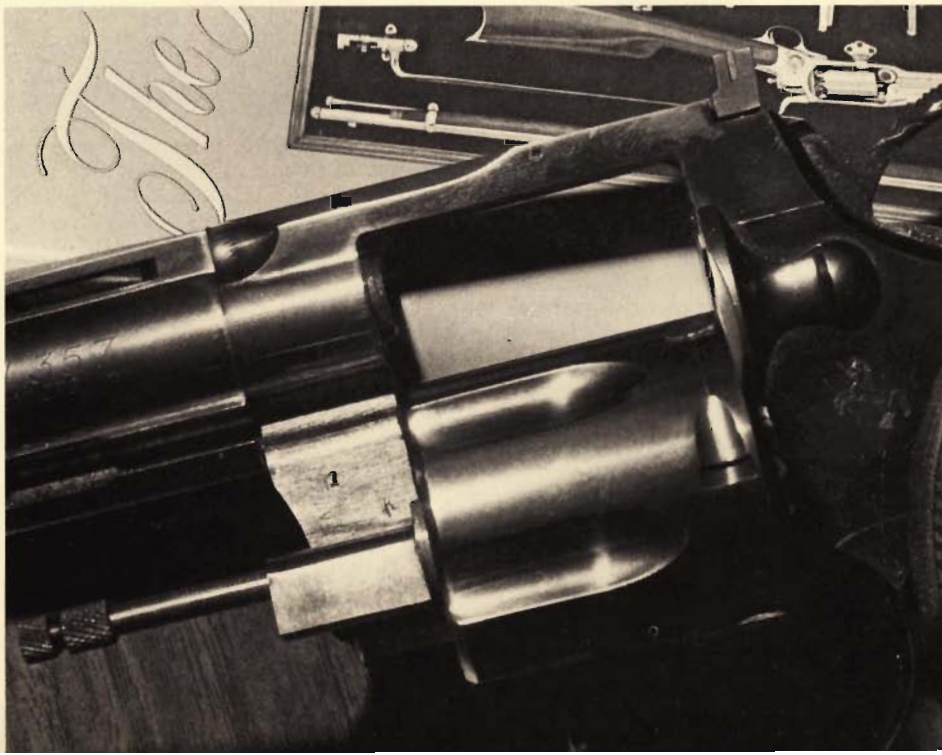
No one knows what happened to the .256, .41 Magnum, .22 LR, and .38/45 Pythons that were experimentally built at the factory. There is no trace of them in Engineering's vaults, and records indicate that none of them were sold. The historically tragic, but probably truthful, explanation is that the experimental guns were dismantled and/or destroyed.

As to barrel lengths, there have been only three, in production: the six inch, which has accounted for roughly fifty per cent of sales; the four-inch, which makes up forty per cent of Pythons sold to date; and the 2½", which constitutes the remaining ten per cent. Everyone at the factory denies that experimental 2" Pythons were ever built, and nothing longer than 6" has ever been factory-installed, experimentally or otherwise, on a Colt Python.

Twenty to twenty-five per cent of Pythons have always been finished in nickel, these mostly for sale in the humid South where that protective finish is popular.

One variation that may or may not exist would be a factory-installed Coltmaster sight, the blocky, dovetailed unit that was used on the Officer's Model Special until 1952, and replaced on the Officer's Model Match by the same Accro sight used on the Python. We know that some toolroom Pythons wore the Coltmaster, and Al Gunther, who built the first ones, is certain that least a handful left the factory that way. The Number One production gun, however, wears the flat-topped Accro, and it is doubtful that subsequent production guns would have been fitted with the Coltmaster unless there had been

Python #1, a collector's dream, resides in a fine display case in the office of Colt's president. This gun was built by Al DeJohn, a Colt executive.



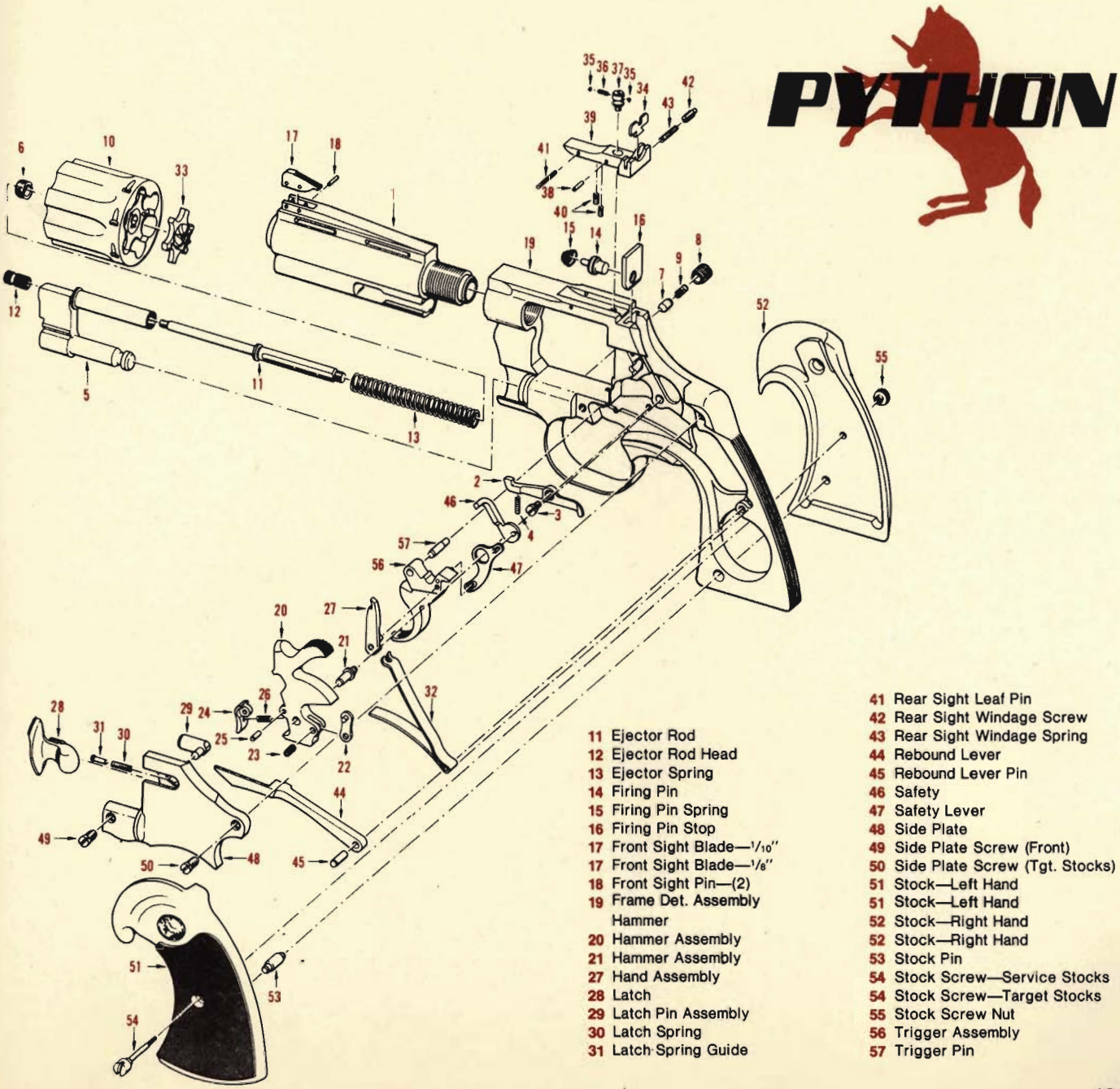
some shortage of Accros.

There is some question about the first prototype Python. "The Book of Colt Firearms" by Sutherland and Wilson carries a photo of the allegedly first Python, which appears to be an Officer's Model with a rough rib crudely clamped to the barrel, and with a naked, unshrouded ejector rod. However, neither Gunther nor Al DeJohn, who personally built the first production Python, recall this revolver, which was sold not long ago from the Sutherland Collection. No one knows what became of the first, 4⅝" tubed, non-vented prototype Python.

Colt made 300 Pythons in '55, 1,350 in '56, and had turned out a hundred thousand by the end of '69, when a new serial number range was inaugurated with #E-1001. The choice of the "E" designation is unusual, since Colt's execs tell us that while "E-Frame" is the designation of .41-framed revolvers with fixed sights, "I-Frame" is the proper nomenclature for adjustable sight guns of that size, including the Trooper, Officer's Model, and of course, the Python. Small-framed guns are assigned the letter "D", and the later Mk. III series is called the "J"-frame. Therefore, collectors may wish to seek out pairs of Pythons that are identically numbered save for the "E" prefix. Indeed, they may go for *trios* of Pythons with similar digits: in 1976, a third Python serial number range was begun with #1001-E. By the end of '76, the 200,000th Python will have been turned out.

The Python got its name at a time when Colt's had decided that deadly reptiles were good gun-identification. Rob Roy, now head of Colt's International Sales, recalls, "When the Cobra had been introduced a few years before, it had been an instant success, and it was already a generic name for a lightweight combat revolver. It seemed logical to go with the names of deadly snakes, and where our lightweight snubnose was a small, deadly, fast-striking thing, we wanted a big, impressive name for our heavy .357. Hence, the name 'Python'." One wag quipped,

(Continued on page 65)



1 Barrel—Without Sight Blade
2 Bolt
3 Bolt Screw
4 Bolt Spring
5 Crane
6 Crane Bushing
7 Crane Lock Detent
8 Crane Lock Screw
9 Crane Lock Spring
10 Cyliner Detail Assembly
11 Ejector Rod
12 Ejector Rod Head
13 Ejector Spring
14 Firing Pin
15 Firing Pin Spring
16 Firing Pin Stop
17 Front Sight Blade—1/10"
17 Front Sight Blade—1/8"
18 Front Sight Pin—(2)
19 Frame Det. Assembly
Hammer
20 Hammer Assembly
21 Hammer Assembly
27 Hand Assembly
28 Latch
29 Latch Pin Assembly
30 Latch Spring
31 Latch Spring Guide
32 Main Spring
33 Ratchet
34 Rear Sight Blade—1/8"
35 Rear Sight Detent Ball (2)
36 Rear Sight Detent Spring
37 Rear Sight Elevating Screw
38 Rear Sight Elevating Screw Pin
39 Rear Sight Leaf
40 Rear Sight Leaf Elevating Spring (2)
41 Rear Sight Leaf Pin
42 Rear Sight Windage Screw
43 Rear Sight Windage Spring
44 Rebound Lever
45 Rebound Lever Pin
46 Safety
47 Safety Lever
48 Side Plate
49 Side Plate Screw (Front)
50 Side Plate Screw (Tgt. Stocks)
51 Stock—Left Hand
51 Stock—Left Hand
52 Stock—Right Hand
52 Stock—Right Hand
53 Stock Pin
54 Stock Screw—Service Stocks
54 Stock Screw—Target Stocks
55 Stock Screw Nut
56 Trigger Assembly
57 Trigger Pin

The Custom PYTHON

AND HOW IT GETS THAT WAY

By MASSAD F. AYOOB

The Sadowski DA only conversion with Douglas Premium barrel shown in exaggerated perspective above is one of the custom conversions that PPC and combat shooters like Lucy Chambliss (below) have come to favor in quest of additional smoothness.

Colt says that their Python is the ultimate revolver. A couple of hundred thousand handgun buffs agree. But if they're right, even they will have to concede that their choice is the ultimate production revolver. Custom gunsmiths can do much to enhance its inherent excellence.

There are a lot of people around who do action jobs, rebarrelling, and other surgery on the big "snakes". I've seen a lot of their work. There are four I'd pick out as being the tops in the field, four gunsmiths who tune Colt Pythons the way the Petty family tunes Plymouths.

Come to think of it, that isn't a bad comparison. You can have a Python worked over to the same varying degrees of performance and practicality as you can a Plymouth. You can set the latter up for racing, street, or everyday use by a knowledgeable layman. Pythons can be tuned the same way: for PPC competition, for street use by a police officer or armed citizen, or for everyday enjoyment by the aficionado who will use it for sport and pleasure.

The four top gunsmiths who specialize in Pythons are Reeves Jungkind of Austin, Texas; Fred Sadowski of Denver, Colorado; Jerry Moran of Clio, Michigan; and Don Tedford of Colt's.

I know them all, and I've tried all their guns. They all overlap somewhat into each others' territory: all make Practical Police Course (PPC) guns, which is to say, revolvers designed to do nothing but fire .38 midrange wadcutter slugs into the tightest possible holes at ranges from seven to fifty yards. They all make "leg" guns, service/target grade revolvers that will do the same with round-nose .38 Special 158 grain service loads. The first three make double-action-only models, and the last three will do service guns for police holster use as well, and Moran and Tedford do guns specifically for outdoorsmen who will be hunting with the full .357 Magnum potential of their Pythons.

Jungkind started doing it outside the factory first, and has been doing it longest and most. His guns became famous when he did: Reeves, who trains the Texas Department of Public Safety which encompasses both the Highway Patrol and the Texas Rangers, was the man who saw the Python's potential smooth-

ness and inherent accuracy at a time when the first PPC shooters were turning from Pythons to Smiths in a search for slick actions.

His early guns, in a few cases, were so light that they had failures in ignition, which scared a lot of people. But Reeves worked the bugs out long ago, and his double-action-only Pythons are now as reliable with wadcutters as they are glass-smooth. I've rolled the triggers back on a lot of Jungkind Pythons, and I'm still convinced that a year with one will spoil you for anything else.

The double-action trigger pull on a factory Python varies between nine and twelve pounds. Reeves' guns go slightly over five pounds, and I played with one that belonged to a DC shooter that I'd swear was closer to four, even though that's probably a contradiction of the laws of physics. Reeves builds his guns DA only for open-class competition, but does slickin' jobs that leave the SA capability in if the shooter prefers to thumb-cock at 50 yards, or wants to shoot in the "leg" match for the Distinguished medal, where the rules demand a six-shooter that not only cocks via the fifth digit, but lets off single action at a weight of no less than two and a half pounds.

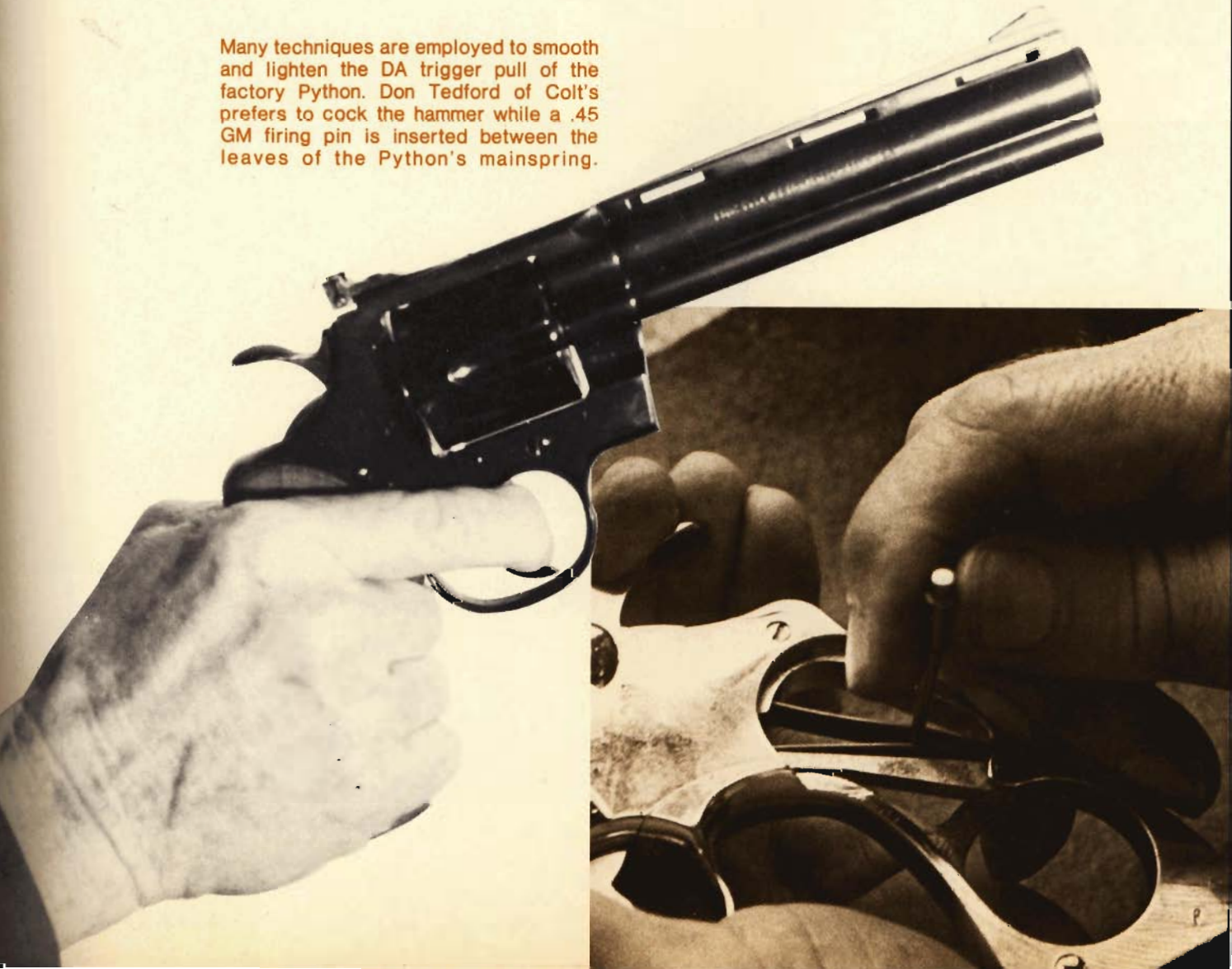
Sandowski builds full-bore competition Pythons, and prefers to make them DA only, but he too has an SA-DA option. Like the others, Fred admits that you lose some of the DA smoothness when you keep the SA in. Most of the PPC shooters who buy from Fred go the whole double action route; he sells most of his SA DA jobs to cops for their service sidearms.

Moran does all three, but leans toward the all-around SA-DA pull, and he concentrates on street cops and handgun hunters rather than PPC shooters, though he is one himself. In fact, all three are PPC shooters. Reeves Jungkind has held just about every NRA Police Combat record there is, and still holds most of them, including the 598 over the 600 point PPC course. Fred Sadowski has won several Police Combat tournaments, and Jerry Moran, a part-time constable in the Michigan hamlet he lives in, has turned in his own share of top master scores.

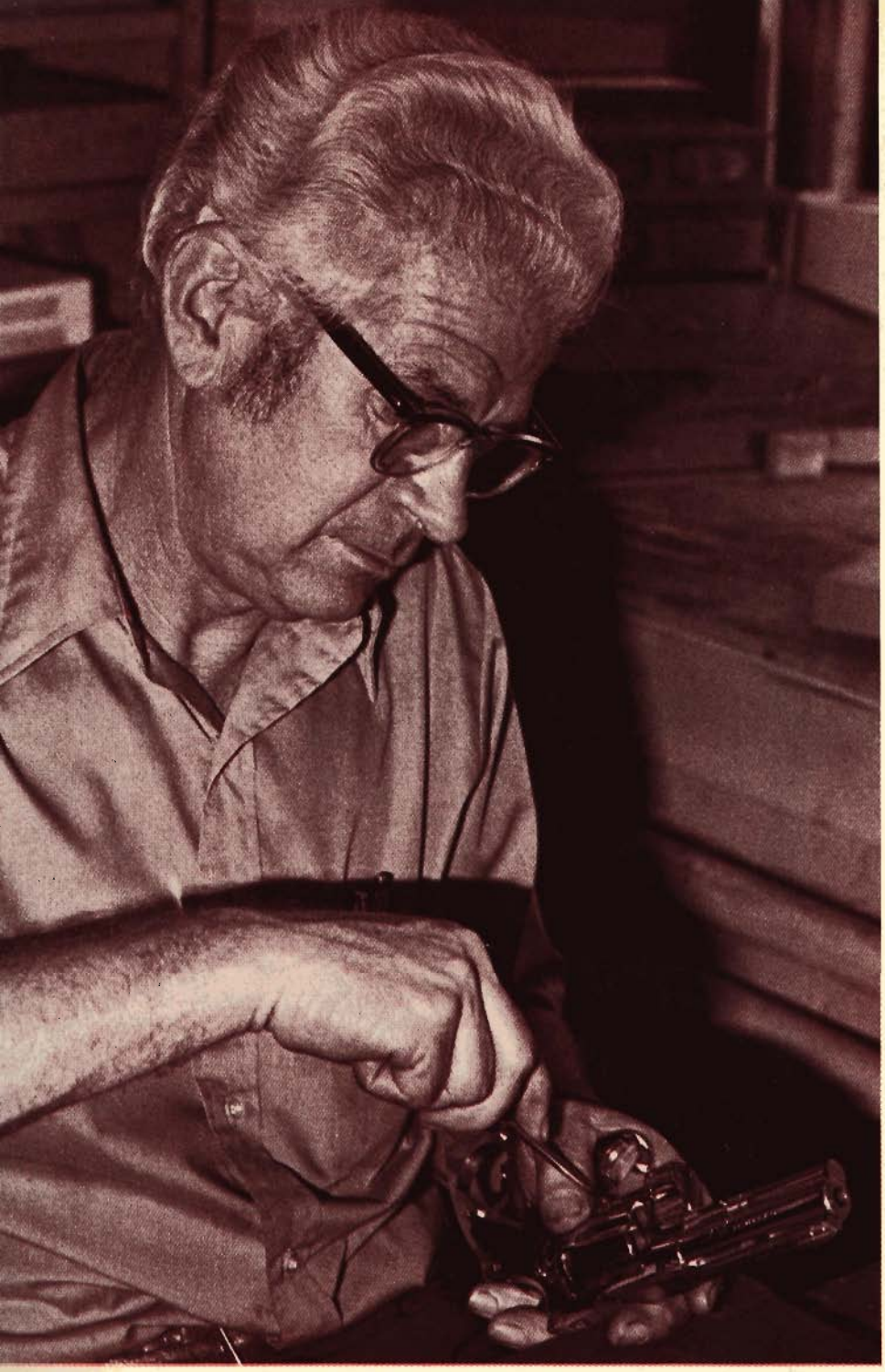
They all get their Pythons down in the five-to-seven-pound range of trigger weight. Jungkind, Sadowski, and Tedford put in trigger pulls that eliminate the second-stage "click" that is hereditary in the Colt revolver; Moran leaves the customer with the option of the straight-through pull or the trigger-brake with that last click. All of them change the relation of the hand to the rest of the parts so that the cylinder is locked before the hammer falls, which is not the case with the factory Python when you drag the trigger back slow. This is the single major factor that turned double action shooters against the classic Colt design: that last exertion on the trigger had to raise the "second hand" and roll the cylinder into battery, with an inertia that demanded too many pounds of pressure on the two-and-three-quarter-pound gun, and jerked the barrel sideways at the last instant.

They differ in their feelings about the original Python barrel. Reeves loves the one that comes in the factory box: "It's choked down to .354," he says, "which is conducive to accuracy. The one-in-fourteen inch twist is ideal for wadcutters, and good for all around shooting up to .357 Magnum. I use Douglas barrels in my premium competition Pythons only for the stabilizing effect of the extra weight."

Sadowski thinks the ultimate Python is one with a Douglas barrel, specifically, one he has milled down to an 11° crown, and with a 1-in-10" twist.



Many techniques are employed to smooth and lighten the DA trigger pull of the factory Python. Don Tedford of Colt's prefers to cock the hammer while a .45 GM firing pin is inserted between the leaves of the Python's mainspring.



PYTHON

Don Tedford begins work on a nickeled 4" Python. Tedford can lighten the Python's DA trigger for smoothness.

Moran won't touch any barrel other than the one that comes on the gun: "It's the best barrel ever put on a production revolver, and the most accurate," he says.

"Ted" Tedford doesn't touch Douglas tubes if only because he's restricted to Colt parts.

Backlash, or overtravel of the trigger after it has already dropped the hammer, is conducive to jerked shots in any handgun. One has applied several pounds of pressure, equivalent to 2½ or six times the weight of the gun, and suddenly the resistance disappears as the sear breaks and that nine or twelve pounds of pressure slams back against the rear of the trigger guard on the 44 ounce gun, and the muzzle is jerked violently while the bullet is still traversing the barrel. Result: a bullet that prints a long ways away from where the sights were locked when the hammer began its descent toward the primer.

The Colt comes out of the box with a decided double action backlash, and all the top Python customizers know it and try to make up for it.

All four of the men named above have succeeded, but they have done so in different ways.

Jungkind brazes a smooth, handsome "stop" onto the back of the trigger on his Pythons. That brass hits the back of the trigger guard the same instant the hammer is turned loose to fall. Backlash is eliminated.

Sadowski goes to great lengths in modifying the hand and sear. At the moment the hammer drops on a Sadowski PPC gun, the hand moves into such a position that the trigger is locked as tight as the cylinder. Backlash is again eliminated.

Moran also relies on a modification of sear and cylinder hand. Result: Backlash is once more eliminated.

I've tried all three, and the Moran impressed me the most because even in the SA/DA version, double action backlash could not be detected. This is also a seeming violation of the basic laws of physics and mechanics: if the gun functions Single Action, as it does, then there should be play in the trigger after the short double action pull is completed and the gunhand's muscular squeeze moves the trigger back to the stop designed for the longer single action pull. Nevertheless, I could find none.

Tedford replaces the bolt spring with the much lighter Python strut spring, and weakens the mainspring by holding a .45 auto firing pin between the leaves and cocking it, starting with the narrowest diameter of the pin and working up until it's just right. This system requires no re-heat treating, and is the easiest for the layman to perform. If you go too far, a little gentle work with pliers will restore the spring to its earlier, stronger configuration. He leaves all his DA/SA. While the other three are selling to knowledgeable connoisseurs, Ted does a lot of his work for dealers, and not knowing who's going to buy the finished gun, Ted makes sure his will work 100% with Magnums.

I've tried all four and I like all four. They've all got their good points, and their bad points. In a DA only, I like the Jungkind Python because the trigger stop has two healthy bonuses: It keeps the gun from freezing up the way a Sadowski DA-only Python will if some turkey playing with your gun drags the bobbed hammer back to full cock, and it reduces wear on the moving parts, specifically the hand and cylinder ratchet.

Reeves Jungkind fires a combat match with one of his premium Python conversions. Note the heavy Douglas Barrel.

I like Sadowski's DA/SA because it's the lowest priced, it's guaranteed to detonate Magnum primers, and he guarantees it 100%.

I like Moran's Python, because it stays with the factory barrel and seems to have the best compromise of double and single action, in terms of controllability and reliability, of all of them, with the emphasis on single action.

Like I said, I love em all. Each is a modification of a superb all-around factory gun for specific purposes.

For a competition PPC gun, I would give Jungkind's Python a slight edge over Sadowski's, and choose it for match shooting with wadcutters.

For use on the street as a police officer, I would select Fred Sadowski's $40 action job.

For hunting and general civilian use, I'd take Jerry Moran's Python, with which I've shot big game, running, double action, at distance well in excess of fifty yards.

If I were recommending a 'smith to a layman with a Python, I'd tell him to get a Tedford action job from the factory.

Reeves charges a flat $100 for an action job. Fred charges $40 for the standard job, $100 for the ultra-smooth DA only.

Ted's job is $50 flat. Jerry socks you a bit over $100 for his SA/DA, tossing in sight protectors and a couple of other goodies. In fact, they all toss in some goodies. To find out their current price lists, and how soon they can schedule work on your own pet "snake", write: Reeves Jungkind, PO Box 4087, Austin, TX 78773, Fred Sadowski, 300 Gunsmith Services, 3655 Washington St., Denver, Colo., Jerry Moran, C&J Gunshop, 2275 E. Farrard Rd., Clio, Mich., 48420, Don Tedford, Custom Repair, Colt's Firearms Division, 150 Huyshoppe Avenue, Hartford, CT.

By ADALBERT (AL) GUNTHER

As Told To Massad Ayoob

Adelbert "Al" Gunther was 17 when he went to work at Colt's on August 28, 1928. Like most new employees, he began on a milling machine. Over the years, he progressed upwards, and shortly before America's entry into WWII, he was in charge of machinegun production for the British in Colt's Sawtooth Building. As Colt's wartime production effort grew, the company's payroll swelled from 800 employees to 15,000. 7,500 of them were under the command of Gunther.

When the war ended, Gunther was superintendent of small arms manufacturing and of Colt's Autosan division, which made commercial dishwashers and industrial parts-washing machines. Union troubles limited Colt handgun activities to customer repairs for the first postwar year, but by 1947, production of handguns was back in full swing.

In 1953, when Colt's head salesman came to him with an idea for a new target revolver, Al Gunther was superintendent of all Colt manufacturing. He was also on the verge of his greatest achievement in a career spent with fine handguns: he was about to create the Colt Python.

How I Built The Firs

It was 1953 when Bill Henry, our top salesman, came to me with an idea for something new. He wanted a target pistol that was heavier and had better balance than the Officer's Model that had always been our classic target revolver. At this time, remember, the .38 revolver was the standard centerfire handgun in competition shooting. Colt's was on a very lean budget back then, and Bill hadn't got any results when he'd taken his idea to Engineering, because they were working on something else at the time. So he came to me with it, because among other things, I was in charge of the tool room.

I made up a rough model, welding up the frame in front, on top, to mate with a heavy barrel rib. I took a piece of steel out of the steel shed and brought it to Frank Coleman, the toolroom foreman, a very clever guy. We didn't have the cutters to do the toolwork for the special barrel, so I suggested we use the same cutters that were used for shaping the front of the frame. That's why the barrel on the Python wound up having the same silhouette as the front of the frame. Not that we might not have made it that way *anyhow* for esthetic reasons, but taking this approach didn't cost us anything except the steel. Remember, we had no budget for experimental work.

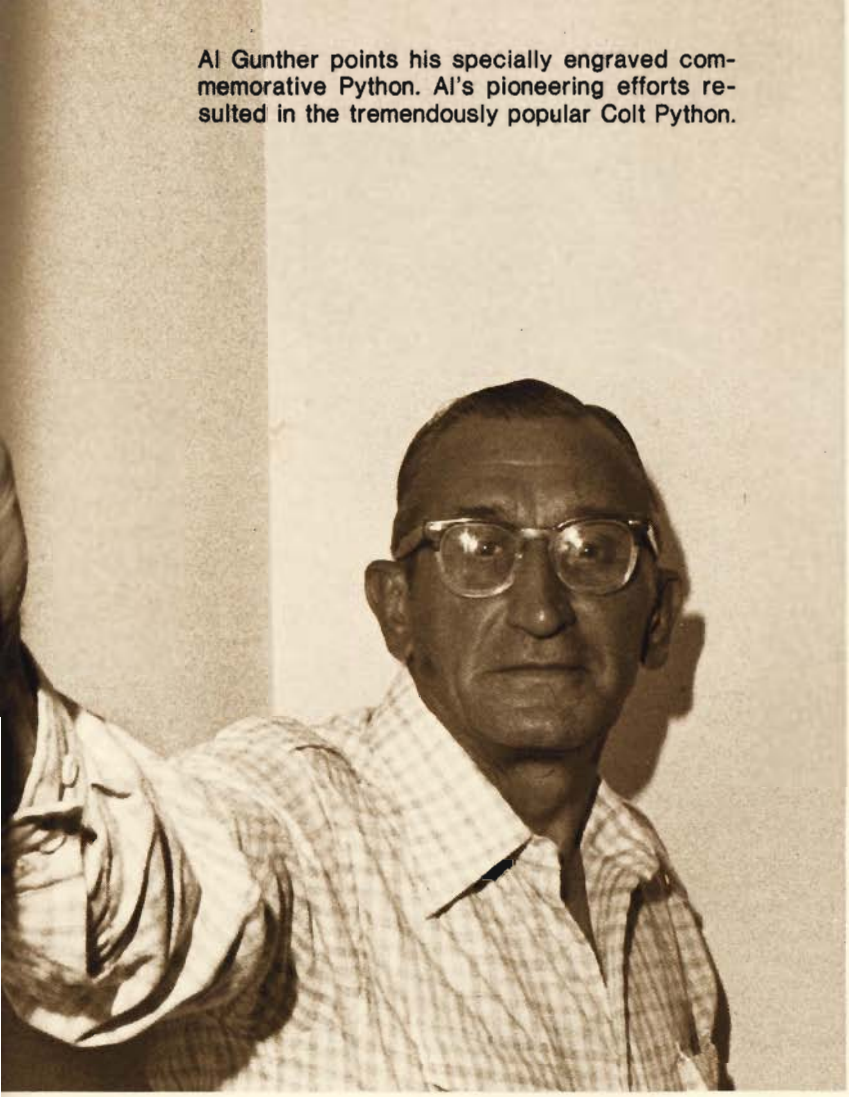
Some people have speculated that the King ventilated rib that was being used back then on some of the customized versions of our Officer's Model was the inspiration for the vent rib on the Python. That may have been in the back of Bill Henry's mind, but it never really occurred to me. The fact is, the first ones we made came out with a solid rib on top, kind of like one of the new models Dan Wesson is making today, and we cut those three slots in the six-inch Python barrel only because we felt the solid barrel made the gun too muzzle-heavy. Those are lightening cuts, not ventilation openings.

Our first Python weighed something like fifty or sixty ounces. It was unacceptably heavy. We'd been thinking in terms of forty-two or -three ounces. So we cut the slots in the top of the rib, and drilled out the part that housed the ejector rod, drilled it out almost to the muzzle of the gun. Later on, this was dispensed with, and on all the late Pythons, the underneath part of the barrel is completely solid. When we went to forged barrels, it was easier to leave that hole out, and it didn't make that much difference in the weight.

There were several prototype barrels for the first Python. One that I kind of liked was half-flat, half round. It looked like a cross between the Smith & Wesson Magnum barrel, and the barrel on our prewar Colt Match Target Woodsman. But most of the people at Colt, and the people outside, were unanimous in their approval of the barrel design that was eventually used on the gun.

That first gun took us the better part of a month to build. I had three good mechanical foremen on the project: Andy Perkins on the barrel end of it, and Walter Sowinski, and George Cramer. I think our man in the Polishing Room was Ernie Hall.

Well, we brought that first gun, with the solid rib and a 4⅝" barrel, to Bill Henry around the end of 1953. He was just ecstatic with it. He took it all over the country with him to salesmen's meetings and dealer get-togethers and shooting matches,



Al Gunther points his specially engraved commemorative Python. Al's pioneering efforts resulted in the tremendously popular Colt Python.

COLT PYTHON

and everyone just raved about the gun.

The Python finally went into production in 1955, and there's a story behind that, too. It wasn't tooled up for a long time. The people in Engineering weren't happy with it, maybe because it wasn't their design. I had the toolroom foreman make what we called a universal fixture, which was really a couple of versatile fixtures that would allow us to do just about every necessary operation in building the gun. I made the first five hundred Python barrels on that machine, without any engineering drawings or blueprints.

The first prototypes didn't have the kind of sight you see on the Python today. We used the Coltmaster sight from the Officer's Model Special which was discontinued in 1952. This was dovetailed into the top of the frame, and wasn't nearly as sleek looking as the Accro sight that was used on the production guns. I have a suspicion, though, that a few of the early Pythons may have gone out of the factory wearing the Coltmaster sights, though the Accro was on the # 1 production Python, which was built by Al DeJohn.

Somewhere between Bill Henry's brainstorm and the first production Python, the concept of the new revolver got changed around a little bit. Originally intended to be a pure competition revolver, it didn't come out quite that way. Although the toolroom guns had been made in .38 Special caliber, with Officer's Model cylinders, it was decided to make the final Python a .357 Magnum. A gun of that size seemed a natural for the Magnum caliber, which was just beginning to become really popular, and made the gun equally suitable for outdoorsmen as well as target shooters. We also put on a ramp front sight instead of a target post. It looked sleeker, and was easier to make.

The name of the gun came from a contest we held at the plant. I forget what some of the other entries were, and I don't really remember who thought up "Python," though I think it might just have been Philip Schwartz, who was one of our vice presidents then, and later became president of High Standard. But I'm sure glad they didn't just call it another variation of the Officer's Model. It would have lost something with a name like that.

The finish is something special, too. Naturally, everyone agreed that a special gun like this should have a special finish. It was the first really super-deluxe finish Colt ever put on a production gun. Contrary to popular belief, we didn't blue the Python with any different formula than we used on the other guns. Polishing was the secret. We used old fashioned wheel polish, beginning with about an 80-grit emery, and progressing to 120-grit, 320-grit, and finally 400-grit emery. 400-grit emery is the consistency of flour. This would be applied with a leather top wheel—Colt always made their own four-inch-wide, old fashioned leather polishing wheels—and that 400-grit was so fine that when you were using it with some grease you couldn't see any sparks at all from the polishing wheel. To the best of my knowledge, that's the method Colt still uses to put the Royal Blue on the Python, the Gold Cup, and some of the special Single Actions. Royal Blue was the name they gave to the finish we created for the Python, but even today, around the Colt plant, they still refer to that ultra-polish job as "the Python finish."

Of course, the action on the Python was hand-honed from the beginning, as it had been on some of the Officer's Model .38s and .22s. The hammer that you see on the Python was there from the beginning, and that was the first gun we used that particular type of beavertail hammer on, though we later offered it standard on the Officers Model and as an option on the Trooper and Three-Five-Seven.

There were never any real problems with the Python, except for a period when a few of them went out with bad springs. Colt's had been buying the springs from an outside source at that time, and we had problems with both the D-frame (Detective Special size) and I-frame (Python-size) guns, you know, weak hits and poor ignition, especially double action. But we took care of that in short order.

I only own one Python now, a six-inch that was engraved and presented to me shortly before I retired from Colt's in 1972. I take it out and look at it every now and then.

One of the gun writers asked me a little while ago, "Al, if you were still in charge of manufacturing at Colt's, and another one of your salesmen came up and asked you to update and improve the design of the Python, what alterations would you make in it?" It's funny, but you know, I couldn't think of a thing I'd change.

Cover Story:

THE THOMAS .45 ...NEW GUN IN TOWN

By WALTER RICKELL

What weighs 32 ounces, stands 4¼-inches tall, measures 6½-inches in overall length and packs a .45 ACP punch? Up until now, nothing! But the latest design from Alexander James Ordnance, 1066 E. Edna Place, Covina, California measures up (or down) to those specs and throws in one other innovation to boot, namely full double action capability for *all* shots.

Sceptics have been quick to point out the safety problems inherent to most autopistol designs while following up that argument with a general down grading of the DA/SA capabilities of such marques as the S&W 39/59, the P-38, etc. The typical DA system, they say, has such a wide divergence in trigger feel and travel in each mode as to almost negate the advantage of the quick first shot. These divergences in trigger weight, travel and point of letoff contribute to the notable absence of good two-shot grouping when the autoloader is fired from the DA mode for the first shot. There is a kernel of truth in this argument, for the DA/SA firing system *does* take much intensive training to master to the point of competence under combat situations.

In order to avoid this potential source of combat fatality, Frank Thomas reasoned that the widely accepted DA techniques used by wheelgunners has just as valid an application in the autoloader field. Thus was born the Thomas .45, a concealable 7-shot autoloader with the unbeatable three-way combination of power, diminutive size and instantaneous first shot capability with total safety for the user. The Thomas design is simplicity in itself: only 3 major moving parts. The trigger is attached to a transfer bar which in turn cams the firing pin to accomplish discharge. The inertia of the slide is overcome by the expanding gases of the discharged cartridge which forces the slide rearward in a straight, almost blowback action, simultaneously compressing the barrel mounted recoil spring and ejecting the fired hull. The recoil spring then expands, forcing the slide to return to battery while simultaneously stripping a fresh round from the butt-housed magazine. Since there is no hammer, the firing pin is always at rest in its rebound mode until contact is forced by pressure on the trigger. This eliminates any need for external safeties. The firing system is as safe, or safer than most DA revolver designs, and who wants a safety on a revolver?

The locking system employed by the Thomas design is unique and practical in the extreme. A "U" shaped stirrup of solid steel is cammed up into engagement into

slide mounted locking recesses by the natural grasping pressure exerted by the web of the shooting hand. This also acts as a type of grip safety by allowing the transferance of trigger pressure only when the external grip piece is depressed. After the chamber pressure of the expended round has peaked, the lock is lowered automatically allowing the slide to cycle a fresh round from the magazine and return to battery. This new concept in locking systems is definitely not a flimsy one. It is strong, positive and totally reliable in action, plus, it delivers a substantial reduction in felt recoil effect.

If the proof of the pudding is in the eating, the same may be said substituting the words 'pistol' and 'shooting' in the appropriate niches. Thell Reed, expert pistolero and deadly quick draw competitor, was drafted to do the honors with the new auto pistol. Thell, though far more accustomed to single-action shooting, soon had mastered the new pistol. The unique Thomas trigger differs from the DA pulls of most autopistols in a number of aspects. First, the trigger weight is uniform, there is no increase in resistance as the pull commences. Second, is the remarkable consistency on a shot to shot basis, with each pull exactly like its predecessors. This allows a cadence and regularity of fire unmatched in any revolver design, allowing for a steady sight picture and good shot placement even during rapid fire.

The test firing was held in Little Tujunga Canyon, not far from San Fernando. Thell, after a bit of dry fire for familiarization, was able to show excellent groups on the 20-yard silhouette in rapid fire strings. After several hundred rounds the Thomas .45 was field stripped and visually checked. A small amount of fouling was evident, but functioning continued to be 100%. Another 500 rounds of assorted factory and reloaded ammo was fed through the diminutive DA without a single miscue. At the end of the day's firing, over 1000 rounds had been sprayed from the test sample without maintenance. Efforts to choke the little gun by inserting an empty hull in the stack of live cartridges failed when the Thomas chambered the empty reliably and ejected it just as reliably when the slide was manually cycled; the next round was snapped briskly from the magazine's feed lips as the slide returned to battery. No fears about having to clear a sticky jam-up here!

The DA only Thomas .45 is a compact handful of stopping power available instantly.

Though its small overall dimensions may preclude its acceptance as a standard police sidearm, the Thomas .45 has a very definite place as a back-up or concealment weapon for on or off-duty use. It is a compact bundle of raw power which has the added security of full safety combined with instant firepower availability. The current price of the Thomas .45 is $275.00. Delivery is slow but positive. A back-order list is already mute testimony to the high esteem the new gun has garnered through just word of mouth publicity. Already a 9MM version is on the drawing boards, and should become the darling of mid-bore lovers. The inherent safety, reliability, and first-shot speed of the Thomas is going to make this little gun the one to compare all revolvers with. The 7-round capacity and .45 ACP punch is not to be equalled in any current-issue DA revolver, so municipal police agencies had better revise their thinking regarding the safety, power and speed of their current standard sidearms. For defense, combat competition and just plain big-bore shooting fun, the Thomas .45 is the little giant to be reckoned with!

A field stripped view of the Thomas .45 reveals the economy of the DA only design.

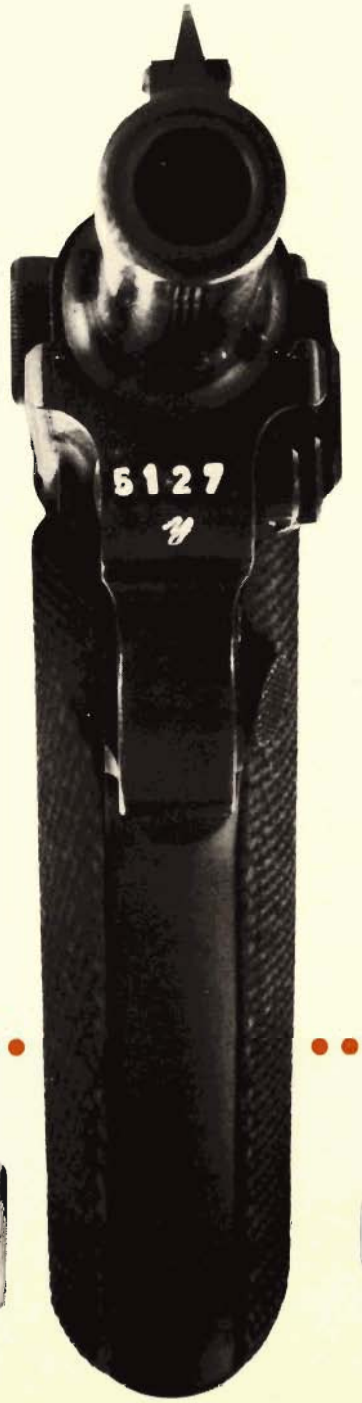
Collecting The Mauser Military Parabellums

By B. A. LAFFERTY

THE MOST common Luger brought back by returning GI's from Europe was the Military Model. This is the variation characterized by the 100 mm (about 4") barrel, 9 mm Luger caliber, fixed sights, and the date of manufacture over the chamber.

The World War I Lugers were dated from 1910 through 1918, and were manufacturerd by the *Deutches Waffen und Munitionsfabriken* (DWM) and the Erfurt Arsenal. Refer to "Imperial Military Lugers" in the May, 1975 issue of GUNS for more data on the early pistols. World War II Lugers for the German Army and Navy were made by *Waffenfabrik Mauser;* most of the Luftwaffe's Lugers were manufactured by Krieghoff in Suhl. The Nazi-era pistols were made and dated between 1934 and 1942, with a few Krieghoffs dated 1943, 1944, and 1945. The 1934 and 1935 Lugers carry coded dates, since they were reportedly manufactured more or less clandestinely.

Over 1.6 million Military Lugers were produced for both wars; about 700,000 for WW I and 900,000 for WW II. Thus, the Military Models outnumber all other Luger variations by more than ten to one, and they often form the nucleus of a Luger collection. Since the Military Model is the most often traded Luger, its price is the "touch-stone" against which all models are evaluated and compared.



THE MAUSER FACTORY

In 1930, *Waffenfabrik Mauser,* at Oberndorf on the Neckar River, acquired the former Luger tooling and parts of DWM. These had been used for nearly a decade by the *Berlin-Karlsruhe Industrie Werke* (BKIW) to manufacture and rework pistols for both Germany and for export. The BKIW Lugers still had DWM toggle markings, and include the 1920 and 1923 Commercials sold in the U.S. in large quantities. The 1930 transfer to Mauser moved machinery, tooling, and workers across Germany from Berlin southward to Oberndorf.

Upon resumption of Luger manufacture, Mauser continued the production of the A. F. Stoeger-marked American Eagle models for the U.S. market. They also fin-

Comparison of Mauser military Lugers showing strawed versus blued small parts. Note especially the trigger and safety. The G date is #200e; 1937 date is #5127y.

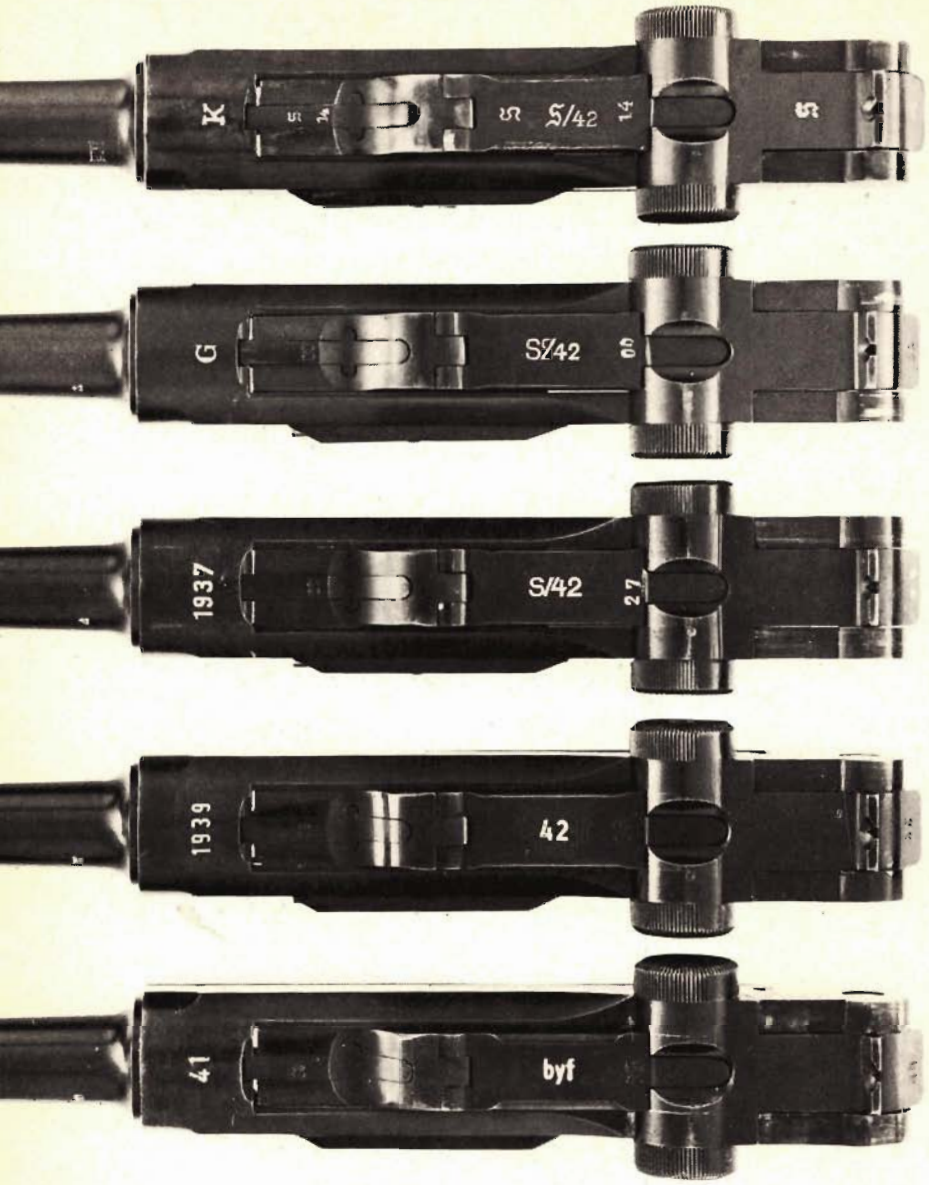
ished off a contract with the Dutch that BKIW had started in 1929. Several Model 1906 Swiss Lugers with the Mauser trademark have been examined, also. These were probably made to try to interest the Swiss in again purchasing German-made Lugers, but the Swiss had been manufacturing their own at Berne since WWI.

Many of the first 2000 or so Lugers made by Mauser bore the DWM toggle marking, since many spare toggles already marked had been obtained from BKIW. The most definitive evidence of Mauser assembly of these transitional pistols is the "Oberndorf Proof," a "U" surmounted by a crown. This proof was used on all Mauser-made weapons since before the turn of the century.

Front of 1937 S/42, #5127y, shows frame and magazine serial numbering. The "†" on right magazine denotes the spare. The loading tool is proofed with the middle receiver proof mark; used to load clip and also as a basic field stripping tool.

FIRST MAUSER MILITARY PRODUCTION

It is established that BKIW, Simson, Krieghoff and Mauser all produced some "sneak" Military models for the German Reichswehr between the wars. These are called "sneaks" because the 100 mm barrel length and 9 mm caliber violated the treaty of Versailles. The treaty allowed manufacture of pistols of 7.65 mm or less, with barrel lengths of 90 mm or less. Germany strictly adhered to these limitations on exported Lugers, but the Reichswehr never converted from 9 mm Lugers. Ostensibly they still used pre-1918-produced pistols. This was legal under the treaty, and it explains the many Reworks and Double-Dated Lugers produced in the 1920's. When Hitler came to power, rearmament became more blatant, and Mauser was given large contracts for Lugers for the new *Wehrmacht*. To protect the manufacturers from prosecution under the treaty, all arms and ammunition makers were assigned secret number codes to obscure the source of the materiel. Further, letter codes were used instead of dates to further prevent treaty enforcement. The numerical code assigned to Mauser was "S/42," and this was stamped in place of the Mauser trademark on the forward toggle link of the first production Military Lugers, made in 1934. The Mauser logo is usually called a "banner" by collectors, apparently alluding to the Walther factory trademark, which is in fact a banner symbol. The terminology was further entrenched by its use in Jones'



Mauser military toggle and chamber markings (top to bottom): Serial 1214, "K" date with script S/42 and proof "S's" on toggle; "G" date (1935) serial number 200e with double struck toggle; 1937 S/42 with the serial number 9339v; and a 41 byf with the serial number 3383z.

definitive "Luger Variations" in describing Lugers bearing the Mauser trademark.

"K" AND "G" DATE LUGERS

The 1934 production for the *Heer* (Army) and *Kriegsmarine* (Navy) was identified by the letter "K" over the chamber of the pistols. The traditional Oberndorf "crown-over-U" proof was replaced by a new proofing system established by the *Heeres Waffen-Amt* (Army Weapons Office). Approximately 12,000 "K" dates were produced, starting with serial number 1. The serials advance up to number 10,000, at which time they are reset to 1 with the subscript "a" on the frame serial. The lowest "K" serial observed by the author is 179; the highest is 622a. Unlike DWM in WW I, Mauser did not reset the serials at the end of each year; the numbers are contiguous.

The 1935 code was arbitrarily chosen as "G", and 55,000 more were produced. The lowest observed "G" serial is 3472a; the highest is 4459f. The serial number table shows the tabulation of observed Lugers and dates, and the interpolated estimates of quantities produced in each year. The sample is large enough to guarantee an accuracy of at least 10% on these production figures.

In May of 1935, Hitler appeared before the League of Nations and formally renounced the Treaty of Versailles. This permitted an end to the subterfuge in date codes, and subsequent weapons of all types bear the dates of manufacture, 1936-1945. But the manufacturer codes were continued to the end of the war. Apparently Hitler anticipated the strategic bombing that would attempt to cripple his war industries in the coming decade, and he continued to keep the names secret.

MAUSER LUGER TOGGLE MARKINGS

The first 9,000 "K" dates bear a toggle marking with a script "S" preceding the "42". Subsequent "K" through 1939 Mausers have a standard gothic "S" in their S/42 toggle code. The significance of the "S" is that it identifies Mauser as a firearms *(Schusswaffen)* manufacturer. Cartridge *(Patronen)* makers' number codes were preceded by "P", and so forth. By 1939, this sytem was abandoned, and just the numbers were used. In May of 1939, Mauser changed over to the "42" on the forward toggle link. Perhaps the *Wehrmacht* thought the number codes had been compromised, because in 1940-41, all weapons makers were reassigned letter codes of two or three lowercase letters to replace the number codes. In January of 1941, Mauser changed codes again, to "byf." The "byf" code was then used until Luger production was halted in 1942. Mauser then tooled up to produce the P-38 through 1945.

The toggle-marking transitions are not clear-cut, but take place over a period of a month or so in each case. Thus, there are overlaps of 10,000 or more serials around each change-over. This becomes a snare

for the unwary when trying to pin down the exact quantity made of a given marking combination, such as the "41-42" (1941 production with the number-code toggles). The 41 byf's overlap the "41-42" range (3700n-3700o) completely, since a 41 byf with serial 3372n was observed. Further, a 1940 "42" code with #6668n has been observed, so the transition to the byf toggle was a sloppy one, indeed.

IDENTIFYING MAUSER-MADE LUGERS

The conservatism of arms manufacturers in general and the Germans in particular is evidenced by how little the Military Model Luger changed from 1908 through 1942. The most obvious differences were the addition of the so-called "stock" lug in 1914, and the finish changes that occurred when Mauser took over from BKIW. Unlike their predecessors, Mauser used an immersion blue instead of the painstaking rust process used by DWM

TABLE 1

MAUSER MILITARY SERIALS AND PRODUCTION ESTIMATES

Chamber Marking	*Toggle Marking*	*Observed Low Serial*	*Observed High Serial*	*Estimated Quantity*	*Remarks*
K	S/42	179	622a	12,000	1934 Production
G	S/42	3472a	4459f	55,000	1935 Production
1936	S/42	8977f	901p	98,000	
1937	S/42	7764p	9503a	119,000	
1938	S/42	1204b	3051n	124,000	
1939	S/42	5937n	5023r	38,000	Overlaps with "42" toggle
1939	42	300r	1595z	86,000	
1940	42	5355	6668n	137,000	A few S/42 toggles seen
41	42	3707n	3773o	5,000	Overlapped by 1940
41	byf	3372n	9975	127,000	Overlap 1940 & 41-42
42	byf	597	2197n	130,000	Overlap 41 dates slightly
		Estimated total production		936,000	

The Waffen-Amt concern regarding the frame tolerances was not unfounded as Simson rework of a 1917 Luger reveals (top). Toggle rear axle pin could escape at full recoil. The bump, or frame extension of the Mauser-made military Luger (below) prevents this.

and BKIW. This is shown by the blued frame recesses of virtually all Mauser Lugers, including the Mauser Dutch contract of 1931. The fine polish of the steel, and careful control of the salt temperature and purity prior to 1937 has caused many collectors to think the pre-1937 S/42's are rust blued. The influence of the polish of metal on bluing color can be seen on the pre-1942 Walther P-38 frames. The mirror-polished flats of these frames are a deep, rich blue, but the unpolished recesses of the same piece are ghastly red.

Mauser also changed the finish of the hold-open device when they took over from BKIW. All but the bolt-mating surface of a Mauser hold-open is left in the forge-black finish, whereas DWM always polished and heat-treated the whole hold-open. While such items may seem to be trivial, they are important to determine the origin of transitional Militaries of the late '20's and early '30's.

The most obvious change added to the Nazi-era Militaries was the lengthening of the frame rear at the request of the *Heeres Waffen-Amt*. Early "K" dates have a pronounced bump on the top rear of the frame, in the area of the toggle rear axle. Somewhere between the "K" and "G" date transition, the bump was deleted, but the whole frame rear was thickened to provide the same extension as the bump. The thick frame is found on all Mauser Militaries from "G" through the mid-1937 S/42's. Starting in 1937, the frame rear was again ground away to reveal the bump, just as with the earliest "K" dates. The bump appears on all subsequent Militaries, through 1942 when Mauser discontinued production of the Luger. The reappearance of the bump coincides with the transition from strawed to blued small parts, between serials 4468s and 7853t of the 1937 production run.

A current manager of the Mauser factory was quoted in the "Deutches Waffen Journal" as revealing the reason for the bump. It seems that in the WW I Lugers, the rear axle comes within two thousandths of an inch of falling out when the toggle is at full recoil. The *Heeres Waffen-Amt* was afraid that receiver lug or frame well cut tolerances might drift off enough to allow the pin to slip sideways while firing, thus jamming the pistol. So the frame extension was developed to preclude this possibility. The bump also discourages improper field-stripping by attempting to drift the axle out without dismounting the receiver from the frame. It also prevents the pin from falling out if the head becomes nicked or broken off.

It is interesting to note that the Imperial Navy was worried about this same tolerance before WW I. Starting in 1908, the Navy Model Lugers have rear axles with

Shown are the variations in Mauser military proof marks (top to bottom): early "K" date, serial #8355; a 1937 S/42, serial 5127y; a 1939 "42" serial #9339v; a 41 byf, serial number 3383z and a 42 byf serial 606g.

One of the first Lugers made at the Mauser factory. This grip-safety Dutch Commercial was made to complete an order placed with BKIW in 1928. One of 595 Lugers delivered to the Netherlands from 1930 through 1932.

much larger heads than other Lugers. The head of most axles is 0.8 mm larger than the pin, but the M1908 and M1914 Navy heads are a full 2 mm larger than the axle. Mauser briefly considered going to the enlarged head in 1934, but dropped the idea since it would complicate spare parts logistics. The frame-extending bump satisfied the *Waffen-Amt*, and no interchangeability problems were generated.

CHANGES IN MAUSER MILITARY LUGER FINISH

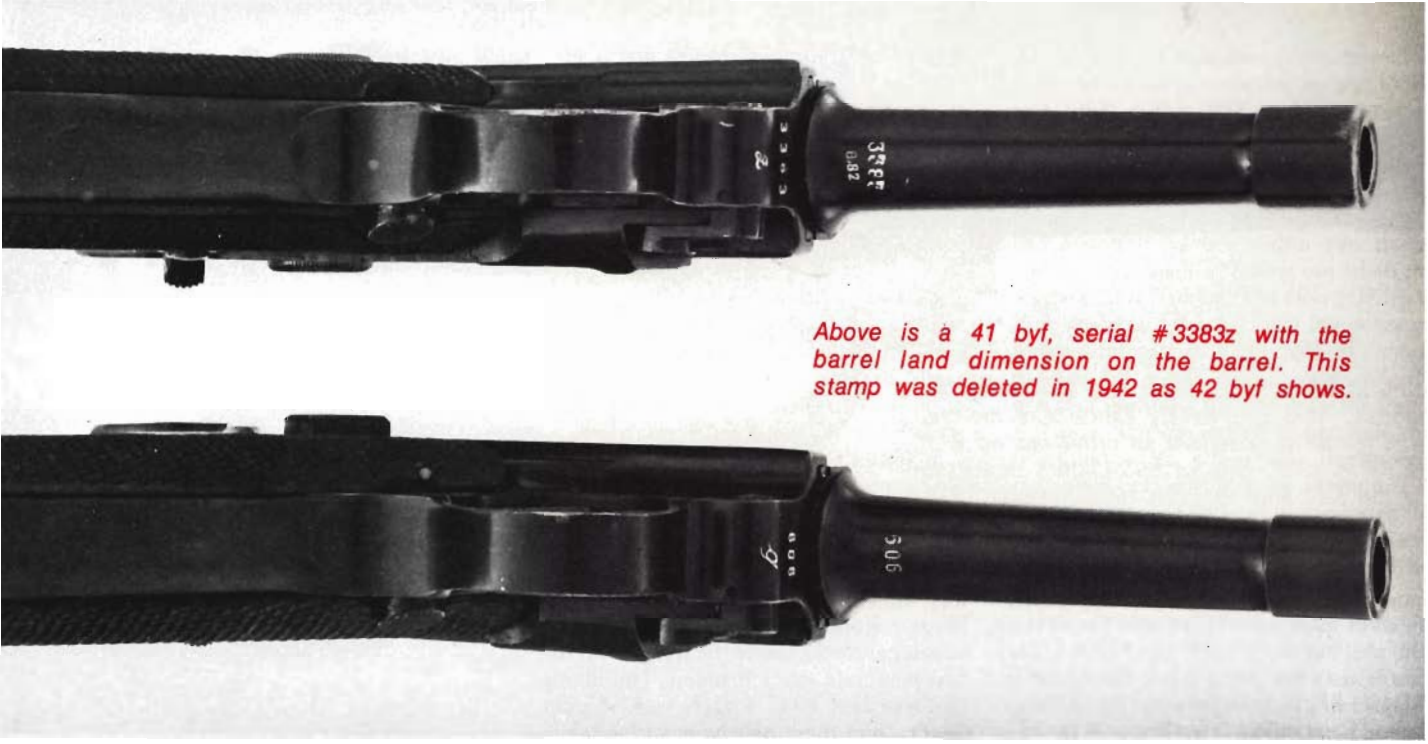
The change from the gold, or "straw"-colored small parts in 1937 was the most significant Luger finish change since its adoption in 1908. The straw color of the trigger, safety, locking lug, magazine catch and ejector gave way to a more military, functional blue. At the same time, Mauser stopped polishing the horizontal interior surfaces inside the frame, and the barrel muzzle was left blued. The bluing of these late 1937 Lugers was of poor quality, and there are many variations in the color of blue between the various parts. The finish of the receiver is especially prone to wear, and usually is a deep maroon color. More millmarks are evident, overall.

The magazines in early Mauser Militaries were aluminum bottomed, with nickel-plated stamped steel tubes. The bottoms were stamped with the Luger serial and small letter, just as it appears on the frame front. Two magazines were issued with each pistol, along with the holster. The spare magazine was denoted by a "+" symbol below the serial. In addition, both magazines are stamped with the same proofmark that appears on the loading/stripping tool. This proof is the same as the middle proofmark of the three proofs on the receiver of the Luger. In late 1936, between the "*L*" and "*D*" serial let-

TABLE 2

MAUSER MILITARY LUGER MARKING AND FINISH TRANSITIONS

Date	*Transitional Feature*	*Observed Serials*	*Feature*
"K"	Change from script S/42 to Gothic S/42 on toggle marking	8865 9288	Script Toggle Gothic Toggle
"G"	Change to standard Eagle-over-63 type proof marks	1010d 8999d	Early Proofs Standard Proofs
1936	Change from nickel-plated to blued magazine tubes	3175l 7493o	Nickeled magazine Blued magazine
1936	Deletion of polishing of interior receiver tines	775n 901p	Polished receiver Blued receiver
1937	Change from straw to blue small parts; interior frame not polished	4468s 7853t	Strawed parts Blued parts
1939	Change to Eagle-over-swastika and larger Eagle-over-63 proof style	5023r 9339v	Small std. proofs Large swastika proofs
1940	Change from Inspector #63 proofs to Inspector #655 proofs	4927b 6459c	Eagle-over-63 proofs Eagle-over-655 proofs
41	Change from Inspector #655 to Inspector #135 proofs	3383z 7636	Eagle-over-655 proofs Eagle-over-135 proofs



Above is a 41 byf, serial #3383z with the barrel land dimension on the barrel. This stamp was deleted in 1942 as 42 byf shows.

ters, the magazines were changed from nickel-plated to blued stamped steel. At this same time, Mauser stopped polishing the interior of the receiver times, although they continued to polish the frame interior horizontal surfaces until 1937.

MAUSER SERIAL NUMBERS

As the tabulated serial data shows, Mauser went through the alphabet on the subscript letters by late 1937, by which time 270,000 Lugers had been produced since "K" date #1. Upon reaching #10,000z, Mauser started over again with #1, with no small letter. The highest observed 1937 S/42 serial is 9503a, for a production of 119,000 for the year. No wonder the finish quality dropped off!

An interesting feature of Mauser Lugers made around 1935 is that the serial numbering dies of these pieces have an entirely different shape from the BKIW dies, or from post-1935 Mauser numbering. The difference is in the "aspect ratio" (height versus width) of the numbers. All of these early pieces have skinnier-looking digits in all of the parts serials. This characteristic can be used to positively identify undated Commercials as to whether they were made in the 1933-1935 time period. The early Mauser Banner Dutch, and the Portuguese GNR's have the narrow serial digits, for example.

The Navy's solution to the toggle axle problem. The 1906 (top) has pin head diameter of 0.134"; the M1908 has head diameter of 0.360".

LAST TWO YEARS OF PRODUCTION

1940 saw increased use of the new double-action Walther P-38 in the German Army. The P-38 was heavier and clumsier than the sleek Luger, but it was more dependable and cost only a third as much to manufacture. Since both the Luger (P.08) and the P-38 were being used concurrently, the pistols and all of their accoutrements were stamped with their year model designation starting in 1941. Note the "P.08" on the left frame rail of the byf Lugers. The holsters and magazines for the byf's also are stamped "P.08" so that the new recruits could tell the difference.

The *Wehrmacht* standardized on two-digit date stamps at this same time (1940-41), on all items procured for the military. Mauser complied by going from the four-digit dates of previous years to a simple "41" over the chamber of the byf's. The same transition can be seen on holsters, rifles, cleaning kits, etc.

MAUSER MILITARY PROOFMARKS

The first two years of Mauser Military Luger production saw considerable variation in proofs. The author has noted at least 15 different shapes and groupings of proofs on the "K" and "G" date models. By late 1935, however, the *Waffen-Amt* had standardized on the proofs to be used by all of the German firearms makers. The proofs consist of stylized eagles surmounting the plant inspector's number. The final proof is a stylized eagle without the number. The final proof was changed to an eagle-over-swastika in 1939, at the same time that the change was made from the "S/42" to the "42" toggle marking. Three inspectors were in evidence over the years of Mauser Military manufacture: Inspector #63 from 1935 to 1940; inspector #655 from 1940 and 1941; and inspector #135 for the last month of 1941 and all of 1942. It is interesting to note that inspector #63 was transferred to the Brno Werke in Czechoslovakia in 1940, and the firearms produced in that occupied factory were proofed with the eagle-over-63 through the end of the war. Inspector #135 remained with Mauser through the end of the war, and all of the byf P-38's are #135-proofed.

Some collectors surmised that the different *Waffen-Amt* numbers implied different factory installations producing Lugers concurrently. This is not borne out by the serials, however. The transition in inspectors is quite clear-cut: The highest-numbered 1940 "42" with #63 proofs observed is #4927b; the first #655 proof was seen on 1940 "42" #6459c. The highest #655 proof is on a 1941 byf #3383z; the first #135 was seen on 41

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GUNSITE

American Pistol Institute opens new 120 acre training center in Arizona

STAFF REPORT

I doubt that anyone familiar with handguns needs an introduction to Jeff Cooper, who is known throughout the world for his pioneering efforts in modern practical pistol techniques. He is, of course, well known too for his writing as handgun editor of G&A and for his books.

Cooper is the managing director of a brand new, and probably the most advanced sidearm training facility in the world, organization called The American Pistol Institute. Located on Gunsite Ranch in Paulden, Arizona, this 120 acre training center is open for business and accepting applications for classes — from elementary familiarization courses to complete 24-hour defensive pistol study. In addition, advanced course, special tactical courses and other specialized instruction are available.

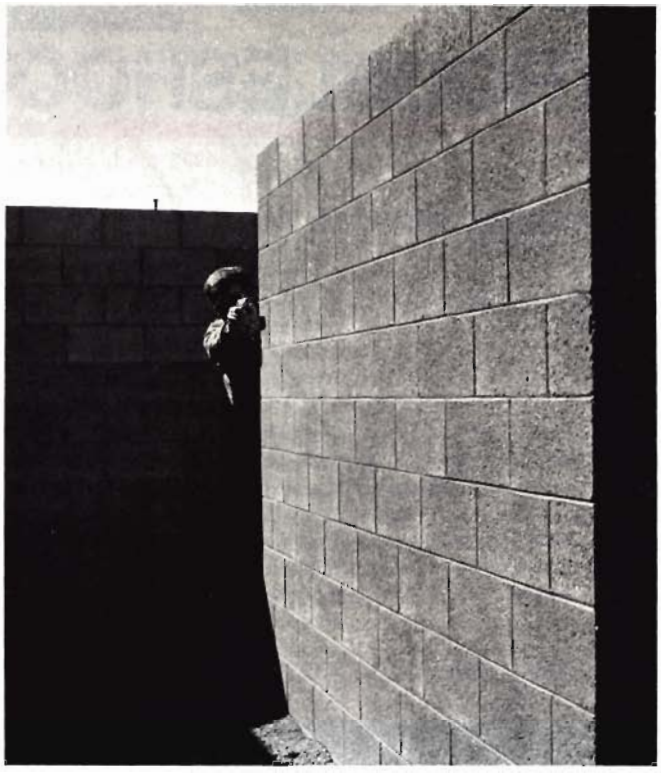
Equipment and facilities already in place include three pistol ranges and two rifle ranges. The base pistol range accommodates a 180° firing angle, and in the "fun house" (indoor reaction range), a 360° swing has been safely engineered, with unlimited tactical variety and all light conditions attainable. Field reaction ranges offer stationary, surprise and running targets.

It appears that Cooper intends this training facility to be strictly professional. Strict guidelines have been set up regarding qualifications for those who wish to use the facility. Serious study of handgun shooting techniques will be the by-word, and not "fun and games." Cooper advises that: "API instructors will insist upon safe gun handling, to the point that may seem harsh to some. The simple rules of safe gun handling will be meticulously explained to all students, contestants and visitors, and thereafter vigorously enforced. Any person who disregards these rules will be expelled from the premises."

The cost of instruction runs from $100 for the elementary familiarization course to $250 for the basic defense pistol course or the advanced defense course. Special training for individuals with personal tutors will run from $100 to $1,000 depending upon what objectives are sought and how much time is needed.

At the present time, the API will conduct six each of the full courses annually, each course limited to 20 students.

Cooper advises that facilities as they now exist will be continually improved and updated as new equipment becomes available.



The facilities are, of course, only the tools used in Cooper's training program. The API teaching method, conducted throughout the world for the past seven years, has been perfected and tested to the point that results have been acclaimed as superior to any other course available.

In the near future, The AMERICAN HANDGUNNER will have one of our writers on the scene, with a report on a typical training session.

For more information on the API school, write: Course Director, The American Pistol Institute, Box 401, Paulden, Arizona 86334.

HANDGUN TROUBLESHOOTING

TROUBLE-SHOOTING THE COLT PYTHON REVOLVER

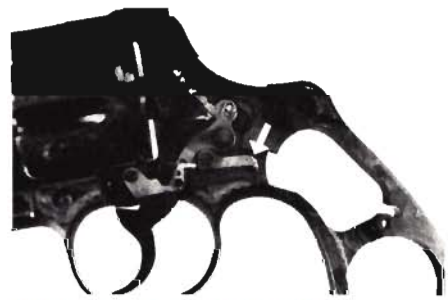
By J. B. WOOD

Since its introduction in the late fifties, the Colt Python has become one of the world's most wanted revolvers. No other gun, fresh out of the box from the factory, can match the smoothness of its double-action trigger pull, and its integral barrel weight gives the slight muzzle-heaviness that many serious shooters prefer. In an era when quite a few hallowed names have turned out some things below their usual standard, the Python still shows outstanding quality in both materials and workmanship.

Like all revolvers, however, its lockwork does not have the ruggedness of most automatic pistols, and there are a few points that should particularly be watched to avoid trouble. As in any revolver, the timing is the heart of the action. With long, hard use, there can be wear or damage to the cylinder hand, cylinder ratchet, cylinder stop (some call it the "bolt"), and the stop slots in the cylinder. If the timing is not perfect, the cylinder will fail to align with the firing pin and barrel. The cylinder stop is the part under the most strain, because it receives an impact with each turn of the cylinder. Its rear arm, which contacts a stud on the rebound lever, is spring tempered to snap back over the stud on the lever's return when the trigger is released. Here, again, any wear or chipping of the contact surfaces can be a trouble spot.

A faulty cylinder stop is no great problem, though, as a new one can easily be obtained and installed. In the case of the other parts mentioned, however, these would require fitting by a good gunsmith, or return to the factory.

There are several revolvers that can be jammed by a bent ejector rod. In any gun which has an ejector that is rigidly attached to the ratchet, and turns with it, any serious deformation will bring the rod against the barrel, or the sides of its well, stopping everything. In the Python, the ejector rod is well-protected when the cylinder is locked in place, being deep in a heavy steel enclosure. The rod itself, though, is very slim, and when the cylinder is opened for loading, the rod could



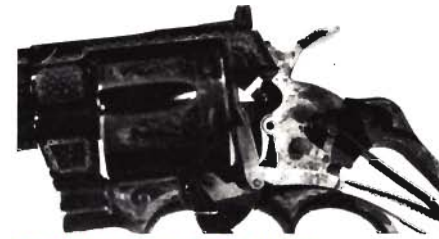
Wear at rear arm of cylinder stop can lock up the Python.

be damaged if struck against a solid object, or if the gun were dropped. I know of one Police Officer who, reloading in the heat of a serious social encounter, slapped the ejector rod of his gun, and bent it so badly that the cylinder would not go back into the frame.

Now, don't take this as a condemnation of the Python—the man in the incident described above is a large and strong individual, and under the circumstances might have damaged *any* revolver. Anyhow, the point is that a revolver, no matter how well-made, should be operated with a certain degree of care.

This also applies to swinging the cylinder out and back during reloading. Many of us have noted with amusement the tough private detective or soldier-of-fortune on TV and in films, as he flips the cylinder out with an audible *clack*, and snaps it back in with a reverse motion of the wrist. Each time it is swung out in this manner, to stop short as the crane shelf hits the frame, a serious strain is put on the crane, and it will eventually be misaligned. As the cylinder is forcefully swung back into the frame, the side of the ratchet strikes the edge of its well in the breech face, and if this is done often, the edge will begin to peen. As soon as a peened edge is raised it will contact the heads of the cartidges when the cylinder is swung in or out, and can cause a nasty jam. Again, this is not peculiar to the Python. The same would be true of several other revolvers.

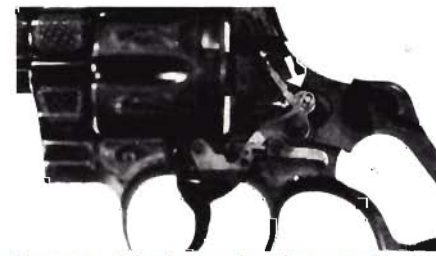
There is one mechanism in the Python, and in all Colt double-action revolvers, that must be handled with care when the gun is disassembled. The hammer-block system, which prevents accidental firing from an external blow on the hammer,



Cylinder hand and ratchet wear cause timing problems.

consists of a blocking bar connected to a very thin pivoting plate which lies in a shallow well to the right of the hammer. The plate is connected to the bar and the trigger by two tiny studs. If there is any damage to the plate or the studs during reassembly, the result will be a completely locked firing system. Before tightening the sideplate screws, be sure everything is in place.

As mentioned earlier, the single and double-action trigger pull of the Python is usually superb, just as it comes from Colt. For those who must have absolute perfection, a word of caution: Smoothing the trigger system of this gun is definitely not a job for the amateur. In honing all of the mating surfaces of the internal mecha-



Hammer block can be damaged by careless disassembly.

nism, it is easy to go too far, and then it's new parts time, at more cost than you'd pay a gunsmith to do it right.

Actually, the only real complaint about the Python is that there never seems to be enough of them around to meet the demand.

Collecting Mauser Parabellums . . .

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byf # 7636 (no letter). Since there are no overlaps, the multiple-factory theory must therefore be discounted.

MAUSER MILITARY LUGER GRIPS

In 1940, the first few 42-codes appeared with bordered, plastic grips instead of the reddish walnut grips that characterized all previous Mauser Militaries. This grip pattern had been used on Krieghoffs since 1936, but the Krieghoff grips were brown in color up until 1940. Post-1940 Krieghoffs, and all Mauser Lugers examined have black grips. The grips are pressure-molded phenolic resin, similar to Bakelite. The plastic grips appear on about 25% of the 41 and 42 byf Lugers. There is no pattern to the use of plastic grips with respect to serials, and it appears that the plastic grips were used only sporadically when walnut became unavailable. When the next log came in, then they went back to walnut again. There was no noted increase in the percentage of plastic from 1941 to 1942. It is probable that the plastic grips would be used as field spares, and occasionally a pre-1940 Luger is seen with plastic grips that are not original to the piece.

BARREL DIMENSION MARKINGS

Most collectors know that the three-digit number below the barrel serial on Military Lugers is the measured land dimension at the muzzle. This dimension was measured on each barrel, and the acceptable range was from 8.81 through 8.85 mm. This practice was discontinued in the last year of Luger production, however. Only the first few thousand 42 byf's have a dimension-marked barrel.

KRIEGSMARINE LUGERS

The German Navy received about 2% of the Mauser Militaries manufactured. Unlike in WW I, when the Navy Luger had a distinctive 150 mm barrel and two-position rear sight, the Nazi-era Navies were the same physically as the Army Lugers. Nazi Navies were proofed the same as their land-forces counterparts for any given year. From the "K" and "G" models, however, additional markings identified those delivered to the *Kriegsmarine*. The "K" models had an elaborate, large "eagle-over-M" engraved on the left frame rail. The "G" dated Navys usually just have a small eagle-over-M proofmark stamped above the lanyard loop on the rear of the frame. From 1936 on, the Navy issues are defined only by an "N" or "O" followed by a 1 to four digit inventory number, engraved on the front or rear frame strap. The "N" was the *Nordsee* Navy group; The "O" was the *Ostsee* group. Of the 14,000 or so Lugers procured by the *Kriegsmarine*, very few have survived. The sea-going Lugers suffer much higher mortality rates than Army Lugers do. Battlefield pickups are encumbered by the 200 fathoms of overlying water. So Nazi Navies are scarcer than is commonly believed.

The Mauser Military Luger, and its WW I counterpart, are the most likely pistols to be the collector's first Luger. Brought home from the wars by the tens of thousands, they are the "least common denominator" for all Luger collections. They are plentiful enough to encourage some collectors to complete a "date set" of Militaries. Since the Military Lugers are always chamber dated, their finish and serialling help identify Commercials and "sneaks" of the same period. Their characteristics help collectors recognize forgeries and reworks of rarer variations, since the Militaries are often seen in excellent, original condition. The evolution of the finish, toggles, and proofs of the Mauser Militaries over the 1934-1942 period makes them more interesting than their DWM counterparts. When it comes to collecting the Mauser Military Luger—"Betcha can't buy just one. . . ."

What's New...

CONTENDER GRIPS

Thompson-Center Contender owners and prospective owners: Steve Herrett has designed and field tested a stock called the Controller which clearly improves the shooter's ability to control the Contender, particularly in the more powerful calibers. The finely balanced

design of the Controller allows the gun to be grasped in a consistently comfortable manner, making the Contender an extension of the arm. This results in natural pointing, very helpful when using a scoped or shot shell version. The Controller sells for $18.95, in a right-hand model only, but a left-hand model should be ready within a year. Herrett's Stocks, Inc., Box 741, Twin Falls, Idaho 83301.

CHARTER ARMS OFFERING

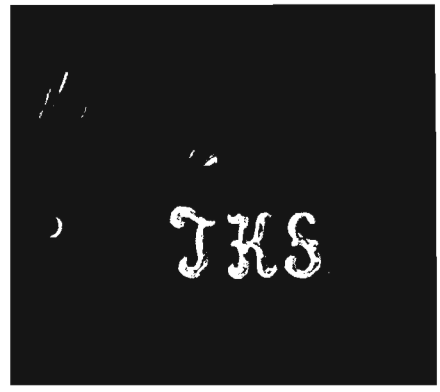
A color brochure illustrating Charter Arms' group of popular revolvers is now available compliments of Charter Arms. All Charter Arms handguns, including the Bulldog .44 Special, the Target Bulldog .357 Magnum, the standard Undercover and Police Bulldog .38 Specials, the Undercoverette, the Pathfinder .22LR and new .22 Magnum come fitted with either the Bulldog or the square butt grips, both hand checkered and made from oil finished American walnut. The brochure also describes a new survival rifle and a combination tool. Write Catalog, Charter Arms Corp., 430 Sniffens Lane, Stratford, CT 06497.

PANCAKES FOR SA's

Roy Baker, designer and manufacturer (but not namer—you did that) of the Pancake Holster, is introducing additions to his line with new models for single action revolvers. Though no longer strictly pancake in appearance, these holsters have the same terrific features as the first Pancakes: unique good looks, alternate wearing positions, solid carrying comfort, and carefully molded gun pocket for drag-free draw. Available in plain or basket weave, black, light brown, russet, or mahogany. Roy's Custom Leather Goods, P.O. Box 852, Highway 132, Magnolia, Arkansas 71753.

MONOGRAMS FOR GUNS

Personalize your handgun with Greer monogram initials. The letters are now available in silver, same size and style as the original gold. The 5/16" letters are easily installed, no soldering or drilling. One set costs $1.50, and



the more you buy the less you pay per letter. State gold or silver when ordering from Greer Limited, Dept. SNP-2, Box 45888, Westchester, CA 90045.

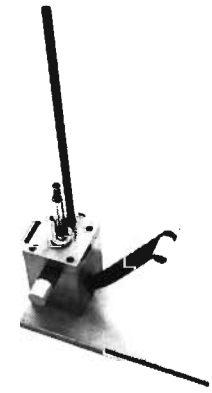
NUMRICH'S CATALOG PLUS

The sixth edition of Numrich Arms famous catalog is just off the presses. In the past, Numrich's catalog has been a compendium of gun parts and accessories, with a wealth of fire-

arms information to benefit every shooter and collector. And this Bicentennial edition is bigger and more comprehensive than last year's. Numrich notes that the printing is limited, so you'd best send in your two bucks real soon, to Numrich Arms Corporation, West Hurley, New York 12491.

SPEED PRIMING

At last, a tube fed priming tool for fast and efficient priming of metallic cartridge cases. Users report priming as many as 600-800 cases per hour. Primers are positively seated by the feel method, and crushed primers do not occur. Priming a different caliber in the



same size primer is accomplished by simply changing R.C.B.S. shell holders. Changing primer sizes is, if anything, easier. The tool is constructed of high tensile strength anodized aluminum and black oxide finished steel. It costs $59.95, from SSK Industries, Rt. 1, Della Drive, Bloomingdale, Ohio 43910.

HANDSOME CASES

Your handgun will receive the protection it needs in a style it deserves when Wamco's Griffin Safety-Vault Gun Case stores your gun. Built from a damage-resistant synthetic material made to resemble sculptured Spanish oak, latched and hinged with solid brass hardware, and lined with an elegant velvety material, the Griffin protects in several ways: the combination lock discourages theft, the

velvety interior cushion is impressionable and embraces your gun firmly, the soft vinyl lid seal keeps out moisture and dust, and a spaceage Corrosion Inhibitor derived from the space program is built into every gun case to completely stop all kinds of rust and corrosion for a period of two years. Ranging in price from $27.95 to $84.95, all Griffin gun cases are available from W. A. Miller Co., Inc., Oquossoc, Maine 04964.

BERETTA PRODUCTS

The Beretta Arms Company, distributor of Pietro Beretta guns, announces the availability of their catalog which details, among other things, their four fine pistols, in .22LR, 9mm Parabellum, .32 Auto and .380 Auto. All Beretta pistols are finished in blue-black and use high impact plastic grips. The Beretta Arms Co., P.O. Box 697, Ridgefield, CT 06877.

DISCRETE HOLSTER

This new holster from Safariland offers discreteness and comfort. The low silhouette design permits all semi-automatic and revolver guns to be worn with minimum bulk; an innovation in the belt loops eliminates bulges at the

belt entrance and exit. The same top grade leather is used throughout, and the thumb break is reinforced. Suede lining is the preferred option. Safariland, 1941 S. Walker Ave., Monrovia, CA 91016.

1861 NAVY KIT

Iver Johnson now offers a kit of the 1861 Colt Navy Revolver, the .36 caliber percussion gun which had no small say in the way our West was won. A forerunner of the Colt Peacemaker, the 1861 Navy was favored for its lightning fast action and superior balance. The metal parts of this kit, including a 7½" barrel of precision rifle ordnance steel, are completely finished and ready for final polish and blueing. The grips, made of richly grained walnut, need only a final sanding. Prices of this superb replica kit will be announced. Iver Johnson Arms, Inc., 109 River St., Fitchburg, Mass. 01420.

THE COLT PYTHON STORY . . .

(Continued from page 43)

"They would have called it the Colt Anaconda, but it wouldn't have fit on the barrel."

A SYMPATICO SIXGUN

There's something incredibly natural about the way a Colt Python lies in your gun hand. The muzzle is heavy enough to hang solid on a target, yet not heavy enough to drag your arm down, the way a Douglas tubed .38 will if you're not used to it.

The Python has probably the crispest, easiest single action letoff of any production wheelgun, perhaps any centerfire handgun at all. Colt has built a lot of them special for International Center Fire shooters who need a 3-lb minimum trigger. This is another reason for its great accuracy. If anything, the standard trigger is almost *too* light and clean; a new Python owner who is familiar with field grade or service grade guns may experience premature shots with the gun if he isn't careful. (Oddly enough, the supposedly target-oriented Python was never offered, even optionally, with the wide target trigger that was standard on the O.M. and in the catalog as an extra-cost addition for the Trooper and even the spartan Official Police.)

It's a sympatico sixgun, that's all. Its excellent balance and handling comprise a classic example of what we now call "human engineering" — a piece of equipment that is designed for the way a person is going to handle it. It feels good in the hand, and does its job superbly in the hand, and that's what revolvers and human engineering should both be all about.

It goes without saying that anything can be improved. I never liked plain black ramp sights, on this gun or any other. They blank out too easily under varied light conditions. For the past year or so, Colt has offered a high, slightly undercut post front sight with finely-adjustable Elliason rear on the Python. My latest snake is so fitted, and it's a jewel.

The two-stage pull of the Python's double action could likewise stand to be changed, at least from the standpoint of the shooter who is into DA work enough to tell the difference. Colt will soon be opening their Custom Shop on a full-blown basis, offering things like ambidextrous safeties on the automatics, and the Tedford action on the Python. Tedford's action is already available (see companion article) for fifty bucks, and like other smiths who slick up the Python action, he makes it a one-stage straight-through pull that is, to my mind, well worth the money.

PYTHON #1

The revolver hangs in a locked glass case behind the President's desk in the Colt plant on Huyshoppe Avenue in Hartford, CT. It looks like an ordinary, early Python. But when you open the cylinder, your eyes focus on the serial number inside the frame. It was stamped by hand, and is slightly off angle, but still compelling to look at, because that number is "1".

Al DeJohn built this first production gun. Today he's in charge of customer service, and will soon ramrod the Custom Shop as well. He knows the Python, and is immensely proud of it.

Old Number One has been shot some. You can see that by the bolt scars that encircle the cylinder. And when you pick it up, and try the action, you can feel that glassy smoothness, like stroking a piece of Waterford crystal. All the Pythons used to be like that, and most of them still are.

The Colt Python. It's one of the Great Guns of this or any other time. Accuracy, workmanship, and pure distinctiveness of design are reasons why. They all combine into the ultimate raison d'etre of any gun: performance.

THE PACHMAYR SIGNATURE CUSTOM COLT .38 SUPER . . .

(Continued from page 23)

bullet for an additional 50 F.P.S. velocity and the 90 grainer has a tendency to "blow up" at close and medium ranges.

In the 125 grain category, 7.7 grains of Unique consistently runs 1400-1425 F.P.S. with any 125 grain bullet of .355-.357 diameter as long as seating depth is held fairly uniform. I've had excellent accuracy from the Speer .355 S.P., Sierra .357 S.P. and W-W .357 H.P. Extreme velocity variations run around 50 F.P.S. The .357 diameter bullets work OK in the .355 diameter barrel without increasing pressures noticeably. Reliability of these bullets in the Signature Super is 100% but none of them would feed over 50% of the time before the gun was worked over. I don't think too much of trading 160-180 F.P.S. for ten grains of bullet weight either. The 125 grain bullets are useful when penetration is necessary. Obviously the 115 grain Sierra at 1585 F.P.S. is by far the best for general usage. The loads discussed are the top loads giv-

ing acceptable pressures, velocities, uniformity, long gun and case life as any I know of—but please remember that they may be too heavy for your gun.

The argument of which is the best cartridge—9MM, .38 Super or .45 ACP will never be solved. By utilizing a separate criterion I can prove each is best. In the field, in a pistol, the .38 Super will do more of anything than the 9MM will.

Foot Pounds energy figures or momentum comparisons aren't the answer. The Law Enforcement Standards Program evaluation of police handgun ammunition is a step in the right direction, but I can't buy it 100% from my personal experiences with many rounds in the field.

Considering the best handloads for all three calibers, for a field gun, my vote goes to the .38 Super for two basic reasons. One, it shoots flatter making hits easier to come by. Two, it gives reliable bullet expansion at least 50 yards further from the gun than a .45 does. The .45 does well to expand the most frangible bullets at 50 yards; the .38 Super will expand a 115 grain Sierra reliably at 100 yds.

All in all the Signature Super is a helluva handgun. Aside from the quality of workmanship, accuracy and reliability, the Signature System changes the balance and feel of the Colt Government Model to that of an entirely different gun while retaining the familiarity of a long friendship.

I've loosened up several accuracy jobs with heavy loads with a lot less rounds than have gone down the spout of the Super. I'm convinced the Signature System will retain its accuracy for a much longer period of time than a conventional accuracy job will. Pachmayr has excellent literature defining their work and prices are listed by the individual modification or addition. Ed Lomax is the man to direct inquiries to.

SECOND CHANCE II SKILL, SPEED, POWER...

(Continued from page 17)

There will be a separate practice area for those who have been unable to get a little time in on their own on this course.

Let me share with you some of the advice accumulated from the top placers at Second Chance II. First, since averages will count, carry a backup gun. If a pin doesn't go down, don't keep holding on it and shooting 'til it does, because that will shatter your rhythm. Swing the gun across the table, fire a shot into each pin in order, and if any stay up, come back for them when you've swept the rest away. Theoretically, shooting from right to left and taking advantage of the natural leftward recoil movement (if you're right handed)

should be faster. However, a lot of people find left to right more natural, and if you're one of those, stay with it.

Most of the winners used the sights, for what Jeff Cooper calls the "flash sight picture." It works. Nobody won anything with "instinct shooting," and I doubt that anyone even tried. Mason Williams, however, scored his terrific second place time (and another string of 5.1 seconds that would have been third place if any shooter was eligible for more than one award) firing from a true point-shoulder position, looking over the sights toward the target rather than actually lining up front and rear. But Mason is deep into fast combat shooting, and most who don't have the benefit of his experience will be better off to take a few milliseconds longer and use the sights. When you figure how long it takes you to bring the gun back to a missed or winged pin and squeeze off another shot, you save time in the long run. But *watch* those sights! In one string, I blew the first four off the table with four shots in three seconds, then stood firing three more rounds at that stubborn fifth pin. My sight picture looked perfect, but the pin wouldn't leave the table 'til the last bullet left my .45. By the time I realized I was watching the last target instead of my front sight, the four stopwatches had hit 7.0 seconds.

The use of stopwatches instead of an electric timer gave a lot of us a bit of a pause. Did we want to travel halfway across the country, only to trust our standing to human error?

There was not dispute, as it turned out. Davis positions three or four tan and foxy females behind each shooter, each one holding an identical, certified stopwatch in the same position. They hit the button when the blank goes off, and stop it when the last pin hits the ground, or shatters from magnum impact. Their times are then averaged by a pocket calculator in the capable hands of Alex Jason, "Soldier of Fortune" correspondent and one of those who helped Davis design the format. It's a system you can trust.

The real question, of course, is the gun and ammo to use. The first shoot allowed the .44 AutoMag, but the second was limited to police-type duty guns, though that was stretched slightly to allow 8⅜" Smiths and a few heavy-slide .45s. The 1977 shoot will be open to AutoMags, Bushmaster .223's, and Enforcer .30 Carbine "pistols." But Davis says not to worry: the .223 and .30 carbine loads won't reliably take the pins off the table, and no one has turned in any really fantastic times with the .44 AutoMag. A conventional service gun still seems best.

Most competitors will probably stay with the 1911 .45 in some version or other, with a few following Chiles' lead and opting for the .44 Magnum. I doubt if I'll be among those, though: remember, Chiles scratched four out of five times because a miss or peripheral hit, even with the mighty .44 and .41 Mag loads, will still

leave you with wood on the table and only one shot left to clean up with.

Most .45 shooters used hardball. I found it disappointing, with a lot of seemingly solid hits failing to clean the table. In my hands, at least, Remington's 185-grain medium-speed hollowpoint load did a better job, if only because the bullet took a more substantial bite into the curving surface of the pins. The heavier slugs theoretically have more energy, but a lot of that is sacrificed to the notorious tendency of the round-nose jacketed bullet to glance off a convex point of impact. 230-grain Norma hollowpoints, in a gun that reliably feeds them, may be the answer. Frankly, 185-grain mid-range semi-wadcutters were as reliable in knock-off power as any .45 ACP load in evidence. One guy went so far as to swage a 330-grain .458 Winchester bullet into a shape he could squeeze into a .45 ACP case, backed with a powder charge that he said was putting them out at about 900 feet per second. It took them off the table, all right, but I'll pass on trying his load or even publishing the specs: I'm too handsome to risk walking around with a 1911 slide in my forehead.

In .41 Magnum, the 210 grain lead police load seems to fare about the same as .45 hardball. The 210-grain semi-jacketed Magnum loading does markedly better, but if you're going to go that far, you may as well go all the way to the .44 Mag. If you do, I'd strongly suggest a Mag-Na-Port job, unless you're sure you can equal Ron Chiles' strength and control. I'm told .44 Special factory loads work reliably, but haven't seen any in action.

No .38 Special, 9 mm., or .38 Super seems capable of doing the job. The same appears true of fast 110-grain .357s. The most effective loads we saw for that caliber were factory "+P" 158 grain loadings, which were very reliable table-cleaners, especially with the SWC bullets.

Use big, quick-to-pick-up sights. If you're going to color them, use green or red; plain black works best for me for this particular kind of shooting. I tried, on a couple of runs, setting my sights to the left to compensate for motion, allowing me to swing across the table and fire as the sights crossed wood, without stopping the sideways arc. I did no better nor worse, and will leave them dead on the next time, in case I need any more precision hits for downed pins facing me head on. Sorry, no scopes are allowed in this match.

Concentrate on hits before speed, because going back for down-but-not-out pins just eats up your time on those ominous stopwatches. And carry a backup gun, being prepared to drop your number one piece right to the ground when you go for #2. I made the mistake of holding onto mine and firing offhand with the backup gun in my last string, and attribute my poor time to that. Even so, according to Davis, I was one of only three competitors who cleaned the table all five times (Norm Seiloff and Dennis Sundermyer of

Detroit PD were the other two). A lot more would have made it if they'd had a second gun under their hand when the first one emptied out.

Good news for '76! Davis will open the match to qualified civilian shooters, i.e., law abiding citizens who keep guns for self defense and other legitimate purposes. He still expects about a 90% lawman turnout.

Also new will be an "open" event for side money in which any gun may be used to sweep clean a table of a dozen pins. Submachineguns and M-16s will be allowed, as will shotguns; indeed, anything but 7.62 mm. assault rifles. Should be interesting, and something to justify the $200 bucks it costs you to own that collector's Thompson . . . personally, I'm gonna ask Davis if I can bring a high-pressure fire hose. They use it for crowd control, so that makes it a legitimate police weapon, right?

Richard Davis is a practical man when it comes to gunfighting. People who have been shot, and have shot guys in self defense, tend to be that way. So do people who deal every day with the details of police shootings. Davis takes a hard line on these things. He gave a model 29 to every lawman who gunned down the surprised, would-be cop killer whose bullets lodged in the intended victim's Second Chance vest, until the California Attorney General threatened to nail him for some vague form of vigilantism. "There's only one way to get capital punishment for cop-killers," says Davis in his vest ads, "and you have to survive the first shot to do it." He's an uncompromising man who carries his beliefs into his personal life, from the "Free Men Own Guns—Slaves Don't" bumper stickers that he sends out with every order, to the "Street Combat" handgun match he designed for law enforcement officers and high-risk civilian businessmen who face every day the possibility that they may have to use their guns to defend their lives from armed criminals.

The Second Chance Street Combat Match is an excellent arena for developing and testing those life-saving skills, and to boot, it's more fun than almost any other shooting match you can think of. For information write to Davis at Second Chance, PO Box 578, Central Lake, Michigan.

AUTHORS NOTE: Readers attempting to practice this kind of shooting should exercise extreme caution. .38 slugs and lead bullets in some other calibers will bounce off bowling pins, and any slug can come back off the hard nylon base of the pin. This danger also exists when shooting toward any table not covered with the protective nylon and Kevlar. Practice is best conducted on the special Second Chance targets, made of cardboard, with the "pins" a foot apart as in the real match. These are available from Second Chance at 2 for $1, which just about covers printing cost and postage.

THE HANDGUN MARKET

Classisified ads 20¢ per word insertion including name and address. Payable in advance. Minimum ad 10 words. Closing date May/June 1977 issue (on sale Mar. 5) is Jan. 15. Print carefully and mail to THE AMERICAN HANDGUNNER Magazine, 8150 No. Central Park Blvd., Skokie, IL 60076.

BOOKS

BECOME PART-TIME GUN DEALER! "Obtaining Federal Firearms License" 1976 booklet, 7-pages—$1.00. "Gun-Dealer's Directory of Wholesalers," New! 60 best, guaranteed—$1.00. "Concealed Weapons Permits, pistol carrying, owning and licensing tips—$1.00. All three $2.50! Free catalog! Mesa, Drawer 9045-NS, Steamboat Spgs., CO 80477.

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SELF DEFENSE FIREARMS HANDBOOK: Includes the infamous Fist Gun. Perfect hand to hand combat weapon. Worn on the back of your hand. Double up your fist and strike your adversary and the gun discharges its lethal shotgun shell upon impact. Includes: Sleeve Pistol; Wrist Pistol; Shoe-Heel Pistol; "Hold-Up" Devices; Pocket Watch Pistols; Flashlight Pistol; Fishing Rod Pistol; Pen Pistols; Helmut Pistol; Belt Buckle Pistol, etc. Illustrated. Diagrams. Construction Information. Send $3.00 to: Under The Apple Tree, 5115 South Campbell, Chicago, Illinois 60632.

STATE PISTOL LAWS, latest pistol carrying, purchasing, etc. regulations for all states and FEDERAL GUN LAWS, both booklets $3.00. POLICE EQUIPMENT CATALOG $1.00. Schlesinger, 415 East 52nd St. New York, NY 10022, Department E.

COLLECTORS

NAZI WAR SOUVENIRS! Illustrated catalog $5.00 bill (refundable). Disco, Box 331-H, Cedarburg, WI 53012.

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EMBLEMS embroidered to your design. Finest quality, lowest cost. Pricelist and sample emblem $1.00. Send sketch for quotation. Dragon Emblems, Ltd., Dept. AH, Clarklake, Michigan 49234.

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HUNTERS, SHOOTERS, COLLECTORS. Buy firearms, ammo and reloading components for yourself, your friends. Sell for profit. For complete instructions on how to apply for a Federal Firearms Dealers License, send $2.00 to: Ken Bar Enterprises, Inc., P.O. Box 810, Racine, WI 53403.

IS THE MOST ACCURATE HANDGUN AN AIRPISTOL? We're sure it is! Our 84-page sourcebook/catalog describes the super accurate Beeman Mod 10 and dozens of other adult airguns. $1 (refundable). BEEMAN'S PRECISION AIRGUNS, INC., Dept. 21A, San Rafael, CA 94903.

LUGER OWNER'S! Fine tune your Luger! Illustrated instructions $1.00. A. Todaro, P.O. Box 87, Deer Park, NY 11729.

Ruger .22 Automatic Pistol Owners: New safety feature! Aluminum magazine follower holds action open after last round is fired. Easily inserted in place of present follower. Ideal for target shooters. $2.25 each, (2) for $4.00 postpaid. Send for prices on other Ruger accessories. Ronald M. Persan, P.O. Box 292, Bethel, CT 06801.

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HOT DIP GUNBLUING (Better than Factory) Custom Stock Work & Minor Repair. Send S.A.S.E. for "FREE" Price List. Sherrick's Gun Shop, R.R. #2 Box 220, Findlay, Ohio 45840.

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MISCELLANEOUS

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BUTTON proclaiming: "Give Up My Gun?—Never!" only $1.00 postpaid. H-G Enterprises, Clarklake, MI 49234.

CB MOBILE UNITS REFLECTIVE MAGNETIC SIGNS. CALL LETTERS OR "HANDLE" (12" x 3") $10.55 PAIR. CALL LETTERS AND "HANDLE" (12" x 15") $19.20 PAIR. KINGSWAY-AH, SRB 21, WILLOW, ALASKA 99688.

EARN EXTRA MONEY at home addressing and mailing. Beginners kit gets you started. Send $1.00 to: H-G Enterprises, Dept. AH, Clarklake, MI 49234.

FIRECRACKER MATERIALS available, often locally. GUN CONTROL worthless; Criminals can make guns from pipe, matches, etc. Information $2.00. Sanford, Box 41003-AH, Washington, DC 20014.

FOOL BURGLARS. They won't break in if they think you have an alarm system. We have "Warning—Electronic Alarms" labels for exterior doors. 3 for $1.00. Satisfaction guaranteed. DON'S, Box 3637, Charlotte, NC 28203.

Free! Police/Security Investigative schematics and equipment listings Box 3455-GG, Midway Station—Kent, Washingon 98031.

INTELLIGENCE LETTER, INTERNATIONAL VIOLENCE, ESPIONAGE, KARATE, MERCENARIES, BRAWLERS. SAMPLE ONE DOLLAR. HORIZON, BOX 67, ST. CHARLES, MISSOURI 63301.

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100-CARD ADULT BIBLE GAME . . . ! Entertaining! Educational! $1.00. Scriptgames, 5837-J Stewart, Sylvania, OH 43560.

PYROTECHNICAL: NOW AT LAST, detail construction procedures and formulas on many pyrotechnical devices from Blockbusters to Roman Candles. Parts and chemical service. For catalog send $1.00 to Pioneer Ind., Box 36, 108 Monroe St., Nashua, N.H. 03060.

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SPORTING GOODS AND POLICE EQUIPMENT CATALOG—$4.95. FREE SPORTSMEN CO., BOX 156, INDIANA, PA 15701.

WILL KIT—includes 64-page attorney's booklet, "What Everyone Should Know About Wills" and 4 Will Forms, only $3.00. FREE: "Personal Assets Record" and "Executor's Duties." H-G Enterprises, Dept. AH, Clarklake, MI 49234.

THE AMERICAN
HANDGUNNER MAGAZINE
MAGNUM SWEEPSTAKES

Welcome to THE AMERICAN HANDGUNNER'S MAGNUM SWEEPSTAKES. One of the Grand Prizes may be waiting for you. The Grand Prizes are a Llama deluxe .380 automatic and a .357 magnum C.O.P. There are also 13 top quality handgun prizes plus additional accessory prizes. Enter immediately so you can claim your prize. Every prize is guaranteed to be given away.

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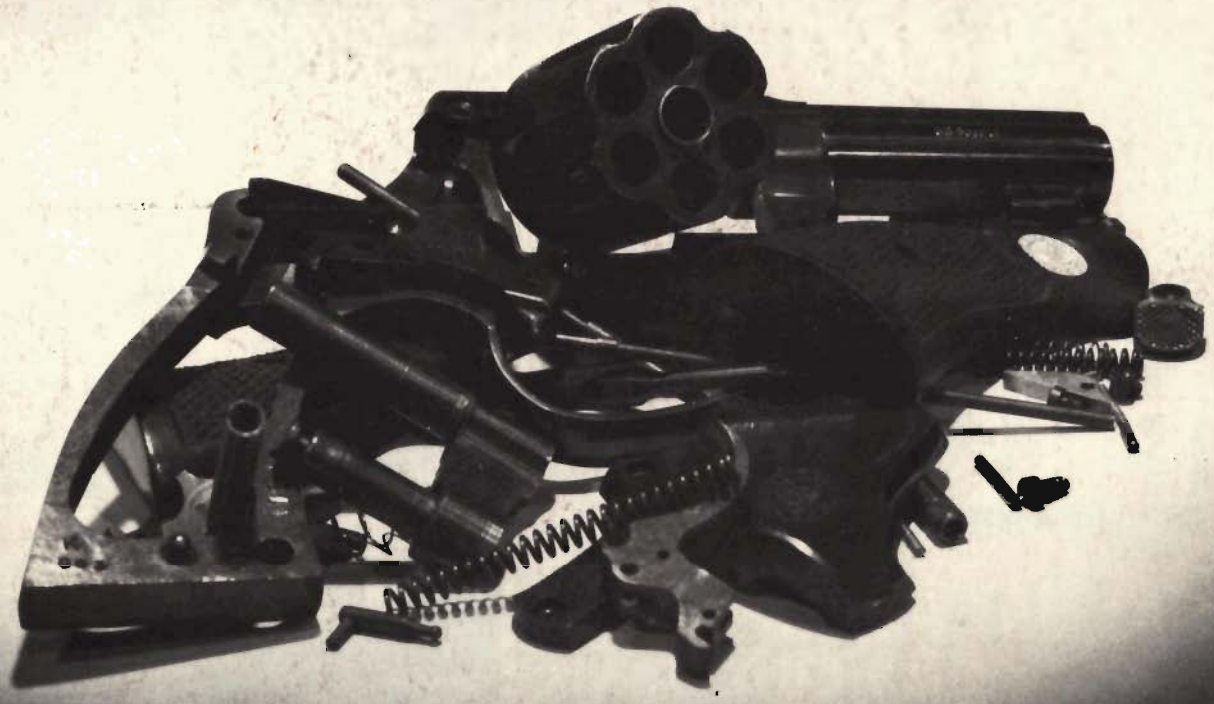

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