Introducing

JEFF COOPER
New Contributing Editor

Test Report:

BROWNING DOUBLE ACTION 9MM

New Revolver from France
MANUHRIN M-73

HANDGUN PROFILE: THOMPSON/CENTER CONTENDER
THREE FEATURES—PLUS
Exclusive Interview: WARREN CENTER

A Look at the MILITARY MAUSER
Super-X, the shortest distance between two points.

Whether you're a match target rifle or pistol shooter, or a high-power hunting enthusiast, you know that when you're working with Super-X® or Super-Match® cartridges you've got it all going for you; from primer to case to powder to bullet design, as fine a set of matched high performance components as Winchester and Western engineering can offer in its sporting ammunition—and that's the very best!

*and TM refer to trademarks of Olin Corporation Winchester Western, 275 Winchester Ave, New Haven Ct 06504.
This page is new to "The American Handgunner," and we've looked forward eagerly to its baptism. American Handgunner magazine and the Outstanding American Handgunner Award Foundation are now working together, and doings of the Foundation will be reported on this page in every issue. The two haven't merged physically; they are quite distinct separate organizations, but AHG is now the official organ of OAHGAF and as such, the editor Jerry Rakusan will be supporting the Foundation editorially. Furthermore, new OAHGAF members will receive, for their $15 annual dues, American Handgunner magazine as well as the identifying material of the Foundation.

The Outstanding American Handgunner Award Foundation has been completely reorganized under the very capable direction of Larry Kelly (President of Mag-Na-Port) and a small, flexible board of directors. We are in better shape than ever and are looking forward to great things in the future. We do need more members, and now is the time to sign up and receive American Handgunner magazine as a bonus. It's the only periodical devoted purely to handguns, and we don't see how any pistolero can do without it.

Our nominating committee has just turned in the names of the "Top Ten" from which the 1978 Outstanding American Handgunner will be selected. Here are the names, and one of them will carry away the bronze handgunner statuette next spring.

**WARREN CENTER:** Rochester, New Hampshire. Known principally as the designer of the very popular Contender single-shot pistol.

**JIMMY CLARK:** Shreveport, Louisiana. Pistolsmith par excellence and one of our best competitive shooters.

**JEFF COOPER:** Paulden, Arizona. Author and foremost proponent of "Practical Pistolcraft," director of the International Practical Shooting Confederation.

**ELGIN GATES:** Needles, California. Outstanding big-game hunter and proponent of long-range handgunning.

**DEAN GREENNELL:** Dana Point, California. On staff of Gun World magazine, an author of note and handgun lover.

**TANYA METAKSA:** Washington, D.C. Chief lobbyist for NRA on Capitol Hill and head of ILA State Liaison program.

**GEORGE C. NONTE:** Peoria, Illinois. Our most prolific shooting author, worldwide handgun hunter, and technical expert on handguns.

**ROBERT PETERSON:** Los Angeles, California. Publisher of "Guns and Ammo" magazine and a handgun hunter.

**SKEETER SKEILTON:** Deming, New Mexico. Former federal agent, author, and handgun aficionado.

**HAL SWIGGETT:** San Antonio, Texas. Well known author, photographer, and handgun hunter.

These nominees represent a broad spectrum and have all done much to promote the sport of handgunning. Their accomplishments are too numerous and varied to list here, but perhaps next issue we'll be able to tell you more about them.

Keep an eye out for this section of the magazine from now on. Here is where you'll find all the latest information on Foundation activities, especially including plans for the bigger-than-ever 1978 Awards Banquet and Ceremonies.

---

**YES, I want to become a member of the Outstanding American Handgunner Foundation**

- Enclosed is $15.00 for annual membership which includes a year subscription to The American Handgunner Magazine
- I am already a subscriber to The American Handgunner; enclosed is $10.00 for my annual membership

(Note: Life and Endowment memberships are available, please write for details)

Mail to:

OUTSTANDING AMERICAN HANDGUNNER FOUNDATION
30016 S. River Rd., Mt. Clemens, MI 48045

NAME ...........................................
ADDRESS .....................................
CITY ...........................................
STATE .................................... ZIP ..........................

---
CONTENTS

FEATURES

BROWNING BDA DOUBLE ACTION .45 .................................................. George C. Nonte 23
THE MAUSER MILITARY PISTOL ....................................................... Donald M. Simmons 28
FRANCE'S NEWEST REVOLVER — THE M-73 ............................... Michel Josserand 33
THE T/C INSTA-SIGHT ............................................................. J. D. Jones 53
SPEED RIGS FOR COMBAT SHOOTING ............................................ Rick Miller 62

THE THOMPSON/CENTER CONTENDER

By Massad Ayoob

GENESIS OF A PISTOL ............................................................... 40
INTERVIEW: WARREN CENTER .................................................. 42
CONTENDING WITH THE CONTENDER .......................................... 46
THE COLLECTIBLE CONTENDER .................................................. 51

DEPARTMENTS

COOPER'S COLUMN ................................................................. Jeff Cooper 5
KEEP SHOOTIN' ................................................................. 6
THE COMBAT COURSE ............................................................. Mason Williams 10
INDUSTRY INSIDER ............................................................... Massad Ayoob 12

HANDGUN HUNTING ............................................................... Geo. Bredsten 16
HANDLOADING ................................................................. Dan Cotterman 18
COP TALK ................................................................. Massad Ayoob 66
TAKING AIM ................................................................. Claud Hamilton 69

Jerome Rakusan .................................................... Editor
Herbert Gates .................................................. Associate Editor
Robert C. O'Quinn .................................................. Associate Editor
Sydney Barker ........................................ Art Director
Benton Covert .................................................. Art Production
Albert Eskinazi .................................................. Subscription/Circulation

Bill Bauer .................................................. Advertising Sales
Michele Sorons .................................................. Advertising Manager
Joc Tortorici .................................................. Advertising Production
Jane Davidson .................................................. Adv.客户服务
T.A. von Rosen .................................................. Production Director

SUBSCRIPTION OFFICE: D. Bennett, 8150 N. Central Park, Skokie, Ill. 60076 (312) 675-5611
EDITORIAL OFFICES: Jerome Rakusan, 8150 N. Central Park, Skokie, Ill. 60076 (312) 675-5602
NATIONAL ADV. OFFICES: 8150 N. Central Park Ave., Skokie, Ill. 60076 (312) 675-6010
WEST COAST ADV. REPS: Media States Associates, 12121 Wilshire Blvd., Suite 207, Los Angeles, 90025 (213) 826-8341
EAST COAST ADV. REPS: Buchmayr Associates, 19 Birch Rd., Darien, Conn. 06820 (203) 655-1639
Blowing Up With Two Point Seven

The matter first came to my attention many years ago on a visit to the Colt factory. There, on Don Mitchell's desk, lay a Python which was well and truly burst. Three chambers were blown away, the top strap had buckled and the muzzle was pointing about thirty degrees skyward.

"The customer claims he was loading the regular-target combination, a 148 wadcutter and 2.7 grains of Bullseye. I guess he got a double charge."

On considering this, it became obvious that something else was at fault. Twice 2.7 is 5.4, and a Python would take as much as 9 grains of Bullseye with 158-grain bullet as a proof load. (Though don't try this. We are reaching the end of the line.) Nor could the correspondent have made the mistake of using a denser powder than recommended, since Bullseye is about as dense as anything around. But there the gun was, and it looked like it had nitroglycerin in its cartridge rather than gunpowder.

In due course I heard of a similar incident, and then another. I have now on my desk twelve such letters, all reporting the bursting of a high-quality revolver when using target ammunition which was loaded light for ease of control. Never during this period did I receive comment during this period did I receive comment on a revolver's being blown by what was admittedly an overload. It seems that excessively heavy loads (up to a point) tend to stretch revolvers out of shape rather than blowing them. It is this light load that bursts them like a bomb. Now, why do you suppose that is?

In the course of my explorations, I came across the word "detonation." It is generally used to describe the action of high explosive, such as TNT; rather than low explosive, such as gunpowder. It implies almost instantaneousness rather than gradual combustion of a charge. Not being highly qualified in either physics or chemistry, I enquired further. One explanation I got was this, "When a small charge of powder, especially a dense, quick-burning powder, is loaded into a large case it tends to lie in a trough along the bottom of the case, rather than filling up the space. This may allow the primer discharge to flash over the powder against the base of the bullet and to ignite the entire charge almost instantaneously." The black-powder .38 Special case is overlarge for the amount of smokeless powder usually used in this load. The .357 case is, of course, larger still. Bullseye powder—a very dense, quick-burning compound—may indeed tend to get lost in a large case if a very small charge is used.

But the conventional target load of a 148 bullet and somewhat less than 3 grains of Bullseye has been used for generations as a standard target and practice load for tens of thousands of policemen. It would certainly appear that the hazard of detonation would have become common knowledge by this time if that indeed were the problem.

Having received so many queries about this matter, I finally published a rather deficient appreciation of its possibility in a questions and answers column. Immediately I got static from all directions. Attacking the traditional 2.7 wadcutter load seemed to be something like attacking home and mother. I was not in fact attacking it. I was simply wondering out loud. But the response was the same as if I had trod upon the flag.

In the months following this interchange I received four or five more examples of the problem, three of them coming from overseas, where powder other than Bullseye was used, but powder of very similar characteristics; one in England, one in France and one in Africa. It would seem that while the risk involved in this sort of load is extremely low, it does exist. Or something exists. Just what, I cannot say.

Then another customer wrote to me after having written to the company which makes Bullseye powder. He enclosed their response. I had mentioned only two recent blowups in my column, and the answer that my correspondent got back from the company ran thus:

"Since neither incident mentioned in the magazine have been brought to our attention (sic), we are unable to offer comments on the cause. Some time ago a similar incident was brought to our attention. Investigation revealed a large fluctuation in the powder charge to the low side. The most likely cause of that particular incident was a bullet lodging in the forcing cone, with another round firing into it."

The assumption here was that a very low charge had simply forced the bullet forward into the cone, whereupon it was struck by a subsequent bullet, giving a double weight in the barrel and forcing a very low charge to blow up the gun. The
Dear J. T.,

Had some excitement here in town last week. Bonzo, that chimpanzee from the movies, was at a fair over at Pine Forge and Smitty Brown heard about it. Smitty's the best friend and promoter shootin's ever had, got the NRA building paid for in Washington with his ideas, though I hear those jaspers up there are on the move again. Smitty sees shootin' bigger than those TV tennis matches some day.

You remember you met Smitty at Perry last year. He was coaching that new young lady shooter from Florida, Nancy Caldwell. She won the Women's Pistol Championship beating that Washington Flash Certie Backstrom by two points. Smitty was as proud as if Nancy'd been his own daughter, but he looked a mite like he was gonna have his second heart attack after Nancy put on that race horse finish.

Any way, Smitty's always sayin' he can teach anybody to shoot a pistol in 30 minutes, all they got to understand is sight alignment and trigger control. So he got the idea of taking Bonzo out and proving he could even teach a chimp, probably easier than a human. Like Smitty said, "Hell, the monkey can't get on his back... he IS the monkey."

Smitty got his favorite O.M. Colt he shot for so many years, and they gave that critter an unloaded gun to hold for the pictures. Tried to put ear protectors on him, but he kept pullin' them off. Then every time Smitty'd shoot, that chimp'd scream and holler and stamp his feet.

As you can see in the picture I'm sending you, Smitty got off ten pretty good shots at 50 yards. Showed Bonzo how to hold the gun, look at the sights and pull the trigger, but couldn't bring himself to giving that monkey a loaded gun. Like Smitty said, "Wouldn't be hard to teach him to shoot, but he'd never figure out how to use those NRA scorecards."

That's the gospel, have you seen the latest one they make the police shooters use? Got 2 columns, marked 1-2 and 3-4, each line is totaled across for number of shots, multiplied by each shot value and then both columns added down and across into one total.

Smitty's right, be easier to teach anybody how to hold em and squeeze em.

NAT

"Just Keep On... SHOOTING"

Naturally, I found this letter most enlightening, as it tended to corroborate what I had been suspecting. It does not, of course, solve the mystery, because the very load in question is one which has long been recommended as absolutely safe for both .38 Specials and .357's. The experience of the loading companies and the loading manuals is fully on the side of safety in this matter, and still we have these explosions. Fortunately, up to now, they have not resulted in physical damage to the shooter, but they have completely destroyed the firearm. I do not pretend to know what happens here, but I do know that something is happening, and that it is very destructive. I cannot preach in this field; but, as for me, I will not use the classic target loads of Bullseye in any revolver that I own, and I intend to stay well clear of other people's revolvers in which such loads are used. I have too many examples now to regard this matter as one of trivial probability.
Might as well start out with what you're gonna wind up with.

Let's say you already know why you want to get into reloading. The savings. The accuracy. The just plain satisfaction.

But your not too sure yet just what kind of press and dies to invest in.

Well, far be it from the good ol' boys to give you some high-pressure pitch on their RCBS reloading tools. But still, there are a few facts someone in your shoes ought to know.

Like the fact that RCBS makes the world's most complete line of reloading equipment. Or the fact that nobody turns out more reloading dies in more different calibers (over 300).

Which probably helps explain the fact that seven out of ten reloaders today are using RCBS presses and dies. Seven out of ten. A close look shows why.

See the Block “O” frame built into these presses? It was pioneered by RCBS to make sure the frame would never spring out of alignment like “C” frames and some others can. Because a press with a sprung frame makes a pretty good doorstep. But that's about all.

The Block “O” design, together with the patented RCBS compound leverage system, can absorb tons of work pressure without going out of whack. Yet these presses operate so smoothly, you can actually feel a difference between them and ordinary presses. The reason is better fitting parts. And casting tolerances within fifteen thousandths of an inch.

Which brings us to the way the good ol' boys at RCBS put their dies together. It's all summed up in the word "Precisioneered." Since the inside of the dies is where all the work gets done in a re-loading press, you can bet they put plenty of work into it. And it shows in the final product.

They start with the best die steel available and add 34 years of know-how. One at a time, each die is precision machined. Then each is polished inside, by hand.

Next comes a 1700° heat-treating process that makes RCBS dies hard and tough enough to outlast a dozen gun barrels. Then more hand-polishing till the die is just so.

The results speak for themselves every time you shove down the handle of an RCBS press.

Of course, the good ol' boys are only passing this information along as a public service. They don't want you to be frustrated by something less than RCBS equipment. But the final decision has to be yours. Sooner or later, you'll probably wind up with RCBS. The boys just hope it's sooner.

RCBS

Sporting Equipment Division

Omarm Industries

P.O. Box 1919, Crovile, CA 95965

Get the whole shootin' match from the good ol' boys: CCI primers and ammo, Speer bullets and RCBS reloading tools.

This is the heavy duty model, the Rock Chucker. It can handle the largest and longest cartridges.

The part of this RCBS Sizer Die you can't see is called know-how. RCBS dies have more of it than any other dies going.

loading press, you can bet they put plenty of work into it. And it shows in the final product.
<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1978 GUN DIGEST</strong></td>
<td>John T. Amber</td>
<td>An all-new edition of the most comprehensive and complete gun book for all shooters, collectors, hunters and outdoorsmen. Features by Waters, Labisky, Thomas, Sterett, Nonte, Steindler, and more. Includes articles on handguns, air guns, rifles, black powder guns, handloading, collecting, smithing. Plus a large catalog section complete with specs and prices on all U.S. and imported firearms and accessories. 448 8½ x 11 pages.</td>
</tr>
<tr>
<td><strong>BIG GAME HUNTER'S DIGEST</strong></td>
<td>Tom Brakefield</td>
<td>The really complete reference to North American big game hunting. This comprehensive, lively volume gives sound advice to beginning hunter or practiced sportsman. Learn how to choose the right guns and scopes, which gear and duffel are necessary for different types of hunting, where to find the big ones. Special chapters on all major North American big game species plus tips on where, when and how to bag them. Throughout this new volume, you'll find many helpful ideas to add enjoyment to the hunt. 288 8½ x 11 pages.</td>
</tr>
<tr>
<td><strong>VARMINT HUNTER'S DIGEST</strong></td>
<td>Jim Dougherty</td>
<td>Former National Varmint Calling Champ and hunter Jim Dougherty tells how the local pros call and hunt—tips well salted with his subtle sense of humor. Learn the predictable patterns of coyote, bobcat, raccoon, even mountain lion and bear. Covers hunting with gun or bow: the art of hiding and camouflage; calibers and loads for rifle, shotgun and handgun; trophies. Discusses all types of mouth and electronic calls as well as calling techniques. Plus extensive listings of manufacturers of all types of hunting and calling gear. 256 8½ x 11 pages.</td>
</tr>
<tr>
<td><strong>GUN DIGEST BOOK OF FOLDING KNIVES</strong></td>
<td>Jack Lewis and B.R. Hughes</td>
<td>A cut above any other volume published on pocket or folding knives. Liberally illustrated; extensive history; blade design, materials, shapes and sharpening techniques. Tells how quality folding knives are made for mass production. Also covers custom knives, the &quot;Swiss Army knife&quot; and many other extraordinary blades. What to look for in buying an everyday pocket knife; a hunting knife; a fine custom design. Full directory of mass and custom makers. 288 8½ x 11 pages.</td>
</tr>
<tr>
<td><strong>AIR GUN DIGEST</strong></td>
<td>Robert Beeman</td>
<td>In one definitive volume AIR GUN DIGEST assembles enough information to boggle the imaginations of those who fondly remember mom, apple pie and the Daisy air rifle. Beeman traces the first air, spring air, CO2 and other types of air guns from prototype to present-day models. Major chapters on maintenance, current gun laws and safety precautions. The author is optimistic about the future of airgunnery as a leisure activity, as well as the hunting possibilities in areas where combustion types are prohibited. 256 8½ x 11 pages.</td>
</tr>
</tbody>
</table>
BUY ANY DBI BOOK ANYWHERE... 
GET ANOTHER DBI BOOK FREE!

Gun Digest Book of MODERN GUN VALUES
Edited by Jack Lewis
Bargainers' bonanza! It gets true worth of your guns today. For buying, selling, trading. Tells what's needed for collectors' cases; why prices are what they are. 288 8½ x 11 pages.
$7.95 ........... No. MG5816

LAW ENFORCEMENT HANDGUN DIGEST
NEW REVISED EDITION
Guide to operation and maintenance of law enforcement weapons. Includes every type of handgun, plus special sections on riot guns, anti-sniper rifles, tear gas and other special weapons. 320 8½ x 11 pages.
$6.95 ......... No. LE5326

HANDLOADER'S DIGEST
7th Edition
Edited by John T. Amber
Historical and current developments in science of reloading; Wildcat and popular cartridges; shotshells. Features for marksmen, experimenters. Big catalog section. 320 8½ x 11 pages.
$7.95 ......... No. HD2976

BLACK POWDER GUN DIGEST 2nd Edition
Edited by Jack Lewis
A must for muzzle loaders. In depth discourse on rifles, handguns, scatterguns and accessories. Features updated catalog of arms; new alternative to black powder; big gun look at cannoneery; where to buy. 288 8½ x 11 pages.
$7.95 ......... No. BP9346

HANDGUN DIGEST
8th Edition
Edited by Joseph J. Schröeder, Jr.
Round out your firearms library with fresh features on Colt, Lugger, Iver Johnson, Martin, Winchester, Webley and other famous makes. 288 8½ x 11 pages.
$7.95 ......... No. GU5526

HOBLE'S RELOADING
By Dean A. Grennell
Covers everything you need to know to get into reloading. What to do, how to buy, where to buy it. Complete coverage, readily to use; this is the book for every serious or novice. 320 8½ x 11 pages.
$6.95 ......... No. AB5616

HOME GUNSMITHING DIGEST
By Tommy Bish
43 chapters give the lowdown on maintaining, repairing, rewarking firearms. Profusely illustrated with diagrams, details and photos. A book for gun owners. 288 8½ x 11 pages.
$6.95 ......... No. HG5126

SINGLE SHOT RIFLES AND ACTIONS
Edited by John T. Amber
Rare collection of articles over 55 significant single shot rifles and actions. Complete with photos, drawings, specifications, designs and construction features. 320 detailed 8½ x 11 pages.
$8.95 ......... No. SR9016

BOLT ACTION RIFLES
By Frank De Haas
Comprehensive, filled with painstaking research and detailed to delight all bolt action rifle enthusiasts. In depth feature articles cover most major designs from 1871 Mauser to the latest. 320 8½ x 11 pages.
$7.95 ......... No. BA9026

PISTOL AND REVOLVER DIGEST
3rd Edition
By Dean Grennell
The definitive book on a unique subject: Never before published coverage of cartridges from the 1870's through modern U.S. military calibers. 320 8½ x 11 pages.
$7.95 ......... No. PR916

CARTRIDGES OF THE WORLD
3rd Edition
By Frank C. Barnes
The definitive book on a unique subject: Never before published coverage of cartridges from the 1870's through modern U.S. military calibers. 320 8½ x 11 pages.
$8.95 ......... No. CW9016

TWO BOOKS FOR PRICE OF ONE! HERE'S HOW!
Buy any DBI book anywhere and get another DBI book FREE! Now you can own any of the books shown in this ad FREE!
(a) Buy any book(s) in this ad at retail price
(b) For each book you buy, you may select a second book from this page of the same price or less FREE!
(c) Please include $2.00 for each FREE book you order to help us cover postage, insurance, packing and handling.
(d) If you buy DBI books from your local dealer, send genuine dealer sales slip showing which books in this ad you bought and where. Same FREE book offer applies, including $2.00 postase, insurance and handling fees for each FREE book.

WITH EACH ORDER, YOU WILL AUTOMATICALLY RECEIVE ONE COPY OF "RARE SELECTIONS FROM OLD GUN CATALOGS", A $4.95 VALUE, SHIPPED POSTPAID (NO $2 CHARGE).

A B C
I'm Buying Retail Send These
These Price FREE
Book No. $ Book No.
Book No. $ Book No.
Book No. $ Book No.
TOTAL $

Please send the DBI book(s) listed above.

Column 'B' Total $ PLUS postage, insurance, packing and handling charges ($2.00 for each FREE book). TOTAL ENCLOSED $ OR Enclosed is genuine proof-of-purchase (dealer sales slip only) for DBI book(s) bought locally. Send FREE book(s) listed in Column 'C' above. I've included the $2.00 processing fee for each book. TOTAL ENCLOSED $

MONEY BACK GUARANTEE... FAST DELIVERY

DBI BOOKS, INC.
Dept. B976, 540 Frontage Road
Northfield, IL 60093

Name ______
Address ______
City ______ State ______ Zip ______

U.S. & Canada only; 2 for 1 offer expires in 60 days
In June of 1976, representatives from thirteen nations met in Columbia, Missouri to create the International Practical Shooting Confederation. Note the second word in the title—Practical! This is the word that makes the IPSC stand alone in the realm of handgun shooting. The National matches held in Denver, June 8th through June 12th, 1977, were the first nationals held under the auspices of the IPSC.

Perhaps a few words of background are necessary at this point. For many years, an ever increasing number of people have been questioning the validity of conventional handgun matches that are based upon rigidly controlled, known rules and match conduct. These conventional matches resemble a ballet in which the participants have practiced and rehearsed for months, or even years, until each nuance is controlled to absolute perfection. Change one detail and it all falls apart. These matches have their place, but, as I mentioned above, more and more shooters are moving towards what is termed “practical” handgun shooting.

Practical shooting involves accuracy, power, and speed; but possibly the most important factor is Diversity. No two matches ever include the same courses of fire. A shooter’s ability to react correctly to any situation is one of the keys to practical marksmanship. Each course of fire is based upon a practical situation. In addition to all that, it makes an excellent spectator sport. It’s fun to participate in and most interesting to watch. This type of shooting has been growing for the past twenty-odd years and I first came into contact with it back in the middle 1950’s. Anyone with a sound background in handgun shooting, plus normal physical capabilities and reflexes, can enter these matches and stand a good chance of placing high.

The IPSC held regional matches throughout the world and the competitors who qualified in the United States at sectional matches in the Fall of 1976 fired in the Championship Class at Denver. Only men from this Championship Class are eligible for the U.S. Team that will travel to the World Championships in South Africa in August of 1977.

The Denver Nationals were run by the Table Mountain Gun Club of the Colorado Pistol League. The range is located just outside of Golden. The range was divided into three sections, each entirely separate from any of the other two, thus permitting the simultaneous firing of the three stages at the same time. Stage Number 1 was fired on the center range, Stage Number 2 was fired on the left-hand range, with Stage Number 3 fired on the right-hand range. I have seldom attended a match where everything went so smoothly and so rapidly. Waiting time was held to a minimum. Management, efficiency and functioning was ideal.

The match was restricted to a maximum of one hundred twenty-five shooters. There were two classes of shooters. Thirty made up the Open Class. These men were firing as individuals and came from all over the country. They had not won the right to attend the matches by having fired in Regional shoots. The other 95 shooters, firing in the Championship Class, were the top men from Regional matches throughout the country.

The Open Class fired Wednesday and Thursday. The Championship Class fired Friday and Saturday. Sunday noon, the banquet was held in the Holiday Inn in Golden. As the results became apparent, the advantages of this type of shooting became obvious. Let me give you the details. There were one hundred forty-two prizes valued at $5,500. The five top men in the Championship Class were given paid trips to Rhodesia for the World Championships adding another $10,000.00 to the total prize list.

The amazing thing about the matches was that the winner—Kirk Kirkham—has only been in practical pistol shooting for about three months. His score of 342 was the highest ever shot in National competition. This clearly illustrates that good health, excellent reflexes, plus a sound shooting background, are definitely the basic requirements for Practical Pistol Shooting.

The U.S. National Team that will represent this country in Rhodesia consists of:
1. Kirk Kirkham—342
2. Leonard Knight—339
3. Jerry Kay—334
4. Ray Chapman—333
5. Jerry Usher—332

These men make up the 1977 U.S. Team. They will travel to Africa with all expenses paid.
The next five men form the backup team and they also can wear the IPSC shirt:

6. Raul Walters
7. Tom Campbell
8. Mike Dalton
9. Rick Miller
10. John Davis

Prizes consisted of Colt pistols, Dan-D knives, Weatherby rifle, Davis leather, Star pistol, trophies, medals, pocket knives, plaques, and dozens of pieces of merchandise.

I would like to list some pertinent data for those people—men, women and youngsters—who would like to move into this type of shooting.

The handguns used consisted of 87 Colt .45 ACP pistols, one-9 mm, one-44 Magnum and two-38 specials. No need to say anymore.

Before firing, each competitor had to do a back roll of 360 degrees to prove that his holster would safely retain his handgun. This is one of the basic requirements of Practical Pistol Shooting.

Next, each competitor had to fire his match ammunition on a Ballistic Pendulum to determine whether his load fails into a major or minor ammunition classification. In order to place a load into the major classification, the ammunition must move the pendulum as far as, or more than .45 ACP hard ball ammunition.

If a competitor’s ammunition fails to meet the requirements for major classification, then it will be considered to belong in the minor classification with resulting differences in scoring targets. The theory being that a man who can shoot top scores with a .45 ACP should not be forced to compete on an equal basis against a man firing a .38 special wad cutter load. All loads, whether major or minor, are scored the same for center hits but hits outside of the center will be scored one point higher for all major caliber classifications.

An acceptable handload for the .45 ACP for these matches is a 230 grain, round-nose, hard lead bullet, ahead of either 7.2 grains of Unique or 5.2 grains of Bullseye. These loadings will move the pendulum to record a major caliber.

Holsters were varied and many, but most, were made by Milt Sparks, Anderson, Snick, Rogers, Davis and Bianchi.

Handguns were altered and modified by Swenson, Hoag, Clark, Greenwald. Modifications consisted of high visibility sights, combat safeties, beveled magazine wells, hard chrome finishes and square front trigger guards.

Obviously, a competitor can spend any amount of money he wishes upon handgun and gear. The most important thing, of course, is the ability to handle the gear and handgun. Next comes accuracy, but this evolves out of practice and more practice.

I talked to a lot of people. Most told me that a good, new Colt Mark IV will cut the cake, so if you want to get into this game, you do not need to spend a lot of money.

The interesting part of Practical Pistol Shooting is that no two courses of fire are ever repeated for competition. Note that there is nothing extremely difficult about any of these courses nor are they slanted against revolvers or the new shooter. Anyone with a sound shooting background can come into this sport and do well. It is a tremendous spectator sport and I predict that once the IPSC becomes thoroughly organized, that it will attract an ever increasing number of spectators and the news media in all its branches from newspapers to TV.

Anyone interested in more information should write directly to Rick Miller, 1863 Troy Urgana Road, Troy, Ohio 45373. Rick, a frequent contributor to The American Handgunner, is the historian of the IPSC and the same man who won a place on the U.S. backup team. It’s not often that a man can both write well and shoot well.
HANDGUN INDUSTRY INSIDER

By MASSAD F. AYOOB

If you think the skyrocketing price of brass is hurting you as a handloader, just think how you’d feel if you were a corporate exec. of an ammunition company and made your livelihood out of the profitability of the ammo you could produce.

Some ammo-makers are looking to alternatives, even radical alternatives. One is Jack Canon, Ramrod of Deadeye Associates in Louisiana and the purveyor of super-effective Glaser Safety Slugs. When you’re a little guy making special ammo, you’re dependent on the guys who sell you cartridge cases. Witness Lee Jurras, who said he pulled the plug on Super Vel because the biggies all had rounds that duplicated his concept, and he couldn’t get a supply of cases from them.

Canon, a totally independent kind of guy who takes nothing from nobody, is negotiating with a Korean firm to supply quality, precision spec brass, at a decent price. If he pulls it off, look for a flood of ammo company executives at the TWA booking counters picking up their overseas tickets.

The other solution is a lot more radical. Last week, an “individual in the industry” came by my office and spent four hours telling me about his proposal to revolutionize ammo manufacturing. He plans to take certain plastics (an industry in which he has a solid base to talk from), and create a plastic case for use with live ammo. He isn’t talking about the basement practice shells, those that work just with primers and tend to fall apart in your gun; he’s talking about 2.7 grams of Bullseye behind a 148-gr. lead semi-wadcutter .38 Special load, the most profitable handgun ammo to make since there’s so much large-volume demand for it from police agencies. He thinks he’s got a high-stress plastic that will take the pressure. It might be good for a few reloadings, or one, or none at all, and he doesn’t much give a damn; he figures he can make his plastic cases so cheap they’ll be disposable anyway.

Sound incredible? You betcha it does. And yet, we would have said the same thing last year if somebody had told us a major company would come out with a plastic sabot that would let you shoot a .224 bullet over 4000 feet per second in your .30/06. But Remington did it, and it’s the hottest property going in 1977 small arms ammo. Our “mystery man” pointed to a Remington Accelerator sabot and said, “If this plastic composition holds up as well as it does with the pressures generated by a 4000 fps rifle bullet, what makes you think I can’t make a plastic cartridge casing that can take a puny .38 wadcutter load?”

It is interesting to listen to this guy, and correlate what he says with the fact that Remington won’t tell you exactly which plastic it is, of the thousands of formulae available, that they’re using in the Accelerator. There’s lotsa bugs to be worked out, but the theory can’t help but fascinate. Our source claims that he’ll have loaded rounds available for an exclusive American Handgunner test in a few months. We’ll wait and see.

Ted McCauley of Remington answers these rumors as follows: .308 Winchester is the next cartridge to be “Accelerated,” and no serious thought has been given to a handgun version of the Accelerator. The plastic .38 ammo theory, he says, is laughable. And while Remington is pleased with the upsurge in demand for the XP-100, no plans have been made to chamber it for larger calibers.

We had asked McCauley about future plans for the XP-100 pistol, the funny little bulldog bolt action based on the old Model 600 rifle action, because with the burgeoning growth of metallic silhouette handgun competition, this oddball gun that was once for varmint-busters only is experiencing a new surge of popularity. The reason; it has rifle strength, and can be chambered for calibers like .308 and .358 that blow a heavy steel goat over like Superman swatting mosquitoes. A bunch of gunsmiths are already making such XP-100 conversions and selling them for premium dollars. McCauley says a factory version ain’t in the cards.

Nevertheless, Remington has already...
Your personal handgun has to be a gun you can rely on.

Let's face it. If you wanted to take chances, you wouldn't own a personal revolver in the first place. That's why only a Colt makes sense.

Hand crafted precision. Contact parts in a Colt revolver are hand fitted. Every chamber in every cylinder is individually inspected to make sure it lines up perfectly with the barrel. This "range" check is just one of six inspections every Colt revolver must pass before shipment. All are done by hand.

Pay less and you get less. Compare a Colt with a less expensive revolver. The Colt gives you six shots. Some revolvers give you only five. The barrel and cylinder walls on the Colt are sturdier. Note the location of the bolt notches on the cylinder. Instead of weakening the cylinder wall at its thinnest point, Colt cuts these notches off to the side where the metal is thicker. The cylinder release latch on a Colt pulls to the rear. With the forward moving latch found on many revolvers, the shooter can inadvertently open the cylinder and dump the cartridges.

Unique lock-up. On any revolver the cylinder advancing hand moves each chamber into alignment with the barrel. On a Colt the advancing hand also functions as part of the lock-up mechanism. At the critical moment of discharge, the Colt advancing hand holds the cylinder rigidly in line with the barrel. That means less chance of shaving lead as the bullet enters the barrel. And that means a safer, more accurate gun.

Some revolvers use the barrel end of the ejector rod as part of their locking mechanism. Trouble is, if the ejector rod is damaged, the gun may not lock up at all. If it won't look up, it can't be fired. The shrouded, free-floating ejector rod on a Colt has nothing to do with cylinder lock-up. So a Colt can take rough treatment and still perform.

Pretested for accuracy and safety. Many manufacturers do not target their handguns at all. Some use employee testers to do the job. Only Colt uses a laser boresighting system that completely removes the human factor. This remarkable instrument consistently holds center-of-impact variability to within one tenth of an inch. Every Colt revolver is laser targeted before shipment.

You can count on a Colt. If you buy a revolver that isn't a Colt, you'll probably pay less money. You'll definitely get less gun. Only a Colt gives you the reliability your personal handgun has to have. Even if you never use it.

As a safety check, every Colt Detective Special is proof fired with special high pressure ammunition before it leaves the plant. That's why Colt can recommend any major brand of ammo. For additional facts on the safety and use of handguns, send for Colt's free booklet, "Handling the Handgun." Write Colt Firearms, Dept. 31J, Hartford, Conn. 06102. There is no obligation, of course.

ColtCobra 38 Special • Lightweight (15 oz.) version of Detective Special.
established a precedent of making rifles to the specific needs of metallic silhouette shooters, and we think a similar step with their one-and-only handgun would be in order. True, the metallic silhouette handgun shooters are a small market by themselves, no matter how fast the sport is growing; but, their sport is being well organized and publicized, and if Remington guns win there, many times more varmint hunters and non-competitive handgun enthusiasts will have an excuse to reach into their pockets and buy the “gun that wins.” I predict a metallic silhouette competition XP-100 as a factory option within 18 to 24 months.

Jack Canon, whom we mentioned a few paragraphs back, has introduced a new generation of GLASER SAFETY SLUGS—for big bores. He has one for .45 ACP, one for .44 Special that is designed expressly for the popular Charter Arms A-4 Bulldog, and the inevitable .44 Magnum. As one might imagine, the combination of the Glaser concept (a capsule filled with fine birdshot suspended in liquid Teflon, traveling at plus-minus 2000 feet per second out of a .38 caliber weapon) combined with big bore projectile volume and powder capacity, results in an awesomely destructive anti-personnel round.

Glaser Safety Slugs are available from Glaser Safety Slugs, Inc., P.O. Box 1975, McaAllen, Texas 78501. They’re expensive as hell: 75¢ a cartridge in .380, .38, 9mm., or .357; and they’ll go $1.00 a shot in .44 or .45. But you have to be a cop to get them, for obvious reasons. Jack Canon doesn’t want just anybody walking around with this kind of firepower. In fact, to save paperwork on shipments, he’ll send your ammo to you only in care of your local police headquarters address.

THOMPSON CENTER has good news in two respects: the inventor of the Contender pistol, Warren Center, is virtually completely recovered from the car crash that almost took his life, and should be back to work on the gun-designing board by the time you read this. Also they’re bringing out ten calibers in the comfortable-hanging bull barrel configuration that has only been available in the Contender thus far in the .30 and .357 Herrett wildcat chambers. One of them will be .41 Magnum, T-C’s 24th caliber on their list that’s current, and their 30th counting the .17 wildcats they dropped when sub-smallbore mania died. The .41, like the Contender, has excellent potential in metallic silhouette shooting, since it retains, proportionately, a little more of its velocity than does the .44 Mag at long range.

Joe Lee of SECURITY INDUSTRIES, maker of the Chief Special—stainless snubbies in .38 and .357, has read our articles where we applaud the design and smoothness of his guns, and deplore the lousy workmanship. He agrees with our assessment 100%. He explained to us that the problem is his New Jersey location and the problem of the state’s labor pool.

Since there had been little in the way of an armsmaking industry in N.J. over the years and therefore few trained gunmakers, he had to take skilled and semi-skilled machinists from other fields and teach them. To make matters worse, his assembly people had a high turnover rate, because he couldn’t afford to pay them much over minimum wage, and few stayed long, because welfare and unemployment insurance in that state sometimes pays more than minimum wage. Joe reports some workers were deliberately antagonizing supervisors to force their firings in order to get on welfare. “This kind of labor,” says Joe, “is why the guns weren’t as well fitted as they could have been, even though the design improvements and the quality control were enough to ensure that they functioned better than the competition’s once they left the factory.” Result: Joe is moving to the boondocks, good ol’ heartland America, where there are workers who still take pride in what they turn out ...

Meanwhile, over at SMITH & WESSON, some new grip designs for revolvers (beginning with the “K” series) are already off the drawing boards. The first is a slimmed-down version of the current oversize target-style stocks, modified with a speedloader cutout on the left side. Also planned is a birds-head configuration that should combine better combat handling with the problem of the state’s labor pool. Here’s a -8-10 as long as it does the job prices should be comparable to current optional S&W stocks.

We started this column with a “mystery man with a great handgun idea,” and we’ll end it on the same note. You must understand: there are a lot of people out there with hullkitten ideas, who seek you out if they think you can get them some publicity. Jack Anderson must go up the walls after screening them. But this guy, like the one we quoted before, knows what he’s talking about: the individual in question has a decent background in industrially-applied metallurgy, and he’s going out on his own with a plating process that he hopes will revolutionize handgunning. I can’t tell you who he is yet, or what it is, or if it works, but he says he can out-armalloy Armalloy, and can both harden and build up steel at crucial points to accurize revolvers and especially automatics. He also says that his process is so fine and precise he can plate bores and increase velocity. This individual claims that he can take a Contender in .30 Herrett, plate the bore, and bring velocity up over the unheard-of (in a pistol) 3000 foot seconds mark, because his plating will reduce friction drag in the bore that sharply. At the same time, he avows, his plating is so thin that the bullet will take a perfect bite into the rifling, won’t be “squeezed” too tight, and will equal or better previous accuracy in the same barrel.

We’re skeptical, but we’re watching ...

But enough of ballistic mystery men. Next issue, we’ll go back to the industry’s official spokesmen, and see what they have to say—for attribution or not—about new handguns and loads.
We’ve got the law on our side.

Nearly half the good ol’ boys’ Lawman ammo is used up by lawmen. Lawmen all around the country, from the Feds to the Lewiston, Idaho Police Dept. That tells you two things. That it’s really good ammo, alright. And that the other half is up for grabs.

But how did this bunch in Lewiston become such big shots in handgun ammo, turning out more kinds of pistol loads than anyone else in the popular calibers? Well, mainly by being very serious handloaders and handgun shooters themselves.

They tested all available propellants to find the ones that produced a combination of the highest velocity, best accuracy and most consistent ballistic uniformity. So Lawman ammo has accuracy that’s just plain amazing.

Like five shot groups less than an inch across produced at 50 yards by jacketed .38’s.

Or ten shot groups the same size from the same distance by Match .38’s.

Of course, once a bullet finds its target, it’s also got to have some wallop. So the bullets in Lawman cartridges are built for dramatic expansion. Many calibers have soft lead cores and inner fluted jackets. And the hollow points come with the Penta-Point cavity, which makes sure a slug really opens up.

For handgun hunting, Lawman ammo gives you all the stopping power you need. In loads like the .45 Inspector (its hollow point measures more than half its own diameter). Or the .44 magnum Sheriff (a recent U.S. Dept. of Justice report says it’s the most effective handgun load made).

The good ol’ boys make a few loads no one else does. .45 Auto 200 gr. JHP .380 Auto 88 gr. HP.

140 gr. JHP in .38 Special and .357 Magnum. And shotshells.

They also use an ammo package no one else does—a tough, reusable plastic box, with a grid that holds each cartridge separate.

So whether you choose the 50 packs of .360’s, 9mm’s, .38’s and .357’s, or the 25 packs of .44’s and .45’s you can bet this Lawman ammo won’t let you down.

Because it’s already got quite a record with the police.

---

Get the whole shootin’ match from the good ol’ boys: CCI primers and ammo, Speer bullets and RCBS reloading tools.
Protect your American Handgunner Magazines for years to come with this handy "MAGAZINE COLLECTOR." The attractive leather-like vinyl binder will hold up to two full years of The American Handgunner and can stand either horizontally or vertically on your shelves. Available in either red or black with gold trim, the binder is 8 1/2" deep, 11 1/2" high, and 4" wide. Its handy label holder makes identification easy. For quick and easy American Handgunner reference, order yours today!

2 for $5.95
4 for $10.95
6 for $14.95

Min. order two. Be sure and specify color.

Mail to: AMERICAN HANDGUNNER MAGAZINE BINDERS
8150 N. Central Park Ave.
Skokie, Illinois 60076

For quick and easy reference
AMERICAN HANDGUNNER MAGAZINE BINDERS

Based on the letters of handgun hunters received by The American Big Game Handgunner's Association (ABGHA), there appears to be increasing interest in hunting trophy or record class big game; this applies to the exotic as well as the indigenous species. From its inception, ABGHA recognized the need for a criterion to determine trophy eligibility, a standard system of trophy measurement, sanctioned official measurers, the recognized species and the minimum scores qualifying trophies for possible records inclusion. Each of the foregoing will be elaborated upon to the extent that the interested big game handgun hunter, whether or not an ABGHA member, will have available in one reference or source most of the pertinent information.

The criteria used in determining the eligibility of handgunned big game trophies for records consideration are as follows:

1. Mandatory compliance with all applicable laws and regulations of the governmental agency or agencies having jurisdiction where the hunt is to occur.
2. No big game animal shall be considered for ABGHA records where said animal was acquired by any means other than a handgun used during a legal hunt.
3. No big game animal shall be considered for ABGHA records if any other person or persons also shot the animal.
4. Compliance with the ABGHA System of Measurement is mandatory.
5. Although a particular species of big game is on the "endangered species list" of other countries; if legal to hunt, take and possess in the country where the handgunner is to hunt, ABGHA will accept for records consideration any big game with the minimum score or higher, if so taken.
6. No handgun utilizing a shoulder

ABGHA Minimum Qualifying Scores
for Western Hemisphere Big Game

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SCORE</th>
<th>CATEGORY</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEAR:</td>
<td></td>
<td>JAGUAR</td>
<td>13.5</td>
</tr>
<tr>
<td>Alaska Brown</td>
<td>26</td>
<td>JAELINA (Collared Peccary)</td>
<td>12.5</td>
</tr>
<tr>
<td>Black</td>
<td>19.5</td>
<td>MOOSE:</td>
<td></td>
</tr>
<tr>
<td>Grizzly</td>
<td>23</td>
<td>Alaska-Yukon</td>
<td>200</td>
</tr>
<tr>
<td>Polar</td>
<td>25</td>
<td>Canada</td>
<td>175</td>
</tr>
<tr>
<td>BISON</td>
<td>105</td>
<td>Wyoming (Shiras)</td>
<td>150</td>
</tr>
<tr>
<td>CARIBOU:</td>
<td></td>
<td>MUSKOK</td>
<td>80</td>
</tr>
<tr>
<td>Barren Ground</td>
<td>375</td>
<td>PRONGHORN</td>
<td>75</td>
</tr>
<tr>
<td>Mountain</td>
<td>365</td>
<td>SHEEP:</td>
<td></td>
</tr>
<tr>
<td>Quebec-Labrador</td>
<td>350</td>
<td>Bighorn</td>
<td>165</td>
</tr>
<tr>
<td>Woodland</td>
<td>275</td>
<td>Desert</td>
<td>155</td>
</tr>
<tr>
<td>COUGAR</td>
<td>13.5</td>
<td>Stone</td>
<td>160</td>
</tr>
<tr>
<td>DEER:</td>
<td></td>
<td>White (Dall)</td>
<td>160</td>
</tr>
<tr>
<td>Columbian Blacktail/Sitka</td>
<td>110</td>
<td>WALRUS</td>
<td>90</td>
</tr>
<tr>
<td>Coues</td>
<td>90</td>
<td>WAPITI (Eik)</td>
<td>338</td>
</tr>
<tr>
<td>Mule</td>
<td>180</td>
<td>GOAT, Mountain</td>
<td>44</td>
</tr>
<tr>
<td>White-tail</td>
<td>165</td>
<td>WILD PIG</td>
<td>20</td>
</tr>
</tbody>
</table>

AMERICAN HANDGUNNER • NOVEMBER/DECEMBER 1977
ABGHA's System of Measurement are now given:

1. All measurements shall be made using a steel tape, and measurements shall be recorded to the nearest 1/4 or 1/8 inch as specified on the application form.

2. When indicated, certain measurements shall be taken with a base platform, having two uprights (90 degrees to the base) used to determine such measurements as greatest width and/or greatest length.

3. All measurements, other than any body measurements, shall be taken after at least sixty (60) days have elapsed between obtaining the trophy and its official measurement for ABGHA records consideration.

4. All applications, for records consideration, shall be accompanied by at least one photographic print—either black and white or color—not smaller than five inches by seven inches.

5. The Boone & Crockett and/or Rowland Ward species measurements are used by ABGHA, except that ABGHA does not list or record non-typical trophies per se.

One of ABGHA's long term goals is to establish affiliated chapters in each State and to have at least one member of each chapter serve as an official measurer. Thus the handgun hunter who has taken a potential record class big game trophy would not have to travel too great a distance to have an official measurement made. At the present time, and in addition to the members of the ABGHA Records Committee, there are nine persons sanctioned to serve as official measurers.

The foregoing list is subject to revision—addition and/or deletion of names—as circumstances warrant. Whether or not an ABGHA member, those responsible handgun hunters interested in serving as an official measurer should contact ABGHA for additional information.

For the most part, ABGHA recognizes the same Western Hemisphere big game species as does the Boone & Crockett (B&C) Club. The main difference being that ABGHA recognizes as big game both the javelina and the wild pig, while B&C does not. Also, the minimum qualifying scores for possible ABGHA records inclusion are somewhat lower than those required by B&C.

The ABGHA Records Committee considered many factors, all relevant but not necessarily of equal importance, before the minimum qualifying scores of big game trophies were established. The consensus of the ABGHA Records Committee was that the minimum qualifying scores should be both realistic and reasonable. Thus, it ought to be difficult but not impossible for the dedicated and ethical big game handgun hunter to take a trophy meeting or exceeding the required minimum.

Thompson B. Temple (Box 181—Mountain Home, Texas 78058) is currently the individual responsible for the compilation and listing of the records of exotic species; e.g., Axis Deer, Aoudad, or Blackbuck Antelope. The results are a complete scoring system for all the common United States exotics, and a comparative ranking of the top exotic trophies taken in the United States. Unfortunately, this listing does not differentiate between those trophies taken with rifle, handgun or bow. It is the intent of the ABGHA Records Committee to coordinate with Mr. Temple so that his present system can be modified to provide a section for listing the requirements and the record class exotics taken with a handgun.

With this brief discussion of records and related material, it is believed that the subject be brought to a conclusion with the following: If, during a hunt, your field skills as a handgun hunter are truly tested, then taking a big game trophy—record class or not—is a most rewarding experience. However, whether or not a big game trophy is taken, you should remember that ethical and responsible behavior is always the finest trophy!
There Are Right Ways And Wrong Ways To Seat A Primer! It Pays To Know The Difference.

By DAN COTTERMAN

Anyone who has encountered the problem of difficult cylinder rotation with handloads in a revolver or who has experienced misfires because of improperly seated primers will benefit through simply reading, then following, the advice I'm about to offer.

Has it ever occurred to you that the most uniformly precise part of a cartridge is the very place where those of us who are interested in this subject spend the most time? The primer pocket is the very part of a cartridge that is most uniformly precise because it is the part of the ammunition that is most consistently loaded.

Lacking consistency, any number of unfavorable things are liable to happen: The possibility of misfires, a loss of the accuracy you're seeking, velocity variations...even danger is not unknown to the use of ammunition with primers that haven't been seated deeply enough, especially in handguns.

In the matter of shot-to-shot consistency of ignition, we have to acknowledge the existence of a linking of essentials like the force with which the firing pin strikes, headspace and so on. Some of the foregoing involves basic elemental mechanics within the individual gun. But, remember, the primer is, in a sense, the very foundation of every cartridge.

Think of the primer, its parts and how they relate to the primer pocket and, for that matter, to the diameter of the flash hole, and you'll begin to appreciate the fact that the way that primer is seated has to be rather critical.

The modern primer consists mainly of three parts: that is, the cup, the pellet and the anvil. When the firing pin springs forward and pokes a dimple into the cup, the pellet is pinched between the cup and the head, or center, of the anvil. This is the instant at which the component parts of the primer come into play. An initiator, along with sensitizer particles ignite the fuel. This action creates the intense needle of flame that acts to ignite the propellant charge.

The entire drama of events, as you well know, takes place in less time than it'll take me to strike a T to begin the next sentence. The object of importance, as far as we're concerned, is to realize that the uniformity of ignition obtained controls the performance of our handloads.

Quality control in the manufacture of today's primers is pretty well in hand. The goofing happens, 99 percent of the time, when the guy next to the bench gets his grizzly paws into the act.

Back to the primer...that delicate object. You may have noticed that the legs of the anvil (two, maybe three of 'em, depending on the manufacturer) extend just a tweak past the open end of the cup. If the primer is seated the way it should be, these legs should just touch the bottom of the pocket. The pocket, as discussed in the last printing of T.A.H., should be clean and free of residue. If, in the worst of events, the legs of the anvil are not in contact with the bottom of the primer pocket, the blow caused by the firing pin may dislodge the anvil, shoving it forward. In all likelihood, a misfire probably will not occur; however, some of the force of the firing pin may be used up in dislodging the anvil or, in another possibility, in driving the entire primer forward within the pocket. Irregular ignition of the propellant charge will be the least of difficulties. I have heard of instances in which an improperly seated primer—one that is not within the pocket—will cause the cartridge to fire as the bolt slams forward.

But wait, let's not get the idea that ramming the primer in as far as possible is the answer, either. If the legs of the anvil, which are supposed to be in no more than firm touch contact with the bottom of the
THE AMERICAN HANDGUNNER WANTS YOU!

That’s right! The American Handgunner wants to know about your interests in handgunning. Spend a few moments and send us your answers to the questions below. As soon as we receive your questionnaire we’ll send you this handsome shooting patch ABSOLUTELY FREE as our way of saying “thanks”.

<table>
<thead>
<tr>
<th>1. SEX</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. AGE</td>
<td>18-24</td>
<td>25-34</td>
</tr>
<tr>
<td>3. Please indicate highest educational level attended:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>high school</td>
<td>college</td>
</tr>
<tr>
<td>4. PLEASE INDICATE YOUR OCCUPATION:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical</td>
<td>Professional</td>
</tr>
<tr>
<td>5. WHAT IS YOUR AVERAGE ANNUAL INCOME?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Under $10,000</td>
<td>$10,000-$15,000</td>
</tr>
<tr>
<td>6. HOW MANY HANDGUNS DO YOU PRESENTLY OWN?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pistols (Single Shot)</td>
<td>Revolvers</td>
</tr>
<tr>
<td>7. HOW MANY OF YOUR HANDGUNS HAVE BEEN CUSTOMIZED OR ACCURIZED?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If so, by whom?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. IN WHAT YEAR DID YOU LAST PURCHASE A HANDGUN?</td>
<td>9. HOW MANY HANDGUNS WILL YOU BUY IN 1978?</td>
<td></td>
</tr>
<tr>
<td>10. WHAT MODELS/CALIBER DO YOU ANTICIPATE BUYING?</td>
<td>11. WHAT IS PRIMARY USE OF YOUR HANDGUN?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Law Enforcement</td>
<td>Collecting</td>
</tr>
<tr>
<td>12. HOW MANY SCOPES DO YOU OWN FOR HANDGUN USE?</td>
<td>13. WHAT POWER ARE YOUR HANDGUN SCOPES?</td>
<td></td>
</tr>
<tr>
<td>14. WHAT BRAND IS (ARE) YOUR SCOPE(S)</td>
<td>15. WHAT BRAND MOUNTS DO YOU USE?</td>
<td></td>
</tr>
<tr>
<td>16. DO YOU HANDLOAD?</td>
<td>17. HOW OFTEN DO YOU HANDLOAD?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No (If no, please proceed to question 27)</td>
<td>more than once a week</td>
</tr>
<tr>
<td>18. WHAT IS YOUR PRIMARY REASON FOR HANDLOADING?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>economy</td>
<td>increased accuracy</td>
</tr>
<tr>
<td>19. WHAT IS THE APPROXIMATE NUMBER OF ROUNDS CONSUMED IN A YEAR?</td>
<td>20. HOW MANY ARE factory loads</td>
<td>home reloads</td>
</tr>
<tr>
<td>21. DO YOU ANTICIPATE CONTINUING HANDLOADING IN THE FUTURE?</td>
<td>22. IF SO, in greater amounts</td>
<td>less frequently</td>
</tr>
<tr>
<td>23. IF NOT, WHY?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. HOW LONG HAVE YOU BEEN HANDLOADING?</td>
<td>less than 1 year</td>
<td>1 to 4 years</td>
</tr>
<tr>
<td>25. WHAT CALIBER(S) DO YOU HANDLOAD MOST FREQUENTLY?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. WHAT ARE YOUR PREFERRED HANDLOADING PRODUCTS (please list manufacturers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Primers</td>
<td>Powder</td>
</tr>
<tr>
<td>27. DO YOU OWN A CHRONOGRAPH?</td>
<td>IF SO, WHAT MAKE?</td>
<td></td>
</tr>
<tr>
<td>28. DO YOU OWN A MACHINE REST?</td>
<td>29. HOW MANY HANDGUN HOLSTER/RIGS DO YOU OWN?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shoulder</td>
<td>Ankle</td>
</tr>
<tr>
<td>30. WHAT BRAND HOLSTERS DO YOU OWN?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. HAVE YOU EVER USED A SPEED LOADER?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>32. DO YOU ANTICIPATE USING A SPEEDLOADER IN THE FUTURE?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>33. DO YOU HAVE CUSTOM OR SPECIAL GRIPS ON ANY OF YOUR HANDGUNS?</td>
<td>If yes, what make?</td>
<td></td>
</tr>
<tr>
<td>34. ARE YOU PLANNING THE PURCHASE OF SPECIAL GRIPS NEXT YEAR?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. HOW MANY PAIRS OF HUNTING FOOTWEAR DO YOU OWN?</td>
<td>36. WHAT BRAND ARE THEY?</td>
<td></td>
</tr>
<tr>
<td>37. WHAT IS YOUR FAVORITE SPORTING KNIFE MANUFACTURER?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. HOW MANY PEOPLE, BESIDES YOURSELF, WILL SEE YOUR COPY OF THE AMERICAN HANDGUNNER?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
pocket, are crushed in, the sensitivity of the primer has been altered. You are, in fact, doing part of the work that is supposed to be done by the firing pin. It is not inconceivable that, in the extreme case, some of the pellet might be caused to break away and find its way through the flash hole into the propellant charge. Result, inconsistent ignition, velocity variation and lost accuracy.

Let's now consider how we're supposed to be able to seat each primer the same way each time... ideally having the legs of the anvil abut the bottom of the pocket in, as nearly as humanly and mechanically possible, the same way.

Tools that are made exclusively for the seating of primers provide something of a solution. They at least facilitate the overall handloading operation by allowing one to do all primer seating as a separate function. There is, in the case of some, such as the old Shoffstall Universal, the RCBS, the Lee and so on, the advantage of a shorter lever that allows one to more or less "feel" the primers into place. The variable in precision here lies in the fact that there is a difference in the amount of tension between the wall of the pocket and the cup. It's there... from round to round and from brand to brand.

Granting the fact that special primer seating tools provide a decided advantage, there is yet, in my considered opinion, a better way. There have, of course, been methods involving the control of the distance the primer is allowed to travel into the pocket. This is done through the adjustment of a threaded stop. This is all well and good, except that it doesn't take into consideration one additional critical dimension, that being the thickness of the rim. The shell, held in the shell holder, will lift when the primer seater applies pressure to the base of the primer cup. A moment's thought will reveal the fact that, for example, a case rim that is slightly thinner will allow the case to lift a slightly greater distance before the primer is shoved into the pocket. Conversely, a thicker rim will not move as much with the result that the primer will tend to be seated further into the pocket—all this, regardless of how the stop on the seating punch is adjusted.

I have, for many years, been using a system of primer seating that is both quick and absolutely precise. It consistently seats primers an exact .005-inch below the surface of the case head, and does so regardless of variations of rim thickness or the amount of pressure I apply to the arm of my regular reloading press when I seat primers.

This little primer seater is not a separate tool, but fits instead into the priming arm of C-H, RCBS, Herter's and other reloading presses. It's called the "PI" (Positive Indexing) primer seater. Unlike other seating devices that must be used separately, it does not, in any way, depend on the thickness of the case rim, nor, for that matter, does it necessitate the adjustment of a stop. It is constructed with four little fingers that index against the head of the case, then, as the priming punch pushes the primer into place, the fingers, which are under light spring pressure, move back out of the way. The priming punch itself has a precision-machined step that projects .005-inch above the top of the punch. The step is small enough in diameter to allow the punch to move the primer to exactly the same depth each time. The "PI" seater in my RCBS A-2 press has been in continuous use for over a dozen years. It has, among other things, meant an end to so-called "high" primers, as well as primers that are over-seated in cases of varying rim thickness. It also has put an end to the tedium of attempting to feel each primer into the pocket. I simply move the arm of the press till I feel it stop solidly and know the primer is seated right!

The importance of consistent primer seating depth—especially to those of us who reload for handgunning—is an indispensable element of the well assembled cartridge. If you're interested in the "PI" seater you can get them for both large and small diameter primers. They sell for $4.95 each, postpaid, from Parke Precision Handgun Products, Dept. AH, 842 Crestfield Drive, Duarte, CA 91010. Don't forget to specify the brand and model of the reloading press you use.
Books of Interest to Handgunners


This book was published as part of S&W's 125th anniversary, and it will be included with the special commemorative guns offered to collectors.

The first three chapters, while important to the book as a whole, retrace the history of Horace Smith and D. B. Wesson and the company they founded. All of the rest of the book traces the history of the various gun models produced from 1852 through 1977, and that's where the importance of this book is recognized—it is up-to-date.

Each of the models, from the first .22 tip-up through the Model 39 and 59 auto pistols and including the new stainless versions of the revolvers, is covered in depth as to variations, manufacturing modifications and serial number ranges. This type of information is valuable not only to the collector, but to the gunsight, gun trader and shooter.

GUIDELINES FOR POLICE SHOOTING RANGES, by Ted Busch. The Sente Co., P.O. Box 517, Minneapolis, MN 55440. Paper, $17.50

I wish I had this book over the past several years. You'd be surprised how many people wanted and needed information about building a range, and how many of them queried me on the subject. With this book, I could have answered most, if not all, of their questions.

Here is a practical guide to range construction, covering all of the important aspects: basic designs, backstops and bullet traps, target retrieval systems, lighting, ventilation, noise control, etc. The coverage of each of these factors includes not only "how" but also "why," and that makes for a much more enlightened reader. I believe that this book should be read not only by those who operate ranges or are contemplating the construction of a range, but also by anyone who uses a range with any frequency. The book, of course, was written primarily for those who are interested in range construction, and for them, there is no book written that covers the subject so thoroughly. Anyone contemplating the construction of a range would be a damned fool to go into it without this book.

GUIDE TO THE USA, by John Coberly. Reprint from H.O.G. News, 1977. $6.95

The book is a handbook for those who want to travel in the States. It includes maps, road guides, and other useful information for travelers.

THIERRY'S "T" GRIP

Better Shooting with this improved cast aluminum grip adapter for COLT and S & W modern revolvers. Durable, practical—easy to install. Three attractive finish colors. Polished or black. $3.95 gold $4.25

Tylor's Trigger Shoe

Durable light weight cast aluminum for Colt, S & W and many other modern pistols. Polished or black. $2.95. Gold $3.25


UNIVERSAL DETECTIVES

DETECTIVE TRAINING

Easy home study course prepares men and women for the exciting and rewarding investigation profession. Send for free details about course, legal pin and diploma. No salesman will call. Alternatively, call.

AMERICAN HANDGUNNER

November/December 1977

IN REVIEW

We didn't "me too" our way to a ranking position among the leaders in the handgun business. How we got to where we are is a tribute to our willingness to change what we thought should be changed in handgun design, and leave untouched those concepts which have proven themselves to be unimprovable. Take the matter of weight. Our handguns generally weigh considerably less than the competition. They're more compact with thinner silhouettes yet our frames are still all steel. We reduced the number of moving parts and the result is greater reliability, easier maintenance and repair.

If you're in the market for a handgun, we'd like to suggest you buy Charter Arms. Not because we're different. Because we're better. We make the Bulldog .44, Target Bulldog .357 Magnum, Police Bulldog .38, Undercoverette .32, Undercover .38, and Pathfinder .22 LR and Magnum.

we can do better.
In the Continuing Saga of the Emergence of the Double Action Pistol in the U.S., Here's Another

The Browning (Sig Sauer) DA AUTO

Left and right side photos of the BDA. Controls, left to right, are: take-down lever, de-cocking lever and slide release and lock.

At Long Last...

By GEORGE C. NONTE

It seems near half a lifetime ago that I slipped behind some curtains at the Astro Hall in Houston to be shown privately a prototype of a new autoloading pistol design then under development by the well-known Swiss firm of SIG. That prototype looked very promising though we leveled more than a few criticisms at it. In fact, the reason for the gun being shown to us was to obtain our reactions and criticisms so that they might be considered during further development. The new SIG design did go through a fairly long development period, and was eventually assigned the Model number “P.220,” which has appeared in various shooting publications over the past couple years along with brief descriptions and factory-supplied photos of the gun in its definitive form. But, completed, production guns have not been available until now.

At some point along the way, SIG made the decision that it would not manufacture this new pistol in its own facilities. However, full development was done by SIG, and arrangements were made for the gun to be manufactured by the well-known, West German J.P. Sauer & Sohn Arms plant. As such, the gun was given the name “SIG/Sauer P.220.”

As anyone involved in manufacturing knows, tooling for a completely new mechanism of any sort these days is a lengthy and very costly process. The lead time between completed product development and delivery of the first production examples is generally measured in years rather than months. Such was apparently the case with the P.220, but all is forgiven, because only a few hours ago the brown UPS truck delivered a deceptively light package to my office which, upon opening, was found to contain one of the new pistols in 9mm Parabellum caliber.

But, let me hasten to say, that the gun which emerged from that package bears the name “Browning Arms Company” and the model designation “BDA.” This marking of the gun is due to the fact that quite some time ago Browning Arms Company contracted with SIG/Sauer to have the gun manufactured under its name for sale in the U.S. There is nothing
Slide locked back by pushing slide release upward. Note angle of barrel out of battery.

Decocking lever provides a safe method of lowering cocked hammer to half-cock notch.

Designed for the .45 ACP, the BDA is not a small pistol. Overall length is 7.8 inches.

View of magazine well shows only a slight funneling; not enough for speedy reloading.

New in that; it's been done in the arms industry almost since the beginning of firearms. Incidentally, we do not mean to imply that Browning Arms Company will be the only and exclusive importer/distributor of this particular design. As a matter of fact, Browning will market it only as the "Browning BDA", and we expect the same gun to be available under the original Sig-Sauer name through other sources.

What we have here in this long-awaited autoloader is essentially a double-action, locked-breech, 10-shot, 9mm Parabellum pistol measuring 7.625 inches long, 5.375 inches high, and 1.235 inches wide; weight 28.5 ounces, barrel length is 4.415 inches. The more astute among you may immediately conclude that the dimensional envelope just cited is a bit large for the 9mm Parabellum cartridge. Quite true; but, then, there is quite a good reason for this. Early in the game, SIG engineers recognized the great popularity of the .45 ACP cartridge in North and South America, as well as the tremendous market potential of a double-action autoloader chambered for this cartridge in the U.S.A. Consequently, the basic design was developed around the dimensions of the .45 ACP rather than the European favorite 9mm Parabellum. Had the gun been designed purely for the 9mm Parabellum, it would have been much more compact, but like the S&W M39/59 series, it would have been "locked in" to a cartridge which simply could not exploit the full potential of the American market. Dimensioning the P.220 around the .45 cartridge made it necessary to provide a longer recoil stroke, wider magazine, and thicker slide, frame, and barrel. Thus, while our sample gun is in 9mm Parabellum, it is comforting to know that in the not-too-distant future the Browning BDA will become available in both .45 ACP and .38 Super Automatic.

The BDA is innovative in both design and construction. In construction, it is designed specifically to make maximum use of what we usually call "stamped" but the Europeans refer to as "steel pressings." Many of the smaller parts are simple one-piece steel stampings, while others are welded or brazed assemblies of more than one part, often a combination of a stamping and a screw-machined piece or casting. The readily visible parts that fall in this category are the disassembly lever, de-cocking lever, slide/release/ejector, lanyard loop (strap ring), and magazine catch. Perhaps more impressive is the fact that the entire slide is built up of a thick-walled, stamped steel shell with a muzzle piece welded in place and separate breech block pinned in position at the rear. After forming and welding, the slide is finish-machined, and the guide grooves which ride on the frame are closely machined. From the rear of the ejection port forward, the slide has a rather complex shape, and this is apparently intended to provide the maximum rigidity and support for the locking system. All parts in the entire slide/breech assembly are of steel. On the other hand, the frame proper is of a lightweight, high-strength, aluminum alloy and is made in the form of a rather thin shell. To provide the strength and durability needed in the area of the barrel seat and locking mechanism,
a massive, hardened, steel insert is held inside the frame by the disassembly lever pin. In this fashion, all firing and locking loads imposed on the frame are taken by steel parts and, as a result, the peening or battering encountered in some aluminum-framed designs is avoided. The frame is finish-machined in typically precise, Swiss fashion, so it simply isn’t possible to say whether this component begins as a casting or a forging—though I would suspect the latter in view of the advantages it offers. If it is, in fact, a casting, that certainly can’t be recognized from casual observation.

The BDA offers quick takedown in the form of a pivoted disassembly lever forward of the trigger on the left side of the frame. With the slide drawn back, and held by the slide stop, simply rotating this lever downward 90 degrees frees the barrel so that the complete barrel/frame unit may be removed forward. The pin attached to the takedown lever passes through the frame, and forms the camming surface against which the cam on the under-side of the barrel operates to lift the barrel to lock into the slide as it goes into battery. Cams in the locking piece serve to lower the barrel to unlock.

To the rear of the trigger, we have the decocking lever. When the gun is cocked, for whatever reason, and it is desired to lower the hammer, it may be done quickly, safely, and easily by simply depressing this lever. As the lever reaches the bottom of its stroke, it disengages the sear, allowing the hammer to fall and be caught by the half-cock or intercept notch. It is mechanically impossible for the hammer to strike the firing pin in the process, but even if it did (because of a broken part, etc) an automatic, firing-pin safety inside the slide would prevent the firing pin from being driven forward to fire a cartridge. Directly behind the decocking lever we find the slide catch. It is activated automatically by the magazine follower when the last shot is fired, locking the slide fully rearward to indicate that the gun is empty and, further, to facilitate rapid reloading. It must be disengaged manually, and can also be engaged manually if one wishes. The slide stop incorporates the ejection, and the entire assembly is a single, rather complex stamping.

Take note here that we’ve not said one word about any manual safety. No need to, for there is none. SIG has such faith (apparently justified) in the efficacy, of its automatic, firing-pin safety and its decocking lever system that no manual safety whatever is incorporated in this design. Outside of the firing pin being struck hard enough to shear substantial sections of high-quality, heat-treated steel, the firing pin cannot reach the primer under any circumstances unless the trigger is held fully to the rear. Only when the trigger is in that position can the substantial safety block, called a “safety slide,” rise out its seat in the firing pin and allow the pin to move forward. This safety block is disengaged by a part called the safety lever which is rotated by the trigger rod connected to the upper limb of the trigger. The system appears quite sturdy and foolproof, and apparently has its roots in the
firing-pin safety of the Walther PP-series of nearly 50 years ago. Safety is further enhanced by the unusually sturdy sear design. Instead of engaging the hammer with a thin-edged surface, the SIG sear utilizes a thick shoulder which resists the chipping sometimes encountered in lesser designs.

Doubtless a good many traditional pistoleros will find it difficult to accept an autoloading pistol which does not possess an obvious and visible, manual safety. We believe, based upon experience to date and upon SIG's explanation of this system, that the gun may be carried with complete safety against accidental discharge, even though no manual safety is provided. Even when carried in the full-cock condition, hammer back, it is mechanically impossible for the gun to fire unless the trigger is pulled to the rear. Carried with the hammer down, either fully down or in the half-cock position, it still cannot fire unless the trigger is pulled and, from this position, pulling the trigger requires a great deal more effort. While Browning states that the gun may be carried perfectly safely with the hammer fully down and resting on the head of the firing pin, the instruction booklet, accompanying our sample pistol, states clearly on page 6 "even though it is perfectly safe to carry this pistol with the hammer in the dropped position, we recommend that the grips be carried with the hammer in the half-cock position."

Sights on the BDA are of the most basic fixed type, the front blade being welded to the top of the slide, and the rear element being dovetailed into the slide where it may be moved laterally for windage, either by use of a drift or a rear-sight clamp. The visible face of the front sight contains an inlaid white spot, while centered beneath the rear sight notch is an inlaid white rectangle. These two white spots can be quickly aligned in poor light and provide acceptable, close-range accuracy without too much concern for the outlines of notch and blade.

The grips are of checkered, black plastic, bearing the Browning logo at the top, and are of the wraparound type. The frame possesses no back strap, so the grip halves fill this space. A lanyard loop or "strap ring" is sandwiched between the top of the left grip and the frame, and it is easily discarded for those who have no reason to employ a lanyard.

Overall finish of the BDA is a dull, matte grey-black, with the exception of rather small areas polished bright on the sides of the slide. The temptation has been resisted to supply a flashy chrome finish, bearing the Browning logo at the top, and are of the wraparound type. The frame possesses no back strap, so the grip halves fill this space. A lanyard loop or "strap ring" is sandwiched between the top of the left grip and the frame, and it is easily discarded for those who have no reason to employ a lanyard.

Functioning of the BDA is quite simple and orthodox. In battery, the rear of the barrel is cammed upward by the lugs on its under-side and the pin of the disassembly lever. Upon firing, barrel and slide recoil lock together for a very short distance, during which cam surfaces on the barrel lug and the locking insert force the barrel breech down and out to engage-
Double-action triggering

If the loaded weapon is not cocked, the shot can be fired directly via the trigger, by way of the double-action of the latter. The trigger is squeezed, whereby the hammer is cocked via the trigger rod. In the process the safety lever is pressed against the lock pin. The sear is moved away from the hammer, and the firing pin released by the lock pin. On squeezing further, the hammer lifts out of register and fires the shot.

De-cocking lever and hammer safety notch

The de-cocking lever permits hazardless lowering of the hammer into the safety notch, so that the loaded weapon can be carried without danger. The safety notch is the position of rest for the hammer. The firing pin is always blocked during and after de-cocking. The weapon is therefore absolutely safe.

Firing pin safety catch

In order to achieve maximum safety, the firing pin is locked. Quick readiness for firing is always assured, as this safety catch is released automatically by the trigger action, without the manipulation of any lever. The catch is thus not released until the shot is about to be wilfully fired. Thanks to this style of safety device, a loaded weapon is always safe, even with hammer cocked.

ment with the slide, allowing the slide to continue rearward alone to extract and eject the fired case. During its rearward travel, the slide cams down the trigger rod to disengage it from hammer and sear, and drives the hammer to full cock, compressing the mainspring. Then, the slide is forced forward by the recoil spring, stripping the top cartridge from the magazine and feeding it into the chamber; then carrying the barrel forward with it, and during the last portion of that forward travel, the barrel is cammed upward to lock into the slide by the disassembly lever pin. At this point, releasing the trigger allows the trigger rod to rise and engage the sear, whereupon pulling the trigger will disengage the sear from the hammer and allow the hammer to fall. And, as the trigger nears the rear limit of its travel, a lug on the trigger rod engages the safety lever, lifting the safety slide out of its notch in the firing pin so that when the hammer strikes the pin it is free to move forward and fire the cartridge. If it is decided not to fire a second shot, simply depressing the decocking lever disengages the sear and allows the hammer to fall, but causes it to be caught by the sear in the half-cock notch. And, as the slide travels rearward after the last shot has been fired, the magazine follower is pressing upward on an inward protrusion of the slide catch, causing the catch to rise inside the slide and hold it rearward.

None of the actions or functions described above are new in handguns. The precise shape and dimensions of the parts involved are peculiar to this design, but all of the design features have appeared in the past in other guns. It appears, then, that the BDA has been designed by what is often considered the very best approach—that of selecting proven features and methods.

(Continued on page 69)
For a long time very little of the history of this great handgun was known, but recently books have been published giving a wealth of details on the Mauser Military. Still, there seems room for an article just pointing out its amazing long life and the features of its design that have contributed to this longevity. Most material in print tackles the Mauser from an advanced collector’s point of view rather than from the shooter’s or just the laymen’s outlook.

TYPE OF ACTION

The Mauser Military can be categorized by saying it is a short recoil action, self-loading pistol. Thus, the action is the same as the later Browning Colt and the much vaunted and later Parabellum (Luger). The short recoil system required that the barrel and the bolt remain locked together for a short distance during the recoil of those parts. The sequence is as follows:

a) The piece is fired
b) The barrel and the bolt recoil under the action of the explosion in the chamber
c) In less than the distance of the cartridge length, the barrel is unlocked from the bolt and stops its rearward motion while the bolt travels on to full recoil. The old cartridge case is ejected and under the action of the recoil spring, the bolt returns to the locked or ready position, feeding a
new round into the chamber. All this happens so quickly that the eye can only see the ejected cartridge in the air after firing. The above description applies to all short recoil actioned arms, but sometimes the word slide is used instead of bolt to describe the action.

**HISTORY**

The Mauser Military was not really invented by Paul Mauser as is often stated. Actually, three men working in Mauser's experimental section devised the pistol in the early 1890's. Mauser realized that there might be a market for this type of pistol and took out patents on his employee's automatic. Thus, it was that the real designer's, the three Feederle brothers, names went down to oblivion while Paul Mauser's name became synonymous with this great gun. The Mauser Military as we call it generically, started life as the Mauser-Selbstlader (self-loading) Model 1896. This model, according to the factory records, was made until replaced by the Model 1930. The Model 1930 was really the last self-loading Mauser Military and was made until 1939 when the Mauser factory dropped the Military to make the Nazi war machine's accepted weapons for World War II. During this period of forty-three years more than one million of the Military Mauser pistols were made in the two models, 1896 and 1930. This is an awful lot of pistols when one considers that only 170,000 or 180,000 of these were bought by the military, the very group that the Mauser was supposed to attract. The Double M was much sought after by the Oriental and Russians as a personal arm for officers and party officials. In fact, one Model of the Mauser is called the Bolo after the Bolshevick Party of Communist Russia. The Mauser was always a relatively expensive gun; it almost always was sold with a combination wooden stock/holster. This added to the cost but it made a ten shot carbine out of a rather awkward pistol.

**THE CARTRIDGE**

A great deal of the Mauser Military's popularity can also be traced to the cartridge it used. The 7.63 mm Mauser cartridge was borrowed from one of the earliest commercial automatic pistols—the Borchardt. The original Borchardt cartridge was made more powerful and thus was born the 7.63 mm Mauser, a very high velocity, but because of its light bullet, a low stopping power round. The Mauser 7.63 mm cartridge gives a magnum-like velocity of 1600 feet per second with some European ammo and 1420 with U.S. commercial ammo. The energy is only between 380 to 400 foot pounds. To overcome this lack of stopping power in the small 85 grain jacketed Mauser bullet, hollow points and soft nose bullets were made. These more lethal bullets were offered commercially up to World War II but were never really successful in making a long range killer out of the 7.63 mm Mauser.

The Mauser Military was, in its forty-three years, offered in two other calibers. The first to appear in 1908 was the 9 mm Mauser, also called the 9 mm Export Mauser. This cartridge was never used in any other pistol than the Mauser and is today, the longest and most powerful 9 mm cartridge ever made. It was discontinued in 1914 or thereabouts, with Germany's arming for World War I. The next and last caliber to be applied to the Mauser Military was the German service cartridge, the 9 mm Parabellum or Luger as we call it. This was an attempt of the German army to use the Mausers in the later days of World War I as a substitute weapon. About 140,000 were made in a separate series in the 9 mm Luger caliber. With the disappearance of the 7.63 mm Mauser ammo today, these 9 mm Luger pistols will be the mainstay of the Mauser Military shooter in years to come. The 9 mm Luger caliber Mausers can usually be immediately identified by the large red "9" found embossed on the wooden grips. Because these Mausers were made during war-time they will usually not have that super finish associated with other Mausers.

**MAGAZINE CAPACITY**

The Mauser Military usually has a ten round capacity magazine. There are two other size magazines which may be en-
The more common is the six shot magazine countered, although both are very rare. The more popular and are collector pieces today. Going to the other extreme, Mausers were made with twenty round capacities. This made the magazine as long as the grips which made a very awkward pistol; even worse the wooden stock/holster had to be made larger to accommodate the extended magazine. These twenty shot Mauser Militarys are very, very rare and are definitely a collector's prize today. The Mauser magazine was built into the pistol in front of the trigger guard. Thus both in location and in form, the Mauser magazine is quite unusual in a day where most pistols use detachable magazines which are mounted in the pistol's grip. The Mauser was loaded by a charger which was inserted in guides in the barrel extension. The rounds were forced into the magazine by thumb pressure and when the charger was withdrawn, the bolt which had been locked to the rear slides forward automatically on most models. This makes for exceedingly fast loading and since loaded chargers weigh a good deal less than loaded extra magazines, the Mauser shooter could carry a large amount of extra ammunition with him.

CONSTRUCTION

In general, the Mauser Military with its small recoiling bolt, looks very strange to our eyes today; we are so used to the Browning type with a full slide like the Colt Model 1911. Basically, the Mauser is much more like a revolver than our image of an automatic pistol. The broom handle grip, the magazine in front of the trigger guard, the thin uncovered barrel are all reminiscent of the safety applied by being pushed down, while the small ring hammer required the safety lever be pushed up to be engaged. The next and most common type of hammer has a language which has sprung up among collectors to describe the variations found in the Mauser Military and while it sounds like gibberish to the uninitiated, it does serve to describe a variant with the minimum use of words. Most of the variations will be found in the early serial numbers. After serial numbers in the 40,000's, very few changes are encountered until the introduction of the Model 1930 at about serial number 800,000. The most common expression is the phrase “broom handle” Mauser, meaning the Mauser Military, this of course comes from the appearance of the grips. The two basic types of pistols are the regular Mauser Military with a 5½” barrel and the Bolo with its just under 4” barrel length. The next most noteworthy feature is the hammer and safety. One will hear words like cone hammer, larger ring hammer, universal safety, etc., these all mean something and help to date the pistol.

The first type hammer used had a cocking section characterized by a series of concentric milled discs which produce a cone on each side of the hammer, thus the cone hammer. The next type hammer when at rest in the fired position, blocks the sights thus telling the user that this pistol is uncocked. The large ring hammer Mausers gave way to the small ring hammer type. The first two hammers had the safety applied by being pushed down, while the small ring hammer required the safety lever be pushed up to be engaged. The next and most common type of ham-

fortune to manufacture today.

So, Mauser pistol shooters and collectors will have to make do with the supply that is left; this will have a forcing action on prices. One word to the shooter, don’t shoot a pristine Mauser because you may ruin it as a collector’s piece and in so doing, drop hundreds of dollars from its value. My shooter has all its numbers matched but has fading blue and a peppy barrel and is a very common type of 7.63 mm Mauser in the 189,000 serial range made in about 1912. You don’t need the match serial numbers and you could use a rebushed specimen and have just as much fun shooting. My shooter still will bring around three hundred dollars in a gun show as it is on the borderline of collectability, because bore condition is not too important to a collector. If you can get the “red nine” Mauser Military you will have a much more procurable ammunition situation. 9 mm Luger ammo is still very available and the shooter who doesn’t reload will pay high prices for 7.63 mm fodder today.

VARIATIONS

There is a language which has sprung up among collectors to describe the variations found in the Mauser Military and while it sounds like gibberish to the uninitiated, it does serve to describe a variant

with the minimum use of words. Most of the variations will be found in the early serial numbers. After serial numbers in the 40,000's, very few changes are encountered until the introduction of the Model 1930 at about serial number 800,000. The most common expression is the phrase “broom handle” Mauser, meaning the Mauser Military, this of course comes from the appearance of the grips. The two basic types of pistols are the regular Mauser Military with a 5½” barrel and the Bolo with its just under 4” barrel length. The next most noteworthy feature is the hammer and safety. One will hear words like cone hammer, larger ring hammer, universal safety, etc., these all mean something and help to date the pistol.

The first type hammer used had a cocking section characterized by a series of concentric milled discs which produce a cone on each side of the hammer, thus the cone hammer. The next type hammer when at rest in the fired position, blocks the sights thus telling the user that this pistol is uncocked. The large ring hammer Mausers gave way to the small ring hammer type. The first two hammers had the safety applied by being pushed down, while the small ring hammer required the safety lever be pushed up to be engaged. The next and most common type of ham-

fortune to manufacture today.

So, Mauser pistol shooters and collectors will have to make do with the supply that is left; this will have a forcing action on prices. One word to the shooter, don’t shoot a pristine Mauser because you may ruin it as a collector’s piece and in so doing, drop hundreds of dollars from its value. My shooter has all its numbers matched but has fading blue and a peppy barrel and is a very common type of 7.63 mm Mauser in the 189,000 serial range made in about 1912. You don’t need the match serial numbers and you could use a rebushed specimen and have just as much fun shooting. My shooter still will bring around three hundred dollars in a gun show as it is on the borderline of collectability, because bore condition is not too important to a collector. If you can get the “red nine” Mauser Military you will have a much more procurable ammunition situation. 9 mm Luger ammo is still very available and the shooter who doesn’t reload will pay high prices for 7.63 mm fodder today.

VARIATIONS

There is a language which has sprung up among collectors to describe the variations found in the Mauser Military and while it sounds like gibberish to the uninitiated, it does serve to describe a variant

with the minimum use of words. Most of the variations will be found in the early serial numbers. After serial numbers in the 40,000's, very few changes are encountered until the introduction of the Model 1930 at about serial number 800,000. The most common expression is the phrase “broom handle” Mauser, meaning the Mauser Military, this of course comes from the appearance of the grips. The two basic types of pistols are the regular Mauser Military with a 5½” barrel and the Bolo with its just under 4” barrel length. The next most noteworthy feature is the hammer and safety. One will hear words like cone hammer, larger ring hammer, universal safety, etc., these all mean something and help to date the pistol.

The first type hammer used had a cocking section characterized by a series of concentric milled discs which produce a cone on each side of the hammer, thus the cone hammer. The next type hammer when at rest in the fired position, blocks the sights thus telling the user that this pistol is uncocked. The large ring hammer Mausers gave way to the small ring hammer type. The first two hammers had the safety applied by being pushed down, while the small ring hammer required the safety lever be pushed up to be engaged. The next and most common type of ham-
Top: Cartridges used in the Mauser, left to right: 30 Mauser, U.S. mfg.; 7.63, WWI German mfg.; 9mm Luger and 9mm Mauser. Below: Typical chargers loaded with ammo.
**Prelude to the MR 73**

**HISTORY OF FRENCH REVOLVERS**

By MICHEL H. JOSSERAND

American collectors are hardly familiar with French revolvers; they have such a vast field to study with their own indigenous production that they may be excused for overlooking the fact that the very first center-fire revolvers in the world appeared in France: these were the Devisme and the Perrin revolvers (1858-1859). Even French collectors know very little about the early center-fire Lefaucheux revolvers (1870).

In 1873, American shooters and gun enthusiasts proudly celebrated the centenary of the Colt Peacemaker, while French collectors, who simply dote on the Peacemaker, could sentimentally remember that it was a hundred years too, since the Chamelot-Delvigne 11 mm (.45) service revolver had first appeared. This revolver, also called Model 1873, was the best revolver designed and produced in France so far. Some connoisseurs will insist that the mechanism (though not the ammo) is remarkable, and in every way as good as the Colt's.

In 1892, this revolver was replaced, though not made obsolete, by a smaller caliber revolver: 8 mm (.323). It may be of some interest to note that swing-out cylinder and smaller calibers appeared simultaneously on both sides of the Atlantic.

Then what? In the U.S.A., plenty; in France, nothing at all. Not a single French revolver was made, either for commercial or military purposes; not even! How can this be accounted for?

There are many reasons: in 1914 the French army had quite a large supply of 1873, 1874 and 1892 revolvers. Yet, during WWI, the different French services ran short of all types of firearms, including handguns (the U.S. Army was to be confronted with a similar problem in 1917). As a consequence, the French government (from 1915 onwards) bought just under a million .32 ACP automatic pistols from Spain, and 485,261 Spanish revolvers, of the Smith & Wesson or Colt types, though chambered for the 8mm Mauser 1892 cartridge. So that after WWI the French army and services were abundantly supplied with these different handguns. French gunshops were crammed with cheap Spanish and Belgian handguns. Gun lovers who could afford them, already preferred American handguns. So that, for 15 years or so after the WWI, a French designed and made revolver would have been redundant.

This brings us to the early thirties: 1934 was a hectic year with fascist and communist supporters staging protest marches on the Paris streets. After a riotous day in February a panic stricken and unimaginative government chose to restrict the sale of firearms. Who then, would have been bold enough to manufacture a new revolver, since this would have been no saleable commodity? There was still a market for small caliber pistols (up to .32 ACP), but the patents for these dated back to pre-WW I days. The 1939 decrees strengthening these severe restrictions of 1934 have never been repealed; they have been patched up time and again, though no change for the better has appeared. Some points are not very clear, others can be twisted this way and that. Such as they are, we have been saddled with these regulations for forty years, and they have proved wholly inadequate against crime, the only victims being law-abiding citizens who are simply fond of shooting and collecting firearms.

How then, can shooters survive in France, since they refuse to relegate firearms to wall hangers? Provision had been made for them in the past; before March 1973, members of shooting clubs could apply for permission to purchase three rim-fire and one center-fire handgun; since March 1973, they may be allowed to buy three large caliber, center-fire handguns instead of one. Unfortunately local authorities are left free to grant or not to grant these permits. Yet a growing number of shooters have stubbornly refused to be turned away. They favor Smith & Wesson K-38 and Colt Officer’s Model Match revolvers.

Of recent years .22 and .38 revolvers have been imported from Germany, Italy and Spain. Western Europe had re-discovered the advantages of revolver shooting while the French gun business was still slumbering, though French Police forces were getting interested in American Police training methods.

The Manufacture de Machines du Haut-Rhin did not allow this to pass unnoticed. This firm, commonly called MANURHIN, had never manufactured a revolver since none had been designed in France since 1892. But they were well-known manufacturers of automatic pistols, and specialists in firearms techniques. The firm was created in 1920 as a manufacturer of high-precision machine tools, but their firearms department with a staff of 300 out of 4,000 workers is remarkably well organized. Just after WW II, Manurhin began manufacturing Walther automatic pistols under license, and though Carl Walther has left ZeIla-Mehlis for Ulm, Manurhin are still turning out PP, PPK and PP Sport automatics; they also supply the Bundeswehr with P.38 pistols (i.e. P.38). These Manurhin Walthers are at least as good as the pre-war German-made Walthers, though some will praise the so-called “Ulm-made” pistols above the Manurhin ones. The ZeIla-Mehlis Walthers have understandably become collectors items.

In the early months of 1971, Manurhin had already produced 525,000 Walther automatic pistols; the production has now reached 700,000.
1st Modern French Revolver Design

The Manurhin 73 Revolver

By MICHEL H. JOSSE RAND

Though Manurhin acquired the skill and technology for making automatic pistols, they had no experience at all with revolvers. Moreover, they had decided to work fast; perhaps too fast, as some critics put it.

In 1971, they started from a wooden mock-up looking very much like a Smith & Wesson revolver; no designer could fail to do so. In the first stages, the firm had one aim in mind: design a high-powered police revolver. No other market was contemplated at the time, but the new firearms regulations of March '73 (allowing shooters three C.F. handguns) opened up new channels for the gun trade, in the nick of time!

The Manurhin firearms design department had been working in close connection with the specialists and ballistics experts of the French Police; they knew what law enforcement personnel required: a robust revolver with good, though, fixed sights. A .357 Magnum six-shooter filled the bill. I need not remind American readers that this ammo requires robust revolvers, especially when the frame is comparatively small. I suppose the Manurhin people bore in mind the trouble with the J-frame and hi-velocity .38 cartridges.

The result was a revolver which at first glance looks like any reasonably good modern firearm, but the machining and fitting are first class. I must say I like the look of the deep smooth dark blue finish and a sandblasted rib. An original feature is the extractor rod which is fully housed under the barrel; this affords sensible protection against possible damage. On Smith & Wesson magnum-frame revolvers this extractor rod housing is 3 1/2" long, on all barrels. On the M. R. 73 it is as long as the barrel on each version of the revolver, which looks a bit unusual on a

Left: Combat version of the M73 with 3" barrel. Below: Cleaning of extractors prevents problems.
5\(\frac{3}{4}\)" barrel, and still more so on the 8" barrel. Of course this is quite a good point for a service revolver, which may after all be expected to survive any amount of rough usage.

Another interesting feature on the M. R 73 is the cylinder crane or yoke which is the full width of the frame and pivoted at the bottom; most common cranes are half the width of the frame.

The walnut grips were generally designed as target grips for all versions of the revolver; they look quite elegant, which would be beside the point if they were not handy for combat and target shooting as well.

After the new revolver had been tested, improved, checked and tested again and again with unusual severity, a prototype was specially selected for police use; the first batch brought out in the early months of 1973. It was named M. R. 73: (Manu-Rhin 1973,) which was all that French gun enthusiasts could wish for: the 1873 service revolver was just 100 years old. This first batch was immediately sent to Paris to be tried by the police. Unfortunately, eagerness prevailed and quite a few of these early revolvers jumped this experimental stage and were suddenly issued to police officers—before they had been thoroughly tried by experts. As a result of this patriotic eagerness, a rumor of teething troubles with the M.R. 73 persisted long after these troubles were over.

**A LOOK AT THE MECHANISM**

The very first revolvers did have problems where double action was concerned. It was very unfortunate that the first M. R. 73 should have a problem of varying trigger resistance; the trigger was too hard, or the hammer did not strike the primer hard enough. This was eliminated by the use of two adjustable springs; one for the...
hammer, one for the trigger. Finding an adjustable mainspring on a revolver is a good thing; finding an extra one for the trigger is even better.

Since the by-gone days when small V shaped springs were housed in the frame, under the cylinder, the trigger return had been operated by the mainspring (bearing straight on the trigger or through a lever). On the M. R. 73, the tension of the trigger spring is adjustable. It acts on the rebound slide through a roller. The rebound slide glides on four rollers along the frame base thus there is no friction. The resulting double action is both constant and smooth. The single action is above standard design since the shooter can adjust his revolver to double or single action. This trigger-spring makes for a swift and smooth return of the trigger. When the shooter does not allow the trigger to come back fully forward before pressing it again, the trigger does not operate the hammer, yet this rotates the cylinder (as on the 1892 French service revolver) though this sort of carelessness will stop the cylinder on any Smith & Wesson revolver.

The barrel, manufactured by cold swaging process, is available in different barrel lengths, ranging from 2 1/2" and 3" (combat versions only) to 4" (combat and target models); a special 5 1/4" barrel (I.S.U. specifications), a 6" and an 8" barrel (target version only) have been added to this normal range of barrel options.

The inner safety device consists of an internal bar whose operation is just the reverse of the transfer bar on the Ruger Security Six, Speed Six etc. On the Ruger revolvers the transfer bar allows percussion to take place only when the hammer is cocked. On the Manurhin, the safety bar blocks the lower face of the hammer unless the trigger is held back.

Though the revolver had passed the tests of mud, sand, extreme cold, another was added, as required by U.S. regulations: a mass of 1 kilogram (2 pounds 3 oz.) was dropped on the hammer from 2 meters (6.7 ft.) several times; the top of the hammer did break after a time, but no round was fired.

The cylinder is chambered for the .357 Magnum cartridge, but the whole range of .38 Special can be shot in this revolver, though one of the Target models can shoot only the .38 Special cartridge.

The French constabulary (as distinct from the Police; it is a part of the Army, 

---

**MR 73—LIST OF PARTS**

- 011—Frame
- 013—Firing pin bushing
- 014—Frame lug
- 015—Yoke lug
- 016—Hammer stud
- 017—Trigger stud
- 018—Cylinder stop plunger
- 019—Cylinder stop spring pin
- 020—Stock pin
- 025—Side plate
- 026—Side plate screw, rear
- 027—Side plate screw, front
- 031—Thumb piece
- 032—Bolt
- 033—Bolt plunger
- 034—Thumb piece screw
- 035—Bolt spring stud
- 036—Bolt spring
- 052—Barrel
- 058—Front sight, combat
- 061—Front sight (high ramp, target, special)
- 071—Front sight (Patridge, target type)
- 063—Barrel pin
- 064—Front sight pin
- 066—Locking bolt
- 067—Locking bolt spring
- 068—Locking bolt pin
- 075—Yoke
- 077—Yoke spindle
- 078—Yoke pin
- 079—Yoke screw
- 085—.357 magnum cylinder
- 008—9 mm. P. cylinder, with special extractor
- 086—Ejector guide ring
- 087—Ejector ring pins
- 088—Ejector with ratchet
- 089—Ejector rod
- 091—Center pin
- 093—Center pin spring
- 094—Ejector spring
- 095—Ejector collar
- 111—Trigger
- 112—Trigger bar
- 113—Trigger bar pin
- 114—Rebound slide
- 115—Rebound slide rollers
- 116—Trigger spring roller
- 117—Rebound slide roller pins
- 118—Trigger spring
- 119—Trigger spring pin
- 120—Strain screw for trigger spring
- 123—Trigger shoe
- 124—Trigger shoe screws
- 126—Hammer spur
- 127—Seal
- 128—Seal pin
- 129—Seal spring
- 130—Firing pin
- 131—Firing pin rivet
- 132—Hammer stirrup
- 133—Hammer stirrup pins
- 134—Mainspring
- 135—Strain screw for mainspring
- 136—Inner screw
- 137—Hand
- 138—Hand spring
- 139—Inner safety and hand pin
- 140—Cylinder stop
- 141—Cylinder stop pin
- 160—Micrometer rear sight
- 166—Micrometer rear sight springs
- 167—Micrometer rear sight pin
- 180—Right hand stock
- 181—Left hand stock
- 182—Ring for right hand stock
- 183—Nut for left hand stock
- 184—Stock screw
- 185—Riveted medalion with monogram
- 186—Guide ring for left hand stock

---

**FIG. 1**

Hammer at rest

**FIG. 2**

Hammer cocked

**FIG. 3**

Hammer in striking position
Even long barrels have full shroud.

Frame of Manurhin 73 weighs 28 ounces; 12 oz. after machining.

though not a Military Police) however, required an extra model with a cylinder chambered for the 9 mm Parabellum cartridge. Then, arose the problem of ejecting rimless cartridges. The Manurhin designers rejected the half-moon clip solution to their problem. They first experimented with a cylinder hand ejection system with wire loop spring, gripping all the cases at the same time. Unfortunately, this proved to be defective: adding a cartridge next to an already loaded chamber would just release the previously loaded cartridge from the extractor. Then came the final device: each chamber has its own extractor, which is operated by a small and very adequate spring.

SHOOTING TESTS

I had an opportunity to shoot a few hundred rounds with the different M.R. 73 revolvers; not one misfired. I must admit that I am not a marksman. With my .22/32 Kit Gun, K-22, Officer's Model Match or a K-38, I rarely score above 250 out of 300, and have sometimes scored as low as 240. For mysterious reasons I do better with a 3 or 4" barrel than with a 6 inch. None of these reactions were altered when I shot the various M.R. 73 models.

I first tried a 4" Target model and I found it not unpleasant, but after just a few rounds I noticed that though I was using a common .38 Special wad-cutters the grips were bruising my hand. When shooting hi-powered ammo the shooter may find himself with a bruise somewhere between the thumb and forefinger, but this bruise was somewhere on the second knuckle of my thumb. The grips were found to be what can now be termed early type grips, which had to be thinned out. Standard new grips were fitted on the revolver, and I proceeded with my shooting with added comfort. Wonderful what a few grains of wood, scraped off a pair of grips can do for a revolver!

I then tried the 3" and 5/4" models, and enjoyed their grip and balance. The 3" is not too light, the 5/4" not too heavy. No problems with .38 Special W-C cartridges; though the .357 Magnum (Norma) did bother me a little. The 4" barrel revolver is still OK for the .357 Magnum round, but in the 3" barrel revolver it jumps quite a bit, though the blast is less noticeable than with the Smith & Wesson 19 in the same barrel length. I mention this particular S&W because it has been
specially modified for the French G-Men. The 3" barrel M. R. 73 has recently fitted with smaller grips, which had originally been designed to make the butt less conspicuous when carried by plainclothes men. These new grips have certainly made the jump less noticeable when shooting .357 Magnums.

Recoil is equally noticeable with 9 mm parabellum cartridges in the 3" barrel M.R. 73, but of course, French 9 mm Service cartridges are known to be hot; they can damage many a good hand gun; the 126.5 gr. bullet has a 1,214 ft/sec velocity in a 4.4" barrel automatic pistol.

Shooting .38 special W-C in a 3" barrel M. R. 73, from 15 meters (16'12" yds.), after a few trial shots, I hit the center of the target and got a 2.5" group (height plus width); shooting .357 Magnum cartridges in a 4" bbl, the group opened to 2.6". Switching to double action shooting .38 W-C in a 3" bbl, I must say the shots were wider apart; I grouped 5.6" in 5 seconds—certainly not top form!

**VARIATIONS**

At the time of writing, the M. R. is available in two configurations: combat (3 different barrel lengths) and target (4 different barrel lengths). They are basically the same revolvers though the combat version has a ramp front sight, the rear sight is just grooved out of the top of the frame. The target version has a Patridge front sight and a micrometer adjustable rear sight. A new target M. R. 73 is just coming out: it is chambered for the .32 S&W long, a shooting competition ammo French shooters are slowly getting acquainted with. I certainly broke no record when trying this new revolver. A .22 LR Manurhin M. R. 73 should appear shortly.

**MODELS IN USE IN FRANCE**

This M. R. 73 had originally been designed for the French police; as a consequence, the different police forces in the country have a priority. Ordinary people, I mean shooters with licenses (delivered by shooting clubs) and firearms certificates (delivered by Prefectures, i.e. local authorities) are kept waiting. The Police Nationale are issued 3" bbl. revolvers. The Constabulary (Gendarmerie) are partial to 4" bbl. with an optional cylinder chambered for the 9 mm Parabellum cartridge. They order not only 4" bbl. combat models, but a special 4" bbl. which is a compromise between combat and target models since it has a micrometer rear sight (like the target model) and a specially designed ramp front sight (higher than the combat model). A special branch of the Gendarmerie (Groupe d'intervention, a special group of highly trained marksmen and snipers) have 5¼" bbl. Manurhin M. R. 73.

On the whole I can say this revolver has been carefully designed and tested. It is a really fine revolver that has only one fault: it is too expensive.

Such as it is, this revolver, the first in 80 years, shows that French designers are back in business where revolvers are concerned.
THOMPSON/CENTER

CONTENDER

Three Full-Length Features on This Multi-Caliber Single Shot Pistol
The K. W. Thompson Tool Company was established about 1947 in Long Island, and rapidly became successful in the manufacture of parts for other companies with investment casting, or lost wax, process. In the 1960’s, the firm moved to New Hampshire.

Right about that time, one Warren Center was finalizing his patents on a single-shot pistol with interchangeable barrels.

Center connected with Ken W. Thompson on the possibility of their producing the gun, and K. W. Thompson, Inc. was receptive. Vice-president Bob Gustafson recalls, “We had been looking for some time for a product we could make and market ourselves, something to help level the hills and
valleys of production to outside orders. For a lot of reasons, we found the pistol very promising."

In 1967, the gunmaking operation was installed at the foundry in Rochester, N.H., and the floor space was expanded from twenty thousand square feet to thirty, with the firearms division occupying the newly enlarged area. Thompson-Center Arms was formed as a subsidiary of K. W. Thompson, and Center was appointed head of the fledgling gun division.

American Handgunner traced the first guns that came off the line. Serial numbers began with a one-thousand prefix. Contender #1001 was presented, ironically not to Center, but to Ralph Ellison, the senior toolmaker on the project. The gun, a ten-inch barrel version, is listed in the records as chambered for .357 Magnum. This is odd, because the only five calibers offered at first were .22 Long Rifle, .22 Winchester Rimfire Magnum, .22 Hornet, .22 Jet, and .38 Special. It appears that, despite the serial number, Contender 1001 either wasn't the first gun completed, or Ellison didn't take delivery on it formally until a couple of months later, when the .357 was added.

The first gun to leave the factory commercially, #1004 in .22 L. R., went to Haggett's Sport Shop in Concord, N. H. Proprietor Paul Knee, who wishes now that he realized the gun's significance at the time, sold it almost immediately, and like most dealers across the country, he has found the Contender to be a steady seller over the years.

Why were the first guns small caliber? Gustafson explains, "We didn't think at the time that the 'magnum syndrome' would take as much of a hold on the handgun-buying public as it did. Our original intent was a light, versatile pistol for informal target shooting, plinking, and small game hunting. We were also a little frightened at first of the brute strength of the big magnums, since the gun had not been expressly designed for them. We quickly learned, however, that the gun was more than amply strong for the really big calibers, and when we started chambering for heavy stuff, the gun really took off."

Sales initially were slow. The notoriously conservative American gun buyer wanted to take a long look before investing in a firearm as radical and strange looking as the new Contender. At the time, the brass at Thompson didn't really mind; though the gunmaking operation was working at only five to ten per cent capacity, the overall picture was just right, and it was "filling in the hills and valleys" between production demand, government spending, and other factors that affected
growth pace was established for the gun
sual shooter or trailsman they had envi-
vised at first, but the involved and dedi-
cated enthusiast who saw in the
chamberings in the Contender, 
cated was that a whole new class of buyer
increase in popularity. What had hap-
did nothing else did.
seconds marks that had been attainable
tender
that wags the dog." Still more expansion is
re1
looking single-shot a gun that
pened the Contender; not the ca-
omened that a whole new class of buyer
ТIC sales by a substantial margin. But
ished three calibers for the price of two conventional revolvers.
As the demand for the Contender grew,
ning. Today, some ten years and 75,000 pisto-
... but the gun division has its own sepa-
rate 50,000. One T.C executive says suc-
cinctly, "The gun division became the tail
that wags the dog." Still more expansion is
underway at this writing.
Naturally, the gun division isn’t limited
to the Contender; the immensely popular
Hawken, Renegade, and Seneca rifles lead
sales by a substantial margin. But
these fine guns would never have come to
be if the Contender hadn’t been success-
ful enough to justify K. W. Thompson’s
faith in the farsightedness and engineering
genius of Warren Center. There are twenty-three calibers now
available in the Contender: .22 LR, .22
REMINGTON, .22 WMR, .22 Hornet, .22 JRT, 5 mm
Remington,.222, .22 K-Hornet*, .221 Fireball,
.218 Bee, .256 Winchester Mag., .25/35
Winchester, .30/30 Winchester, .30 car-
bine, .38 Special, .38 Super, 9 mm Luger,
.357 Magnum, .30 Herret*, .357 Herret*,
.357/44 Bain & Davis*, .44 Magnum, .45
Long Colt, and .45 ACP. Note that half a
dozzen of these are purely rifle cartridges,
or were until the advent of the Contender.
Note too that four of these rounds, desig-
nated with asterisks, are wildcats; to my
knowledge, no other firearms manufac-
turer has ever offered that many calibers
simultaneously that were not available as
factory ammo.
Actually, the list has been somewhat
trimmed; at one time, it included several
.17 caliber wildcats: the .17 Hornet and K-
Hornet, the 17 Ackley Bee, the .17 Mach
IV and the .17/222... but the interest in
the super-hot sub-smallbores died as
quickly as it had come alive, and these cal-
bbers were soon dropped from the line.
Lack of interest has not killed other odd-
ball calibers in the lineup; the .357/44
Bain & Davis remains in the catalog,
though it’s really available only on a cus-
tom-order basis with a waiting period that
can run close to a year. The .17s were
dropped only when lack of interest com-
bined with the engineering difficulties of
making bores smaller than .22, and the
resultant exorbitant increase to the manu-
factory per gun.
Design changes over the ten years of
Contender production have been remark-
able few. A little less than two years ago,
the grip shape was changed, and made
narrower and steeper with a more round-
ed edge for the web of the hand. Pointing
characteristics suffered slightly, and most
observers agree that the new grip lacks the
racy, rakish flow of line that characterized
the original design. The problem was that
with magnum calibers, recoil in the old
style stock was almost intolerable; the
square edges were hitting right at the base
of the thumb.
Hard-kicking calibers also caused the
switch, around 1975 to a screw-on fore-
end, replacing the original design which
used a spring-loaded ball bearing and de-
tent system. "Especially with the Herrets,
the recoil was such that the fore-end
would want to stay in one place while the
gun moved to another," a T.C exec told
to us. While the new-style fore-end takes a
little longer on and off, it won’t bother
anybody in the field; shooters don’t
run close to a year. The
sultant exhorbitant increase to the manu-
factory per gun.
Design changes over the ten years of
Contender production have been remark-
able few. A little less than two years ago,
the grip shape was changed, and made
narrower and steeper with a more round-
ed edge for the web of the hand. Pointing
characteristics suffered slightly, and most
observers agree that the new grip lacks the
racy, rakish flow of line that characterized
the original design. The problem was that
with magnum calibers, recoil in the old
style stock was almost intolerable; the
square edges were hitting right at the base
of the thumb.
Hard-kicking calibers also caused the
switch, around 1975 to a screw-on fore-
end, replacing the original design which
used a spring-loaded ball bearing and de-
tent system. "Especially with the Herrets,
the recoil was such that the fore-end
would want to stay in one place while the
gun moved to another," a T.C exec told
to us. While the new-style fore-end takes a
little longer on and off, it won’t bother
anybody in the field; shooters don’t
do an exclusive interview with the man who created the
Contender Pistol.

PROFILE:
Warren Center

By MASSAD F. AYOOB

AT 62, WARREN CENTER is a square-faced, gravel-voiced
man who has been there and back in the firearms world,
and has more to show for it than most who have been the same
route. He parlayed a basement gunshop in the 1930’s into a
career in the industry three times over, always leaving to strike
back out on his own until the final, fateful meeting with Ken
Thompson. That ultimate stroke that changed his career was
the fulfilled dream of every would-be gun inventor; a manufac-
turer who called him and said, in effect, "We hear you have a
revolutionary firearms design, and we’d like to produce it." The
rest is gunmaking history: five super-successful guns in a row,
designed by Warren for Thompson-Center, and a permanent
place in firearms history. But Warren Center isn’t resting on his
laurels, Editor Massad Ayoob found out when Handgunner sent
him to do an exclusive interview with the man who created the
Contender Pistol.

AMERICAN HANDGUNNER • NOVEMBER/DECEMBER 1977
with ceramic slurry and sand-stuccoed several times until a super-hard ceramic coating has formed completely over the part. The wax is then removed by heat (not merely melted, but steamed and actually heat-blasted away). What remains is the ceramic shell. A final chemical bath removes the last traces of the wax, leaving a perfect ceramic mold into which the molten steel is carefully poured. After cooling, the ceramic cast is broken away (no mean feat, since it’s harder than some steels).

The cast steel part is then finished and fitted as a machined component would be. The result is high uniformity of specs, perfectly adequate strength, and a definite production economy. This is one reason guns by the makers using investment casting are still reasonably priced. Rugged investment cast steel parts are not to be confused with flimsy stampings, none of which are used in the T-C Contender.

The wood in the Contender stocks and fore-end comes from another K. W. Thompson subsidiary, a sawmill in Kansas. Since the mill sometimes does its own lumbering, T-C execs like to say that they turn trees into gunstocks. It’s the same walnut you find in those fine-looking Hawken stocks; in fact, Contender blanks are usually made of reject rifle blanks. Those, we hasten to point out, are rejected because they’re cut and undersize or there’s a burl or knot in the wrong place: inferior wood never makes it to T-C’s New Hampshire plant begin with. Contenders are generally noted for class wood with attractive, subdued grains.

Contender barrels, with their graceful taper and octagonal form, give a nice balance for a light pistol, but a lot of serious shooters want more substantial tubes. Bull barrels were introduced two years ago

**HANDGUNNER:** Mr. Center, we understand that you have an extensive background in firearms production and design. Can you elaborate on it for our readers?

**CENTER:** I started in the 1930’s doing home gunsmithing in a cellar, and I realized that I’d need a foundation in tool-making if I wanted to do everything I could with it. I went to work in a little machine shop and stayed there nine years. In 1942, I went into the army and spent some time with the ski troops, then got transferred into Ordinance.

After the War, I found myself in another basement machine shop. About that time, a fellow came out with the Shooting Master, a variable choke for shotguns that was similar to the PolyChoke. In fact, it was so similar, there was some litigation on it. My job was researching new designs for him. He died, and I wound up as a gunsmith in the firearms section of a sporting goods store in Dallas. I had the opportunity there to do a lot of custom work.

I still wanted to be on my own, though, and went back to my native Massachusetts and started my own operation again, this time a combination gunsmithing service and gun store. Iver-Johnson made me a good offer, and I closed out to go to work for them as General Manager. I was there from 1954 to ’59.

**HANDGUNNER:** We understand you designed one or two of the models that have been lauded as Iver Johnson’s best handguns.

**CENTER:** I designed the Trailsman top-break revolver and later I made the Trailsman snub-nose, which was one of the first successful guns with an investment-cast barrel. It wasn’t really anything earth-shaking, just a logical amalgam of the best things that were already in the Iver-Johnson line.

**HANDGUNNER:** But in ’59, the independence bug got you again, and you went back out on your own, right?

**CENTER:** Yes, I started a gunshop in partnership with Elton Whiting, who died a couple of years ago. We did mainly custom stuff, though we had a repair station franchise for Winchester and Remington. Elton pushed me a lot on my own designs. That was when I was building the first prototypes of the Contender. Anyway,
with the .30 and .357 Herrett chamberings, and were met with such favor that by the time you read this, T-C will have made the heavy tube a catalog option for ten calibers: .22 LR, .222 Rem., .45 Long Colt, .22 Hornet, .44 Magnum, .221 Fireball, .357 Magnum, .30/30, .256 Winchester Mag., and their new .41 Magnum.

Sights give an excellent picture, though you lose a little depth of vision in your rear slot the lower you crank the elevation; the adjustment screw kind of gets in the way. The sight is the same furnished on the superbly accurate Hawken rifle, and is removable; beneath the sight is a pre-drilled and tapped base for a scope mount furnished by the company.

The Contender seems meant for a scope. According to the company's sales figures, something like 30% of Contenders are mounted with T-C's Japanese-made Lobo and Puma 1.5X long-eye-relief scopes. When you figure in the number of shooters who take their Bushnell Phantom and other handgun scopes off their other guns and mount them on Contenders, and equate that with observations of Contender users, it is not far-detached to assume that probably every other Contender in serious use mounts a scope.

The Puma, T-C's original scope, has been dropped. While it worked fine with small and medium calibers, it couldn't stand up to the buffeting it took with big magnum loads like the .44 and the two Herrett wildcats. The Lobo scope was specifically designed to endure maximum recoil, and at $45 seems an excellent value. The only problem is getting them: T-C's Japanese supplier is way behind on deliveries, and so is Thompson-Center.

The Contender has acquired an excellent reputation for accuracy—with certain calibers. The company believes that their most accurate load is the .22 Hornet; with factory rifle ammo, they say it will stay in an inch at 100 yards. Next come the Herrett rounds, with good grouping capability in both .30 and .357. Most Contenders shoot quite well, but you occasionally run into a load that doesn't group well in any gun. The .30 Carbine is a case in point. The .30/30, according to everyone I've talked to who has used it including the factory experts, doesn't shoot anywhere near as tight in the Contender as do some of the others. .222 won't equal Hornet performance in the pistol with factory loads, though it can do so with carefully worked-up handloads.

The .44 Magnum is the single biggest-

**PROFILING:**

**Warren Center**

I went to work for Harrington & Richardson a couple of years later as a project engineer, and worked all the way through on the M-14 project. That was an interesting experience, but the most valuable thing I got from that period was the opportunity to work for two or three years with Gene Reising.

I didn't create anything new for H&R; mostly, I worked with Gene on his projects, like the fine .22 autoloading rifle they never made. Gene, you see, was kind of a free agent. He came in every day, but he wasn't on salary: if they produced a gun he designed, he got a royalty, and if they didn't produce it, it wound up hanging on a wall somewhere.

**HANDGUNNER:** Would you have worked on that basis?

**CENTER:** No, there would have been too many times where what I thought would sell didn't coincide with what they though would sell. Gene designed a .308 pump rifle that pre-dated the Remington model 760, and was every bit as good if not better, and I'm sure it would have sold very well. But they chose not to produce it.

I learned a lot from Gene. He was a nice guy, and a brilliant gun designer.

Later, I took over as the head of Research and Development for H&R. I worked mostly on the Ultrarifle. I just put it together, really; that's all it was, an assembly job of mating excellent, already-proven components: a Fajen stock, an FN action, and a Douglas barrel.

**HANDGUNNER:** During this period, where had the design of the Contender pistol progressed to?

**CENTER:** I had made the first prototype, around 1959, with a falling block ac-
selling Contender caliber, followed closely by .357 Magnum, .22 .22 Hornet, and .30/30. The Herrett calibers are catching up fast. .22 Long Rifle is right up there, too (the gun has two firing pins, one each for rifling and centerfire; you select one or the other by turning the screw on the hammer nose.) Gustafson admits that one reason the .44 Mag is on top is the availability of the HotShot shotshell loads.

Promised to equal .410 shotgun performance, the HotShots are plastic shot-filled capsules fired through standard .44 or .357 barrels, with suitable attachments. Both the barrels and the shells (produced at the T-C plant) have gone through a number of changes since the concept first came in. The shotshell attachment now consists of a flush-front choke device that screws into the bore with a special tool that is provided; before, a bulkier muzzle attachment was used. This choke device is designed to take the spin out of the shot capsule after it goes through the rifling (they can’t make a smooth shotshell-only barrel on a pistol, since it would then be classifiable as a sawed-off shotgun), and straightens them out of their spin before they clear the muzzle.

The shells themselves took a lot of work: early HotShot rounds didn’t perform anywhere near up to expectations. By going to a special grade of Batyrate plastic, T-C achieved thinner walls that at once increased the birdshead payload of the capsule, and made release of that payload more reliable. They also put some indents to decrease the strength of the nose for better opening. A number of outdoorsmen have found the HotShot option to be one of the really compelling reasons to own a Contender, especially since the shotshell muzzle attachment can be removed and dropped into a pocket at any time to permit use of standard ammo; the barrel comes with a special key wrench to facilitate this operation. Whatever you do, don’t shoot jacketed Magnum slugs through a HotShot barrel when the choke attachment is on.

The genesis of the Thompson-Center Contender is a meaningful chapter in gunmaking history. The articles that accompany this intro in this issue’s Bonus Handgun feature will give you a deeper sense of what it means to firearms heritage... and, perhaps more important, what it means and can mean to you, today, as an active American Handgunner.

At Thompson, Barraclough learned that they were looking for a product of their own to fill in between component-producing contracts for other firms. He had seen my gun, and told Ken Thompson about it, and Thompson called me.

HANDGUNNER: What’s the next Contender design?

CENTER: The last one was a double barrel, but I doubt if we’ll ever produce it. The reps tell us there isn’t a market for it.

HANDGUNNER: What do you think the reps would have told you ten years ago about the market for a single shot, multi-caliber pistol?

CENTER: Nobody knew. I never thought it would sell a million, but I knew it would sell enough to produce.

HANDGUNNER: Did it surprise you when so much of the pistol’s sales turned out to be in hot magnum calibers?

CENTER: Yes. In fact, I never intended
As even the most skeptical reader has gathered this far into the bonus feature section, the T/C Contender has a heckuva lot going for it. This is not to say, however, that it is no-question, flat-out, stardust-on-the-gossamer-wings perfect.

There are a few things that could be better on the Contender, and as we'll see, there are ways to make them better. But the hardest thing to square away is also the biggest thing that's wrong with the Contender. If you've ever shot one bigger than .22 rimfire, you know what that thing is. You spell it with a capital "R". Recoil.

In fact, with the really big calibers, you can capitalize the other five letters, too. The Contender kicks, gentlemen. In .357 magnum, for instance, it has a comeback nastier than any other .357 around, including itty bitty ones like the .32-frame Security Industries revolver or even the old Hy Hunter two-shot derringer. In .44 Magnum it makes your S&W model 29 with factory grips seem a veritable mouse-gun by comparison. In .357 Herrett, shooting the Contender becomes nothing less than an exercise in masochism. Anybody tells me they like shooting a stiff-loaded .357 Herrett in a factory stocked Contender, I begin to suspect that they have a collection of whips and chains and hair shirts at home, right next to their bed of nails.

There are two reasons for the savage recoil. One is the overall silhouette, with the line of the bore so close over the hand that the gun doesn't pivot upward like a revolver, but instead comes almost straight back into the hand. A second and more culpable factor is grip design. As the recoil is transmitted back through the frame of the pistol, it meets the hand in the worst possible places—right at the base of the thumb, and just below the base of the index finger joint. The result, with a heavy load, is a sensation that makes you feel like you've just been stricken with premature acute arthritis.

In fairness to TIC, the original stock design—indeed, the whole original gun—was not intended for Magnum recoil. When the problem became apparent as Brad Marshall works on one of his $10 trigger jobs, a custom option for the T/C well worth having says the author.

the sales percentage of Contenders in hot chamberings increased, the company made an effort to do something about it, and drafted Steve Herrett's stockmaking talents. The result was a much-changed grip, more vertical to make a kind of fulcrum that the gun could pivot up instead of coming so straight back into the hand (muzzle lift was irrelevant, since in a single-shot, recovery time ceases to matter). The new stock was also more round-

PROFILE: Warren Center

putting anything like .44 Magnum into it. It's a rough caliber; to me, there's no pleasure shooting it. But there's no question that the gun worked out well for people who want that caliber with maximum possible accuracy.

HANDGUNNER: We can't dispute you on that. Tell us, do you hear any beefs about the Contender design?

CENTER: Only from people who haven't read the instruction manual. I put in all kinds of instructions on how to work the gun, but every once in a while, somebody who didn't read them can make it go off accidentally.

HANDGUNNER: How do they manage that?

CENTER: Usually by pulling the trigger after loading when they haven't cocked it. When the gun is used properly, the hammer can't hit the firing pin until the trigger is pulled. But I get people telling me, "Well, the guy in the sporting goods store told me I should pull it back until I heard a click because that's the half-cock notch." The gun has no half cock notch, as such. Once you close the pistol, you leave the hammer where it lies until you're ready to cock the hammer and shoot; if you cock the hammer and don't shoot, pull up on the trigger guard as if you were going to open the uncocked pistol, and the hammer will drop safely down, and you won't even have to open the action before you can cock it again, the way you have to during dry fire.

HANDGUNNER: The Contender pistol strikes us as quite safe. But, tell us, what would you have changed in the initial de-
ed in the web-of-the-hand area, better distributing recoil.

It is still far from the complete answer, however. To really tame the recoil, you've got to go all the way to Herrett's own "stock answer," the handle he appropriately calls "The Controller." It has more rounded contours to better distribute the recoil shock, and a more pronounced palm swell that contributes to this same effect. There is a grip adapter effect behind the trigger guard, wide on the bottom as on Steve's Jordan-style revolver stocks. This too helps the whole hand take up the impact, and the effect is that the whole gun arm lifts up more in recoil, instead of the gun being "driven into the hand" as Herrett aptly phrases it in his catalog. It has more slant than the new T/C stock, and keeps the middle knuckle farther from the trigger guard.

In my own hand, shooting the awesome .357 Herrett, recoil seemed reduced by a third to almost half from the new-style factory stocks when I slipped on a Herrett Controller. It's not the whole cure, but like putting Ben-Gay on an aching joint, it sure does give some symptomatic relief.

Warren Center told me that Monty Kennedy once made him a pair of Contender grips bound in thick leather that worked remarkably well in cushioning recoil, but were Godawful expensive to produce. Another answer seems to have appeared on the horizon: Pachmayr's imminent introduction of rubber Contender stocks. I wasn't able to try a set by deadline, but if past experience with the Pachmayr product holds true, reduction in the felt recoil of the Contender should be most significant.

About the only other shock absorber for the Contender that I could think of would be the drastic step of sending the barrel to Larry Kelly at MagNaPort and having him cut his muzzle slots in, upside down. I'm serious. MagNaPort, as Larry will be the first to tell you, is to reduce muzzle jump, not recoil, since they are two different things. He keeps the muzzle down by channeling gases up. Theoretically, if the gases were channelled down, the muzzle might lift enough to divert some of the recoil force away from the joints in the "V" of the shooting hand. All of which, incidentally, is pure speculation.

If absorption of Magnum Force opposite-reaction is not particularly your concern, Bud Richards does a fine modification of your existing Contender grips. He slims 'em down, puts in memory grooves, removes the epoxy finish and replaces it with a handrubbed oil surface, and gives you what has to be the most naturally-pointing single shot pistol ever built. He rounds the square edges, too, so there is still some kick reduction. Send him your stocks and a Herrett style paper tracing of your hand pattern, and $25. For an extra $10, he'll expand the checkering on both your stock and fore-end. In a small to medium caliber, and especially with the early-style Contender grips, the result is as comfortable and visually appealing as anything you can put on this handgun.

Other little things can improve your ability to successfully contend with the Contender. One area is the trigger. Fresh out of the box, it's creepy and heavy, with substantial backlash. Neophytes let that fool them into thinking the gun has a lousy trigger. It hasn't. As it comes from the package, with a little application of a screwdriver and the provided T/C allen wrench, you can come up with one of the finest factory go-buttons around. The trigger is easily adjustable for weight and length of pull (just follow the instruction sheet that comes with the gun). Next, take that allen wrench and adjust the trigger stop in the back of the trigger guard. I'd sign if, ten years ago, you had had as much input as you have now.

CENTER: I'd have probably done several things different. It's the Monday morning quarterback syndrome. But, seriously, there are things I might have changed. I think I would have put the lock on the receiver instead of on the barrel. That would have required a lot less pull-up pressure on the trigger guard to open the gun—some female shooters tell me they find it hard to operate. I think I might have made it so the tang on the trigger guard was a little farther away from the knuckle on the trigger guard. Some people with really huge hands tell me they get hanged on the knuckle when they shoot. Who knows, I might even have made it in droplock; the first gun was in droplock, and though it's torn up now, I still have some of the parts. But I don't think it would have been economical to produce.

HANDGUNNER: Tell us more about that very first Contender.

CENTER: I made the very first prototype in .22 Hornet caliber. It worked fine on 'chucks. There's a funny anecdote: I worked to handbuild a pistol accurate enough to scope and be truly effective, and when I had the prototype, I wrote to Paul Jaeger for one of his pistol scopes. He wrote back and told me he had stopped selling them 'cause they couldn't stand up to .357 Magnum recoil. I wound up putting another scope on the first pistol; it was a brand I can't remember.

HANDGUNNER: Then going from past to future shock, what's the next Warren Center design on the drawing boards?

CENTER: I've been toying with a gas-operated semi-automatic pistol. The problem is, as you saw when you toured the plant, we're expanding heavily now to meet production demands on products that are already in our catalog. Tooling up to produce a new design will require that much more expansion. That's expensive, and I don't know how far in the future a really new Thompson-Center design will be.

HANDGUNNER: Whenever it comes, we have a feeling it'll be worth waiting for, along with the new generation of Contender pistols that you've been toying with at home, Mr. Center, and we'll look forward to seeing them all in the next few years.
have thought the trigger would be a better place for that screw, since a few people tell me that in its present position, it dings their knuckles with heavy recoil. Doesn’t bother me, though, and it absolutely eliminates backlash so the sights are in the same place when the hammer hits as when it started to fall.

If you want to go beyond this very-good-to-excellent trigger pull, into the excellent-to-truly-superb category, the contact parts of the trigger mechanism can be honed to an amazingly light and crisp feel. Just send him the trigger job, at $10 including postage, is a bargain for any Contender shooter, and the consistency will amaze you. It’s an outstanding trigger what Jerry Moran does for the Colt Python’s. A Marshall trigger job, at $10 including postage, is a bargain for any Contender shooter, and one I heartily recommend. If you’ve got one of the older Contenders without the trigger stop, you’ll find that the Marshall job virtually eliminates discernible backlash along with providing a letoff that’s smooth, crisp, and light. Just send him the trigger mechanism to save messing with FFL paperwork. Delivery runs a few weeks.

Scopes are a worthwhile option on almost any Contender barrel but the Hot-Shots. Contender enthusiasts tend to kvetch among themselves as to which scope is better. No one argues that T/C’s early Puma sight was a little fragile with magnum recoil. My own Contenders are scoped with Leupolds, the better successor to the Puma, and give me good results in all calibers, though there has been an occasional moment where I’d have liked a little more than the 1 1/2X capability of the T/C scope. Still, it has served me well. Leupold’s new M-28 handgun scope is building a reputation for brute strength under heaviest magnum recoil, and a lot of Contender fans swear by it.

I’ve been trying the Insta-Sight, a new T/C import, and am rather fond of it. It’s extremely compact, for one thing, and allows you to carry the Contender comfortably in your waistband in the field, without it sliding around. (See J. D. Jones’ report in this issue).

The HotShot option is a worthy one, giving you roughly .410 shotshell capability out to 25 yards or so in the .44, a bit less in .357. A guy who regularly takes grouse and partridge with theirs. The early barrels, which had a bit of a Buck Rogers look to them, were replaced a while back with a more Spartan vent-ribbed bull barrel that I find more pleasing to the eye. It has a flip-up rear sight, adjustable for windage; the front sight adjusts for elevation. HotShot aficionados have been yelling for a straight shotgun barrel with just beads on the vent rib. A compromise I’d suggest to T/C would be to put in the beads, and arrange for a front sight that flipped up like the rear one, giving a real choice of sighting planes.

Contender handling characteristics? One thing that terrifies shooters who haven’t read the instruction manual is when they squeeze up on the trigger guard when the gun is cocked, and the hammer falls. Actually, this feature is designed into the gun, and is intended to be used like dropping the hammer via the safety on a Smith 9 mm auto. It’s a safe way to get the hammer down. Note Warren Center’s comments in the interview that accompanies this section.

It’s especially advisable to lower the hammer this way (muzzle always in a safe direction, of course) when the pistol is scoped, since you have very little clearance between hammer and scope tube, and therefore, a limited purchase on the hammer spur. I discovered (by accident, which for me is typical) that by using the T/C scope mount backwards, you move the wide part of the scope back away from the hammer spur and make a little more room for your thumb. This doesn’t bother me in terms of eye relief since I lock my elbows straight out in all shooting positions, but if you bend your arms kneeling or sitting you might find it brings the lens in a bit too close to focus properly for you. One thing I’ve been wanting to see is a Marlin rifle-type hammer extension for the scoped Contender.

I doubt there’s any way to change it within the parameters of the Contender’s one-of-a-kind trigger system, but a lot of us don’t like the fact that when you’re dry firing, you have to open the action to recock it every time you drop the hammer. If anyone can alter that, let me know, would you?

Sights are another matter. You get a good sight picture with the Contender’s factory irons, but the adjustments are sloppy and don’t approach the reliable precision of, say, BoMar. I’d love to see BoMar come out with a rib for the Contender in both bull-barrel and tapered-tube configurations; it would be a natural! Meantime, since you can’t really count the clicks on the Contender if you’re using it in, oh, a metallic silhouette match, the course I’d take would be to use a gage to measure the distance between barrel and sight-bottom at each predetermined elevation setting. Screw the sight lightly down on the gage as you change distances, and the consistency will amaze you. It’s an old bigbore rifle competitor’s trick that translates surprisingly well to iron sighted handguns of all types. Some metallic silhouette biggies have gone to globe sights on their Contenders, but with no great success.
I'd like to see T/C make a really fine target sight optional on this pistol, as Colt did on the Python with the Elliason, and as Dan Wesson is thinking about doing with Austin Behlert's fine sight.

What else could enhance an already fine pistol? I've wondered for years why T/C didn't make it with a set trigger like the one on their Patriot muzzle-loader. I finally got around to asking Warren Center, and was pleasantly surprised: this is one of a number of design refinements he's been working on during his convalescence from the car crash that almost took his life a few months ago. It may be a couple years before it will come out, and I don't know whether or not it will take the form of a kit that adapts to existing Contenders, but coupled with the new bull barrels (and an improved factory sight), it will give the Contender the ability to rule in production class of silhouette competition. I also predict T/C will follow Dan Wesson into the burgeoning metallic silhouette arena with barrels in the vicinity of 15", though again, nothing is scheduled.

There are a few people who'll really change your Contender's perspectives. Only a handful of gunsmiths do major custom alterations of it, and not all of them are endorsed by the factory. One guy terrifies the T/C people; he's allegedly blown up at least one gun, which parted at the receiver with no injuries but still left some ruffled feathers. Seems this fella uses strange cartridges with triplex loads. Bob Gustafson of T/C heartily endorses Texas Contender, Frank Kendrick's outfit which does fine work converting Contenders with carbine-length barrels and rifle stocks (don't use one without the other). He also has some other goodies that you might want to talk to him about. Perhaps more important, he runs Texas Contender Gun Club, a group of T/C pistol enthusiasts and collectors that has just gone national. Write him at the address at the end of this article for more info on Texas Contender, the gun and the club.

The Contender pistol is a modern classic, one that performs superbly out of the box and even better with the attention of elite experts like those mentioned in this article. The gun isn't flawless, but neither is anything else... and when you have top people working to eradicate those few flaws, the result is a total concept that comes sneaking right up on that elusive quarry, Perfection. Once you learn to contend with the idiosyncrasies of the Contender, you'll find it a gun you truly can contend with, a gun that within its single-shot limitation, takes a back seat to nuthin'.

J. D. Jones, American Handgunner contributor, with the first Corsican Ram taken with the .30 Herrett cartridge; shot at Y-O Ranch in Texas.

If you've got one of these good guns and want to make it better, here are the addresses of the people who can help.

Brad Marshall (triggers), Marshall Firearms, 154 N. Main St. Penacook, NH 03301.
Steve Herrett, Herrett's Stocks, Box 741, Twin Falls, Idaho 83301
Pachmayr Grips, 1220 S. Grand Ave., Los Angeles, Cal. 90015
Bud Richards (grips), Richards Gun Refinishing, Barnstead, NH
Texas Contender Gun Club and Customizing: R. F. Kendrick, 4127 Weslow, Houston, Texas 77078

The flat-side. The original Contender was made with no photoengraving or etching on it, and many of us thought it more visually appealing than the guns that
Rare Contender with Eagle etching (left) shown with the current Puma etching. This Eagle is even more collectible with its no longer made .45/410 bbl.

quickly followed it. The engraving got started within three months or less after the first gun rolled off the line, and this is the period where the guns weren’t really flooding off on a production line basis.

There’s damn few of them around, and if you can find one, for heaven’s sake, rat-hole it away somewhere. The market hasn’t hit anywhere near what it’s going to for these rare guns. A flatside in a Magnum chambering should be especially precious. The factory says it can’t pinpoint exactly how many flatsides are out there, but at most there are a thousand.

The Eagle Contender. Somewhere around serial 1638, a handful of Contender pistols were made with an experimental engraving pattern that replaced the second puma on the right side of the frame with a defiant-looking eagle. Up until then, the only critter on the Contender was the puma, the same animal they named their first scope after. According to Warren Center, only four to six eagle-sided Contenders were produced. A collector, however, assures us that it’s closer to twenty-five. If you have one, check with the factory on what caliber barrel was on it when it left the factory. This latter is something that budding Contender collectors will want to pay note to, since twenty years hence, it will enhance the value of the gun if you can prove it’s got the same barrel, or at least the same caliber barrel, as when it left the factory.

The NRA Contender. In 1971, when the National Rifle Association hit its centenary mark, gunmakers across the country vied for the honor of producing the official NRA Centennial Commemorative Handguns. Daisy got it for BB guns, and Colt got there first for real shootin’ irons. You don’t need me to tell you what an NRA Centennial Commemorative Colt is worth now, with six investment-fattening years in between.

In any case, Thompson-Center got into the race, and ran a small series of specially engraved and gold-inlaid NRA Commemorative guns. There was a production holdup, however, and Warren Center told me sadly that by the time he got one ready for NRA to look at, they had already given the honor to Colt.

Four or five NRA Commemorative Contenders were completed. All had special serial numbers with an “X” prefix. The gun shown in the accompanying photos bears the serial number X.3. Like the Eagle Contender #1638 seen here, it is part of the Brad Marshall Collection.

The .45/410. The innocent folks at T/C brought this out for sportsmen in a classically sportsman-only gun, only to find that maybe-just-maybe it was in violation of the Federal Firearms Act and could be theoretically considered a sawed-off shotgun. The ATF people, who despite what you may have heard have a number of consummate gun experts in their ranks, realized that anybody who wanted a sawed-off .410 wasn’t going to buy a $145 Contender; he was going to buy a second-hand $30 shotgun and chop it and while he was at it, he was probably going to move up to 12 gauge and steal the basic gun anyway. Nevertheless, an agreement was made (without any undue pressure by ATF) and production of the .45 Long Colt/.410 barrel option was halted. It was replaced with the HotShot birdshot cartridge and a series of choke attachments that were designed to straighten out the shot payload after it left the rifling.

There has been no official ruling on the .45/.410, again because ATF is a pragmatic group with a lot of experts in it, and they know it’s not a threat, especially because the things are becoming collector’s items, are totally unsuited to criminal use, and are more likely to repose in a safe deposit box where nobody’s gonna get at ‘em. If worse came to worse and some martinet got into ATF and made a negative ruling on it, the collector value would probably go up to the point where it would

Right side of super-rare NRA model; left side, showing the NRA emblem, is pictured on top of following page.
be worth the special $200 license to keep it anyway.

How many of them are out? "A number of them," says Warren Center, and that's all you'll get from T/C. If you have one, keep it.

**Other Collectibles.** That's about it for extra value right now, but look for the rarer production variations to get valuable in the next ten or twenty years. If I had an early Contender with the skinny trigger and long, arabesque trigger guard, I'd almost put it in a safe deposit box because it's gonna be worth a decent piece of change some day.

The .17 Wildcat Contenders are also worth hanging onto. Not that many were made, and because of complications in producing subsmallbore barrels, it's doubtful that they'll be made again. Of the five .17 calibers T/C chambered for, the Mach IV, a .223 case necked down, appears to be the rarest.

There are other minor changes, most notable the switch from the elaborate fleur-de-lis engraving pattern to a simpler and less finely etched one. Guns with the former pattern might be worth another five bucks now, but in twenty years, could well make the transition from your "recreation" ledger into the one marked "investments."

Contenders are just starting to bloom as collectors' pieces. Start now, catch 'em in the bud, and you might just have the full-blossom centerpiece of a fine collection in the next few years.

Average Contender owner has 2.5 bbls. Some, like Brad Marshall, have 40 or more.
Mounting the Insta-Sight on the Contender is a simple 5-minute job and it's not bad looking.

The Insta-Sight is a compact, non-magnifying optical sighting system for handguns. The sight is not a scope—there is no limit to the field of view and the sight gives optimum performance when used with both eyes open. There is no obstruction of the natural field of view of the eyes and a green tapered translucent cross-hair with an open center appears to be superimposed on the target. The shooters accuracy is correspondingly increased and the sight is fast and easy to use. I know that sounds like a hell of an endorsement of the sight, and it's meant to be. The sight provides excellent performance and its ease of use compared to conventional iron sights is outstanding. The sight does have some disadvantages and they will be explored later.

Thompson/Center is not a manufacturer of optical equipment. The sight is manufactured by Precision Tool and Machine Company of New Bremen, Ohio. The sight was invented by Dr. G. E. Rickert, a Huntington, Indiana optometrist who is an avid pistol shooter. After considerable development the RSP-106 design proved sturdy, reliable and economical to manufacture. Thompson/Center and Precision Tool entered an agreement whereby T/C is the exclusive distributor of the sight. List price is $73; bases cost $6.50.

The sight itself employs interacting optical systems which have their elements mounted in two horizontal tubes. The tubes are arranged in a side by side configuration which results in a practical compact system (2¾” long x 1¾” high). The sight is of steel construction with a weight of five ounces which gives it a terrific advantage in mounting versus the much heavier scopes. The sight is nitrogen filled as are most of the better scopes.

It would really take a long armed son-of-again to run out of eye relief on this gadget—its eye relief is 36 inches compared to a maximum eye relief of 18-24 inches for most handgun scopes.

The problem of parallax is seldom discussed regarding pistol scopes—but it is a definite problem. A scope having parallax "walks" the crosshair across the target if the scope is held steady and the shooters head moved slightly. Parallax may be defined as the apparent displacement of an object as seen from two different points. It is impossible to have a scope or other optical instrument absolutely parallax free at more than one distance. Most pistol
scopes having magnification are parallax free at 100 yards. The Insta-Sight is parallax free at 50 yards. It does have a slight degree of parallax at 100 yards and fairly easily detectable parallax at 200 yards. Being a non magnifying handgun sight, I don't consider this a particular disadvantage and have no quarrel with the manufacturers adjustment to provide freedom from parallax at 50 yards. Eye to tube latitude of alignment is much greater than that of any other optical sight I know.

The sight itself can be mounted on just about any handgun. Bases are available for the T/C Contender and virtually all popular revolvers. To the best of my knowledge, mounts are not yet available for any auto pistols but it would be a simple job to modify existing revolver bases to fit almost any automatic.

Mounting the base of the T/C Contender consists of simply removing the rear sight and replacing it with the Insta-Sight base—a simple 3-5 minute job. The screws should have Loc-Tite applied before they are installed.

Installing the base on any of the popular revolvers having adjustable sights requires removing the rear sight and drilling and tapping two holes through the top strap. T/C includes the screws with the base. I threw them away and used high strength industrial 6-32 hex head socket screws. I've never been very favorably impressed with the generally weak, soft and weird size gun screws and never use them when it's necessary to drill and tap a new hole.

I don't consider the Insta-Sight in the same category as a scope. The Insta-Sight does a damn good job of improving accuracy over that obtainable with iron sights at ordinary iron sight ranges in the field.

For normal usage this extends to 100-125 yards. For example, an ordinary tin can, depending on its color, light conditions and surroundings may be impossible to distinguish clearly, at least for me, at somewhere between 50 and 125 yards. With the Insta-Sight—assuming you, your gun and ammo combination are capable of the required accuracy—you can hit that can just about as far as you can see it. The Insta-Sight is, of course, useful for casual long range plinking.

With the general range capabilities of the sight in mind I first mounted it on a T/C .22 Magnum. Both the .22 Magnum and 5MM Remington T/C barrels deliver excellent performance on varmints to somewhat over 100 yards with a slight edge going to the 5MM round. After playing with the .22 Magnum/Insta-Sight combination for a couple hundred rounds with excellent results I switched the Insta-Sight to an old, well worn K-38. By some odd chance I just happened to have quite a bit of .38 stuff laying around that needed testing. Sighting in was no problem, simply used a sheet of paper to rough it in at 15 feet and finished the job on rocks in the face of a high wall at about 50 yards. Didn't get much ammo testing done the first day out as I made the mistake of taking 250 rounds of wadcutter along and just had so much fun playing with the Insta-Sight on the K-38 I shot them all at rocks, tin cans, anything else that looked like a decent target. I wasn't at all surprised at the single action speed and accuracy but was frankly amazed at the double action capability of the sight. It's the best double action sight I've ever used; simply put those green cross hairs on the target, pull and hesitate when the cross hairs move off the target and pull again when they are on and you have a hit. The reticule of the Insta-Sight allows you much more control than iron sights simply because you can see everything happening better. It's not much of a trick at all with a little practice to keep a tin can hopping double action a lot farther than you can with iron sights. The trajectory of .38 wadcutter loads at around 100 yards reminds me of the trajectory of a pig jumping a fence. Accordingly a lot of hold over is needed to hit at long wadcutter ranges. It's necessary to use the cross hairs like those of a scope for holdover but without the aid of magnification, somewhat more difficult.

Sighted in dead on at 25 yards, some of the wadcutter loads would print 3-4 feet low at 100 yards and group very tightly.

I found three outstanding wadcutter loads for the K-38. The Norma factory 148 grain, the Zero remanufactured wadcutter load (selecting by headstamp) and a handload consisting of Federal small pistol primers, 2.5 grains of Norma R-1 powder behind the 148 grain LRS hollow base wadcutter lightly crimped with an R.C.B.S. taper crimp die. These three loads would consistently print six shot groups of less than one inch extreme spread at 25 yards from sandbag rest. Several groups hovered close to the one half inch mark but none made it. An experimental 158 grain Hornady semi-wadcutter propelled by 3.5 grains of Norma R-1 is a full charge .38 Special load and it...
grouped fairly consistently around three-fourths of an inch. The Norma R-1 powder has practically the same applications as Bullseye but seems to burn cleaner and drop a bit more uniformly from the measure. I've obtained outstanding uniformity and accuracy from it in several calibers. Like Bullseye, it can't be pushed too far or pressures rise dramatically.

The sight created quite a bit of interest at the range and anyone who showed any interest at all—and many of them weren't handgunners—were invited to try a couple of cylinders full. Everyone who tried it was quite enthusiastic about the sight, primarily because they were able to hit with it. Two guys said they were going to have one on their muzzle loaders by next deer season.

Disadvantages? Sure. Put an Insta-Sight on a revolver and you have holster problems. The reticle is etched in glass—the image magnifies the reticle many times and the edges could be sharper. The manufacturer is working on that. The sight is powered by existing light—no image when the light is gone. It therefore isn't suitable for police usage.

The elevation-windage adjustments are calibrated to change 1 inch per increment for a maximum adjustment of plus or minus 21 inches at 50 yards. This max adjustment is somewhat on the marginal side and may require filing of an angle on the base to change elevation requirements in some gun-caliber combinations. It's not at all unusual to find adjustable iron sights that do not have enough adjustment to take care of that problem, too. Perhaps that is an unfair criticism of the sight and the real fault lies with the gun manufacturers. I've seen at least five revolvers in the past year that did not have enough adjustment in their sights to allow them to be sighted in properly. One was a rather expensive imported .44 Magnum single action that shot at least 5 feet high at 100 yards with 240 grain factory loads after the sight ran out of adjustment.

Frankly, I wasn't too impressed with the Insta-Sight the first time I saw it. I recognized many of its advantages and disadvantages immediately. I wasn't really impressed with the test sight when it arrived, and remained unimpressed until I started shooting with it. Anything that improves my "hitability" gets me enthusiastic. The Insta-Sight does just that—it enables me to see the target better, concentrate on trigger squeeze and hit a lot better than I can with iron sights.
THE MAUSER MILITARY PISTOLS
(Continued from page 31)

TERLOCKING PARTS

This statement has been made so often that some people have come to believe it. The earliest Mausers had a pin assembling the trigger into its housing, and if equipped with a tangent sight, they also had a pin holding the leaf into the barrel extension. Both these pins were eliminated in later production. There was always one screw holding the grip pieces to the frame. There is really nothing wrong with pins or screws as long as they remain in place. On the other hand, the Colt Single Action revolver, loved by one and all, has been plagued, to these many years by nine or so screws that walk out during shooting.

CONCLUSION

What is so great about the Mauser then? To my mind it lies in the intricate machinery—the use of hardened steel parts to avoid wear, and the superb finishing of all metal parts. I also think that the illegal stock/holster added a great deal to the Mauser's appeal. I remember long before I had ever seen a Mauser Military, in the pre-World War II days when there were few gun books, I had seen the cut in Bannerman's catalog showing a Mauser Military attached to its stock. The picture had these exciting words of explanation: "This is the Mauser automatic pistol, with detachable shoulder stock which forms a holster for the piece when not in use, the rear end being hinged forming an opening for the insertion of the arm—"

So when I saw my first Mauser Military in a pawnshop in Tucson, Arizona, in 1937, with its stock/holster, I therefore knew what I was seeing. But before I could raise the required thirty-five dollars, the police made the broker get rid of the stock thus reducing my interest; in those days thirty-five dollars was a lot of money. Today, the original cone-hammered Mausers accompanied by an original stock/holster are considered legal because they were made before 1898, also the large ring-hammered pistols with an original stock/holster have been found to be "curios and relics" by the Bureau of Alcohol, Tobacco and Firearms. This enlightened decision opens the way for, we can hope, a day when all these stocked Mausers may be legal and collectible. They are all too rare and expensive and in the case of the 7.63 mm, too hard to find ammo for, to be used by a criminal. The 9 mm Luger caliber Mausers are all well over the fifty year old criteria.

One final word to add to mine about the Mauser Military. These were written during the Sudan campaign in 1899.

"Among the more recent improvements in firearms none should attract more attention than the invention of the magazine pistol. Several kinds are already in the market, and all possess in varying degrees the same advantages. Perhaps the best and the best-known is the Mauser pattern. I write as almost the only British officer who has used this weapon in actual war. Its superiority to the revolver is plain. It fires ten rounds, whereas the revolver fires but six. It is sighted to 1000 yards, and shoots effectively to 800. The revolver is never of any use beyond fifty yards, although its bullet carries much farther. The pistol is self-loading, self-cocking, self- ejecting. Its rate of fire is as fast as the trigger can be pulled. Its muzzle velocity is almost double that of the older weapon. It can be re- charged with ten rounds on a clip almost as quickly as a single cartridge can be loaded into a revolver. By a cunning arrangement the recoil is utilized to eject, cock, and re-load; so that the hand remains steady while successive shots are fired. It is cheaper and lighter. Finally, it is furnished with a case of light wood instead of leather, and this fits into the pistol butt, making a handy and accurate carbine. In spite of all these complications, the weapon did not get out of order in a country where the desert sand affects all machinery."

So spoke young Lieutenant Winston Churchill with a great deal of insight into the future of the automatic pistol and specifically to the quality of the Mauser Military. This obsolete eighty year old pistol is still carried today in the back waters of the world. The Mauser Military represents one of the early attempts to design a self-loading pistol. In the Mauser case, however, the attempt was right in 1896 and so eighty years later it still can be enjoyed and even fired. It is this success that separates the Double M from all of its contemporaries.

IN NOVEMBER GUNS

James Mason tests the new Detonics .45 auto.
APPLICATION FOR MEMBERSHIP IN THE AMERICAN PISTOL & REVOLVER ASSOCIATION

ASSOCIATE $5, INDIVIDUAL $10, FAMILY $15, PATRON $25, LIFE $125, SPONSOR $250, ENDOWMENT $500

(Associate is a non-voting membership, it includes non-citizens and juniors over 12 years of age. Individual members have full voting rights. Patrons may convert their memberships to a Life Membership. Sponsor and Endowment Memberships are also lifetime memberships.)

Please enroll me (us) as a(n) _______________________ MEMBER of the AMERICAN PISTOL and REVOLVER ASSOCIATION. I declare that I am a law abiding citizen, over eighteen (twelve for Associate) years of age, of sound mind, and I subscribe to the PRINCIPLES, PLATFORM and OBJECTIVES of the American Pistol and Revolver Association and to the Constitution of the United States of America.

NAME(S) ___________________________ DATE ____________

ADDRESS ____________________________________________ PHONE ____________________________

CITY __________ STATE _______ ZIP CODE ____________

OCCUPATION __________________________ COMPANY __________________________

BUSINESS ADDRESS __________________________

MAIL TODAY! 512 EAST WILSON AVENUE, Suite 301 GLENDALE, CALIFORNIA 91205

A Pictorial History of the 1896 Self-Loading Pistol – by Breathed and Schroeder

Still . . . the truly comprehensive book on the famous "Broomhandle" Mauser. Over 400 photos and illustrations of more than 100 variations. Also included: major competitors’ copies as well as many Mauser experimental models not on the 1896 pattern. 274 pages, heavy duty library binding.

Only $15.00 postpaid U.S. Funds

LUGERS AT RANDOM – by Charles Kenyon

BIGGER PAGES –
Over 400 of them! 11” wide – 8½” high.

BIGGER PHOTOS –
Total over 500! Most models pictured full size.

386 “Baby.”

BIGGER COVERAGE –
Includes . . . 1898/99 Transition, 1900 Bulgarian, Prototype Carbines, 7-shot "GL," plus many, many more previously unreported variations.

Only $17.50 postpaid U.S. Funds.

FROM HANDGUN PRESS

NEW!

SYSTEM MAUSER

Model 1906

PRECISE REPRODUCTIONS OF FABULOUS OLD MANUALS

1896 BERGMANN: 16 pages with two large foldouts, in English __________________________

1898 SCHWARZLOSE: 20 pages, profusely illustrated, in English __________________________

PLEASE SEND ME C.O.D.

copies of SYSTEM MAUSER . . . . . ea. $15.00

copies of LUGERS AT RANDOM . . . . . ea. $4.00

copies of 1896 BERGMANN manual . . . . . ea. $4.00

copies of 1898 SCHWARZLOSE manual . . . . . ea. $4.00

Name ______________________________________

Address ____________________________________

City ______________________ State ________ Zip __________

NOTE: Enclose your check or money order and we ship prepaid, saving you postage and C.O.D. charges. SEND TO: HANDGUN PRESS 5832 S. GREEN ST., CHICAGO, ILL. 60621.

NEW!

THE AMERICAN HANDGUNNER

The ONLY magazine ONLY for handgunners

The newest, most exciting magazine to appear in years. Fascinating feature articles on combat shooting, hunting, self-defense shooting and reloading will be written by the giants of the handgunning field including Bill Jordan, J. D. Jones, Mason Williams, George Nonte and others. Subscribe now to THE AMERICAN HANDGUNNER and save over 15% on the newsstand price.

MAIL TO: AMERICAN HANDGUNNER 8150 N. Central Park, Skokie, Ill. 60076

[ ] 1 YR. $7.50 (6 issues) [ ] 2 YRS. $14.00 (12 issues) [ ] 3 YRS. $20.00 (18 issues)

NAME __________________________________________ Total Enclosed _______________________

ADDRESS ___________________________________ Bill Me __________________________________

CITY ________________________ STATE __________ ZIP ________

(Initial)
Sixty years ago, you could hear the patter of little feet here as children from around the countryside came to learn their ABC's at the schoolhouse on Main Street in Monson, Massachusetts. Those children have since grown up — as have their children and grandchildren — but the schoolhouse has remained, a reminder of the days when things were built to last.

Today, the schoolhouse is the home of Dan Wesson Arms, Inc., manufacturers of the most accurate, the most versatile, the most dependable .38/.357 magnum double-action revolvers on the market — bar none.

Maybe it seems strange that a firearms manufacturer would make his guns in an old schoolhouse. But that schoolhouse and the Wesson family have a lot in common.

Both have been around here for a long time. And both date back to the days when people took pride in craftsmanship.

Back before the turn of the century Dan Wesson’s father (and before that his grandfather and great-grandfather) was manufacturing guns with care and pride.

Today, with modern precision machining techniques, Dan carries on that proud tradition of fine craftsmanship by producing unique revolvers unmatched for accuracy, versatility and dependability.

And, like the old schoolhouse, they’re built to last.

Here are some of the features that make Dan Wesson revolvers unique

The Dan Wesson Arms PISTOL PAC
To begin, choose an 8” Dan Wesson revolver in the Series of your choice. Then add three more interchangeable QUICK-SHIFT barrel assemblies (2 1/2”, 4”, 6”), an extra interchangeable grip, four additional colored front sight blades (2 yellow and 2 white) and a Dan Wesson Arms belt buckle and emblem. Place them in a handsome carrying case and you have the Dan Wesson Arms Pistol Pac . . . a proud possession.

And now, to accommodate long range handgun hunting and metallic silhouette shooting enthusiasts, Dan Wesson introduces 10”, 12”, and 15” interchangeable barrel assemblies for all target models.

For more information write Dept. 16-W
Dan Wesson Arms, Inc. 293 Main Street, Monson, MA 01057 (413) 267-4081

Five year warranty on every revolver
Dear Readers:

The AMERICAN HANDGUNNER is now over a year old, and I thought it the right time to let you know how we are doing. In a word, GREAT! The response to the magazine has been most gratifying. Sure, we did some things wrong, and we'll freely admit to them. We printed too few copies of our early issues and were unable to fill orders of those who wanted a complete set. We also bobbled a few of the early subscriptions until we sat down and had a long talk with our computer.

Evidently we did do some things right. We now have more than 100,000 readers (subscription and newsstand combined) and we're still growing.

To keep growing we need the continued support of our readers. This means a continuation of the letters with comments, criticisms and suggestions; support by our readers of the firms who advertise in the magazine and, most important, as many new readers as we can get. You can help by telling your handgunner friends about the magazine and urging them to subscribe.

With this issue, you'll notice some things we have done to enlarge the scope and interest of the magazine. We welcome a new name to the masthead, Jeff Cooper. If you need an introduction to this man, you haven't been following the handgun scene lately. In addition to his magazine writing and books, Cooper is a founder of the International Practical Shooting Confederation and acting President; he is also the head of the American Pistol Institute with facilities at "Gunsite" in Paulden, Arizona.

The AMERICAN HANDGUNNER has recently been named the official magazine of the Outstanding American Handgunner Awards Foundation. We welcome all of those readers who will be receiving the magazine as part of their membership. The Foundation has been reorganized, with Larry Kelly of Mag-Na-Port as Chairman, and we think you'll be pleasantly surprised at the vitality of the programs planned for the future. Check the Foundation's page in this issue and join the ranks of those dedicated handgunners who are working to perpetuate the sport of handgun shooting.

My sincerest thanks to all of our readers. Stay with us -- we've dedicated ourselves to giving you the kind of magazine you want and deserve.

Cordially,

THE AMERICAN HANDGUNNER

J. J. Rakusan
Editor
Cincinnati was the place and the specific location was the Hall of Mirrors in the Netherland Hilton Hotel. There we saw over 200 paying guests—the largest crowd ever—swarm in to participate in the Fifth Annual Outstanding American Handgunner Award.

Knowledgeable folks know that this award program originated with Lee Jurras who got it off the ground in 1973. Jurras no longer has anything to do with the program; it's now under the direction of Larry Kelly (president of Mag-Na-Port) and a board of directors. From that first affair in Shelbyville, Ind., it has grown until now the ceremonies are conducted in conjunction with the NRA Annual Members' Meeting.

Harlan Carter, now executive VP of the NRA, was chosen this year to receive the prestigious award, a beautifully-done bronze statuette of a handgunner in a typical field shooting stance. Foremost in the reasons for Carter's selection was certainly his tireless effort in organizing and directing the NRA's Institute for Legislative Action (ILA) to fight anti-gun (especially anti-handgun) legislation. In an incredibly short time, Carter took ILA from a bare concept to a dynamic and effective organization which has been beating down the anti-handgunners. He has also been known for years as a pistolero of considerable note, and is a skilled author as well.

Congratulations, Harlan; well done and well earned.

Carter was by no means the sole participant. The balance of the ten (the "Top Ten") candidates for the award consisted of: Joe Benner, (National Pistol Champion six times and winner of five Pan American Games Gold Medals); Bill Blankenship, (six times National Pistol Champion); Warren Center (Thompson/Center Arms); Steve Herrett, who makes Herrett Stocks; Senator James McClure of Idaho, a pro-gun legislator; George C. Nonte, prolific author; ex-lawman and author Skeeter Skelton; the ubiquitous John Wayne, forever smoking up the TV and movie screen with SA Colt in hand; and Dan Wesson, founder of Wesson Arms and great-grandson of D. B. Wesson.

Only five of the ten candidates were able to attend the ceremony, the others were kept away by assorted and unfortunate reasons. Those present, of course, were called forward by Master of Ceremonies, Bill Jordan, to be presented with a special handgun by one of the participating manufacturers. Carter, Nonte, Wesson, Blankenship, and Benner were present to accept personally. Presentation guns for the absent candidates, were accepted by stand-ins, probably the most impressive of the lot being Jack Lewis, publisher of "Gun World" magazine, who accepted for John Wayne.

All of these men have contributed mightily in dozens of ways to handgun promotion, though not necessarily by shooting. Shooting is just one of a great many ways in which the public image of handgunning may be enhanced.

Lee J. Jurras, who originated the award in 1973 after years of planning, was honored with a special award. This was a modified and customized Ruger Super Black Hawk .44 Magnum revolver prepared and presented by Len Trapper.

Industry participation was greater this year than ever before, with presentation guns supplied by Thompson/Center, Colt, Surm Ruger, Smith & Wesson, Navy Arms, Dan Wesson Arms, Harrington & Richardson, Charter Arms, Custom Gun Shop, and Interarms. In addition, numerous other manufacturers donated door prizes and raffle prizes of belts, holsters, buckles, knives, books, magazine subscriptions, and the like. Most noteworthy of this group was Remington which supplied a M700 BDL rifle.

Bill Jordan did his usual great job as Master of Ceremonies, and the Rev. Russ Meek presided as Chaplain. The Rev. Meek is a badge-carrying preacher who believes in the Second Amendment and individual rights. The principal address was delivered by Rock Rodfing, director of the National Shooting Sports Foundation.

All things considered, the 1977 Outstanding American Handgunner Award ceremony was an unqualified success, the biggest and best ever. Harlon Carter joined past recipients Elmer Keith ('73), Col. Charles Adkins ('74), Bill Ruger ('75), and Bill Jordan ('76) as the elite group whose contributions to the sport have been recognized above all others.

In closing it should be noted that the Outstanding American Handgunner Award Foundation is a more healthy, viable, and forward-looking organization than ever before. The board of directors has been pared down to increase flexibility and a consultant has been engaged to handle both public relations and a myriad of administrative details that are so difficult to coordinate amongst volunteer help thousands of miles apart. Perhaps even more important is the arrangement whereby "The American Handgunner," this magazine, will function as the official organ of the OAHGAF. Along with this, each new member will receive American Handgunner regularly along with his membership.

More changes are in the mill for OAHFAF, all intended to make it more viable and more responsive to handgun enthusiasts throughout the nation. This we like.
The Author Takes a Look at Some of the New Holsters Designed For Winning the Competitive Combat Matches

By RICK MILLER

THE subject of holsters is, without doubt, one of the most fascinating areas of special interest to every serious handgunner. Perhaps this undying attention of the shooter stems from the fact that most handgun leather is designed to fulfill only one specific task. It is true that some gun rigs may be successfully put to more uses than originally intended, but by and large, most are designed with one fairly narrow purpose in mind.

This necessitates a collection of different holsters with varying features and qualities to suit an individual's tastes and needs. As can be imagined, this variety can lead to some lively discussion when proponents of differing designs get together!

One of the most interesting types to be developed over the past fifteen years or so, is the competition speed holster. The primary mission of this equipment is simply to allow as quick and effortless a draw as is possible.

Some of the early speed rigs were rather simple and impractical affairs that gave no consideration to any important characteristics aside from the quick draw. The past few years have seen some correction of this trend, however, and more recent examples of what we shall call the “speed rig” are quite practical in some situations, apart from competition shooting.

This evolving improvement is due largely to the original concepts of the sport of practical pistol shooting, one element of which is diversity. By posing different problems to the shooter through the simple expedient of using a wide variety of courses, the evolution of more practical equipment has been encouraged. If an idea works out in competition, you can rest assured that it will soon be emulated or possibly refined even further. Likewise, if an innovation proves to be uncompetitive or unsound, it will soon be dropped. The idea after all, is to win, and only the equipment, ideas, and techniques that work out best in unrestricted freestyle competition will prove to be of true practical value.
At the recent Columbia International Combat Pistol Conference the forty-five delegates in attendance voted unanimously to keep holster rules to a bare minimum, so that progress already made in this area will not be stifled. When the bylaws were outlined at Columbia for the newly formed International Practical Shooting Confederation it was carefully stipulated that the shooter should be allowed to meet each problem with his own ingenuity and equipment. The IPSC was formed to regulate the increasingly popular sport of practical pistol shooting on a world wide basis, and these rules should help to keep the sport from becoming overly restricted.

The result of all this sifting and refining of ideas has naturally had an important impact on the speed rig as we know it today. The equipment we work with now is far superior in terms of practicality to that which was in use only a few short years ago. This does not mean that the original concept of all out speed has been compromised in any way. Indeed, the rigs in use now are every bit as quick into action as anything that has gone before.

While we are on the subject of speed, we should re-emphasize that these modern rigs do serve some very useful and practical purposes. The outfits now in use are very fast, but they do not sacrifice other important features just for speed. Perhaps if we look at these characteristics in some detail a clearer understanding of the modern speed rig will be possible. Also, a better appreciation of the value of practical combat pistol competition and its role in improving and testing equipment and technique may result.

A bit later we will take a closer look at the speed rig's possible practical application, but first I think it would prove interesting if we delve into the physical characteristics of this piece of equipment.

Probably the most important feature of current design falls within the area of improved security. Most early outfits made no provision for keeping the pistol safely in the leather while the wearer was engaged in any type of strenuous activity. Practical and worthy of mention. Their breakfront holster was so constructed that the revolver was firmly held in place by a strong leather covered spring gripping around the cylinder from the back of the holster.

All the shooter had to do when drawing from a Berns-Martin rig was to simply shove the weapon straight forward through the split front of the holster. One quick forward thrust of the gun hand did the job. At all other times the revolver was securely held in place by spring tension. The first really practical retaining device for auto pistol holsters was the Carl fly off strap, or "pop off keeper", as it was sometimes called. Combat Master Elden Carl designed this unique keeper in the early 1960's as a better alternative to the conventional snap down retaining strap.

The conventional "safety" strap does a good job of keeping the weapon in the holster where it belongs, but when snapped in place over the pistol it makes any kind of quick draw almost impossible. While this method of securing the pistol is still widely used and accepted, it is a rather poor system at best.

Carl's fly off strap consists of a loop which passes over the hammer and tang of the pistol and is attached under tension by one snap to the outside of the holster. To disengage, the shooter simply brings his thumb up under the long tab below the

**Bianchi's Model 5B features the thumb break retainer and is quite popular with DA revolver shooters.**

Some models were so impractical in fact, that if the shooter sat down in a chair his pistol was in danger of winding up on the floor! This sort of insecure foolishness is now pretty much a thing of the past. The first really successful attempt at de-a secure speed rig for revolvers must credited to Berns-Martin. This gun rig pre-dates the days of combat competition shooting, but is none the less

**Rigs**

of ideas has naturally had an important impact on the speed rig as we know it today. The equipment we work with now is far superior in terms of practicality to that which was in use only a few short years ago. This does not mean that the original concept of all out speed has been compromised in any way. Indeed, the rigs in use now are every bit as quick into action as anything that has gone before.

While we are on the subject of speed, we should re-emphasize that these modern rigs do serve some very useful and practical purposes. The outfits now in use are very fast, but they do not sacrifice other important features just for speed. Perhaps if we look at these characteristics in some detail a clearer understanding of the modern speed rig will be possible. Also, a better appreciation of the value of practical combat pistol competition and its role in improving and testing equipment and technique may result.

A bit later we will take a closer look at the speed rig's possible practical application, but first I think it would prove interesting if we delve into the physical characteristics of this piece of equipment.

Probably the most important feature of current design falls within the area of improved security. Most early outfits made no provision for keeping the pistol safely in the leather while the wearer was engaged in any type of strenuous activity.
Old Bianch Cooper rig has the Carl fly-off strap. When released, strap leaves both holster and gun.

Design by Bruce Nelson is a good example of a modern forward rake duty rig for big bore autoloaders.

The Snick is a black plastic break-front design. It is fast, durable, and lightweight with minimum bulk.

...
A slow back roll is one of the standard tests of the International Practical Shooting Confederation to check holster security. The pistol must stay in the holster before shooter is allowed on the line.

is quite stiff, but with a little use it limbers up a bit and soon fits comfortably.

One minimum bulk rig that qualifies as a full race speed holster, and is also quite practical for continuous wear is the "Hackathorn Special" as made by Milt Sparks. This is a high ride forward rake holster that is worn on a stiff waist belt in the appendix position. It also features Milt's friction screw and sight rails.

Among the larger holster companies, both Safariland and Bianchi market versions of the forward rake duty rig. They both utilize the thumb break retaining device, and are good sturdy outfits for the money.

Another essential feature of any good speed rig is the fast grab magazine pouch. This handy little device rides on the gunbelt at the shooter's left side and usually holds two magazines ready for a quick reload. About one third of each magazine is exposed above the leather so that the shooter may easily grasp it with no fumbling or lost motion. A leather tab passes between the two magazines and provides enough tension to keep them in place until they are needed.

In this area the wheelgun shooter has not been neglected. Various types of pouches have been developed to hold the different makes of revolver speed loaders, and most of them offer the potential of speed in reloading approaching that of a well handled autoloader. The only rub is that it will take very dilligent practice to realize this potential.

Another nifty item that deserves mention here really doesn't look like much at first glance. The Snick holster is a homely little black plastic carrier that is now made for most popular autopistols and some revolver models. It is made of "spring" plastic and has a split front, in much the same fashion as the old Berns-Martin design. On drawing from the model the pistol is simply thrust straight forward through the front of the holster in one quick motion.

I've been playing with one for my .45 Commander for some time now, and once you get the hang of it, the Snick is surprisingly quick and effective. The thing that strikes me most is the simplicity of this little holster, it is a no nonsense, no frills, but very practical design. It is also one of the few really quick outfits that is readily concealable, another plus.

WHM Enterprises, (6535 Wilshire Blvd., Los Angeles, CA 90048) the company that manufactures the Snick also markets an unobtrusive single magazine carrier of the same black plastic that fits horizontally on the belt. The magazine rides comfortably and unnoticed in this position. When drawing the spare magazine you pull it forward instead of up to free it from this holder.

As can be gathered from all the foregoing, the evolution of the modern speed rig has been continuing and extensive. But the question still lingers, if this sort of equipment has any practical application aside from the competition grind? I think the answer has to be a definite yes.

As a uniform duty rig for civilian or military police this type of equipment has a lot going for it. The gun rigs described in this article are comfortable, secure, quick into action, sturdy, and adaptable to a wide range of duty situations. As the revolver is slowly and somewhat grudgingly being replaced by the more efficient autoloading pistol in U.S. police circles, so to, will the modern forward rake duty holster gain popularity over the older styles of gun harness.

Ken Hackathorn makes quick reload during a match. Anderson fast grab magazine pouch makes it a snap.
**COP TALK**

**SHOULD WE CHANGE THE PPC?—PART II**

By MASSAD F. AYOOB

LAST ISSUE, we looked at some of the reasons it's fashionable to criticize the Practical Police Course as a meaningless game—and at some arguments in favor of the PPC as a training and practice tool. This month, we'll look at The Guns of the PPC Shooters, and see how they've evolved, and whether, for various reasons, they've gone too far.

When I started in '72, PPC hadn't evolved a whole hell of a lot more than the days in the early sixties when Colt's and the University of Indiana started the whole thing. Guns that won were six-inch Pythons or K-385, usually with the mainsprings lightened and the actions slicked, but otherwise, pretty stock. The same genre of gun is seen today in the Distinguished match, in which a strictly "factory" revolver is supposed to be all that's allowed.

But in the seventies, PPC was becoming a sophisticated science, and three things happened to change the face of the sport: the Douglas Premium barrel, the BoMar rib, and the speedloader.

The Douglas tube, usually an inch in diameter or a little more, works for the same reasons such a barrel increases sporting rifle accuracy: the weight makes balance, hold, and "hang" all far steadier, the superb quality of the custom tube and its rifling often exceeds that of the gun manufacturers; and the rifling can be adjusted for a particular load, in this case, a 148-grain hollowbase wadcutter driven by 2.3 to 3.0 grains of Bullseye. Douglas' 1:10" to 1:14" twist throws a wadcutter truer than the 1:18.75 twist of a standard S&W barrel designed for round-nose service loads.

The BoMar rib added still more steadyling weight, plus a sheer, flat, easy-to-see sight surface. Perhaps most important, it was precision-adjustable to a much finer degree than standard adjustable sights of factory revolvers, and these adjustments and the height of the tall, undercut front...
Post allowed you to crank the rear sight down enough that you could "6 o'clock" the head or neck and drop your bullets into the diaphragm-area X-ring of the silhouette. This gave a precise aiming point at fifty yards, instead of vague area-aiming at the center chest; at that distance, the target rings aren't readily visible to the naked eye.

Finally, speedloaders cut reloading time from ten seconds or so to five or six, less in experienced hands. That left time to hold and slowly squeeze. The pressure was gone. With these advents accepted into the rules, the game had become, as many critics pointed out, "Bullseye target shooting, only double action and a little quicker for different positions."

I'm not too thrilled about the rules that allow these guns. I don't want it to sound like I'm trying to put the many fine PPC-gun builders out of business. I own two superb PPC revolvers, a full-house Ron Power S&W .38 conversion with 1:14" twist Douglas barrel and BoMar sights, and a Moran-customized Python. I need those guns if I'm going to compete against others who are similarly equipped; a stock Military & Police .38 might give me a more "realistic" shooting experience, but it would also lose the match for me before I stepped on the firing line.

Speedloaders? A lot of local match directors ban them on the theory that they're not really practical or acceptable street police equipment. This is something I'd argue with, and though I was one of the strongest opponents of mechanical loading devices in my own local matches, I eventually endorsed them as I saw more street cops going to them. In some parts of the South and Southwest, they're virtually standard equipment for all sixgun packing lawmen. They are eminent practical, and it is no longer realistic to ban them. Even if a cop's department uniform "regs" don't allow him to cam speed-loaders on duty, he can still buy them for less than $5 a piece for the matches; cost is not prohibitive.

Cost does get prohibitive when you talk custom PPC guns. Not counting the price of the basic revolver, you're well over $100 and closer to two or more once you get a complete barrel-and-rib job, plus cylinder tightening, action slicking, etc. I've had many cops come to our shoots as first time competitors who would take one look at the Douglas-barrel guns on the firing line, look pathetically down at their four-inch M&P or Combat Mag that they carried on duty, and turn on their heel and walk away. They couldn't compete against that kind of hardware, and they knew it. We were losing the people we were running the match to help.

This is one reason I've always been in favor of limiting PPC competition to four-inch barrel, stock revolvers, permitting only light customizing. Lots of street cops wear custom grips and have colored

**Performance.**

**Pistol Bullets by Hornady**

The performance you've been looking for from your handgun is as close as your local Hornady dealer. Whether it's law enforcement, hunting, target or general shooting purposes, there's a Hornady handgun bullet that will meet or exceed your performance standards of accuracy, dependability, expansion and stopping power. Now you can select your favorite caliber and weight from 15 different jacketed pistol bullets. Load a box and try them under your own shooting conditions. You'll see why more and more handgunners are choosing Hornady for performance.

**NEW!**

- **9mm cal.** 90 gr. HP
- **38 cal.** 125 gr. FP
- **.45 cal.** 185 gr. HP ACP
- **9mm cal.** 100 gr. FMJ
- **.38 cal.** 125 gr. HP
- **.45 cal.** 185 gr. HP ACP
- **.41 cal.** 210 gr. HP
- **.45 cal.** 185 gr. Target ACP
- **38 cal.** 158 gr. HP
- **.44 cal.** 230 gr. FMJ ACP
- **.45 cal.** 250 gr. Long Colt HP
- **44 cal.** 240 gr. HP

Hornady has 6 great swaged Lead Bullets, too.

106 bullets for handloading. Write for information.

**Hornady Bullets**
P.O. Box 1848, Dept. AH-11 Grand Island, Nebr. 68801
tion was Don Evangelista of Chicago PD, for years had "open revolver" categories to come in third. Don is a superb marksman who used a custom PPC gun to 4" service revolver; I used the BoMar sighted and HKS speedloaders. Guys with standard issue 6" guns. And they didn't. The notable exception was Dick Brown and I, the top two shooters in the force, wear highly customized and super-accurate .45 autos. A much larger city adjacent to us allows the officers to carry anything but the model 10 S&W, and they can't even put grip adapters on them. (Ruins the uniform appearance, you know.) A match under those rules would favor us enormously, and people are surprised that we oppose the change. But we know that nobody is going to come out to shoot against our .45s, and the whole concept of PPC competition as a training aid for the spectrum of police officers would go out the window.

What we did manage to do was get permission from NRA that in our State Championship PPC match, we could restrict the State Resident Champion titles, individual and team, to officers from within the state who fired 4" revolvers without heavy barrels or sight ribs. The turnout in response to that rule change was phenomenal. Dick Brown won the shoot with a 467 out of 1500, posted with a 588 out of 1500, with a WWII surplus, fixed-sight Victory S&W.

Make the PPC more realistic? Make it more inviting to the average cop in the street, the guy it was designed to help in the first place? I think it's a terrific idea, and I think the way to do it would be to limit the guns to factory format, four inch barrels, custom grips and actions optionally; allow sight guards, colored sights, and precision adjustable low profile sights—Ellisons on a Colt and Behlert's on a Smith, but not BoMar or Davis ribs, or Douglas barrels—and permit any kind of leather suitable for duty use. The relatively small number of officers who carry 6" revolvers, or auto pistols, could adapt to this format more easily and cheaply than the vast majority of cops who carry .38s or .357s, and don't have a salary conducive to the several-hundred-dollar custom PPC guns now needed to win.

I'd like to change the PPC. I'd like to make it faster, and I'd like to have more one hand (especially weak hand) shooting. I'd like to change the rule to factory format, four inch barrels, or auto pistols, could adapt to this format more easily and cheaply than the vast majority of cops who carry .38s or .357s, and don't have a salary conducive to the several-hundred-dollar custom PPC guns now needed to win.

I'd like to change the PPC. I'd like to make it faster, and I'd like to have more one hand (especially weak hand) shooting. I'd like to change the rule to factory format, four inch barrels, or auto pistols, could adapt to this format more easily and cheaply than the vast majority of cops who carry .38s or .357s, and don't have a salary conducive to the several-hundred-dollar custom PPC guns now needed to win.

I'd like to change the PPC. I'd like to make it faster, and I'd like to have more one hand (especially weak hand) shooting. I'd like to change the rule to factory format, four inch barrels, or auto pistols, could adapt to this format more easily and cheaply than the vast majority of cops who carry .38s or .357s, and don't have a salary conducive to the several-hundred-dollar custom PPC guns now needed to win.

I'd like to change the PPC. I'd like to make it faster, and I'd like to have more one hand (especially weak hand) shooting. I'd like to change the rule to factory format, four inch barrels, or auto pistols, could adapt to this format more easily and cheaply than the vast majority of cops who carry .38s or .357s, and don't have a salary conducive to the several-hundred-dollar custom PPC guns now needed to win.
Reliability was very nearly as good as with the service load, and while firing of a larger quantity might have shown more malfunctions than were encountered with the service loads, I wouldn't have really expected it.

The only handloads available at the time utilized a 95-grain, round-nose, lead bullet seated to an overall cartridge length of 1.05 inches, and driven at a velocity of approximately 1300 fps. The gun functioned properly with this load, so we would expect it to do the same with any other, lead-bullet load whose bullet shape was chosen to facilitate feeding.

After all points are considered, we find only two criticisms to offer of the BDA. First is the abominable location of the magazine catch at the butt, where two hands are essential to reloading; this simply takes too much time and introduces too much error when the gun must be rapidly reloaded in a combat situation. Our second criticism is simply the price. With state and local taxes thrown in, hardly anyone will be able to walk out of his favorite gun shop with a BDA having spent less than $400. Really, that is one hellava bunch of money for even the most modern service pistol which has been designed to take advantage of the economies offered by the latest developments in parts fabrication that modern technology can give us. I have no doubt that a great many people will gladly pay $400 plus for this gun, but I'm equally certain that a good many of them will matter under their breath and grit their teeth as they do so.

Aside from all that, I personally feel that the BDA cum SIG-Sauer is a most excellent design, one upon which I would not hesitate in the least to stake my life in a shooting situation. I will, however, qualify that by stating that I would invariably choose either the .38 Super or .45 ACP version in preference to the 9mm Parabellum.

**Taking Aim**

**What This Country Needs—**

By CLAUD HAMILTON

A prominent American politician once remarked to the Chief Clerk of the United States Senate that "What this country needs is a good 5¢ cigar." His name was Thomas Riley Marshall, and what prompted his comment I'm sure I'll never know. But, were I in his position, and prompted to make such a remark today, I think I'd say that "What the lawmen of this country really need today is a good .40 caliber pistol!"

As I leaf through each new issue of a "gunzine" these days I know in advance that I stand at least a 50-50 chance of finding at least one article or commentary on "the inadequacy of the .38 Special as a police service cartridge." There's a lot of feeling about this, and it has been building for a lot of years, I guess since soon after the Korean War though I didn't become aware of it until somewhat later on. And yet, after all those years, Smith & Wesson Model 10s and comparable Colts will still fill the holsters of 90% of American lawmen! To understand why, I think it's well to look back at what's happened over about the last two decades.
ACP doesn’t give you all that much added firepower, and it has a peculiar psychological problem. Believe it or not, there are a lot of folks in the civilian community who just do not like to see an officer carrying a pistol that is obviously cocked in his duty holster. Foolish it may be; true it is. That’s the way it was always meant to be carried but no amount of built-in safety and thumb straps seem to make any difference.

So, old revolver men, let’s face it. It’s time we joined the rest of America in the last half of the Twentieth Century—even if some of us have to be dragged kicking and screaming and leaving fingernail scratches on the door frame. This is the age of the double action semi-auto pistol. The revolver is a beautiful, romantic, unforgettable part of the American past... but today it is an anachronism. I don’t crank a fliver to start it anymore. I haven’t driven a car with a stick shift since 1950... why do I seem to have such a time accepting the modern double action pistol? Very simple: the calibers in which they’re available.

I know. For those of you who read the new loading manuals closely, it will come as no surprise that Herter has presently under development a rimless auto pistol version of their “.401 Herter Powermag” cartridge, and I have it on the best of authority that a pistol is being built or modified to handle it. Hopefully, we may know more about that before this year is out. And, for those who are prolific readers, Guns & Ammo for February, 1977, reports upon their in house development of yet another “G & A” wildcat, this time known as the “G & A .40 Magnum”, and modification of a Browning Hi Power pistol to handle it. This number comes in three different loading ranges, thus going the .41 Magnum one better!

Gentlemen, forgive me. What we and American law officers need today is not another Magnum, and the whole idea of different cartridge loadings for “service” and “training” use is entirely wrong in my humble opinion. I’m convinced that these two things: “magnumitis” and multiple loadings did more to kill the chances of the Smith & Wesson Model 58 to make it big than anything else. Many Army officer friends of mine, and I, tried out the Model 58 with an eye to carrying it to Viet Nam in the early 60s if it proved to be superior to the .45 ACP. In those days here near Washington where I live the only ammunition available was the full power magnum load. Without exception, experience...
with it soured us all and I know of no one who bought a Model 58 or took one with him. It was just too unpleasant to shoot, too like the .44 Magnum to tell the difference! If we had had the police load available, the story might have been very different.

No, what American handgunners and law officers in particular need is a short, light, compact and efficient double action pistol with more than usual magazine capacity, which is accurate and neither noisier nor heavier in recoil than the .45 ACP. Preferably both should be less: this because we need a pistol for all the law officers, large and small, to be comfortable with and have confidence in, and one that even the ladies who are entering more and more departments will find it easy to handle well. And, with all this, it must still be about as good a manstopper as the .45 ACP. Sound like a tall order? Not really I think.

Yes, I know. I can see the executives at Smith & Wesson and Remington throwing up their hands now and exclaiming “here comes another nut with an idea . . .!” But wait; I'm not talking about a new gun at all! I'm simply suggesting that the tremendous void between .355 and .451 be filled by a new cartridge of a somewhat unusual type, and I believe that the Smith & Wesson Model 59 pistol is the ideal vehicle for the job. The key, of course, is the new cartridge, since the gun already meets all the criteria above. The cartridge I propose is the “.400 Smith & Wesson Police.”

It is not a magnum. It is a true .400 which fires a very, very blunt nosed jacketed hollow point bullet—I mean really blunt, like a cup point wadcutter. I hope that, loaded properly, it may make or come very close to the “magic formula” for a manstopper—I believe it is Jeff Cooper’s—”.40 calibors—.4 ounce weight—1,000 feet per second.”

From the illustration you will note that the case I propose is quite long for the cartridge—.900 inch, longer even than the .45 ACP. This will require the bullet to be seated deep to meet a maximum overall length of 1.125. It might be allowed to go as high as 1.150 but that would be living dangerously. I have some 9 mm Parabellum magazines for both the Model 39 and the 59 which will load up tight on a certain foreign brand of ammunition which I’ve found mikes’s 1.167! My idea in suggesting this long case is to provide room for growth. I hope that at a future time when Smith & Wesson modifies the Model 59, a way might be found to make the maga-
zine a little deeper front to rear so that a little more of the power potential of the cartridge might be realized.

An unusual feature of the cartridge I propose is the rebated rim and extractor groove. These are exactly the same size as the .9 mm P case. The advantage, of course, is obvious: no change need be made in the breech face of the present Model 59 nor in its slide. (When I originated this idea there were objections that the rebated rim might not extend high enough on the top cartridge in the magazine to insure reliable pick-up and feed. I've done some careful measurement and am sure such would not be the case ... I think feeding would be normal.)

Please don't overlook another special aspect of this cartridge: the blunt bullet. If you'll look closely you should be able to see that the mouth of the jacket is serrated to facilitate mushrooming on impact. I chose this bullet shape because both the results of the recent LEAA study and my own experiments with flesh and bone targets lead me to the conviction that about the best you can expect from modern bullets in the way of expansion in human targets at pistol/revolver velocities is the wadcutter shape. This is true except for the case of the cup point and reversed hollow base wadcutters which seem unique in their performance at handgun velocities. So, it seemed wise to start with the wadcuter shape and, perhaps, sacrifice the accuracy past 25 yards this imposes. Police engagement ranges are usually much shorter than that.

What needs to be done to adapt the Model 59 to this cartridge? I'd be the last one to pretend to tell Smith & Wesson how to build a magnificent autoloader, but the problem does seem simple. While I am sure many small adjustments would have to be made to handle the more powerful cartridge, these seem to be the main points:

First, the barrel would have to be bored to .400 and chambered appropriately. The feed ramp would have to be re-engineered for the blunt cartridge.

Doubling a stronger recoil spring would have to be installed, and a buffer ala Bar Sto would be a nice improvement.

The present magazine lips would have to be opened and reshaped to handle the larger cartridge, and the follower might need some minor reshaping. The magazine, by my calculations, ought to handle between ten and eleven of the rounds I propose. (The Guns and Ammo article cited previously would tend to confirm this estimate.) This gives an eleven or twelve shot pistol which is a good manstopper ... not a bad choice for a lawman at all.

So, Smith & Wesson and Remington, come on you guys! Herter's effort and that of G & A are steps which just prove the feasibility of the idea but they're no substitute for a fine, mass produced police arm, conservative in design and incorporating your standards of reliability and quality for both ammunition and gun. I know that things haven't always gone as we'd like them to in the past, but here is your chance to team up just once more and take the .38 revolvers out of the holsters of Police all over America! This time you'll have a real winner!
THE HANDGUN MARKET

Classified ads 26c per word insertion including name and address. Payable in advance. Minimum ad 10 words. Closing date March/April 1978 issue (on sale February 5) is November 15. Print carefully and mail to THE AMERICAN HANDGUNNER Magazine, 8150 N. Central Park Blvd., Skokie, IL 60076.

BOOKS

NEW PALADIN CATALOG—Comprehensive list of U.S. and foreign books: guns, unusual weapons, knife fighting, guerrilla warfare, explosives, demolition, ordnance, self-defense, technical manuals, field craft, survival, and much, much more. Send $1.00 for fascinating catalog. PALADIN PRESS, Box 13097, Boulder, Colorado 80302.

OUT-OF-PRINT BOOKS ON GUNS, SHOOTING, HUNTING, FEDERAL SERVICE, etc. MELVIN MARCHE, 6204 N. VICTORIA, ORLANDO, FL 32801.

Order these fabulous books from our extensive book club: Art of Engraving by Mack, $19.95; The Book of Colt Engraving by Wilton, $39.95; The Book of Winchester Engraving by Wilton $39.95; Firearmsmithing by Norton, $14.95; No Second Place Winner by Jordan, $4.50; Gunsmith Kinks by Brownell, $9.95; The Book of the Rifle by Oals, $9.95. Allow 50c postage and handling for each book. Cash with order. Allow 4 to 6 weeks for delivery. Order from American Handgunner Classified Books, $1.00 each. For a complete list and postage and handling information, write to:

M. Donaldson, 244 4TH St., Studentsville, Wisconsin 53077.

SURVIVAL/GUERRILLA WARFARE—BOOKS/MAILS: "SURVIVAL" FREEZE DRIED FOODS BY CASE/UNIT/CAMPING PACKAGES. LARGEST CATALOG AVAILABLE, WRITE FOR FREE KEN MALE (AH-FO) EDISON, NEW JERSEY 08644.

STATE PISTOL LAWS, latest pistol carrying, purchasing, etc., regulations for all states and FEDERAL GUN LAWS, by book. 320 PAGES, POLICIES & PRACTICES CATALOG $1.00. Schlesinger, 412 East 52nd St., New York, N.Y. 10022.

Once in a Lifetime Offer from BBI Books, Inc., publishers of the Gun Digest, etc. Four books for the price of two, or less, postpaid United States only. Examples: four 1997 Sears-Roebuck mail order catalogs of guns, $9.95 each, total value $39.80. All four for $15.95, postpaid. Write BOB WRIGHT, Department AG for list today: DBI Books, 540 Frontage Road, Northfield, NJ 07960.

44 MAGNUM HANDGUNNING GUIDE, $2.00; 357 DIGEST, $2.00. Both include hunting, target, and self-defense details. Descriptive Details, etc. J. H. BERK, 8132 Calmont, DPT 128, Fort Worth, Texas 76116.

SURVIVAL WEAPONS PRIORITY REPORT—Covers electric, jet, and atomic, other weapons. Be prepared for the coming crisis! Only $2.50. postpaid. Rainier Books—MC, Box 30753, Seattle, WA 98101.

COLLECTORS

NAZI WAR SOUVENIRS!! Illustrated catalog $10.00 bill refundable). Dax, Box 331-H, Cedarburg, WI 53012.


COLLECTORS—U.S. SHOVEL PATCHES, MEDALS, INSIGNIA. Large list 25$, Quinby, Box 7792-H, Tulsa, OK 74106.

EMBLEM


EMBLEM—SWISS EMBROIDERED TO YOUR DESIGN. Send us your sketch or sample. QUANTITY DESIRED, FREE ESTIMATES. WRITE: W. R. KESSLER, P.O. BOX 243, LANAKING HARBOR, N.J. 07734.

GUNS & AMMUNITION

WANTED BROWNING RESTORATION PISTOLS, MEDALLION & OLYMPIC RIFLES, GRADE V BAR, SIDE PLATING. SEND $1.00 TO NEW LARGE BOX S & W'S 44, 45, 357, MODEL 22 MAG. CONDITION & PRICE 1st LETTER PLEASE. W. R. FLAX, BOX 289, SULPHUR SPRINGS, TX.

GUNS & AMMUNITION

TARGET AIR PISTOLS, World's most accurate Match Air Pistols and Rifles at lowest available prices. Superb quality and accuracy. For indoor or outdoor use. Largest selection: over 100 models and variations. Complete catalog $2.00 (refundable). K. J. David Co., Dept. H, Box 923, Oak Brook, Illinois 60521.

BULLET LUBE, Alox or Lithium base, hollow or solid, satisfaction or refund. 12 oz. bottle of lube-making 20 sticks $10.00 & .90 U.S., Chotse Machine & Tool Co. Box 218 Belding, Ark. 72901.

BUY GUNS WHOLESALE, make money! Obtain a copy of the FEDERAL GUN DIGEST 1977 booklet, all forms $1.00. SURVIVAL—Box 5093-H, Shreveport, LA 71105.

GUN EQUIPMENT

MILITARY MAUSER RIFLES AND PARTS. STAMPED FOR OUR LITERATURE, LICENSES & PRICES. THE CUSTOM GUNSHOP, 725 LEHIGH AVE., UNION, NJ 07083.

RELOADERS! Reloading benches, compact, sturdy, use anywhere. Send address, brochure 25¢, B & G Workshop, ND #1, Berlin, N.D. 57007.

"GUNS, TEAR GAS, HANDCUFFS, POLICE EQUIPMENT" A RUGER OWNERS: Nine Shot .22 automatic pistol (says with or without "SAFETY") STAMPED on left side of pistol frame) $7.50. Oversized walnut grips for Ruger Revolvers, from $1.00 to $15.60. Add $1.00 to order for handling and shipping. Donald M. Person, Box 292, Bethel, CT 06801.

GUNSMITHING

FINEST PISTOLS/MACHINE RIFLES AVAILABLE! SEND $5C FOR OUR LITERATURE, LICENSES & PRICES. THE CUSTOM GUNSHOP, 725 LEHIGH AVE., UNION, NJ 07083.

"Police Combat revolvers built an Smith & Wesson, Schouen Tool 309 13th Avenue West, West Seattle, WA 98103."

RUGER OWNERS! Nine Shot .22 Automatic pistol with free thumb saver—$9.50. Walnut target grips for autos. Return $1.00 to POLICE EQUIPMENT for catalog. Reloading benches compact sturdy, range pass many ballistics and tool mark examiners. Obtain a complete catalog for automatic pistols (says with or without "SAFETY") postpaid. STAMPED on left side of pistol frame) $7.50. Oversized walnut grips for Ruger Revolvers, from $1.00 to $15.60. Add $1.00 to order for handling and shipping. Donald M. Person, Box 292, Bethel, CT 06801.

GUNSMITHING

FINEST PISTOLS/MACHINE RIFLES AVAILABLE! SEND $5C FOR OUR LITERATURE, LICENSES & PRICES. THE CUSTOM GUNSHOP, 725 LEHIGH AVE., UNION, NJ 07083.

"Police Combat revolvers built an Smith & Wesson, Schouen Tool 309 13th Avenue West, West Seattle, WA 98103."

RUGER OWNERS! Nine Shot .22 Automatic pistol with free thumb saver—$9.50. Walnut target grips for autos. Return $1.00 to POLICE EQUIPMENT for catalog. Reloading benches compact sturdy, range pass many ballistics and tool mark examiners. Obtain a complete catalog for automatic pistols (says with or without "SAFETY") postpaid. STAMPED on left side of pistol frame) $7.50. Oversized walnut grips for Ruger Revolvers, from $1.00 to $15.60. Add $1.00 to order for handling and shipping. Donald M. Person, Box 292, Bethel, CT 06801.

1000 Limited Editions Only! Orders processed by postmark!

AMERICAN HANDGUNNER MAGAZINE 8150 N. Central Park -Skokie, IL 60076

Enclosed is my check for copy(ies) of Firearms Investigation, Identification and Evidence each at $22.50 plus 50c postage and handling. Allow six weeks for delivery.

Name

Address

City

State

Zip
The newest and only magazine just for handgunners. Six issues a year each covering the editorial gamut from combat shooting to hunting, self-defense shooting, target shooting, collecting and reloading. Exciting features will be written by the best handgun writers. If you're a handgunner you should be reading THE AMERICAN HANDGUNNER.

Six issues a year full of exciting features
- 72 action packed pages each month
- A must for everyone who owns a handgun

THE AMERICAN HANDGUNNER
8150 North Central Park Ave., Skokie, Illinois 60076

NAME
ADDRESS
CITY STATE ZIP

☐ $7.50 enclosed. Please send me a full year subscription (6 issues) to THE AMERICAN HANDGUNNER
The Convertibles

.22 Long Rifle or .22 Win. Magnum

You’ll have two superb sporting calibers with H&R’s new Model 676 convertibles...Authentic western styling, each is fitted with 2 cylinders, quickly convertible to use either .22 Long Rifle or .22 Win. Magnum cartridges. 6 shot single-action or double-action, side ejector.

Available in a choice of 4½, 5½, 7½ or 12 inch barrels, each Model 676 is handsomely finished with highly polished antique color-cased frame, blue-black cylinders and barrel.

For complete information on all H&R rifles, shotguns and revolvers send $1.00 for new color catalog. Write Dept. AH-1 1-77

Harrington & Richardson, Inc.
Industrial Rowe Gardner, Massachusetts 01440
A high energy powder designed for target and standard velocity service loads for nearly all handgun cartridges.

Duplicates AA 20 ga. factory loads. Exceptional ballistic uniformity in a range of applications from 12 to 20 ga.

Duplicates world famous AA® trap & skeet ammunition. Use for 12 ga. target and light field loads—our most popular shotshell powder.

Exceptional ballistic uniformity in a range of applications from 12 to 20 ga.

Perfect for heavy loads for 12, 16 and 20 ga. A real favorite with 28 ga. shooters.

A very dense powder that makes it a cinch to reload the 410. Duplicates factory ballistics for the .357 magnum, .44 magnum and .30 M1 carbine.

The superior magnum powder that’s ideal for 3-inch cases. For use in 12, 16, 20 and 28 gauges.

A high energy handgun powder suitable for high velocity loads in a wide range of calibers.

Specifically designed for maximum performance in smaller rifle cases such as the .22 Hornet.

Very popular with bench rest shooters. This high accuracy powder has applications from .22 to .45 caliber.

Excellent ballistic uniformity for a wide range of calibers up to and including .375 H&H.

Designed for a wide range of applications including magnum cartridges. Very accurate in cartridges such as the .243.

Ball Powder®, buy the numbers!

We’ve got the right number for nearly every reloading requirement... with the kind of ballistic uniformity, precision metering and clean burning qualities you’ll find in our famous factory loaded ammunition. Find out more about the superior smokeless propellant by writing for the new free Ball Powder Loading Data Book with information on 600 shotshell, rifle and handgun reloads. Winchester-Western, 275 Winchester Avenue, New Haven, CT 06504. Attention: Data Book.

® and TM are trademarks of Olin Corporation