

SAVE \$4.99
13%

PRO'S GUIDE TO BUYING USED GUNS

APRIL 2003

\$3.95
\$5.95
IN CANADA

www.gunsmagazine.com

GUNS
MAGAZINE

GUNS
MAGAZINE

WIN A
Para-Ord
67.45
CARRY OPTION

FINEST IN THE GUNS FIELD

MONTANA'S
BEST-KEPT SECRET?
COOPER RIFLES

PUMPING
UP THE
.223

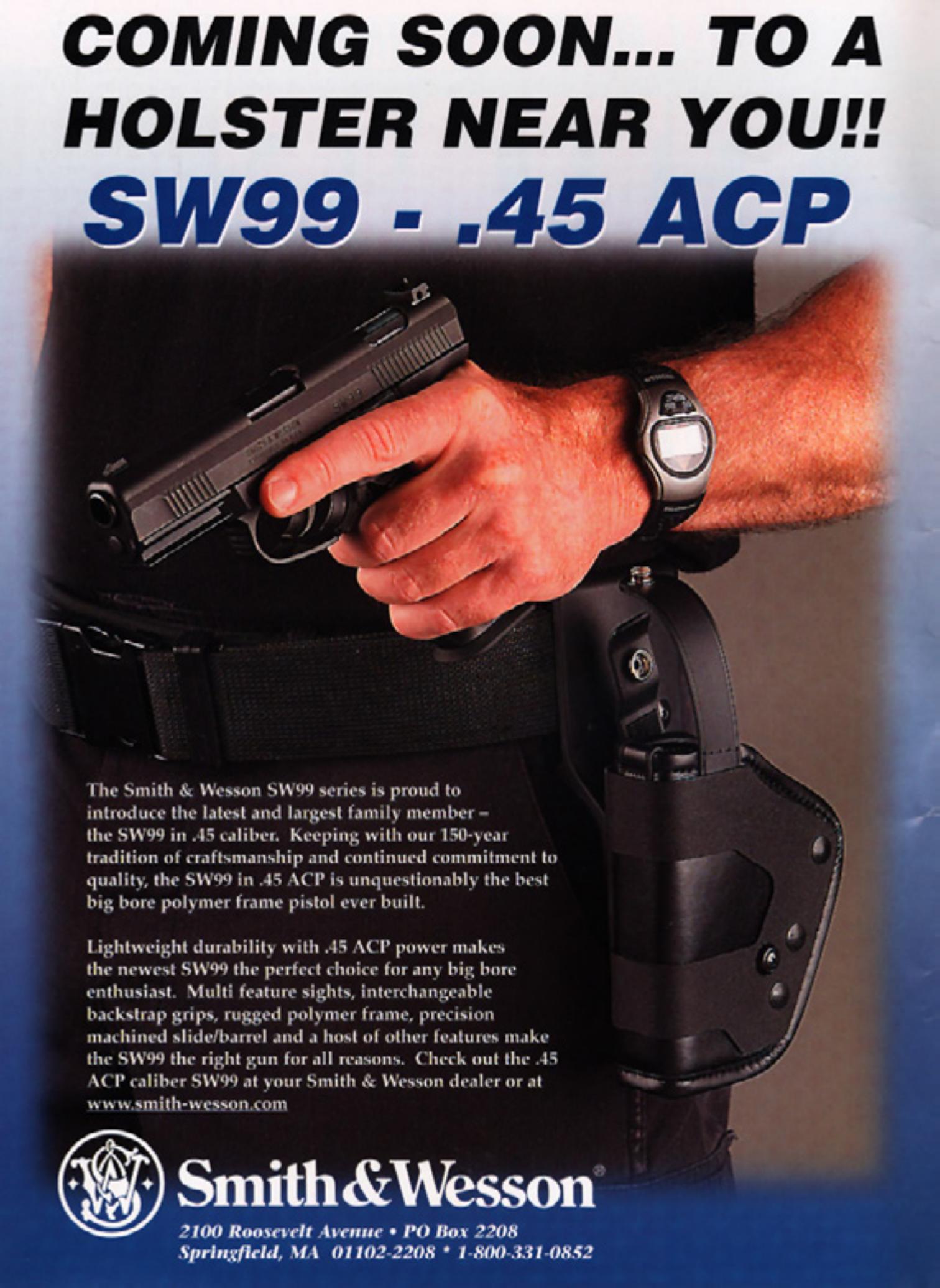
SLEEK EURO DOUBLE:
MERKEL'S
16/20

TAFFIN:
FAVORITE LOADS
FOR THE .35 REM.

SPRING
CATALOG
SHOWCASE



COMING SOON... TO A HOLSTER NEAR YOU!! SW99 - .45 ACP



The Smith & Wesson SW99 series is proud to introduce the latest and largest family member – the SW99 in .45 caliber. Keeping with our 150-year tradition of craftsmanship and continued commitment to quality, the SW99 in .45 ACP is unquestionably the best big bore polymer frame pistol ever built.

Lightweight durability with .45 ACP power makes the newest SW99 the perfect choice for any big bore enthusiast. Multi feature sights, interchangeable backstrap grips, rugged polymer frame, precision machined slide/barrel and a host of other features make the SW99 the right gun for all reasons. Check out the .45 ACP caliber SW99 at your Smith & Wesson dealer or at www.smith-wesson.com



Smith & Wesson

2100 Roosevelt Avenue • PO Box 2208
Springfield, MA 01102-2208 • 1-800-331-0852

Breach to Muzzle...The Most Advanced Gun Care Systems in the World!



Otis Technology, Inc

The Most Advanced Gun Cleaning System on Earth!



MADE IN AMERICA. GUARANTEED FOR LIFE!
The Otis Tactical Kit only \$41.95 US!



CLEANS EVERY GUN FROM .177 AIR PISTOL TO .50 CAL BMG RIFLE AND ALL SHOTGUNS!!
Order online Via Our Retail Gateway Partners!

The Otis Technology Breach-to-Muzzle Cleaning System is widely regarded by experts as the most advanced gun cleaning system in the world. It offers many gun cleaning advancements and refinements developed through Otis Technology's development of products for the military and competitive marksmen and hunters. By cleaning breach to muzzle, dirt and fouling is pulled out the muzzle, not pushed back into the action, gumming the trigger or causing malfunctions in automatics. The patented all-caliber patches not only provide six passes per patch, but form a perfectly circular cleaning plug. Because the slotted tip with the patch is pulled through the chamber, it doesn't compress the patch against the side of the tip or rod. Conventional rods will jam off-center, scraping the rifling in the process and potentially ruining the bore. The 750 lb pull strength of the Otis Memory flex rod allows you to tightly form the patch to the bore, actually cleaning it rather than just moving the dirt around. The tight patch is formed by being pulled through the chamber, compressing in the throat, and cleans the leading edge of the rifling, the edge that actually bears the stress of the rotating bullet. For shotguns, custom soft durometer plugs ("patch savers") force the patch to the full diameter of the bore, cleaning the chamber, forcing cone, bore and choke—all without having to disassemble the gun!

The principle components of the Otis System are so well built that they are warranted for Life! The circular all-caliber patches are made of 100% cotton, and unlike cheap synthetic patches are not dissolved by the bore solvent, turning into plastic gunk left on the rifling. The tight weave of these patches actually pulls metallic copper flake buildup out of the grooves rather than leaving fibers embedded along the bore. The SupraTine brushes

THE STANDARD ISSUE CLEANING SYSTEM WITH THE US MARINE CORP!! IN SERVICE TODAY WITH THE DEA, FBI, AND OVER ONE MILLION HUNTERS & MARKSMEN!



ORDER RIGHT NOW! SEE YOUR LOCAL DEALER OR CALL US!

ORDER ONLINE @ WWW.OTISGUN.COM

CALL NOW TOLL-FREE FOR A FREE CATALOG!

1-800-OTIS-GUN

are custom made with more and finer bristles than lesser brands. The bell-pack cases are made of ballistic nylon, with heavy duty zippers. The Bore Obstruction Removers are designed to avoid deforming a stuck bullet and will gently force it out of the bore with multiple taps from the Memory-flex rod. The Memory flex rod is nylon coated, aircraft-grade cable with compression welded fittings that will support over a quarter ton of pull force!

The Otis Premium Bore Cleanser is one of the most advanced cleaning solutions ever developed. It will clean, penetrate, lubricate and leave a protective coating on all metal surfaces, without damaging the surrounding wood or plastic components. The solid forged brass tips and brushes will not corrode or oxidize like aluminum. Aluminum oxide forms on aluminum rods, and like sandpaper will lap your bore with each pass, often followed by a significant loss of accuracy. It is silly to buy a \$20,000 target rifle and then clean it with inferior components. You can clean your gun with the Otis kit thousands of times without a brass component ever scratching a muzzle crown or bore. Each kit comes with detailed 48 page guide on how to properly clean and care for your firearm. Try the Otis System—it will last for life, and you'll spend more time shooting and less time cleaning!

The Otis Standard Issue M-16/AR-15 Buttstock Kit only \$29.95 US!

NSN # 1005-01-424-2999



ORDER KITS / REPLACEMENTS IN OUR ON-LINE STORE! OR SEE YOUR DEALER GATEWAY! WWW.OTISGUN.COM

**OTIS TECHNOLOGY INC. — ONE OTIS INDUSTRIAL PARK
PO Box 582 — LYONS FALLS NY 13368
(800) OTIS-GUN- (315) 348-4332 FAX**

© 2000 PYRAMONT N.A. FOR OTIS TECHNOLOGY, INC.



FEATURES

40

On The Cover:
Cooper Varminter
By Charles E. Petty
Photo by Ichiro Nagata

22 **More Bang For Your Buck**
BY GLENN BARNES Survival tips for the used gun buyer.

28 **Cast Bullet Primer**
BY ZACHARY FOSTER Here's the basics on a worthwhile skill.

32 **Lassen College**
BY DAVID FORTIER Forging gunsmiths since 1945.

36 **Merkel's Svelte 16/20**
BY HOLT BODINSON Trim and beautiful SxS for the traditionalist.

40 **Romance On The Range**
BY CHARLES PETTY Petty falls for the Cooper Varminter.

46 **Touring Cooper**
BY CHARLES PETTY A look inside Cooper Firearms of Montana.

52 **Loading The .35 Remington**
BY JOHN TAFFIN Levergun loads for one of J.T.'s favorites.

69 **Pumping Up The .223**
BY DAVE ANDERSON An Ackley Improved AR from ISSI.

72 **Gun Of The Month**
Win a sweet carry gun — ParaOrdnance's C7.45 Carry Option.

32



22



36

14

DEPARTMENTS

- 8 **On A Positive Note**
- 10 **Crossfire**
- 12 **Shotgunner** Holt Bodinson
- 14 **Quartermaster** Jim Gardner
- 18 **Handloader** Charles Petty
- 20 **Rifleman** Dave Anderson
- 51 **Handguns** Massad Ayoob
- 76 **New Products**
- 78 **GUNS Classifieds**
- 80 **Advertiser Index**
- 82 **Campfire Tales** John Taffin



69

GUNS

MAGAZINE
THE FINEST IN THE FIREARMS FIELD SINCE 1955

FOUNDING PUBLISHER

George E. von Rosen (1915-2000)

PUBLISHER

Thomas von Rosen

EDITOR Jim Gardner
ed@gunsmagazine.com

ART DIRECTOR Joseph R. Novelozo

ART ASSISTANT Richard Stahlhut

ADVERTISING PRODUCTION Linda Peterson
production@gunsmagazine.com

CONTRIBUTING EDITORS

PHOTOGRAPHY EDITOR Ichiro Nagata

SENIOR FIELD EDITOR Cameron Hopkins

SHOOTING EDITOR Dave Anderson

HANDGUN EDITOR Massad Ayoob

SHOTGUN & HUNTING EDITOR Holt Bodinson

INDUSTRY EDITOR Russ Thurman

HANDLOADING EDITOR Charles E. Petty

PRECISION SHOOTING EDITOR David Fortier

FIELD EDITORS Sam Fadala, Roy Huntington

SPECIAL PROJECTS EDITOR Tom Turpin

CUSTOMER SERVICE

SUBSCRIPTION _____ [619] 819-4537

PRODUCTION _____ [619] 297-8520

CLASSIFIED ADVERTISING _____ [619] 297-6655

EDITORIAL _____ [619] 819-4535

INTERNET _____ www.gunsmagazine.com

(INDICATE MAGAZINE AND DEPARTMENT)

ADVERTISING ACCOUNT EXECUTIVE

Denny Fallon

National Adv. Offices:
591 Camino de la Reina, Suite 200
San Diego, Calif. 92108
[619] 297-8520 FAX: [619] 297-5353
email: denny@gunsmagazine.com

East Coast Adv. Reps.: Buchmayr Associates

Sig Buchmayr

137 Rowayton Ave. #410
Rowayton, Conn. 06853 [203] 855-8834



PRINTING SERVICES: Quebecor World

FILM PRODUCTION: Web-Tech, Inc.

GENERAL COUNSEL: Steele N. Gillaspay

PRODUCED IN THE U.S.A.

WARNING: Firearms are dangerous and if used improperly may cause serious injury or death. Due to the inherent variables in the reloading of ammunition, be sure to verify any published loads with manufacturer's data. Products mentioned or advertised may not be legal in all states or jurisdictions. Obey all firearms laws. Always consult a professional gunsmith when modifying any firearm. Be a safe shooter!

THE BEST

Demand The Best



The 1911 Pistol

The FBI demands the best for their best. They chose Springfield's 1911 pistols for their elite Hostage Rescue Teams. Only Springfield's 1911 exceeds FBI requirements for lifesaving reliability, safety and accuracy.

Four Time World Champion Rob Leatham trusted his Springfield 1911 throughout his "perfect 2002 season," winning every major championship. The best shooters in the world demand the best equipment.

Backed by the best lifetime warranty in the business.

Join the best. Demand Springfield.

The Oldest Name In American Firearms.

SPRINGFIELD ARMORY USA®

www.springfieldarmory.com

1-800-680-6866

To receive the New Springfield 1911 and XD pistol sales video and catalog, please send \$2.95 (DVD) or \$3.95 (VHS) to Springfield, Inc., 420 West Main Street, Geneseo, IL. 61254

ADVANCED DICHOIC COMBAT OPTICS!

ADCO®

THE PREMIER RED-DOT
WEAPON SIGHTING
SYSTEMS FOR MILITARY
AND POLICE!

The World's Fastest Optical
Gunsights utilize parallax free
imposed laser dot technology. Used
with nearly every elite SpecOp's
unit on the planet, Red-Dot
technology is the
fastest target acquisition
system for close
quarter battle. It is also
the first choice for top
level competition shooters.

Available for all long guns and
handguns, ADCO gunsights offer
premium construction with gas filled
tubes, multicoated optics, milled air-
craft aluminum and steel construction.
Our elite line is warrantied for Life!
Designed to handle the recoil of mag-
num revolvers and automatic weapons
fire, ADCO sites have proved themselves
in combat! Available in bead-
blast silver for hunting and com-
petition shooters. See our on-line
catalog or your ADCO Dealer!!

WWW.ADCOSIGHTS.COM

SEE YOUR
ADCO DEALER
OR CALL FOR
A FREE CATALOG!
800-775-3697
NEW DEALERS WELCOME!



ADVANCED DICHOIC COMBAT OPTICS c/o ADCO SALES INC.
4 DRAPER STREET WOBURN, MA 01801 USA 781/935-1799 781/935-1011 FAX

THE WORLD'S FASTEST
OPTICAL
GUNSIGHTS!



OPTICS AS BIG AS THE MASSIVE
47MM E-DOT, WITH ALL
MOUNTING HARDWARE
AND/OR SCOPE
RINGS INCLUDED!



ADCO GUNSIGHTS COME IN A FULL
RANGE OF SIZES WITH RED
OR GREEN LASER DOTS
AND FULLY MULTI-
COATED OPTICS.



ADCO'S VALUE PRICED
COMPOSITE SCOPES
ARE GREAT FOR
SIMUNIONS[®]
AND
PAINTBALL!



©2002 ADCO SALES INC.

Love Those Leverguns!

In the January issue, It was my pleasure to tell you of Winchester's redesign of the Model 94 to remove the egregious crossbolt safety and replace it with a tang mounted thumb safety. I also hinted of another pending announcement from Winchester. Here are a few details...

U.S. Repeating Arms Company, the manufacturer of Winchester firearms, will chamber the splendid Model 9422 for the extremely popular new .17 Hornady Magnum Rimfire cartridge. The resulting rifle is to be designated the Model 9417.

I've had an opportunity to shoot an early sample, and it's a dandy. Externally, there's no significant difference in appearance between the 9417 and the earlier 9422 and 9422M rifles.

As we've come to expect from current Winchester rifles, the stock is of good, straight-grained walnut, and the metal finish is extremely nice. The wrist and forend are nicely checkered, and the receiver is grooved for 3/8-inch rimfire

scope mounts. The test rifle mounted a compact Pentax "Lightseeker" variable, which was a good mate to this lightweight carbine.

Accuracy was good, the report was very modest, and frankly, the 9417 was a lot of fun to hike around with. On jackrabbits, the .17 HMR cartridge was very effective. Well-known outdoor writer Ron Spomer called in a beautiful red fox and proved the .17 was up to this challenge as well.

Look for the Winchester 9417 on your dealer's shelves by mid 2003.

Classic Model 1894

It was also my good fortune to chase white-tails with a prototype of the new Model 94 with top tang safety. Tramping around the harsh, yet beautiful southwest Texas sagebrush, it was easy to picture other generations of hunters, each rightly proud of their Winchester repeaters.

The rifle I carried was different in many small ways from those that have served outdoorsmen for more than a century, but a homesteader or rancher from 1894 would have had no difficulty recognizing or using this 21st century Winchester.

The time worn .30-30 cartridge did just what it always does if used with careful placement, and a beautiful 10-point buck ran only a short distance after the shot. The Winchester Model 94 and the .30-30 W.C.F. cartridge continues to offer a combination of tradition and performance that's easy to appreciate.

Now, without being ungrateful for the positive new developments, how about a proper Model 94 rifle? A 26-inch tapered octagonal barrel, combined with crescent butt and correct rifle-type forend cap should be a winner. Even if the current angle-eject action is retained, this should find a ready market in these days of rampant nostalgia.

A Legend Is Lost

Val Forgett, Sr. — founder of Service Armament Co. and Navy Arms Co. — passed away November 25th, 2001, at the age of 72, after a long battle with the blood disorder MDS.

Forgett, a passionate historian and collector of Civil War arms, pioneered the production of replica firearms. This was a long-held dream, and in fact, Forgett inscribed this as his "goal in life" in his high school yearbook.

He received little support in his endeavor, with most firearm industry principals ridiculing his idea as crazy. Forgett refused to take "no" as an answer, and

eventually found a willing reception in Italy, where Luciano Amadi introduced him to Aldo Uberti.

The rest is history, and today, we have available to us excellent recreations of historic arms from the British Brown Bess musket to the rifles of Christian Sharps and later Winchester repeaters, as well as historic handguns from the Colt Patterson to the SAA. Navy Arms, in the capable hands of Val Forgett III, continues to offer a diverse line of replica arms and accessories.

If you enjoy the use of a replica historic firearm, be it a front stuffer, revolver or levergun, you owe a debt of gratitude to Val Forgett, Sr. He truly changed the landscape of the firearms world.



CAVES ARE DARK, BUSINESS IS GOOD.

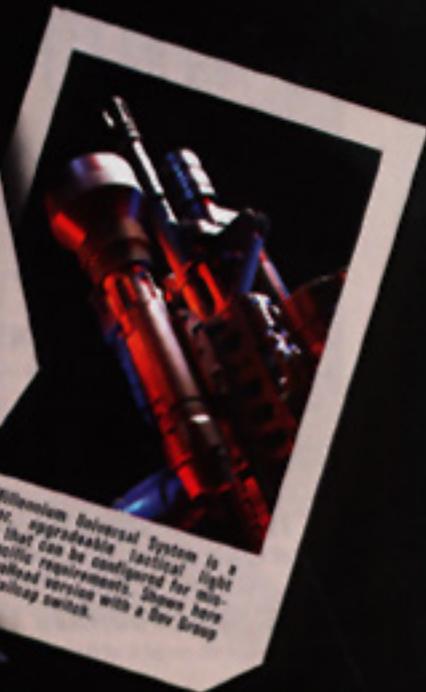
Special Forces operators are using SureFire WeaponLights in Afghanistan to clear the caves and bunkers that Al Qaeda terrorists use to hide. No other flashlight has the rugged construction, shock-isolated lamps and dazzling bright fighting light. All SureFire WeaponLight systems are NVG compatible with IR filters to give the operator total dominance of the darkness.

The Millennium Universal System and the M900 Vertical Grip are SureFire's top-of-the-line fighting lights, designed specifically to mount on the M4A1's Picatinny rail forend. With a multitude of lamp assembly options, switch options and user-upgradeable configurations, the MU System represents the state-of-the-art in fighting lights.

- MilSpec hard anodized finish
- Shock-isolated, recoil-proof lamp assemblies
- Lithium battery powered (10 year shelf life)
- High-pressure super-bright Xenon lamps
- Waterproof, shockproof
- Patented design features
- Combat-proven performance



The M900 Vertical Grip along with an M071C tactical light both attach to a Picatinny rail forend like this S.I.R. System from ARMS. A Surefire L12 visible laser in a front sight mount is the best tactical laser for any M16-family weapon.



The Millennium Universal System is a modular, upgradeable tactical light system that can be configured for mission-specific requirements. Shown here in a carbine version with a Dov Group click-on tailcap switch.



GUNS MAGAZINE
FEBRUARY 2003

CROSSFIRE LETTERS TO GUNS

GUNS MAGAZINE™ welcomes letters to the editor for "Crossfire." Send your letters to:
CROSSFIRE, GUNS Magazine, 591 Camino de la Reina, Suite 200, San Diego, CA 92108. Email: ed@gunsmagazine.com

Letter Of The Month

John Taffin's columns just get better and better. At supper tonight, I was reading his piece on Audie Murphy and it nearly made my eyes wet. That's the second time he's done that to me recently — his column about not judging people by appearances was splendid.

Don't let this man get away.

John Rains
Via e-mail

Reinventing The Wheel?

I read the article "Keckler & Koch's Cutting Edge Compacts," (*GUNS*, February '03) with interest and some amusement. The amusement came from author Cutshaw's contention that the PDW concept is somehow new and high tech.

I submit to you that the M1 Carbine, which dates from 1941, very closely fits the PDW mission requirements and functioning description as set forth in the article.

Gene Gangarosa, Jr.
Palmetto, Fla.

Charles Cutshaw responds:

While it is true that the M1 Carbine was originally intended for rear echelon types, drivers, etc, and fits the role of a PDW, it was not termed as such and was a conventional design.

Please note that I did not state that the concept was new or hi-tech — only the MP7. I am well aware of the intended role of the carbine, which never lived up to its expectations in combat.

Sympathy For J.T.

Poor Mr. Taffin is again behind the times. Reloading for an old lever gun. I love it. While I don't get the chance currently to reload my own cartridges, I do own several old lever-guns. I'll stand up and be counted with the likes of John Taffin any day of the week.

I realize that something must be dreadfully wrong with me because I don't own any of the new wonder magnums, but I believe I'll survive. Keep up the good work and thanks for a great magazine that reports on all aspects of the shooting sports.

Nicholas Smathers
Waynesville, N.C.

Glenn Barnes' praise of the Ruger Bisley (An American Classic — The Ruger Bisley, *GUNS* January '03) is right on the mark. Mine, in .45 Colt, improved with tuned action, a Belt Mountain cylinder pin and an Austin Behlert rear sight, is everything a revolver should be — strong, reliable and accurate.

Barnes is correct that Ruger makes the small-frame Bisley only in .22LR, but that was not always so. My next best Bisley is a .32 Magnum, which was offered for a few years in the '90s. The .32 Mag. cartridge fits the Bisley to a "T", making it the ultimate in small-bore single actions. Used .32 Bisleys are definitely worth looking for in the used gun market.

Glen B. Ruh
Falls Church, Va.

More Praise For The "Thutty-Thutty"

This is in response to John Taffin's article in the January issue of *GUNS* magazine. Throughout my family's ranching history here in Nevada, it was always the .30-30 Winchester that went on the saddle or was hung over the door in the ranch house. But times change I guess.

I just purchased a Winchester 94 about a year and a half ago, and I love the little gun. I reload my rounds with standard Nosler 170-grain Partition bullets, which work really well. But for me, the versatility of this gun comes from the addition of E. Arthur Brown Company sabots, in which I load a Nosler 55-grain Ballistic Tip.

These, of course, cannot be loaded into

the magazine, but this gives me the ability to shoot a very accurate, low cost, moderate-range varmint round. Many people underestimate the .30-30 Winchester or won't admit to owning one, I will... and with pride.

Frank Pettit
Via e-mail

Lest We Forget

Thanks to John Taffin. Indeed, Audie Murphy's war record should never be forgotten. What a pity that it is — among our other heroes — so little noted. I have read that a people who rejects their traditions and heroes is doomed. I hope we only suffer from temporary amnesia.

On a lighter note, Cameron Hopkins' observations regarding flour tortillas and light beer are well spoken!

Ron Habegger
Via e-mail

Sneak Attack

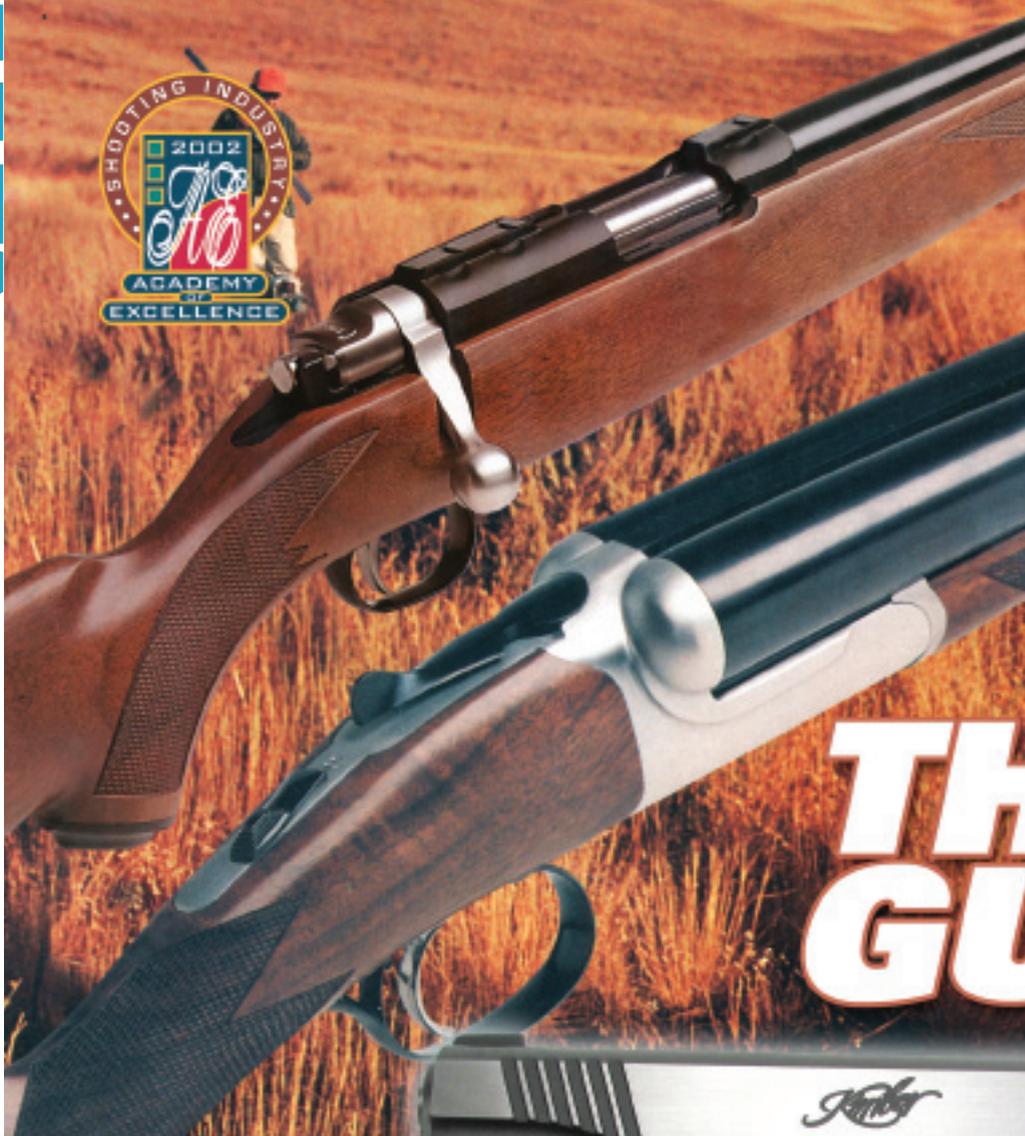
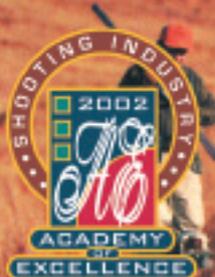
You rascals fooled me! I received my February issue, and noting the camouflaged "operator" on the front cover, I threw it into the magazine rack in disgust. You see, I simply have no interest in all of this "tactical" nonsense. I can understand others may feel differently, but I cannot share their enthusiasm for black plastic.

Later, in a bored funk, I picked up the magazine and thumbed through it. Boy was I wrong! The photos of the Custom Gunsmith's Guild gun were delicious, the excellent review (and great photos) of the Tikka Varminter were right in line with my particular inclinations, and the story on the very rare Pedersen device was a special treat.

Great job of appealing to many different interests, and I hereby swear never again to judge *GUNS* by its cover.

J.R. Roberts
Manhattan, Kan.





*The Industry
Considers
More Than
50 Guns
Selects
Three As
"Best Of
The Year"*

**WIN
THESE
GUNS!**

A TRIO OF EXCELLENCE

It's rare, indeed, to have an opportunity to own one of these three top choices of the Shooting Industry Academy of Excellence. Judged by their peers, Rugers 77/17RM HMR rifle and Gold Label Side-By-Side shotgun and the Kimber Eclipse Series .45 ACP pistol represents the epitome of design and quality in their fields. The fact they were chosen by industry insiders makes the selection even more prestigious.

The new Hornady .17 Magnum Rimfire has swept the shooting world. The ultra-high velocity of this newest magnum translates into flat-shooting fun in the field and on the target range. The .17 HMR takes up where the .22 Magnum leaves off and the field-proven Ruger 77 series is a perfect platform, offering the accuracy and reliability Rugers are famous for.

The aura of the double barrel shotgun is reduced to its essential elements with the Ruger Gold Label Side-By-Side. Virtually an instant classic, this classically styled, distinctly American shotgun kindles visions of pheasant fields and eager pointers. Experts are already calling it "affordable old-world craftsmanship" that you can buy over the counter.

Kimber re-wrote the book on 1911 design. When introduced, Kimber's 1911 pistols rapidly made their name known on the competition circuit and in the self-defense arena. Kimber's manufacturing tolerances account for the performance of their 1911 pistols and the newest — the Eclipse — takes it a step higher with eye-catching features that embrace the technology behind the design.

All in all, this trio would put a final period on anyone's collection.

**Enter
To Win!**



**Activate Your
Entry Today!**

\$17,970 IN PRIZES!
See pages 74-75

To enter, complete the Entry Certificate and return it in the envelope attached. If Certificate is missing write to: Sweepstakes at PO Box 95201, San Diego, CA 92186



SHOTGUNNER BY HOLT BODINSON

The Romance of Lead Shot

Often taken for granted, lead shot is really an intriguing projectile. Lead is a very ancient metal, known as early as 3000 B.C. It's mentioned in the book of Exodus. In my high school chemistry book (texts were more practical in those days), I recall that lead water pipes bearing the insignia of various Emperors were still in use in Rome.

In fact, the chemical symbol for lead, Pb, is derived from the Latin word, *plumbum*. Apparently, the Romans were exceedingly fond of the metal, even crafting eating dishes and drinking vessels from of the malleable element.

There is a theory that the Empire slid down hill as the aristocracy gradually succumbed to lead poisoning, and so to this day we are warned about not handling food or drink after working with lead shot or bullets until we've had a chance to wash up.

Lead is an ideal metal for shot. Given its high density, it delivers maximum striking energy with the least surface area and air resistance.

Cooled thoroughly when it does hit the water below, the rough shot is then dried, sorted for roundness, polished and tumbled in graphite to provide lubricity and to prevent oxidation, and finally sorted by size.

A more modern method, called the Bliemeister method, does away with the expensive-to-build shot tower. In this method, droplets of molten lead actually fall only about an inch into a tank of hot water, roll across an incline plane and then continue falling through hot water for another 3 feet or so. Water temperature is used to control the rate of cooling, and surface tension brings the lead droplets into a spherical form.

Larger shot, like buckshot, is made by the cold heading or swaging process in which calibrated segments of lead wire are fed into a die and then sized into spheres by two hemispherical punches.

Harder Is Better, But...

Not all shot is created equal — equal in hardness that is. The hardness of shot is controlled by the amount of antimony added at the time of manufacture and by plating the shot with nickel or copper. But how do we know how hard the shot in our shotshells is, or how hard it has to be to deliver usable patterns?

I posed those questions to Mike Jordan, recently retired from Winchester Ammunition, where he worked on the development of many of the ammunition types we enjoy today.

Jordan's first observation was that hard shot patterns better than soft shot. Given that fact, here is an approximation of the amount of antimony contained in several of Winchester's shotshell lines:

- *Dove and Quail loads: 0 to 1 percent
- *Super-X Game and Turkey loads: 2 to 4 percent (bigger shot needs less antimony than small)
- *All Target loads: 6 percent (except for 12 and 20 gauge skeet loads that contain 3 percent)
- *Buck Shot: 0 percent (except for law enforcement #4 buck loads that are harder)

Basically, what Winchester has concluded is that softer, cheaper shot is perfectly adequate for close-in bird shooting like dove and quail. Also for 12 and 20 gauge skeet competition where soft shot delivers more open patterns with larger fringe areas. When it comes to longer trap shooting ranges, and to 28 and .410 gauge skeet loads, extra hard 6 percent antimony shot is loaded.

Added Importance

In fact, while we're addressing the smaller gauges, if you hunt with a 28 or .410 gauge, by all means try the extra hard shot target loads if No. 8s or No. 9s will do, or handload extra hard shot.

It's an old rule-of-thumb that larger gauges will pattern better than smaller gauges with the same payloads because of less shot deformation. Shot deformation can be minimized in the 28 and .410 gauges by using extra hard and plated shot.

Yes, there's a lot of history and technology behind those little lead pellets.



The informed shooter will match lead shot hardness to the nature of the target.



Thanks To A Plumber

The modern method of using shot towers to form shot is reported to have occurred in a dream in 1782. The dreamer was a plumber in Bristol, England by the name of William Watts, who, in his dream, visualized rain as perfectly round little spheres. Being a hunter and a plumber who knew his lead, Watts conducted an experiment of pouring molten lead through a sieve from the tower of the St. Mary Redcliffe church. The experiment was a success. Watts sold his invention and reportedly retired a wealthy man.

The first shot tower in America was built in 1808 in Philadelphia. Ranging in height about 100 to 190 feet, shot towers are still an excellent method of making shot up to the size of BBs, but are being replaced by more modern methods.

On the top floors, molten lead is poured continuously through a pan with calibrated holes in the bottom. A mechanical rapper taps the pan so that the molten lead is discharged. As it falls, surface tension forms the droplets into practically perfect spheres, and during the fall, it cools sufficiently so that it is not deformed when it hits the water.



WINCHESTER

A M M U N I T I O N

Winchester Short Magnum Now Goes Super Short!

Introducing the New Winchester Super Short Magnum (WSSM)!

The new Winchester Super Short Magnum (WSSM) - it's the flatter, faster, longer range, harder hitting varmint and thin-skinned game cartridge you've been dreaming about!

The new WSSM is based on a short, fat cartridge geometry with an even shorter action than existing WSM cartridge offerings - approximately 1/2" shorter than the 300 Winchester Short Magnum!

Even better, the new WSSM cartridge design offers

true magnum performance in both 223 and 243 caliber offerings. The 223 WSSM achieves velocity levels that exceed the 22-250 Rem by approximately 200 fps - and the 243 WSSM achieves velocity levels that surpass the 243 Win by approximately 200 fps! Plus, by headspacing off the shoulder, the new WSSM cartridge design promotes exceptional "bench-rest" accuracy.

Go Super Short with the New Winchester WSSM - because great hunts deserve great ammunition!



300 WSM vs. 223 WSSM



WHAT AMERICA SHOOTS



WINCHESTER
AMMUNITION

QUARTERMASTER

BY JIM GARDNER

Alpen Binoculars

Binoculars and spotting scopes generally come in two flavors — very fine quality (read extremely expensive), and bargain priced. Bargain optics can be appealing due to their low sticker price, but usually perform so poorly as to be a very foolish investment. Sometimes though, you find a sleeper.

When Vicky Gardner (no relation), of Alpen Outdoor Corp. offered to loan me a pair of their Model 267, Pro Series, 8x25 compact binoculars, I was skeptical. You see, these retail for less than \$100, and I've found few such bargain binoculars worth using.

The short report is these 8x25s are pretty nice.

Optically, you won't confuse these with Zeiss, but the price tag reflects this. Indeed, these glasses show considerable "pin cushion" distortion at the edges of the field of view. But in the center of the field, where we normally work, these Alpen glasses are surprisingly bright and clear.

The diopter and focus adjustments function smoothly and reliably, and the black housing with dark-green armor panels is just what the hunter ordered. Binoculars see hard use, and I noted the objective lenses are set rather deeply into the housing, offering a good deal of protection. Fold-down rubber eyecups accommodate eyeglass wearers.

At 11.1 ounces, these are just the right weight for stalking. They are furnished with a nice, padded nylon case, and a rather wimpy neck strap.



These may be ordered direct from Alpen's Website, and are currently priced at \$89.95.

FOR MORE INFORMATION CONTACT

Alpen Outdoor Corporation

[909] 987-8370

www.alpenoutdoor.com

The Only .50 BMG Adopted for Service Brings the Same Quality to Competition

M82A1

Since its introduction in 1962, the Barrett M82A1 semi-auto rifle has been embraced by 35 armed forces the world over. The deployment of the M82A1 in Desert Storm built the fame, as Barrett's .50 Caliber semi-auto outperformed expectations and set new standards of accuracy and reliability under fire.

Now you can own the same proven quality and design in Barrett's M82A1 civilian model semi-auto. So whether you're a collector, a sportsman or ready to participate in semi-auto competition, you'll have every advantage that comes with Barrett's experience. Add to that the assurance, like all U.S. adopted models, the M82A1 will retain its value, longevity and popularity. And, when you need them, parts and accessories are available generation after generation.

Full length scope and carry handle rail

Semi-auto short action reduces felt recoil to the operator

Dual chamber muzzle brake, removable for barrel changes



82A1M M82A1 99 99-1

BARRETT

Barrett Firearms Manufacturing, Inc.
P.O. Box 1077, Dept G • Murfreesboro, TN USA 37133-1077
Phone: 615-896-2938 • Fax: 615-896-7313
E-mail: mail@barrettrifles.com • www.barrettrifles.com

QUARTERMASTER

BY JIM GARDNER

Walters' Wads

If you shoot black powder cartridge rifles — as an increasing number of shooters seem to be doing these days — you know a card wad is normally used between bullet and powder. It prevents damage to the base of the bullet, and seems to tighten groups in most loadings.

For years, I've cut my own wads from tablet backing, milk cartons, etc, with a hammer and an assortment of store-bought and shop-made punches. My product was satisfactory, but required a lot of time, and I was not able to cut wads as thick as I would have liked.

My particular bulb glows only dimly, but eventually, I see the light. I was placing an order with Buffalo Arms for other supplies, and at the last moment, ordered 1,000 Walters' Wads.

Eureka! When my package arrived, it contained a tidy zip-lock bag filled to the brim with perfectly uniform, .060-inch thick fiber wads. My wad punches have gathered dust ever since.

John Walters offers these wads in a variety of thicknesses, but the most common choice is .060 inch. The wads are available in an incredible array of diameters to suit everything from .25 caliber rifles to 10-bore shotguns. They're cheap too — 1,000 perfect little wads costs only \$20, plus \$1 per thousand for shipping.

Although he seldom advertises the fact, Walters can also supply pure tin for your bullet casting needs as well as pre-mixed bars of 20:1 and 30:1 lead/tin alloy.



Walters is a devoted single-shot rifle shooter, and a heck of a nice fellow. Do yourself a favor — put those wad punches in your junk drawer and call John Walters. You'll soon see why so many winning black powder shooters use his products.

FOR MORE INFORMATION CONTACT

John Walters
[405] 799-0376
500 N. Avery Drive
Moore, Okla. 73160

There's no concealing the price.

Kydex® Concealment Holsters by Uncle Mike's® Law Enforcement. Just \$19.95.



Left-hand models and thumb break options are also available.



Kydex® has long been the material of choice among custom holster makers. Now Uncle Mike's® Law Enforcement gives you custom quality, custom features and the same Kydex material, all at a fraction of what you'd expect to pay. Choose from a Belt Holster at \$19.95 or a Paddle model at \$22.95 and you'll see

for yourself just why these holsters offer a superior level of concealment and the ultimate in user performance. At these prices, it makes you wonder what some other holster companies are trying to hide. See for yourself. Visit your favorite shooting sports retailer or call today.

UNCLE MIKE'S
LAW ENFORCEMENT™



A DIVISION OF *Michaels* OF OREGON CO.
VISIT OUR WEB SITE OR SEND FOR A FREE CATALOG: UNCLE MIKE'S LAW ENFORCEMENT
P.O. BOX 1690, OREGON CITY, OR 97045 • PH: (503) 855-7964 • FAX: (503) 855-7546 • WWW.UNCLE-MIKES.COM
©2003 MICHAELS OF OREGON CO.



ISO 9001
Michaels
INTERNATIONALLY CERTIFIED

QUARTERMASTER

BY JIM GARDNER

Blue Wonder Gun Cleaner

To be honest, I really don't like to review cleaning products. Not only do most of them work fairly well, once you've reported that: "Boy, I cleaned my rifle with this stuff and it was a lot cleaner than before I started," you're pretty much done.

Sometimes it's the small differences that do cause us to prefer one product over another. For example, each time I apply a liquid bore cleaner to a brush and then race to get it into the chamber before it all drips off, I wish there was a more efficient solution. And there is.

Blue Wonder is a gel, not a liquid. Its consistency is about like dish-washing soap, and once applied to a bore brush or patch, it stays there. This can be really handy. The package is also just about ideal for dropping into your range bag. No more broken bottles of solvent.

There is, they say, no such thing as a free lunch. My first use of Blue Wonder came while cleaning a rather filthy 1911. Blue Wonder did a fine job of cleaning the bore, but I found it slightly less effective than a liquid cleaner for washing off carbon and burned lube. Not that it failed to do the job, it just took a bit more scrubbing than I'm used to.

As another test, I pulled a Steyr SSG, one of my favorite rifles, out of the safe. This is one rifle I scrupulously clean after each use. I used one dry patch to push any oil out of the bore, and then cleaned it with Blue Wonder following the instructions on the package.



To my surprise, the patches emerging from the muzzle were — if not black as sin — considerably stained, showing Blue Wonder had removed copper fouling my previous cleaning had not.

FOR MORE INFORMATION CONTACT

Novum Solutions

[832] 204-0866

www.novumsolutions.com

The only time thunder strikes before lightning.



Retumbo magnum rifle powder, new from Hodgdon®. It means "Echo of Thunder," and that's the kind of power that Retumbo delivers. Retumbo can boost the velocity of large-capacity cartridges like the 300 Rem. Ultra Mag by up to 100 fps over factory loads. For magnum loads that hit harder and strike faster, turn to Retumbo, an Extreme™ powder from Hodgdon.



P.O. Box 2932 • Shawnee Mission, KS 66201
(913) 362-9455 • www.hodgdon.com

BLACKHAWK!

THE WORLD'S FINEST TACTICAL GEAR

WE REMEMBER-9/11/01



TEAM AMERICA!
WE WILL NOT FALTER.
WE WILL NOT FAIL!



Americans have no greater responsibility than the defense of freedom. We stand united with the brave warriors and public safety professionals in fighting this war on terror and owe them the thanks of a grateful nation.

At BlackHawk™ we are proud to make a contribution to this cause by providing the best possible equipment for those who venture in harm's way. To the murderous fanatics who would oppose them, take a look at the picture above. When America's Team comes for you, chances are they'll be wearing our gear. Whether it's our elite military units, the Feds or the local cops, they're gonna find you. To all those brave professionals, we at BlackHawk™ thank you.



© BlackHawk Industries, Inc.

Order on line through your favorite retailer - ask your dealer to become a BlackHawk™ Virtual Dealer today!



See Your Dealer or Call for our Free catalog!

1-800-694-5263

BLACKHAWK INDUSTRIES, INC.
4850 Brookside Court, Norfolk, VA 23502 U.S.A.
(757) 436-3101 (757) 436-3088 FAX

See over 2000 products in our full on-line catalog www.blackhawkindustries.com



BH02



HANDLOADER BY CHARLES E. PETTY

Organizing Your Loading Setup

This is going to be one of those, “do as I say, not as I do” stories, because my loading bench is a disaster area. It is 2½ feet wide and a shade under 6 feet long. Most of the time you’d have to move something to see the wood bench top. But there is a semblance of order and I can almost always find what I want.

Since space is a limiting factor for me, the only things permanently bolted to the bench are two loading tools — currently one progressive press and one turret-style single-stage — and a good light that can be positioned over any part of the bench.

Powder measures and case trimmers are mounted on pieces of plywood and clamped to the bench as needed. One corner has an RCBS base plate that will hold a variety of tools — usually the primer seater.

The digital scale and powder dispenser have proven themselves to be so useful they almost always stay put. There’s a small parts cabinet with tools and spare parts and a rack for shell holders. Everything else is stored out of the way until needed.

Have A Plan

How we organize the actual loading area is important too, because good organization helps avoid mistakes. I’m sure everyone’s loading needs vary, but I load a wide variety of both rifle and handgun ammunition. This is divided into ammo I load for recreational shooting and ammunition I prepare for my work.

The recreational ammo is usually limited to: .32-20, .38 Special, .38-40, .44 Special, .44-40 and .45 Colt. For those I have pretty standard loads and simply

crank out a bunch on the progressive when the inventory gets low. My other relatively high volume loading is for varmint or benchrest rifles such as the .221 Fireball, .22 BR, .223 Remington and 6mm PPC. These are done on the single-stage in quantities that rarely reach 100 rounds.

Loading for work involves both rifle and handgun ammo but usually in small quantities... three or five round batches for initial rifle work-ups, and five to ten round batches for handgun stuff. Very often, I’ll just make up a quantity of sized and primed cases using the progressive press, and complete the loading on the single-stage as needed.

Powder measuring for the handgun, benchrest or varmint ammo is done straight from the powder measure, but almost every other rifle charge is thrown to a set weight by the PACT automatic powder dispenser.

Give Some Thought To This

One of the problems in loading is how to handle brass. We are told that brass should be kept together by lot and I guess for the most particular rifle uses this is good, but as a practical matter — especially with handgun cases — they almost always get mixed up anyhow. For the most part this is really harmless unless you’re going for the hottest loads in magnum cartridges.

In that situation it’s wise to keep brass together at least by maker and the number of firings. During its life the cartridge case gets pretty badly beaten up. Repeated stretching and sizing fatigues the brass to the point where it will eventually split, but I restrict things a little more. If we’re really talking about flat-out magnum loads, not only do I keep the cases segregated, I’ll only load them two or three times with the hot stuff and then relegate the surviving cases to moderate loads.

There is another good reason to keep revolver brass in groups that have the same number of firings. It is rarely necessary to trim *any* handgun case, but the length does change. For pistols this is hardly ever a concern but for revolver cartridges that depend upon a good roll crimp for proper performance it can be an issue.

We adjust a seat/crimp die with one case and as long as the others are close to the same length everything is okay, but a variation of five or ten thousandths in length can have a noticeable effect on the crimp.

With cowboy-class loads this probably doesn’t matter much, but it can become an issue for magnum level loads. One of the factors that determines how a powder burns is called bullet pull. Especially with magnum loads there needs to be resistance to the bullet’s initial movement to allow pressure to build enough to ensure complete burning.

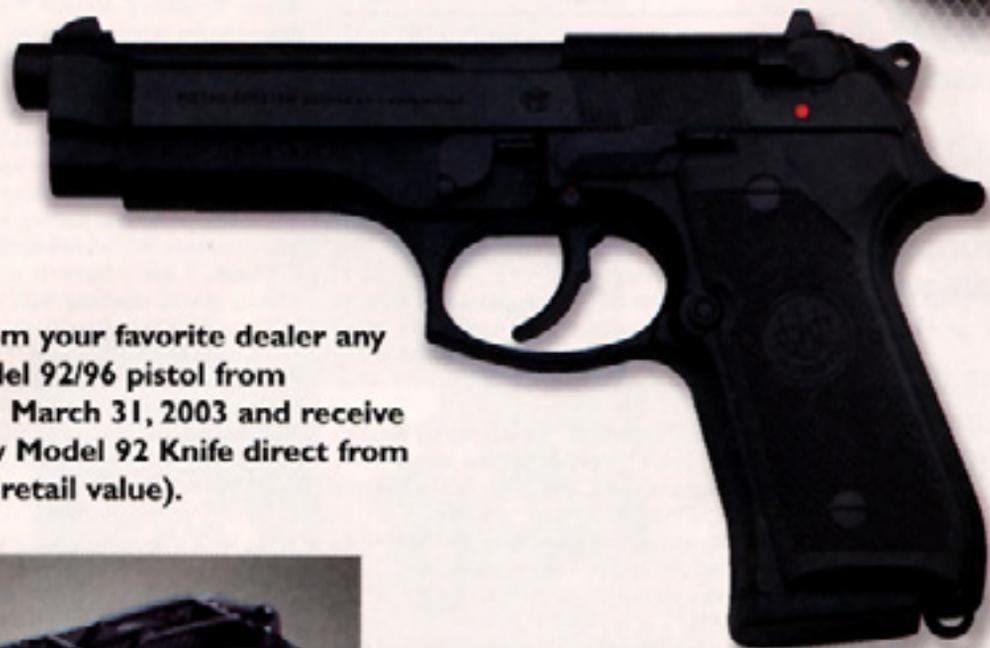
If we keep the brass together in groups that have the same amount of use, the effect on crimp is minimized. For me, that’s a whole lot easier than trimming cases.

Sometimes it’s best to seek professional help. The Website of the National Reloading Manufacturers Association (www.reload-nrma.com) features plans for the best loading bench ever and lots of other helpful material.



PURCHASE A BERETTA MODEL 92/96 PISTOL & RECEIVE FREE A MODEL 92 KNIFE

FOR A LIMITED TIME



Purchase from your favorite dealer any Beretta model 92/96 pistol from January 15 – March 31, 2003 and receive FREE* a new Model 92 Knife direct from Beretta (\$99 retail value).



BERETTA 92/96 PISTOL

The ultimate pistols: not an official title, but one which perfectly describes the legendary Beretta 92 & 96 Series. Selected by a multi-national roster of defense and law enforcement organizations (including the U.S. military), these pistols are proven both in the factory and - more importantly - in the field.

Rugged, reliable and, above all, safe, these are special handguns for special tasks - tested and retested for quality control, high performance and reliability to meet the exacting requirements of its users.

*Plus \$4.95 shipping and handling.

BERETTA MODEL 92 KNIFE:

The Model 92 knife utilizes the styling of one of the most famous handguns in the World, the Beretta Model 92. It not only looks like a 92, it performs like the famous firearm.

One-hand operation, AUS B steel, liner lock. Blade is stamped with the same markings as an actual 92.

 **BERETTA**

For a Beretta Catalog call 1.800.528.7453 (X1 5442).
Beretta pistols include a cable lock. Additional locks
available free (\$4 check or money order for \$84) from:
Beretta USA Corp., 71 Southgate Blvd.,
New Castle DE 19758-3000.



FREE BERETTA MODEL 92 KNIFE

- Purchase between January 15 - March 31, 2003
- Redemption no later than April 30, 2003

Name: _____ PRINT CLEARLY

Address (No P.O. Box): _____

City: _____

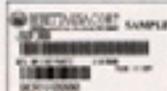
State: _____ Zip Code: _____

Daytime Phone: _____

Email Address: _____

(for future Beretta information)

1. Serial # _____
2. Store name _____
3. Model # _____



rebate does not apply to previous purchases or used guns. Offer void where prohibited. Allow 4-6 weeks for delivery of knife. Beretta and dealers, distributors, employees and sales representatives are not eligible for this offer. Valid only in U.S.A.

Please include these items with this form:

1. Original dated sales receipt
2. Box label showing UPC Code (shown above)
3. A copy of Federal Form 4473
4. \$4.95 for shipping and handling

Mail To:
Beretta Model 92 Knife Offer
P.O. Box 4297
Ridgely, MD 21684

FOR REBATE INFORMATION CALL 800.717.3488,
MONDAY-FRIDAY 8:30-4:00 PM EST.



RIFLEMAN BY DAVE ANDERSON

Reloading Safety

“We always start at the maximum load and work up from there.”

Last fall I was browsing the reloading section of my favorite gun store and fell into conversation with a young fellow who was looking at a Redding Pro-Pak kit. He wanted to know if Redding made good equipment, and if the RCBS .25-'06 Rem. dies he already had would work with the kit. I assured him Redding equipment was outstanding in quality, and that his RCBS dies and shellholder were compatible.

I was curious about the fact he already owned dies but no other loading equipment. He explained that for a couple of years he'd been using a friend's reloading tools, but his friend was moving to another city. I asked how he liked his .25-'06.

“Great caliber!” he replied. “I use it mainly for coyotes. It really flattens them. My pal has one too. We worked up a special load that goes 4,200 feet per second.”

I'd been idly examining some items on the shelves as he talked, but this snapped me to attention.

“Are you sure you don't mean 3,200 fps?”

“Nope, 4,200.”

“With what weight bullet, 30 grains?” I asked half jokingly.

“No, 75 grains.”

Now I don't memorize all the loading manuals, but I've used the .25-'06 for many years and have a pretty good idea what it will do. I also realize most people

have more faith in the written word than in testimonial evidence. Fortunately, there was a stack of the new *Barnes Reloading Manual No. 3* on the shelves. I flipped to the appropriate page.

“See here? The highest velocity Barnes shows with 75-grain bullets is 3,667 fps. Most of their maximum loads are right around 3,600 fps.”

“Oh, those manuals. They're always way below maximum so they won't get sued. We always start at the maximum load and work up from there.”

I could see he was starting to regard me as a hopelessly cautious old fud so I tried to speak calmly.

“Look, I don't know if it's possible to get the velocity you're claiming with any powder. But your pressures have to be through the roof. You're lucky you haven't already blown a case.”

By now he was getting impatient. “Well sure, it's a hot load. After each shot we have to pound the bolt open, and usually the primer falls out when the case is ejected. So we only use new cases and throw them away after one shot.”

Handloading Myths

I wouldn't blame you for thinking I made this all up, but I swear the conversation was about as described and the velocity figures accurate. My advice to the fellow was to buy a loading manual (or several), ignore the load data for now and study the wealth of information on safe loading practices.

Myth No. 1: Manuals show maximum loads well below the “real” maximum: Not at all. They simply report the results achieved with a specific combination of components in their test rifles, within accepted industry pressure standards. On more than one occasion, I've found that the maximum load for my rifle is lower than the maximum shown in manuals.

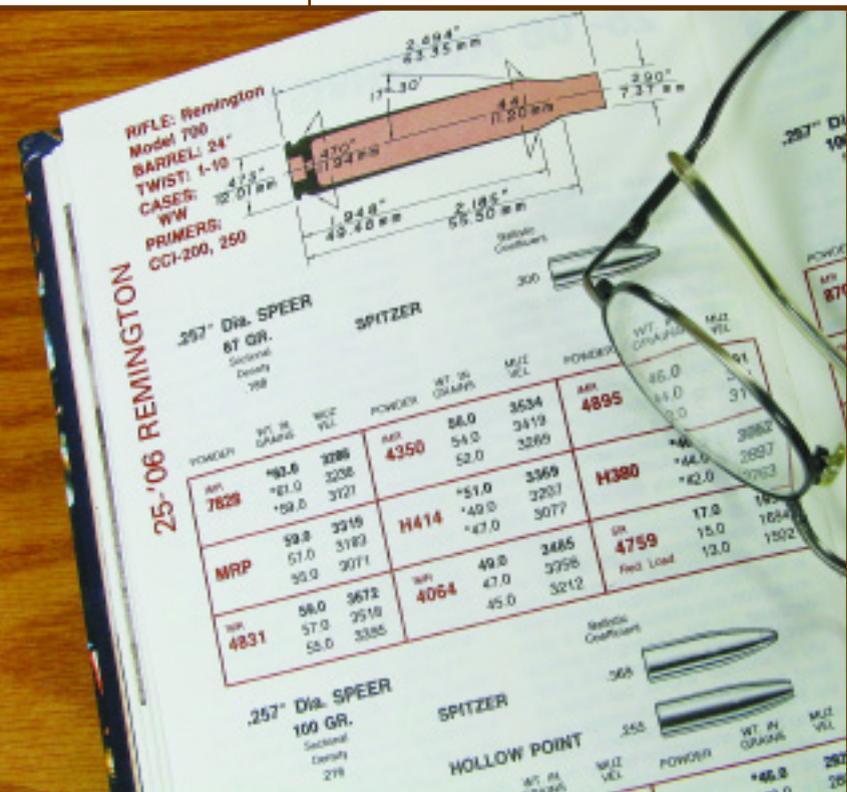
It's true that some loads are lower than in manuals of 30 years ago, but that is a result of much more sophisticated and accurate pressure testing equipment currently available.

Myth No. 2: Modern rifles are so strong you can't blow them up: We've had adequately strong rifles for over a century. Modern cartridge brass is superb in quality but obviously is less strong than the steel of the action. Rifles seldom actually “blow up” in the sense that the locking system or materials fail. Instead, the case fails and the rifle has to control and vent escaping high pressure gases away from the shooter.

With good luck the shooter will survive with only a wrecked rifle and wet pants. With bad luck the shooter or a bystander can be blinded or killed.

Myth No. 3: I need that last 100 fps muzzle velocity: What you need for hunting is ammunition that feeds and chambers smoothly, provides safe pressures over a wide temperature range, and extracts and ejects effortlessly.

No game animal in the world will know the difference between 3,000 and 3,100 fps. If you really must have a bit more velocity, go to a bigger case or a longer barrel.



The TV Network you've waited your whole life for . . . is Here!

*Here's a sample of our
television show line up -*

American Outdoorsman

ATV Television

Babe Winkelman's Outdoor Secrets

Chevy Sportsman

Eastman's Hunting Journal

Gone Huntin'

Hunters Journal

Hunting Across America

Hunting the Country

Joe Bucher Outdoors

Midwest Outdoor Magazine

Northwest Hunter

O'Neill Outside

Outdoor America

Outdoor Traditions

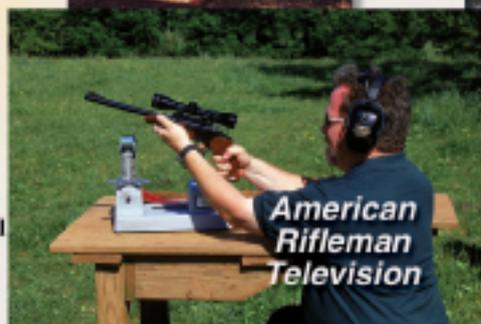
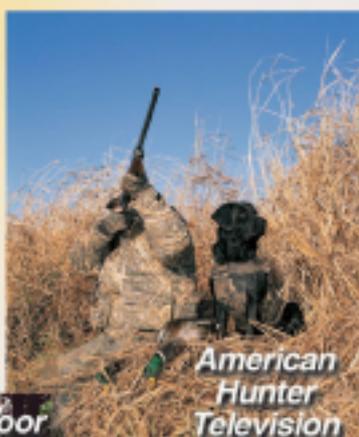
Red Hawk Outdoors

Safari Hunters Journal

Texas Trophy Hunters

Wild Outdoors

Woods N' Water



www.outdoorchannel.com

The Outdoor Channel
gives you the
real outdoors,
all day, every day.

Experience authentic
outdoor traditions-
like hunting, fishing,
shooting and more.
And you'll see it
raw and unfiltered,
the way the outdoors
was meant to be.

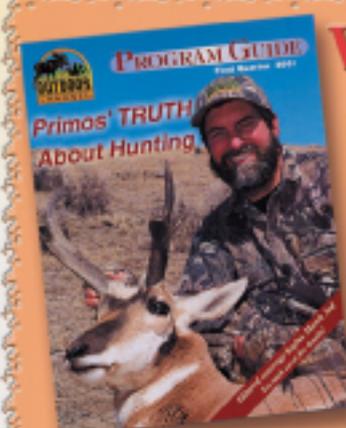
Call your
cable operator
today and
ask for it!

Now Available
Nationwide on



DIRECTV

See your local
DIRECTV retailer
or call
1-800-DIRECTV



WHAT?! You don't get the
REAL Outdoor Channel?

Get a FREE 16 page full color program guide

& info on how to get it on your TV

Call 1-800-236-1859 or via the web at

www.outdoorchannel.com/freeguide

MORE BANG FOR YOUR BUCK

SURVIVAL TIPS FOR BUYING USED GUNS

BY GLENN BARNES

Shopping for a used firearm can be compared to looking for a pre-owned vehicle. There are good ones waiting for the knowledgeable consumer, and bad ones destined for the unwary. The secret to being satisfied with your purchase is learning the difference between the good, the bad, and yes, the ugly.

In the first of this three-part series on buying used guns we'll learn what to look for when considering the purchase of a pre-owned semiautomatic handgun. Part two will deal with the intricacies and special needs of the revolver shopper, and part three will cover the many aspects pertinent to buying a long gun.

Why Buy Used?

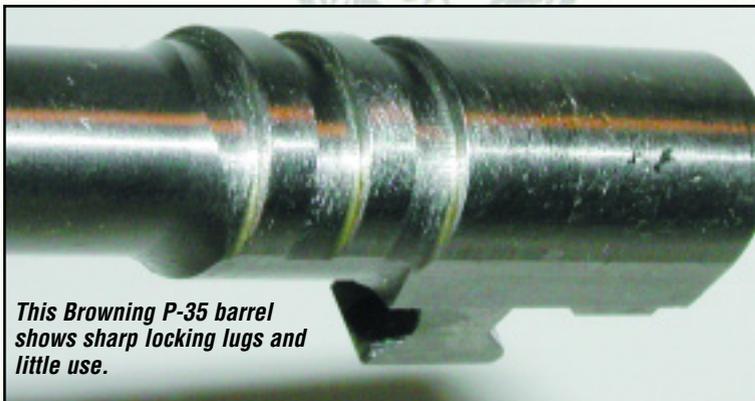
There are many reasons to choose a used auto versus a new one. The most popular is of course the money we save. Over-stretched budgets and non-understanding spouses will also appreciate this bit of wise logic.

Maybe your interest lies in handguns no longer manufactured. Many of us love those classy old pocket autos produced by Colt, Remington, and Savage. These handguns are still around in large numbers and may often be had at a reasonable price, but the only place to find them is on the used gun market.

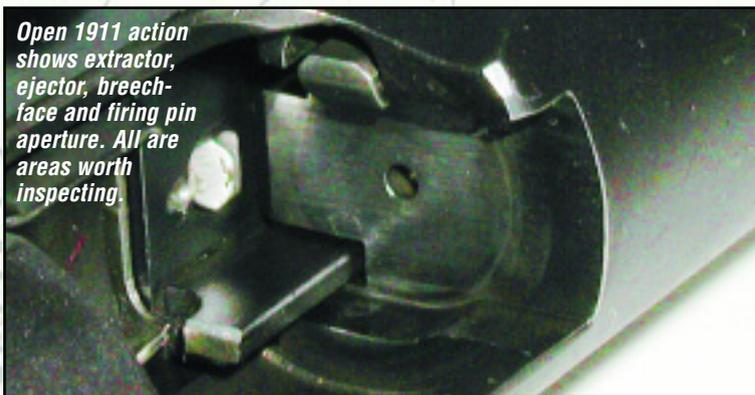
Do you collect or shoot say, German military handguns? Newly manufactured Lugers and P-38s are a thing of the past. Still want one? You can find them by haunting the used handgun counter at your local gun shop, or most any decent gun show.

Twenty some years standing behind the gun shop counter will teach you a thing or two about what to look for when buying used handguns. Mistakes directly affected my profits, so I tried hard to avoid them. For the most part, I did. Armed with the simple tips we will discuss, you too can be assured of avoiding costly mistakes, and in the process, wind up with a bargain instead of a burden.

You've decided you're in the market for a used semiautomatic pistol. You waltz into your favorite gun shop to look around. In the last handgun counter, partially hidden



This Browning P-35 barrel shows sharp locking lugs and little use.



Open 1911 action shows extractor, ejector, breech-face and firing pin aperture. All are areas worth inspecting.



Use of a dummy cartridge can prove proper feeding, extraction and ejection right in the store.



Sure, it's priced right, but is it really a bargain? A few minutes inspection will tell you if it's treasure or trash.

under an array of accessories, lies what you have in mind — a commercial Colt 1911. You ask the clerk to hand it to you for inspection. The observations you make now, and the questions you ask, will determine the success or failure of your venture.

First Impressions

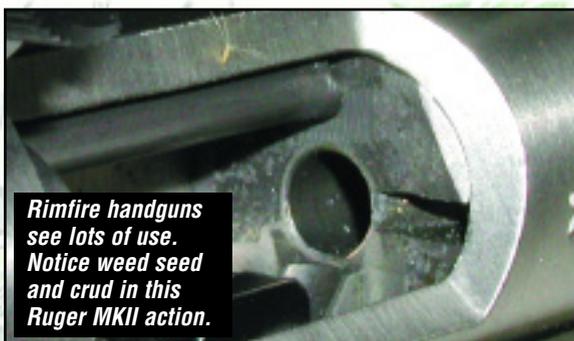
Just like people, that first impression means a lot, and is usually a lasting one. Holding the pistol in your hand, turn it over several times. How does the exterior look? Are there any serious dings or scratches in the metal? Has it been re-finished? Check for the tell-tale effects of corrosion and pitting.

Does it show signs of holster wear? Are the stocks damaged or cracked? What about the sights? Are they bent and out of shape? Do the screws show evidence of abuse through the use of ill-fitting screwdrivers? Keep these things in mind when you first examine the handgun. It will tell you quite a bit about the gun and its former keeper.

At first impression, this one looks pretty good on the outside. One small ding on the slide, a couple of minor scratches and a pretty bad dent on the rear sight, along with minor holster wear. The front sight is straight. The grip screws are in rough shape, which is not uncommon on these guns. The clerk said it has not been refinished. He's a nice guy; you've dealt with him before and trust him.



Ejector of Browning P-35. See that line? Is it a crack or only a surface flaw? Be sure before you buy.



Rimfire handguns see lots of use. Notice weed seed and crud in this Ruger MKII action.



Fieldstripping is essential when inspecting a used autopistol. (Inset): The old pencil trick will proof out the ignition system.



A bore light is a good tool to take when shopping.

Reading Bumps And Bruises

Let's delve a little deeper into your first impression and translate what you see into basic bottom line English. Dings can only mean one of two things. Either the handgun was dropped, or something was dropped on it.

Handguns are capable of withstanding a certain amount of abuse and still function properly. You shouldn't be too concerned with a few minor dings unless, of course, they interfere with the function of the handgun. We want a shooter, not a collector's piece. A few minor scratches doesn't hurt anything either.

We are not concerned with the minor holster wear. Holster wear adds character and does not affect the functionality of the handgun. Don't worry about those bugged grip screws; they can be replaced for next to nothing.

Your salesman said this has not been refinished. If you

can't tell yourself, trust him. He really does want you to be happy with your purchase. Refinishing a handgun does not hurt anything other than its value. It does make you wonder if something is being covered up. Keep this in mind as you inspect further.

Often you'll encounter used autos that sport little or no factory finish. The effects of holster wear have taken their toll. The price is often low enough to entice you to purchase it and maybe have it professionally refinished. This move seldom pays off. The cost of refinishing a handgun usually starts around \$150, and adds nothing to the value of your handgun. In fact, it will ruin any potential collectors' value the pistol may possess.

This 1911 appears to be just what you had in mind. You can live with the few cosmetic defects. But before you reach for your wallet, let's check out a few more important details.

The Old Pencil Trick

Will the handgun actually fire? Short of a trip to the range to see for yourself, you don't know. Most gun shops will guarantee the handgun's functionality, but if it doesn't work, you still have to carry it back, which costs you time, not to mention the aggravation. A quick and easy way to check the firing pin and mainspring (with the store-keeper's permission) is to drop a pencil down the barrel, cock the hammer and pull the trigger.

This is also a great time to check the safety functions. If you're not sure where they are located, by all means have the clerk show you. If all is in order, when you pull the trigger, the pencil should sail from the barrel. If not, you know there is a potential problem. Maybe there's no firing pin, maybe it's broken, or perhaps the mainspring is weak.

Will your handgun extract cartridges from the chamber? There's only one way to find out. Most shops have a few snap caps, dummy rounds or fired cases lying around; insert one into the chamber. Pull the slide back briskly, and the dummy round should extract easily, the ejector sending the round flying. Repeat this process several times to insure everything is in order.

Getting Below The Skin

We've given this candidate a good external inspection, but there's more to check. Ask the clerk if it's all right to field strip the pistol. If you are not sure how to do this yourself, kindly ask the salesman to perform this chore for you. Usually they will be happy to comply.

Glance down the barrel to check for bulges or pitting. A bulge is easy to spot even by the most inexperienced eye. It reveals itself as a ring on the inside, and if it's a bad one, you can actually feel it as you run your fingers along the exterior of the barrel. Don't over look this important inspection.

While you're looking down the barrel, make sure it has a nice clean bore. By clean, I mean not worn out. The lands and grooves should be in good shape; the inside should not be gray or murky; it should be nice and bright. That's what you want.

The muzzle crown is a particularly crucial area. Make absolutely certain it has no dings, dents, or heavy scratches. If every thing else on the pistol looks good, and the crown is damaged in any way, pass on the weapon and find something else, or figure in the cost to have a gunsmith re-cut it. A nice smooth crown is a must for good accuracy.

Tell-Tale Wear

Let's look at the inside of the slide. What you're checking for now is excessive wear and cracks. A small pocket magnifying glass might come in handy for this. I use one regularly. Expect to see some normal wear and tear, after all, it is a used pistol. Excessive wear generally means the gun has been shot a whole lot, probably thousands and thousands of rounds.

It could also mean it has digested countless rounds of ammunition loaded to extreme pressures. If you're interested in a shooter, you should avoid a handgun that shows excessive wear. Cracks in the slide are obviously something to avoid so examine carefully.

Using your magnifying glass, look at the breech-face and the firing pin hole. The surface of the breech-face should be nice and smooth. I've examined some that exhibited roughness and tool-marks, which is a sure sign of sub-standard workmanship. The firing pin hole should be round and free from burrs. So far, this pistol is shaping up to be a keeper.

Let's turn our attention to the frame. There is no two ways about it; frames take a beating. Modern steels and alloys help alleviate the wear to some degree, but it still pays to examine closely. A proper slide to frame fit helps enormously to reduce excessive wear. Examine the frame rails. They should be free of marks or gouges, exhibit minimal wear, and the slide should ride smoothly across the rails with no resistance.

Don't Sweat The Small Stuff

Should you check out the springs? This may sound a little crazy to you, but springs in a used handgun are not that important to me. Why? The first thing I do is replace them with a new set. Springs wear and should be changed every 3,000 rounds to insure proper functioning. You have no way of knowing if they have ever been changed, so it makes sense to start out with a fresh set.

After assembling the pistol, cycle the action a few times to make sure everything is correct. Check the safety functions making sure they work properly. Examine the magazine carefully. There should be no dents in the body and the feed lips should show no cracks or damage. If any of these are evident, discard the magazine and buy a new one.

Your "new to you," pistol, checked out fine. One last thing you need to ask the salesman about before you lay down your hard-earned cash is the warranty. As mentioned earlier, most shops will guarantee the firearm's functionality, but what happens if any hidden problems arise? How is he going to take care of you and the problem? Obtain clear and precise answers and if they satisfy you, buy the pistol.

Later, at the range, this pistol shot and functioned perfectly. It proved to be a real keeper. You're happy and you should be. You're homework and knowledge of what to

New version

**MODERN RELOADING
SECOND EDITION
BY RICHARD LEE**

The Second Edition of MODERN RELOADING is a summary of a lifetime of experience. No matter how knowledgeable you are, you will find new and interesting information in this book. It's a reference book you will keep forever.

OVER 26,000 LOADS in a new format, with velocities for starting loads. This the best kind of load data—it is supplied by the powder companies

LATEST INFORMATION ON PRESSURE

NEW, EASY WAY to precisely measure strength and hardness of cast bullets

EXCLUSIVE PRESSURE AND VELOCITY factors enable you to accurately calculate pressure and velocity for reduced loads. An absolute necessity for cast bullet shooting

A NEVER BEFORE PUBLISHED, in depth analyses of current load data. It gives you an insight into the effects of reducing or increasing a charge

EASY TO USE cast bullet strength chart shows maximum chamber pressures for cast bullets

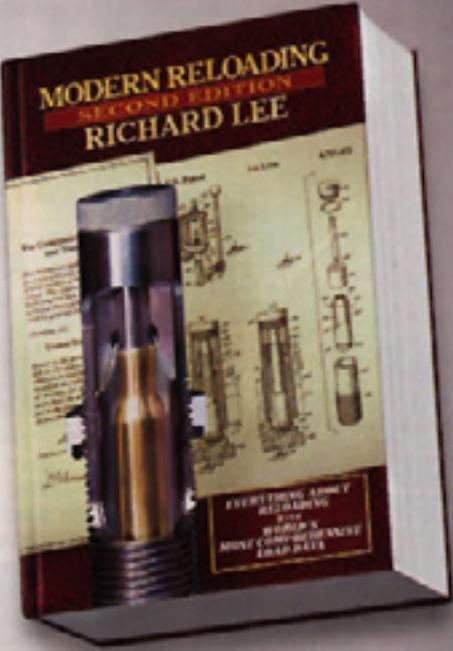
HUNDREDS OF CAST BULLET LOADS, many charts and important rules about priming

World's most comprehensive load data

LEE

Send \$1 for your 22-page catalog full of reloading bargains!
www.leeprecision.com LEE PRECISION, INC. DEPT 203 4275 HIGHWAY U HARTFORD WI 53027

29⁹⁸ 90277



Light, Tight and Out of Sight

- Holds tight to ankle
- Lightweight for total comfort
- Design eliminates rocking motion
- Models to fit most semi-autos and revolvers

Available through dealers nationwide or order direct

Style 062
Retail Price
\$38.99

DeSantis Gunhide
Dept. GM-43
149 Denton Avenue
New Hyde Park, NY 11040
(516) 354-8000

www.desantisholster.com



Over-All-Length-Gauges equal Precision Reloading/Accuracy...

Improved accuracy ... ABSOLUTELY.
 Easy to use... just regulate the bullet seating depth to achieve correct "bullet jump", cutting your groups by up to half. Stoney Point's **CYBERBALL LENGTH GAUGE (CAL)**™ is the most precise method of regulating the amount of clearance between the bullet ogive and rifling... accurate to .001. The **O.A.L. GAUGE** works with any bullet and it available in all popular calibers. For more information... Write, call or FAX. Catalog \$2.00

Stoney Point Products, Inc.
 Where Innovation, quality and value meet.
 P.O. Box 234 • New Ulm, MN 56073
 (507) 854-3368 • Fax: (507) 854-7256
 www.stoneypoint.com



adjustable **BORE GUIDES**, **STEADY STIX**® II, **SAFARI STIX**™, and **"POLE-CAT"**™ **TELESCOPING BIPEDS** and **MCNIPPDS**, featuring our exclusive **"Post-Lock"**™ system, **Firearm CLEANING CRADLES**, and more.

Stoney Point® offers innovative and field proven accessories for hunting, shooting, precision reloading and firearm maintenance... Removable **TARGET KNOBS**, **LASER MAGIC**® bore and scope alignment tools,



look for in a used handgun paid off, and you saved enough money to buy a new holster and several boxes of ammunition. Good deal!

Well-Used Rimfires

Our used pistol example was based loosely on a 1911. The same principles of examination apply to virtually any centerfire semi-automatic handgun, and using them properly and wisely will result in a used pistol you can be proud of.

Self-loading rimfire handguns are checked out much the same way as their bigger brothers. Keep in mind however, that the modest cost of .22 ammunition means most rimfire pistols have fired many, many, thousands of rounds.

Encountering used rim-fires that haven't been shot a great deal is a rare occurrence. That doesn't mean there's anything wrong with them, just make sure you examine them with extra care.

Finding used auto pistols in fine shape gets easier all the time. Police trade-ins are found regularly and are superb buys. You get a lot for your dollar. Usually they are perfect mechanically; they've just acquired that mature look.

Thinking Down The Road

One thing to bear in mind when shopping for a used semi-auto is to watch out for odd-ball foreign handguns. Many are priced low enough to entice you to buy them, but should you need service or parts, you're out of luck. Use the common sense approach and shop wisely.

Foreign made autos aren't the only handguns that can be difficult to repair. Older, discontinued examples of American made pistols are sometimes hard to find parts for. Keep this in mind as you shop.

If the handgun of your choice happens to be an obsolete model, don't let the scarcity of parts discourage you from buying it if you really want it. Quality gunsmiths abound in this country, and most are able to fabricate the necessary parts should the need arise.

One topic we should discuss is custom autos. Years ago, the only way to obtain an extremely accurate pistol was to have a gunsmith accurize it. Thankfully, this is no longer necessary, as most semi-autos leave the factory fully capable of target grade precision.

Custom work has never been inexpensive and it never will be, but you should not expect to pay a high tariff for someone else's project. Examine custom handguns closely. If you have never heard of the gunsmith you may consider choosing another gun, or if you really like it, check the gunsmith out. You might have a really nice shooter.

Whether your interest lies in finding a bargain, or in obtaining a handgun no longer in production, buying a used pistol is always a sound option. Look them over carefully, exercise good judgement, and not only will you save money, you'll probably enjoy the search as well.



FOR THOSE WHO SERVE.

LAW ENFORCEMENT

MSRP \$79.99 & \$89.99

M16-LE Series. Kit Carson's original CRKT 6061 T6 aluminum build M16s with LE Blue hard anodized handles and black Teflon-plated AUS 8 combo blade, Carson Flipper, removable clip and LAWKS®.

MILITARY

MSRP \$79.99 & \$89.99

M16-M Series. Kit Carson's original CRKT 6061 T6 aluminum build M16s with Olive Drab hard anodized handles and black Teflon-plated AUS 8 combo blade, Carson Flipper, removable clip and LAWKS®.

FIRE DEPARTMENT

MSRP \$79.99 & \$89.99

M16-FD Series. Specifically designed for firefighters with insulating G10 handles, textured for grip in wet conditions. Black Teflon-plated AUS 8 combo blade, Carson Flipper, removable clip and LAWKS®.

FREE CLOTH PATCH
BECAUSE YOU HAVE ONLY ONE-ASS-TO-RISK.
 This embroidered cloth patch with Gary Paul Johnston's 1* logo is free with each M-16 LE, M, or FD purchased from participating CRKT retailers. Limited time offer.

COLUMBIA RIVER KNIFE & TOOL

Toll free: 1-800-891-3100 • E-mail: info@crkt.com
 See our catalog on the web:
www.crkt.com



Catalog
\$5.00

Send Free With Any Order
Upon Request

Website:
www.knifemaking.com

JANTZ SUPPLY

P.O. Box 584 GN Davis, OK 73030

Your 'source' for knifemaking supplies

ALL AT THE BEST PRICE! Add \$8.95 per order for shipping.

ORDER TOLL FREE

1-800-351-8900

24 Hour FAX

1-580-369-3082



TOOLS * BLADES * STEEL * RIVETS * MACHINERY * FINISHING SUPPLIES * WE HAVE IT ALL!

MAGNIFIERS
Best magnifiers available, adjustable headband fits all. Easily worn over glasses. Lenses are ground & polished prismatic type. Made in USA.
New light available \$17.95

Order #	Power	Wk. Dist.	Price
OVDA2	1-1/2"	20"	\$26.95
OVDA3	1-3/4"	14"	\$26.95
OVDA4	2"	10"	\$26.95
OVDA5	2-1/2"	8"	\$26.95
OVDA7	2-3/4"	6"	\$28.95

FOREDOM
Model "S"
Flex shaft machine has ball bearing 1/8 hp motor. Kit includes electronic foot control, heavy duty handpiece, and 35 accessories.

FT239 \$229.95

LOCKBACK FOLDER KITS
440-C Stainless blades, kits contain all necessary pins, nickle silver bolsters are pre-welded to liners. Order handle material separately.

WHITETAIL
6 5/8" Overall 2 1/2" blade
SS776 Whitetail \$29.35

GRIZZLY
7 5/8" Overall 3" blade
SS774 Grizzly \$34.95

LYNX
2 3/4" Overall 7 1/8" blade
SS771 Lynx \$23.50

WEEKEND PROJECT KITS
Include 440C Stainless blade, handle material, pins and instructions.

RENAISSANCE DAGGER KIT
Overall length is 6 1/4"

SS167K Renaissance Kit \$10.95

COBRA KIT

Overall length is 7 3/8"

SS166K Cobra Kit \$9.95

SPORTSMAN KIT

Overall length is 7 3/8"

SS164K Sportsman Kit \$9.95

LETTER OPENER KIT

Overall length is 8 1/2"

SS201K Letter Opener Kit \$9.95

FISHERMAN'S FILLET KIT

Overall length is 12"

SS199K Fisherman Kit \$8.95

RAZOR EDGE KITS

Beautifully satin finished, 440-C Stainless blades are 8 1/2" overall, blade is 3 1/2" kits include: blade, brass corby rivets, brass guard, tubing and Dymondwood handle material.

CHICKASAW SKINNER

SS443 Chickasaw Blade only \$15.95

SS443K Complete Kit \$23.95

CHOCTAW DROP POINT

SS441 Choctaw Blade only \$15.95

SS441K Complete Kit \$23.95

CHEROKEE CLIP POINT

SS442 Cherokee Blade only \$15.95

SS442K Complete Kit \$23.95

DAGGER BOOT BLADE

440-C, Satin finished blade is 7 3/8" overall, 3 1/2" blade. Kit includes blade, pins and black Micarta handle material.

SS444 Boot Blade only \$16.95

SS444K Complete Kit \$18.95

CUSTOM KITS
The kits below include stainless steel pre-shaped blade, brass rivets, tubing, guard and handle material and step-by-step instructions.

WASHITA HUNTER

SS463 Washita Blade only \$19.95

SS463K Washita Kit \$27.95

SIOUX HUNTER

7 5/8" overall with 3" blade

SS458 Sioux Blade only \$17.50

SS458K Complete Kit \$24.95

CHEYENNE HUNTER

9 1/8" overall with 4 1/2" blade

SS495 Cheyenne Blade only \$18.75

SS495K Complete Kit \$27.60

KAW SKINNER

7 1/2" overall with 3" blade

SS782 Kaw Blade only \$25.52

SS782K Complete Kit \$34.60

NAVAJO SKINNER

8 3/8" overall with 4 1/4" blade

SS783 Navajo Blade only \$24.72

SS783K Complete Kit \$32.20

PANAVISE

Standard Panavise with 360° rotation and 180° tilt. Perfect angle for any job 2 1/2" nylon jaws withstand heat to 200°F.

PVJ01 Standard Panavise \$22.25

HOW TO MAKE KNIVES

By Richard W. Barney and Robert W. Lowless

BOK101 \$11.95

HOW TO MAKE FOLDING KNIVES

A Step-by-Step How-To by Ron Lake, Frank Condit and Wayne Clay

BOK102 \$11.95

CUSTOM KNIFEMAKING

By Tim McCright

BOSCK \$13.95

THE COMPLETE BLADESMITH

Forging Your Way to Perfection

By Jim Hrusanac

BOP301 \$9.95

KNIFE TALK

The Art & Science of Knifemaking

By Ed Fowler

BOK111 \$11.95

THE WONDER OF KNIFEMAKING

By Wayne Goddard

BOK114 \$15.95

STEP-BY-STEP KNIFEMAKING

The complete guide to making knives

By David Boye

BORSSK \$17.95

KNIVES 2002

All new!

By Joe Keitzman

BOK112 \$17.50

BALDOR
BUFFERS



CAT#	H.P.	RPM	SHAFT DIA.
BL114	1/4	1800	1/2"
BL111	1/2	9000	1/2"
BL332B	3/4	1800	3/4"
BL333B	3/4	9000	3/4"

Call for current pricing!

KNIFE SHARPENING KIT

Used by professionals for razor clean edges on cutlery. One wheel for sharpening, another for cleaning and polishing, all compounds and instructions included. Includes bushings to fit 5/8" or 1/2" arbor.

WKS800 8" set \$19.95

WHEEL & COMPOUND KIT

Kit includes: Four 3/4" sewed moxin wheels, one 3/4" loose moxin wheel, one each greaseless brush-on cutting compound in grits 200, 320 and 400, one blending bar, one bar of white rouge and a polishing guide.

Specify Arbor Size (1/2", 5/8", 3/4")

6" Kit \$9.95

8" Kit \$9.95

10" Kit \$9.95

TRADITIONAL CUTLERY KIT

11 pc. traditional style cutlery set includes pre-shaped surgical stainless blades shown above plus handle material, and rivets. Carving set and steak set also available.

SS801 11 pc. Traditional Set \$49.95

SS807 ★ Carving Set \$19.50

SS803 ★★ Steak Set \$25.95

ELECTRO-CHEM ETCHING

Each your blades with the easy to use Personalizer

Plus etching machine. Type name or draw a personal design on the special stencil material provided, then follow the easy to use instructions for professional results in seconds. Complete Kit contains everything you need to etch stainless, carbon steel and more.

EC302 Personalizer Plus \$179.95

HIDDEN TANG KITS
440-C Stainless blades are about 10 1/4" overall, blades are 5 1/2". Kits supplied with blade, brass guard, threaded pommel and block of Dymondwood handle material.

TEXAS BOWIE KIT

The Texas Bowie Blade, (12 1/2" overall, 7" x 1 1/2" x 3/16" thick blade), brass guard and pommel and a pre-drilled dymondwood block for the handle.

SS494 Blade only \$27.95

SS494K Kit complete \$99.95

FRONTIER BOWIE

SS914 Frontier Blade only \$33.95

SS914K Frontier Kit \$77.95

CAPE SKINNER

SS911 Cape Blade only \$18.95

SS911K Cape Kit \$32.95

JANTZ SPECIALTY BLADES

Made from 440C Stainless Steel

MONARCH

Overall length 7", blade 4 1/8"

SS262 Gut Hook Blade \$7.90

TUNDRA

Overall length 7", blade 2 3/4"

SS260 Tundra Blade \$7.90

KODIAK

Overall length 6 1/8", blade 2 1/2"

SS261 Kodiak Blade \$8.10

THE SHARK

Overall length 5 1/2", blade length 2 7/8", 2 3/4"

SS176 Shark Blade \$8.95

STAINLESS DINNERWARE

440-C Stainless Kit includes:

4 forks, 4 knives and 4 spoons, rivets and handle material. Great gift

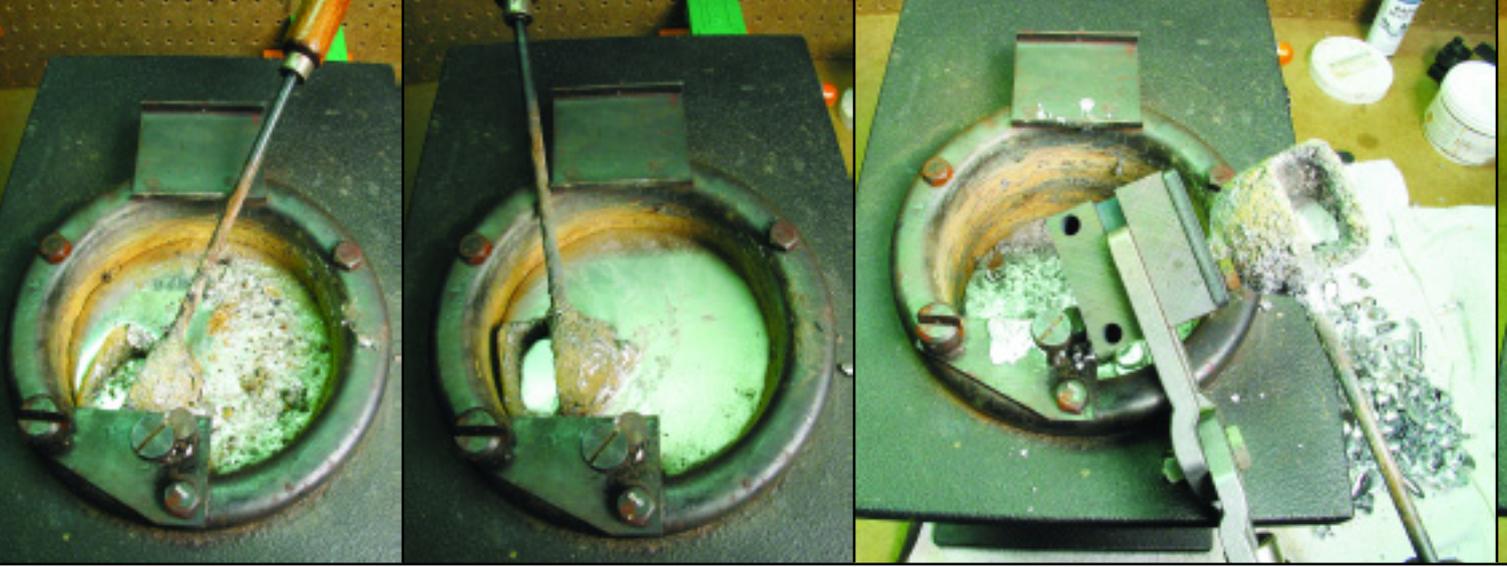
SS500 \$44.95

CORBY TYPE RIVETS AND DRILLS

Precision machined of solid brass 5/16" heads slotted for easy installation. Use RD3 Rivet drill for perfect countersinking and alignment.

CP601 Pkg 12 Rivets \$12.12

RD3 Rivet Drill \$9.95



Cast Bullet

A beginner's guide to pouring your own.

Slowly, the cold gray mass in the lead pot takes on a darker hue. First a bluish tone, and then a slight coppery blush before the last cold crust is swallowed up and the pot assumes the uniform brilliant shine of quicksilver. Give it a few minutes to come to full temperature, and then, after fluxing the metal, the first ladle full of lead is lifted to the pre-heated mold.

A moment for the lead to harden, then tap open the sprue plate, swing open the mold and drop the fresh bullet onto the waiting padded surface. That first good bullet, bright as a newly minted coin, has always been an item of fascination to me.

What will we do with it? Win a match? Lose one? Take a fine game animal? Teach some deserving lad to shoot?

Or will we simply crumble a dirt clod on the far side of the canyon?

Whatever the fate of this bullet, casting your own projectiles before loading your own ammunition results in the highest level of personal involvement and the greatest enjoyment in your shooting. Or at least, so it seems to me. But there are other reasons to cast your own bullets.

Three Good Reasons

Economy is certainly one. If you use scrap materials — wheel weights, salvaged bullets, lead pipe, etc. — your cost per bullet, and thus per eventual round of reloading ammunition, can be astonishingly low. Yes, you must discount the value of your time, and there is equipment to be purchased, but still, you can shoot for pennies per round.

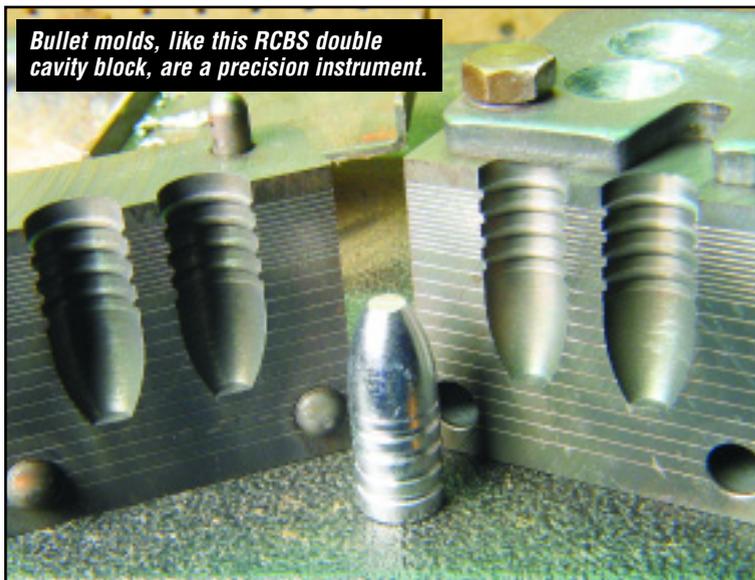
Accuracy is another reason. Cast bullets — skillfully molded, carefully selected and uniformly loaded — can deliver the best groups your handgun, and sometimes your rifle, is capable of producing.

Yet another reason to pour your own exists for those who load obsolete or unusual calibers. Want to put granddad's old .44-90 Sharps back into action? You'll not find a suitable bullet from Speer, Sierra, Nosler, etc. You must cast your own, or order cast bullets from one of the very few suppliers of vintage components. Why not learn to do it yourself like Granddad did? He'd be proud of you.

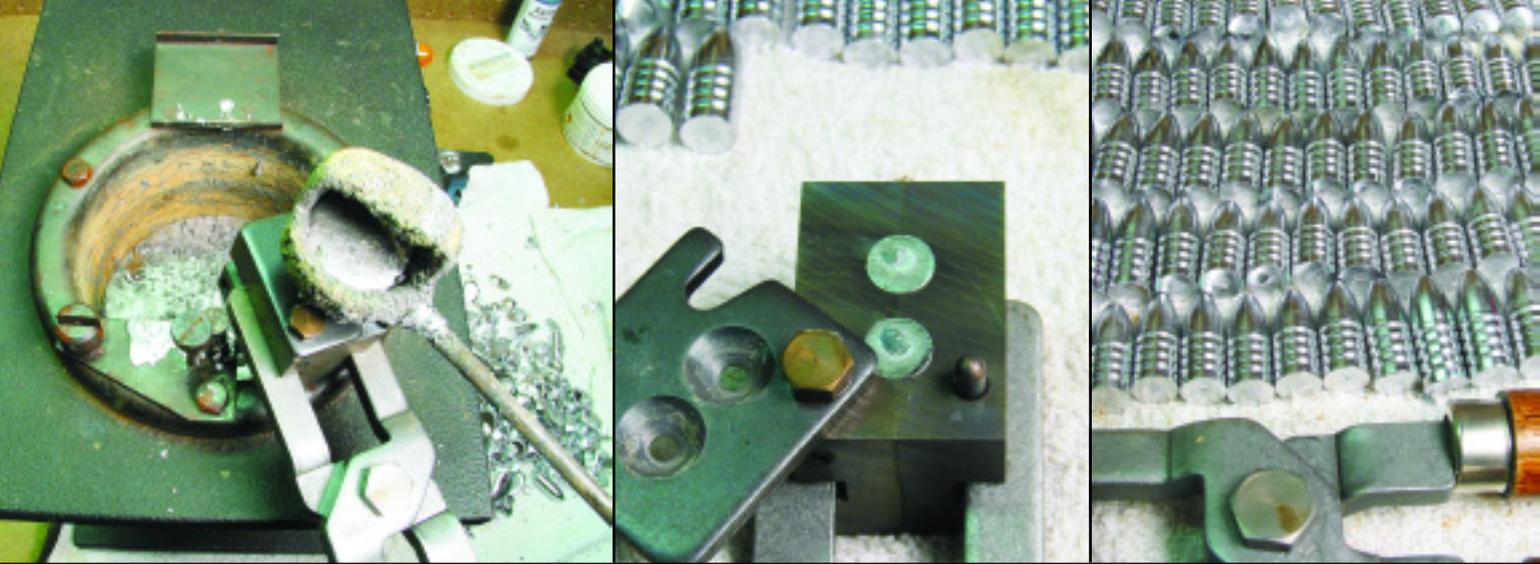
If learning to cast your own bullets offers all these advantages, why is it most shooters today don't do so?

The primary reason is that commercial suppliers of very good quality cast bullets exist in all parts of the country. Their offerings perform very well in handgun calibers. Some also produce rifle bullets, but these are limited in selection, and are really suitable only for smokeless loading.

Besides the ease of ordering pre-cast commercial bullets, some shooters shy away from casting because of a mistaken



Bullet molds, like this RCBS double cavity block, are a precision instrument.



Above (l-r) 1: Lyman 20-pound pot full of alloy, see how dirty? 2: After fluxing and skimming dross. 3: Bring the mold horizontal to the ladle, and then... 4: Roll to vertical to fill the cavity. 5: Check bullet bases constantly as you work. These look okay. 6: Neat pile of bullets waiting inspection prior to lubing and loading.

Primer

By Zachary Foster

belief the process is excessively difficult, or that working with lead is somehow unsafe.

Is bullet casting difficult? Good heavens, no. You'll produce fine, shootable bullets on your very first try.

Reasonable Precautions

As to safety, lead — especially molten lead — should always be treated with respect. Personally, I rigidly observe the following four safety rules...

- 1) When melting lead, provide good ventilation.
- 2) Wear safety glasses, gloves, and long-sleeves around molten lead.
- 3) Do not allow liquids of any kind to contact molten lead. Be careful of beverages, perspiration, etc.
- 4) Wash hands thoroughly after handling lead or ammunition, and especially before eating (or smoking).

With the requisite precautions out of the way, let's look at what equipment is required to produce good quality cast bullets.



Bullet molds come in amazing variety. Here are a few favorite designs, from an 87-grain .25-20 SS bullet to a massive .45 caliber, 550-grain paper patch bullet.

Lubrisizers, like this one from SAECO, are mighty handy.



SAECO's lead hardness tester.



Lead Pot And Ladle

Lead may be molten either in a simple cast-iron pot using a separate external heat source, or in an electric furnace. My earliest efforts involved no more equipment than a plumber's lead pot, a gasoline stove, the mold for my '51 Navy and an old iron spoon. Some still prefer the simple plumber's pot, but by far most bullets are cast using an electric furnace.

Here you have several choices. Fine electric furnaces are available from Lee, Lyman, RCBS, Rapine and others. Most of these will have a thermostat to vary lead temperature for ideal results. They'll vary in capacity and in the presence or absence of a bottom-pour spout.

Bullets may be cast using a bottom-pour spout, or alternately by the use of a lead ladle. This is a matter of individual preference, although it's generally agreed the most accurate bullets are produced with the use of ladle. Regardless, a bottom-pour spout is an asset when the time comes to empty the pot, whether for cleaning, to change alloys, or when pouring ingots for future use.

Bullet Molds

These come in fascinating variety, and are available from Lee, Lyman, SAECO, Rapine, NEI, RCBS, and others, as well as from a host of custom makers. Molds may be ordered with one, two or four cavities. Most

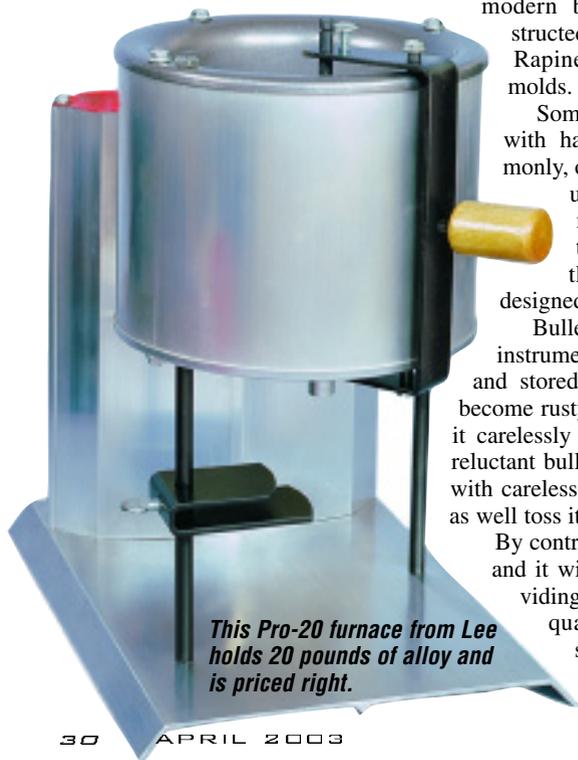
modern bullet molds are constructed of iron, but Lee and Rapine fabricate aluminum molds.

Some molds are furnished with handles, but more commonly, one detachable handle is used with many different mold blocks. Be certain to use only the handle the mold block is designed to accept.

Bullet molds are precision instruments, and must be used and stored carefully. Let a mold become rusty between uses, beat on it carelessly while trying to drop a reluctant bullet, or damage the mold with careless cleaning, and you may as well toss it into the rubbish.

By contrast, take good care of it, and it will last indefinitely, providing you with numberless quantities of great-shooting bullets.

This Pro-20 furnace from Lee holds 20 pounds of alloy and is priced right.



Sizing And Lubricating Equipment

With the exception of paper-patch bullets, cast bullets must be lubricated before use. In addition, during this process they may be run through a sizing die to bring them to a specific uniform diameter. Lyman, RCBS and SAECO manufacture lubrisizing machines. With such a device, the bullet is sized and the bullet lube is pumped into the lube grooves, all in one stroke. Lee offers a different, but economical and effective system.

For the utmost in rifle accuracy, a bullet that drops from the mold at the correct diameter should not be sized at all. An earlier and perfectly adequate system of lubricating bullets without sizing is called pan lubing.

In this method, the bullets are arranged neatly in an appropriate pan, which is then poured full of lubricant (melted in a double boiler) until the lube grooves of the bul-



Above: Pan lubing, done here with SPG (an excellent lube) is a simple process. Below: Lee offers many innovative molds, such as this one to cast a copy of the hollow-based, M1873 Government .45 bullet. Shown with original M1873 bullets from an Indian wars battle site.



lets are well covered. Allow the lube to solidify, but not to grow completely cold. Knock the resulting cake of lube from the pan, and you'll find you can easily press the bullets from the cake, leaving the lube grooves perfectly filled. My favorite bullet lube for pan lubing is SPG.

So where are you going to get all of this good equipment? Don't forget your local dealer. If he has what you need or can readily order it, all well and good. If you don't support your local businesses, they won't be there in the future.

That being said, it's not common these days to find a gunshop with a good selection of casting equipment or any knowledge of the subject. There are a number of excellent mail-order suppliers, and I've had great success with Buffalo Arms, Midway, and Cabelas. Midway puts out a dedicated bullet casting catalog that's a must have.

Step-By-Step

Now, let's fire up the pot and learn a few secrets about producing usable bullets.

Almost any type of lead can be used to cast satisfactory bullets. For handgun and plinking use, any alloy sufficiently hard to leave no leading in the bore will serve. Your loads play a role here. Mild loads may succeed with very soft bullets. Hot loads will require an alloy as hard as you can make it. By contrast, bullets for black powder cartridge loading are generally cast of very soft alloys.

Most bullet casters simply run a fingernail across a bullet to judge hardness, but better results can be obtained with the right equipment. Redding/SAECO makes a lead hardness tester that's easy and simple to use.

Rather than telling you the exact content of the test alloy, it gives you a relative hardness reading. Keep good records, and when suddenly that superb load ceases to perform, you may learn you've unwittingly altered the hardness of your bullets.

As your selectivity increases, you'll find yourself desiring to cast with specific alloys. You can produce them yourself, by alloying pure lead with tin, antimony, linotype, etc, or you may purchase carefully alloyed ingots from sources such as Midway and Buffalo Arms.

Scrap wheelweights are the most common source of bullet material, and if you cultivate a good relationship with your local tire and wheel store, you'll be in good shape.

Getting Started

As the lead pot slowly melts our chosen alloy, we'll be sure to place the mold or molds on top of the pot to preheat. I often work with two molds at a time to prevent overheating one, and to cast a second type of bullet. Regardless, your mold, bullet metal and ladle if used must all be brought up to temperature before use.

With the pot up to full temperature, we need to flux the metal. Old instructions recommended beeswax or paraffin for flux.

continued on page 60

At a moment like this...

LASERGRIPS are the best option you've got.

Lasergrips are available for most popular handguns.
Call for a free catalog or visit us on the web.

CrimsonTrace.com
800-442-2406

A product of the
Crimson Trace Corporation

New Sig P220 rubber wrap-around

© 2002 Crimson Trace Corporation

L A S E R G R I P S[®]
What to have on your side![™]

Charles Daly[®]
The Shooting Sports Specialist[™]

FORGED IN TRADITION

TRADITION IS BEING THERE OPENING DAY. THE NEW TRADITION IS CHARLES DALY SHOTGUNS. SEMI-AUTOS, PUMPS, OR OVER & UNDERS, CHARLES DALY DELIVERS EVERY TIME. FORGE YOUR OWN TRADITION WITH A CHARLES DALY.

VISIT www.charlesdaly.com TO FIND A DEALER NEAR YOU

OR CALL: **866-DalyGun**

NEW LIMITED LIFETIME REPAIR POLICY



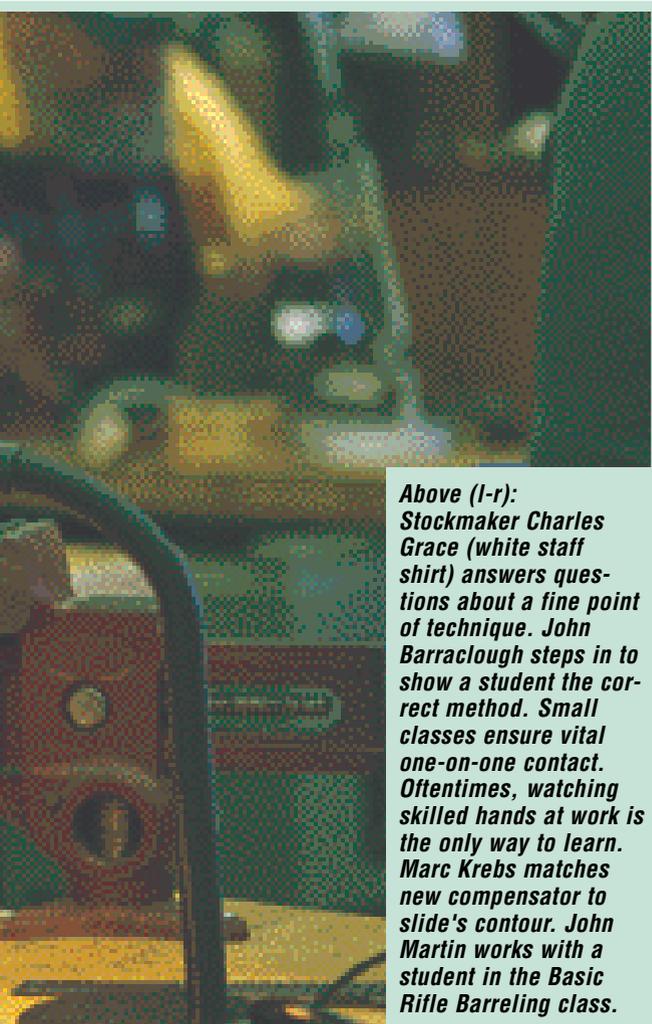
Lassen





College

STORY BY David M. Fortier



Above (l-r): Stockmaker Charles Grace (white staff shirt) answers questions about a fine point of technique. John Barraclough steps in to show a student the correct method. Small classes ensure vital one-on-one contact. Oftentimes, watching skilled hands at work is the only way to learn. Marc Krebs matches new compensator to slide's contour. John Martin works with a student in the Basic Rifle Barreling class.

Forging Gunsmiths Since 1945

Having been burnt a number of times, I'm not a real fan of custom gunsmithing. It's as simple as that. Why you ask? Well, it's amazing how quickly a hack can ruin a fine firearm. Something I learned the hard way when I was younger. Back then, I traveled around my state to some of the "better" smiths to have work done. What I got was the chance to pay to have a custom rifle wrecked, and a couple prize handguns violated. That really soured me.

I was lucky though. I have a good friend named Donny who's just naturally talented with metal and wood. After some hack had his sinful way with a rifle or pistol of mine it was invariably Donny who fixed it. Payment usually consisted of a pepperoni pizza, which he munched on in-between scolding me and fixing my piece. For someone with no actual training as a gunsmith, it was amazing what he could accomplish. I always wondered what would have happened if a skilled professional had taken Donny's natural talent and shaped and forged it into a trained gunsmith.

“Having experienced the frustration a poorly skilled gunsmith can cause, I wondered where proper gunsmithing skills could be learned.”

Where Would You Go?

I'm sure there are a lot of people like Donny out there, people that just naturally have the touch. People that if given the opportunity to sit under professional instruction, have the potential to become skilled gunsmiths. The question though, is where on earth does someone actually go to learn the fine art of gunsmithing?

This is where things become murky, and to be blunt, I didn't know. So I made numerous inquiries, and soon found myself on a roadtrip to find the answer to my question.

My quest took me far from the salty smell of the Atlantic on the rocky Maine coast, clear across our great and beautiful country. I eventually arrived in Northern California, my destination the small town of Susanville. It was here in the vast rural California countryside that I was to find my answer, Lassen Community College.

The 11th oldest community college in California, Lassen is notable for their accredited Vocational Gunsmithing Program. The school's history stretches all the way back to May 4, 1925. It was on this date the Junior College Department of Lassen Union High School was founded. By 1941 the school had grown large enough to require its own facility. As the years went by the school continued to grow, and in September of 1945 a gunsmithing program was added.

One Man Made It Happen

This program actually began due to the badgering of one student, Harlan Fritts. He approached C.W. Frost, at that time the Lassen Union High School industrial arts teacher, about obtaining a junior college course in gun-

smithing. Frost, who had been a custom gunsmith before the war, consented and although tools were lacking, a course was started on a trial basis.

Throughout the 1945-46 school year, Harlan Fritts was the only student. Although the course was not advertised, enrollment jumped to 13 the next year. The following year there were 21 students and the year after 32. By the 1949-50 school year, enrollment was up to 47 with 138 requests for admission turned down due to limited facilities.

Instructor Frost moved the program into a separate building which had new metal working tools needed for the course. These initial courses covered the conversion of surplus military rifles, which were plentiful after the war, into custom sporting rifles. After five years, Frost was superseded by Hugh O'Daniel, who taught through the spring of 1957. He was followed by John Wise, who was to teach at Lassen for some 25 years.

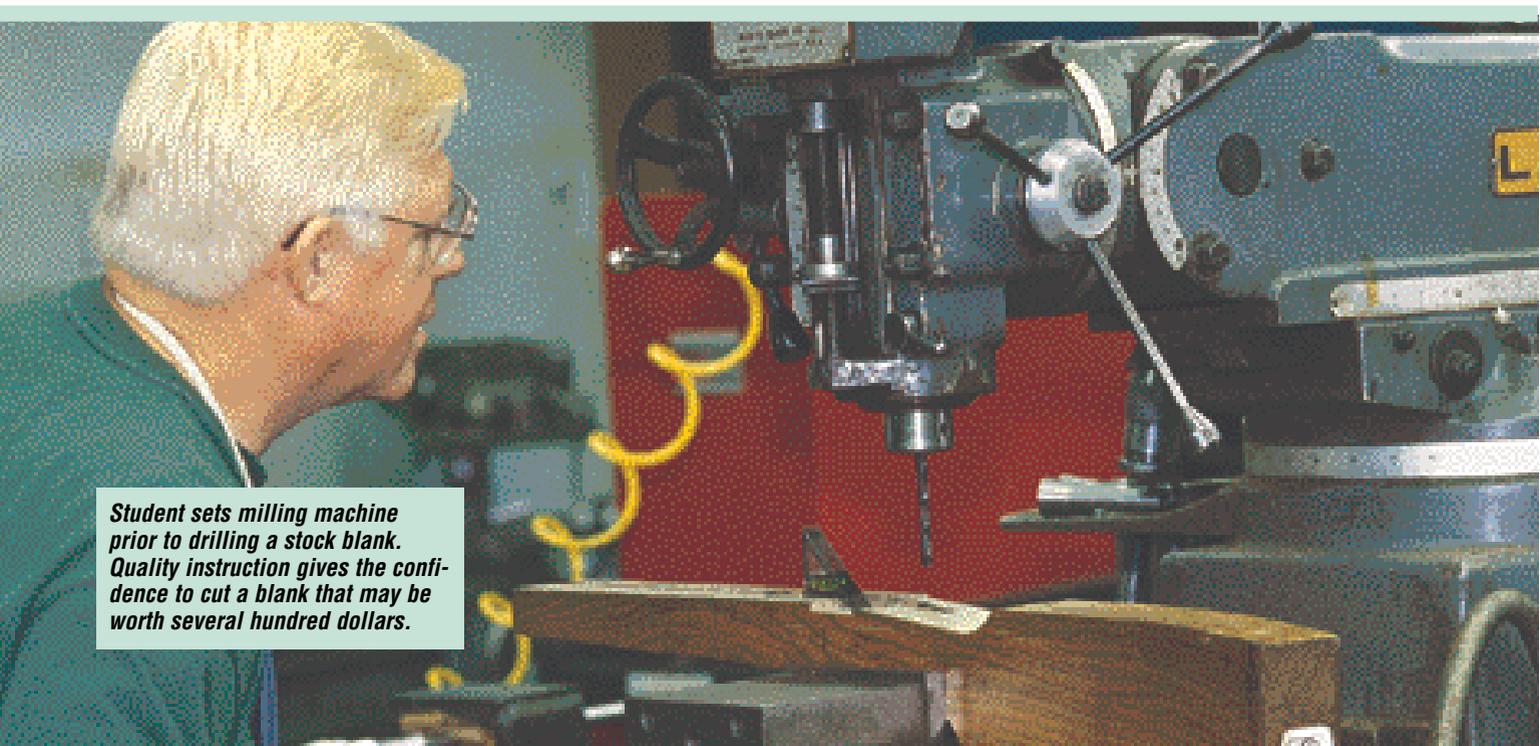
Growing To Serve

Under the leadership of John Wise, Lassen's gunsmithing program was greatly developed and expanded. The courses became fully accredited and the school moved to its present campus. Master gunsmith Bob Dunlap, who had attended Lassen as a student in 1959, returned to help teach in 1972.

As enrollment grew, a number of other teachers and teacher aids were added to the schools' staff. In 1984 the NRA's unique short-term summer gunsmithing classes were added. As the years went by, Lassen continued to grow and evolve to better meet the needs of its students.

Today Lassen's campus consists of 165 acres and 39 buildings. In addition to classrooms, laboratories and offices, it has a dormitory, library, college union, computer rooms, large gymnasium and outdoor recreation facilities.

continued on page 57



Student sets milling machine prior to drilling a stock blank. Quality instruction gives the confidence to cut a blank that may be worth several hundred dollars.



Symbol of honest, competent, quality workmanship

"LOOK FOR IT!"

Member list \$2.00
1449 Blue Crest Ln.

Just Compare... Nothing Even Comes Close!

FORT KNOX

SECURITY PRODUCTS



"Go With America's Best! I did, now I leave home with a safe feeling."
General Chuck Yeager

- UL Listed
- Certified Fire Protection
- Lifetime Warranty
- Competitive Prices
- 30 Models
- Sargent & Greenleaf Locks



Free Brochure! 1-800-821-5216
993 North Industrial Park Road, Orem, UT 84057 www.forknox.com

FOBUS

NEW PRODUCT RELEASE

Glock & 1911 Yaqui Style Holsters



VISIT YOUR LOCAL DEALER!

Our Yaqui Style Holster sets a new standard for those that desire the minimum amount of holster material with no compromise in retention.

This new holster combines a long popular style with the proven Fobus system for a remarkable new way to carry your handgun. Impervious to hot or cold conditions and less than half the weight of other holsters (1.8 to 2.2 .oz). Lifetime warranty for wear, replacement by FOBUS or refund from the point of the purchase.

Model# GL2B
Retail \$24.99

Available for these following models:
GL2 - Glock 17, 19, 22, 23, 31, 32, 34, 35
C21 - Fbs all 1911 styles

FOBUS USA A Division of First Samco

1300 Industrial Hwy., Suite B-3,
Southampton, PA 18966-4029

TEL: (215) 355-2621 FAX: (215) 322-9223

www.fobusholster.com

A-103

World's Largest Shooting & Reloading Superstore

Harris Model BR - Original Bipod
Adjusts from 6 to 9 inches.
125-693
\$59.93

Tipton 12-Piece Solid Brass Cleaning Jag Set

This compact set includes 17, 22, 243/6mm, 25/6.5mm, 270/7mm, 30, 8mm/338, 35/9mm, 375, 40, 44 and 45 caliber solid brass jags in a convenient hard plastic storage case.



582-621 **\$17.90**

PACT BBK 2 Electronic Scale

Designed to be the ultimate portable electronic scale, the BBK 2 has 750 grain capacity, is accurate to 1/10th of a grain up to 300 grains and 2/10ths of a grain from 301 - 500 grains. Powered by a 9 volt battery (included) or with the included AC adapter. Comes with 2 precision check weights and a powder pan.



883-267 **\$99.99**

Tipton Deluxe Carbon Fiber Cleaning Rods



One of the greatest feeling handles you'll find on a cleaning rod no matter what the cost. Bearings on the front and the rear provide ultra smooth rotation. The end of the handle is designed to handle reasonable hammer blows if you should happen to get stuck - coupled with the ultra tough high quality carbon fiber rod, it's a combination you can't beat. 40" long to clean even your longest barrel.

Description	Product #	Price
22-26 Caliber	849-555	\$32.46
27-45 Caliber	164-517	\$32.46

Hornady 17 Caliber Hornady Magnum Rimfire Ammunition



17 Grain V-Max Box of 50 # 689-451 **\$9.99**

MidwayUSA Affordable Shooting & Reloading Master Catalog and Reference Guide 2003 (Available March 2003)

Over 20,000 products in 300+ pages to take care of all your shooting and reloading needs. Also includes reference charts, vendor contact information, articles from industry writers and more. US & Canada residents only.

191-206 **\$4.00**

\$5 off your next purchase when you order this catalog!

NEW!



MidwayUSA
www.midwayusa.com
800-243-3220

NRA "Round-Up" Founder

5875 W. Van Horn Tavern Rd. Columbia, MO 65203

Call or visit our web site.
Web Orders - US Only

Fair and Honest Delivery Charges apply to all orders. A Special Handling charge of \$3.00 is added to orders under \$25.00.

Source Code 427

MERKEL'S PETITTE 16/20



A svelte double from the land of fine gunmaking.

By Holt Bodinson

One of the endearing qualities of the 16 gauge is that fine sixteen's can be crafted onto smaller 20-gauge frames. The result is a light, fast handling, upland game gun with real punch. Of course the Europeans have known this fact for a long time.

On the Continent, the 16 gauge reigned supreme for decades before the twelve began making inroads in the later half of the 20th century. Classic, pre-war 16-gauge doubles are jewels of the gunmaker's art, and are still sought out by sportsmen who enjoy hunting with something of beauty and individuality.

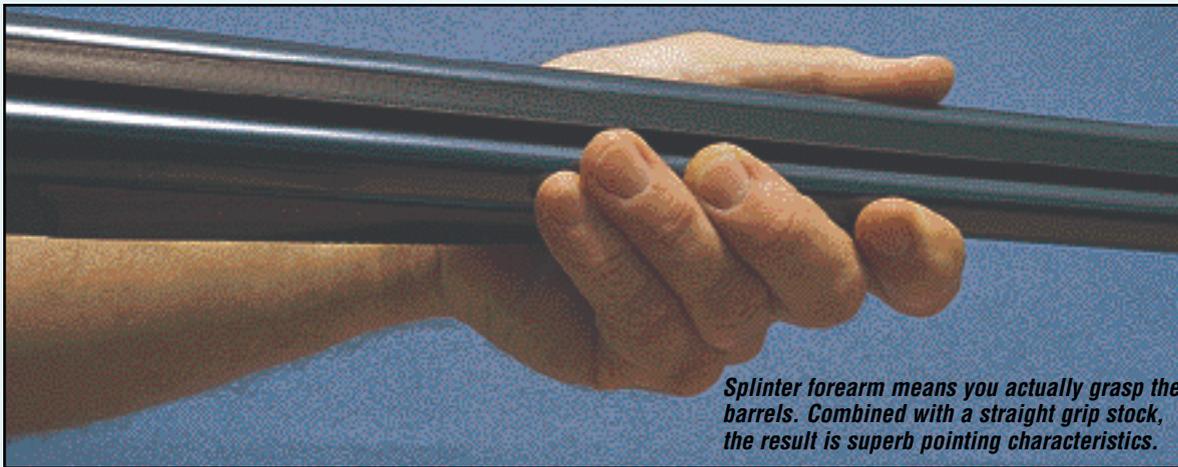
Merkel, which has been building fine guns in Suhl, Germany since 1898, has introduced a classic 16-gauge side-by-side built on a twenty-gauge frame, called the Model 1620. Here's a slim, trim 16 gauge that can also be purchased with an extra set of fitted 20-gauge tubes. Weighing 6 pounds with the 16-gauge barrels, and 6 pounds, 3 ounces

with the 20-gauge tubes, the Merkel Model 1620 is a wand of an upland gun one can carry all day.

Post-War Intrigue

In many ways, Merkel is a remarkable company that survived intact under the most difficult conditions of the Cold War. While traditional Suhl-based gunmaking firms like Sauer, Heym, and Krieghoff relocated to West Germany after the Soviet occupation, Merkel continued to make fine guns under the East German Communist regime. Because of U.S. Treasury Department restrictions, post-WW II guns from Suhl and other Eastern Bloc makers were not exported to the United States.

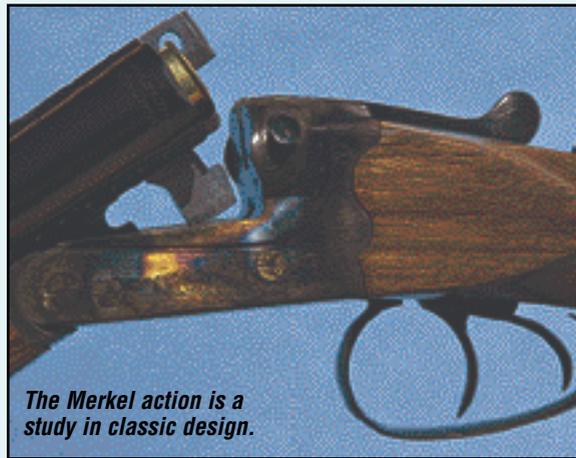
As shooters, we had to scramble for existing pre-war models or cajole our Army and Air Force buddies into bringing home a Suhl-made Merkel, Simson, Fortuna, or Hubertus from West Germany, where they were readily



Splinter forearm means you actually grasp the barrels. Combined with a straight grip stock, the result is superb pointing characteristics.



Traditional double triggers are simple and reliable.



The Merkel action is a study in classic design.

available through Waffen-Frankonia in Frankfurt and other suppliers. And at the top of our “wish list” was always a Merkel.

Fortunately, history was with us, and today GSI in Trussville, Ala. imports the complete Merkel line of O/U’s, SxS’s, drillings and double rifles.

The lithe, little Model 1620 is built on a compact Anson & Deeley boxlock action. A typical Anson & Deeley lock consists of five moving parts. It is simple, reliable and durable. The lock-up in the Merkel is strong, featuring Purdey-type double underbolts and underbites plus a Greener-type cross-bolt passing through the rib extension that keeps the barrel faces tight against the standing breech.

For Long Life

Did I say, “Tight?” As received from the factory, a new Merkel is one of the tightest shotguns on the market. Purposely so, of course, so that the gun wears in gradually with use, thereby extending its useful life. In any case, tol-

erances have been kept to an absolute minimum at Merkel, indicating not only precise machining but also careful hand fitting during the final assembly phase.

Also adding to the strength of the Merkel’s boxlock action are forged receiver ledges visible on both sides of the action bar just below the barrels, plus side-clips extending out from the rounded portions of the standing breech and enveloping the upper edges of both barrels.

Proven Double Triggers

Merkel’s side-by-sides are fitted with traditional double triggers only. While some might feel double triggers are passé, they still offer the most simple and fastest method of choke selection, plus they’re reliable. When mated with a straight grip stock like the Model 1620’s that permits the trigger hand to freely shift fore-and-aft, double triggers offer many advantages in an upland game setting, where flushes take place at various distances, and for the hunter who is not using dogs, quite unexpectedly.



Sixteen-bore barrels on trim 20-gauge frame make the Merkel a delightful upland gun.

Mastering a double trigger is not difficult. The forward trigger fires the right, normally more open-choked barrel, and the rear trigger, the left. Once that sequence is ingrained, the operation becomes instinctive and lightning quick. It's just like learning to ride a bicycle.

Automatic ejectors and an automatic, tang-mounted sliding safety round out the mechanics of the action while brilliant color-casehardening and a touch of scroll engraving add a bit of class and beauty to the gun.

Steel-Safe Fixed Chokes

The nicely tapered Merkel barrels are hammer-forged from Krupp steel. This results in a high degree of surface hardness — hard enough that the integral chokes are rated “steel approved” by the factory — although I don't think the 1620 is designed for or is going to be used for waterfowling. Merkel does not offer guns with screw-in chokes, but they do recommend Briley as an after-market source.

As received, the 1620 was fitted with two sets of solid-ribbed, 28-inch barrels. The No. 1 barrel was in 16 gauge, with 2¼-inch chambers, and the No. 2 barrel in 20 gauge, with 3-inch chambers.

Both sets were choked IC (marked “VZ”) and M (marked “1/2”). On my scale, the 20-gauge tubes weighed 3 ounces more than their 16-gauge stable mates, bringing the total weight of the gun up to 6 pounds, 3 ounces. In terms of handling and balance, the slight difference in weights between the 16- and 20-gauge barrels was undetectable.

Continental Stocking

Merkel guns are noted for their fine walnut, and the richly figured, dark walnut stock on the 1620 was no excep-

tion. Its slender, splinter fore-end mated to a straight English type grip keeps the shooter's hands in the same plane and in line. With a true splinter fore-end, the shooter is cradling the barrels rather than the stock.

It is this hand-to-hand, hand-to-barrel-to-target relationship that is so essential to successful shotgunning. On a more subtle note, splinter fore-ends and straight stocks also permit the maker to shave a few ounces off overall weight, resulting in a lighter, faster upland game gun.

On a custom basis, Merkel can provide a stock with any set of special dimensions. As supplied, the stock dimensions of the standard 1620 are set-up for a right-handed shooter with 5/32-inch cast-off at the heel and 1/4-inch cast-off at the toe. Length of pull is 14½ inches. Drop at the comb is 1½ inches, and at the heel, 2½ inches.

The factory buttplate is a hard composite that should be replaced with a rubber pad as soon as possible. The overall oil finish and quality of the checkering were just fine for a field gun.

And to the field we went. There isn't a better way in the world to wring out an upland game gun than to go shoot a 100-bird sporting clays course. The unpredictable appearance of sporting clays from any direction, distance, height, speed, and angle place a premium on a smooth, spontaneous swing and a well balanced gun. That little Merkel was going to have to win or loose on the sporting clays trail.

Ammunition Variables

The only 16-gauge shells I had on hand were several boxes of Remington promotional game loads featuring 1½-ounce of No. 7½s at 1,295 fps. One of the key virtues of the 2¼ inch/16 gauge chambering, when compared to the equivalent 20 gauge, is its ability to deliver denser patterns at

higher velocities in a gun that is still scaled to 20-gauge proportions.

For example, the same promotional game load offering for the 2¼-inch/20 gauge consists of 1 ounce of shot at 1,220 fps. So the 16 gauge in this loading delivers approximately 43 more No. 7½ pellets on target at higher velocity and energy levels, and that's pretty much the same story across the board when comparing the two gauges.

The classic "square" load for the 16 gauge that has a reputation for very even patterns is 1 ounce of shot, although you will find heavy 1¼ ounce loadings available from Federal in premium lead, or from Kent in Tungsten Matrix for waterfowling.

Since the popularity of the 16 gauge is greater in Europe than it is in the U.S., it's not surprising that Fiocchi offers the greatest variety of 16-gauge loads. And if you're a handloader, you'll find Ballistic Products' book, *The Sixteen Gauge Manual*, invaluable.

Walking up to the first station that was a combination of doves and rabbits, I cleaned those first 10 clays, and so it went. The little wand of a Merkel did credit to its pedigree. In fact, my shooting partner, who is left-handed, couldn't wait to try it.

The Left Handed Test

He owns and shoots a svelte Geco 16-gauge SxS, and I was curious as to how well and how quickly he could acclimate to the right-handed cast-off built into the Model 1620's stock. Well, he shot the Merkel as well as I've ever seen him shoot, proving once again how shooters readily accommodate slight variations in stocking.

So if you're looking for a classy upland side-by-side game gun that at 6 pounds carries and swings like a twenty while delivering denser patterns with greater retained energy, the Merkel 1620 is a choice contender. As a plus, a Merkel can be had with an extra set of 20-gauge tubes, nicely fitted into an Italian Emmebi leather gun case. And this year, Merkel will begin production of the Model 1620 with sidelocks.

Merkel 1620 two-barrel set as tested \$5995



FOR MORE INFORMATION:

GSI, Inc.

[205] 655-8299
www.gsi-firearms.com

Fiocchi

[417] 725-4118
www.fiocchiusa.com

Ballistic Products, Inc.

[888] 273-5623
www.ballisticproducts.com

WILSON COMBAT® / SCATTERGUN TECHNOLOGIES™
"THE CHOICE OF PROFESSIONALS WORLDWIDE FOR OVER 25 YEARS"

TL-15 TACTICAL LIGHTWEIGHT
OUR NEWEST AR-15 STYLE RIFLE! THE TACTICAL LIGHTWEIGHT IS THE CULMINATION OF ALL OUR EXPERIENCE WITH AR-15 STYLE RIFLES. TODAY'S TACTICAL RIFLES ARE OFTEN FITTED WITH ACCESSORIES FORWARD OF THE RECEIVER. FLASHLIGHTS, LASERS AND RANGE FINDERS TO NAME A FEW, ALL OF THESE ITEMS CONTRIBUTE TO THE EFFECTIVENESS OF THE AR STYLE WEAPON SYSTEM, BUT ADD WEIGHT TO THE FRONT OF THE WEAPON, JUST WHERE YOU DON'T NEED IT! OUR NEW TACTICAL LIGHTWEIGHT MODEL TAKES THIS "PRACTICAL USAGE" INTO CONSIDERATION. THE NEW DESIGN ELIMINATES ONE HALF POUND FROM THE FRONT OF THE TRADITIONAL M-4 STYLE BARREL, THE RESULT IS A RIFLE THAT IS EASIER TO HANDLE AND FIRE. ACCURACY AND RELIABILITY ARE STILL OUR FOREMOST CONCERNS WITH THIS WEAPON, OUR 1.5 MOA @ 100-YARD ACCURACY GUARANTEE BACKS THAT UP!

• TL-15P TACTICAL LIGHTWEIGHT MODEL, PARKERIZED FINISH (INCLUDES FET).....\$1599**
• TL-15A TACTICAL LIGHTWEIGHT MODEL, ARBOR-TUFF® FINISH (INCLUDES FET).....\$1724**

THE CLOSE QUARTERS BATTLE PISTOL IS THE FAVORITE OF TACTICAL SHOOTING PROFESSIONALS WORLDWIDE. THE CQB WITH INTEGRAL LIGHT MOUNT IS DESIGNED TO SATISFY THE NEEDS OF SWAT TEAMS AND MILITARY SPECIAL OPERATIONS TEAMS, AVS WELL AS HOME PROTECTION. THE INTEGRAL LIGHT RAIL IS MACHINED DIRECTLY INTO THE DUST COVER OF THE FRAME RESULTING IN STRENGTH THAT IS FAR SUPERIOR TO A BOLT-ON MOUNT.

CQB COMPACT STARTS AT \$1940**
CQB w/TACTICAL LIGHT RAIL COMPACT STARTS AT \$1995**

WILSON COMBAT® / SCATTERGUN TECHNOLOGIES™
ON YOUR SIDE™
2234 CR 719-192 • BERRYVILLE, AR 72616-4573

30 OTHER FIREARMS AVAILABLE! CALL 1-800-955-4856 FOR DETAILS.

GOT YOUR ONE-HALF MINUTE RIFLE . . . MATCH-GRADE AMMUNITION . . . WHERE DO YOU HOLD FOR A 305 YARD SHOT OR AN 823 YARD SHOT? HORUS' SYSTEM TELLS YOU!

Play the Ranging Game . . . **www.horusvision.com**



HORUS VISION

Phone: 650-583-5471 • Fax: 650-589-4569 • Email: dennis@horusvision.com





Cooper rifles put the lie to the belief all truly accurate rifles wear homely, composite stocks.

Romance On The Range

Story by Charles E. Petty
Photos by Ichiro Nagata

When a rifle looks and shoots like this, **LOVE** is inevitable.

It has been said that even a blind hog finds an acorn now and then. To that we can now add that sometimes even a jaded gunwriter gets his “trigger tripped” when he least expects it. The assignment was simple — call Cooper Firearms, get a rifle to test and write it up. No sweat, that’s stuff I do every day... I just didn’t expect to fall in love.

To say I didn’t know anything about the rifles of Cooper Firearms of Montana might be a little too severe, but my knowledge was limited to hearsay that they had pretty guns that shot well. My instructions were to call Cooper and speak to Rob Behr, head of customer service.

From him I learned that Cooper makes both rimfire and centerfire rifles in everything from .17 caliber up to .308. I could have my choice of calibers and this would determine which of the four basic Cooper actions I would get.

Four Flavors

Their rimfire action is the Model 57-M, available in .22 Long Rifle, .22 Winchester Magnum and the new .17 Hornady Magnum Rimfire. It’s the only repeater in the line, and is equipped with a detachable box magazine. The other three actions are centerfires — each sized for a different family of cartridges and progressively larger.

This would ultimately be what directed my choice.

The first and smallest centerfire action is the Model 38, designed for the family of cartridges based upon the .22 Hornet and .218 Bee. Next up is the Model 21, which is geared toward cases in the .223 Remington family. The largest action is the Model 22, which handles cases derived from the ancient .30-’06 rim diameter. That accounts for everything from the .22-250 up to the .308 Winchester, which is the largest cartridge Coopers are chambered for.

There are quite a few interesting wildcats in this list. A couple I had to look up, but for several of them, “lookup” was not an answer. But as Behr and I talked, he began to read from the list and one name stood out.

A Little Fireball

Not long before, I had been present when Remington announced they would resume loading the once discontinued .221 Fireball cartridge. I had been singularly unimpressed with the little cartridge in Remington’s XP-100 handgun, for which it was originally designed.

I once thought it might be interesting to make a rifle for it but had never gotten around to it. So here was the opportunity. My only other request was for a left-handed action. That’s no problem although they do charge a bit extra for making the bolt on the “correct” side.

Romance
On The
Range

Cooper's Montana Varminter





GUNS

MAGAZINE

Quality of metalwork on the Cooper line is nothing short of superb.



LOAD	VEL.	1	2	3	AVG.
Remington factory 50 gr. Hornady V-max	2,963	0.43	0.55	0.72	0.57
Cooper Varmint Extreme 42 gr. Calhoon	2,967	0.27	0.53	0.76	0.52

Note: Accuracy results are five shot groups at 100 yd. from benchrest. Velocity is the instrumental average of 10 shots @15 feet.

COOPER RIFLE CHAMBERINGS

Model 38	Model 21	Model 22
.17 Squirrel	.17 Rem.	.22-250 Rem
.17 Ackley Hornet	.17 Mach IV	.22-250 Rem AI
.17 He Bee	.19-223	.25-'06 Rem
.19 Calhoon	Tactical .20	.25-'06 Rem AI
.22 Hornet	.221 Fireball	.243 Win
.22 K-Hornet	.222 Rem	.243 Win AI
.22 Squirrel	.222 Rem Mag	.220 Swift
.218 Bee	.223 Rem	.257 Roberts
.218 Mashburn Bee	.223 Rem AI	.257 Roberts AI
*	*	.22 PPC
*	*	6mm PPC
*	*	7mm-08
*	*	6mm Rem
*	*	6 x 284
*	*	6.5 x 284
*	*	.22 BR
*	*	6mm BR
*	*	.308 Win

Note: AI= Ackley Improved



Unique three-lugged bolt offers concentric support and may be one of the secrets of the Cooper's accuracy.



Remember that as all this was going on, I had yet to see a Cooper catalog, although I did look at a couple of rifles some years ago at the SHOT Show. My perception had been that Cooper rifles were expensive so I left the details up to them with the understanding that I just wanted a basic rifle. When we were done, I wasn't at all sure what would eventually arrive other than it would be left-handed and chambered for the .221 Fireball.

Cooper also offers custom loaded ammo and they would include a box. In the meantime I ordered a set of dies from Redding and some new Remington ammo. I also picked up a box of original Remington ammo at a gun show.

When the dies arrived, I loaded several boxes of middle-of-the-road charges from several loading manuals. New brass is available from anyone who sells Remington bulk brass and data is plentiful. That first effort was just to have some ammo for break-in and zeroing, since my supply of factory ammo was limited.

Happy Day

Several months passed and the gun arrived. It was truly handsome, and contrary to its nice appearance, I subsequently learned it was the least expensive offering in their entire catalog. Also included was a catalog, and at last I had the opportunity to see the extent of Cooper's other offerings.

My gun is a Model 21 Varminter. The stock's forend is a bit different from what we're used to. I'd hesitate to call it a beavertail, but it has a rather flat bottom with a nicely rounded grip area. It will be equally happy on the benchrest or offhand.

I guess the biggest surprise was the amount of figure in the stock. Cooper classifies it as AA Claro walnut, and I was expecting something completely plain. This was not the case here, but the figure was not so intense as to jump at you. Rather, it appears with considerable subtlety and is obvious when you look for it. There is no checkering on the forend, but the pistol grip has a simple panel of nicely hand-cut checkering on each side.

Name Of The Game

One of the Cooper rifle's claims to fame is superior accuracy, and each rifle comes with a laminated test target. Mine measured .057 inch. I should tell you it is only a three-shot group, which was fired in Cooper's 50-

continued on page 50



Touring Coop

Above (l-r) 1: In an age of CNC machining, Cooper still chambers each barrel manually — the correct feel is vital. 2: Roughing out a cheekpiece takes only a disk sander — and a lot of skill. 3: Steaming out a tiny stock dent. Why? Because it's the right thing to do. 4: Finishing a cheekpiece with careful file work. Notice the stock's fine figure. 5: Checkering — no fancy tooling, just careful, patient workmanship.





er Firearms

STORY BY CHARLES E. PETTY

Pundits say you can't have your cake and eat it too. I take great exception. With a Cooper rifle you can, and get a big serving too.

The definition of custom rifle is a lot more flexible than it used to be. To my eye, the key was always a finely made stock with hand cut checkering and an oil finish. When composite materials came along the line became a little blurry, but dinosaur that I am, fine wood is still the key.

Nearly equal in importance is accuracy. I'm sure that some would reverse that order and that's okay too. Still, beauty is as beauty does — and since you can't tell how accurate a rifle is until you shoot it — looks count for a bunch.

Of Mud And Craftsmanship

I've just returned from a trip that, conservatively, was an adventure. Two days elbow deep in Montana mud may not sound like much fun, and in fact the prairie dogs showed much more sense and stayed in their nice dry holes. But the third day more than made up for a few minor inconveniences, for it was spent watching a group of craftsmen and women pour their hearts into making some truly fine rifles.

The company was founded by Dan Cooper. He worked for a time for Kimber of Oregon, and knew there was still a good market for upscale rimfire and smaller centerfire rifles.

The first product was a dainty little single-shot bolt action chambered for the .22 CCM (Cooper Centerfire Magnum). The cartridge was designed to improve on the accuracy of and duplicate the ballistics of the .22 Magnum in a reloadable case. It looks a lot like a straight walled .22 Hornet.

Cooper got started in the business when, as a college student, he cut the grass of Kimber founder Jack Warne in the late '70s, and worked there off and on until he founded Cooper Firearms of Montana in 1990. The business started in a garage and grew through a succession of them until the eventual move into a modern building that is now bursting at the seams.

Mission Statement

I don't think anyone would accuse Dan Cooper of modesty when he says, "We build the most accurate production rifles in the country... maybe the world." Well, I don't know about that since I haven't tried them all, but mine sure is a tack driver, and definitely meets Cooper's other goal, "to build rifles that shoot as good as they look."

The product line has grown to include three single-shot and one repeating action in rimfire and centerfire calibers up to .308 Winchester. Cooper's product line has a very distinct bias toward wildcat and varmint cartridges. In this day and age where magazines seem to be so important, the fact that these are single-shots is impressive for their elegant simplicity.

The Single-Shot Advantage

It's common knowledge that stiffness is a desirable commodity in rifle actions, so if they don't have a gaping hole in the bottom for the magazine well, they are obviously going to be less prone to vibration. Another unusual feature is the bolt's three locking lugs.

Aside from the obvious shorter bolt lift for cocking, this three-lugged system adds some strength, but I think the most important point is the alignment of the cartridge within the chamber. This is a huge factor in accuracy and it's ever so much easier to center something when you have three points instead of only two.

The secret to any good rifle is a good barrel, and Cooper uses lead lapped match grade barrels from Wilson Arms. The small Connecticut-based barrel maker holds tolerances to no more than .0002 inch (that's two *ten-thousandths* of an inch!). These are the best barrels Wilson can make, and come to Cooper turned to the proper diameters, threaded and crowned. All they need is fitting to the action and chambering.

"If you look at the retail prices of various varmint style rifles from major makers the Cooper is a tremendous bargain."

Since the action is simply a round tube, Wilson also provides some initial action work. There is always material left over when a barrel is made, and it turns out that there is enough to make an action too. Wilson drills and reams a hole that will form the beginning of the bolt channel.

From there the embryonic action goes to another machine shop where the complicated broaching operations needed to create the bolt ways are done. The bolt is precision ground at yet another shop.

Robot Machinist

The only piece of CNC equipment in the Cooper shop is an older machine center with a tool changer, but it does an incredibly varied amount of work. The barrel threads are used to hold the receiver blank on the fixture — this arrangement allowing the machine complete access to the work — and after a fairly lengthy machine cycle the receiver is nearly complete.

The ejection port is cut and the tang shaped in minutes, and then the machine picks up an assortment of drills and cutters to finish the job. Holes are drilled and slots cut and pretty soon a receiver that needs little more than deburring and finishing comes out of the machine.

First Class Furniture

But the thing you notice most about Cooper's rifles is the stock. You can tell from a mile away this is not the normal spray finished sapwood. More about that in a minute. Cooper buys properly seasoned blanks of Claro and French walnut in grades from AA to Exhibition. They are roughed

MAXIMUM DISTINCTION

NEW! MODEL 921— Our first dual blade offering, this synthesis of fluid curves, mechanical motion and advanced technologies is a distinctive assertion of mind over matter. The 921 fits the pocket with all the right stuff. 

MODEL 921 SWITCH-BACK™

BENCHMADE
KNIFE COMPANY

Oregon City, OR, USA
800.800.7427
benchmade.com/ah



out on a two-spindle duplicating machine, but from then on it's hand work.

Stocks are produced in two basic designs: Varminter and Classic. We could just as well call the trim Classic style traditional or, better still, simply elegant. The Varminter design has a 2-inch wide forend that is nicely rounded to fit either hand or sandbag.

I spent a lot of time in the Cooper stock shop and watched awestruck as a talented stockmaker with nothing but a pencil outlined a classic's cheekpiece and then made it happen with a couple of wood rasps. Then there's lots of sanding, and detail work to complete the rough inletting and get the surface ready for finishing. That done, all the stocks go to the checkering department where two talented women do all the hand checkering.

They use only simple templates to lay out the patterns and then execute them with a combination of power and hand checkering tools. The higher grades of classic stocks have a more complex pattern and on them the forend is also checkered. Again, it's an impressive sight to watch such casual creation of beautiful artistic work.

A Job For Perfectionists

All stocks wear a hand-applied oil finish that is the responsibility of one very talented woman. Honest — I couldn't have made this up — they call her the finishing wench... a term she resents not at all. Speaking as one

who has failed miserably at this job, it was a real learning experience to watch her work.

It is a tedious process of applying finish and letting it dry, sanding and doing it all over again. Tiny dents you can hardly see are raised with a damp cloth and a hot iron followed by sanding. It's really remarkably effective, and the little dent I felt was gone. When all is done each stock will have received several coats of finish followed by sanding with ever-finer abrasive until that unmistakable custom look is there.

From finishing, the stock goes to final assembly. Here the action inletting is completed and glass bedded. Cooper beds the action's recoil lug and the first inch of the barrel. That's all, the rest of the barrel is free floated. I asked about bedding the tang area of the action and was told that wasn't necessary.

The remainder of the inletted surfaces are sealed to reduce warpage due to absorbed moisture. The trigger face is installed and adjusted and the whole job is inspected. From there it goes to the test tunnel.

Proof Of The Pudding

All Cooper rifles come with a laminated test target, and when mine arrived I was amazed to see the group measured less than .1 inch. I commented about this and was told that Cooper didn't measure by the common center-to-center method. Their standard for centerfire rifles is bore diameter plus .125

inch. This ensures every Cooper will meet the company's accuracy guarantee of half-inch, 100-yard groups.

The huge popularity of composite stocks has really altered our perception of what it takes to make an accurate rifle and some folks think you must have one for best accuracy. We forget that composites are relatively new developments and we had good rifles long before the first composite stock was made. A truly accurate wood stocked rifle does, however, require the strict attention to detail given the Cooper rifles.

High Order Value

Maybe the best news of all in this story is that you don't have to pay a lot to get a Cooper rifle — you can — but it isn't required. If you look at the retail prices of various varmint style rifles from major makers the Cooper is a tremendous bargain.

The basic "Varminter" retails for \$995. That's what I have. The gun you see on the centerfold is one step up. It is a Montana Varminter, with a better grade of wood and a stock designed to help cooling. A left-handed action is available at a small premium, and you can add fancy features such as skeleton or Neidner buttplates, exhibition wood and other custom touches that can raise the price considerably. But regardless of the model you look at, this is a marvelous example of getting what you paid for.



Visit our Engraving Gallery... GrsTools.com

ENGRAVE

...Guns, Knives, Jewelry and more. Our easy-to-learn engraving techniques and tools accelerate and simplify hand engraving. Learn this admired skill using our books, video tapes, or attend one of our 5-day engraving workshops... *it's never been easier!*

Request FREE information:
1-800-835-3519
 SOURCE #53060

GRS TOOLS

900 Overlander Road
 Emporia, KS 66801
 Fax: 820-313-9640
GRS/GrsTools.com

mtm CASE-GARD Supplying Reloaders for Over 35 Years

"It's a pleasure doing business with a company that stands behind a \$9 product."
 - M.S., Internet

"I have used a range of MTM products for many years and have come to rely upon the versatility and durability of these items."
 - M.R., Australia

"I bought a .223, the bullets I load wouldn't fit in any other company's ammo boxes that I tried. A buddy of mine has a bunch of MTM boxes, I tried them and they fit. I will go with you guys from now on."
 - T.J., MN

"I purchased my first MTM product over twenty-five years ago. It's as good now as it was then!"
 - M.B., FL

NEW SIZES
 270 & 300 WSM and 300 & 338 Rem. Ultra Mag.

Check with your favorite sporting goods retailer for MTM Case-Gard's complete line of practical shooting products or send \$2 for catalog.

www.mtmcasgard.com - (937) 890-7461 - Fax (937) 890-1747
 MTM Molded Prod. Co. - PO Box 13117 - Dept. GN-REL - Dayton OH 45413

17 HMR WALLET

CUDA MAXX STILETTO



PROUDLY MADE
IN THE U.S.A.

BLADE LENGTH: 5.5"
BLADE THICKNESS: .130"
BLADE MATERIAL: D2 TOOL STEEL
BLADE FINISH: POLISHED
HANDLE COLOR: ANODIZED TITANIUM
LOCK: .324" HARDENED TITANIUM FRAME LOCK
WEIGHT: 7 OZ
CARRY METHOD: STAINLESS STEEL POCKET CLIP

SUGGESTED RETAIL: CU2242-\$250.00

CUDA™ U.S.A.



Camillus Cutlery Company
54 Main Street, Camillus, NY 13031
Phone: 800.344.0456 • Fax: 315.672.8832
www.camillusknives.com

ROMANCE ON THE RANGE

continued from page 45

yard test tunnel. The way they do it is to mount a 36x Leupold benchrest scope and use the same custom loaded ammo they sell under the Varmint Extreme label.

Even with the limitations of just three shots and fairly short range, there are plenty of benchrest shooters who would kill to get a group less than one-tenth inch.

At first glance some might think it's impossible to shoot groups like that with a rifle in a wood stock. My, how quickly we forget. Today's super-accurate rifles are universally found with composite stocks but those are relatively recent developments, and we had super-accurate rifles long before we had plastics and Kevlar. It just takes a skilled stock maker and careful attention to detail.

Before I shoot any new gun it always gets a thorough inspection. The 24-inch stainless steel barrel is from Wilson Arms, and borescope inspection revealed a barrel that had obviously been lead lapped, with crisp, sharp rifling. The safety operated properly and the trigger weighed 3.5 lbs.

All Important Break-In

All Cooper rifles come with scope bases so a Leupold 6.5x20 target scope was mounted in Leupold rings and to the range we went. Anytime you get a new rifle that is likely to shoot well, it is very important to condition or break-in the bore.

I do this by cleaning the bore after every shot for the first five, then after two shots for another 10 rounds. You can tell a lot about a barrel simply by how it feels when you push a tight patch through it. High or low spots reveal themselves by their resistance to the patch. Ease of cleaning is also a good indicator of barrel quality and dry patches pushed through this barrel came out nearly clean very quickly.

You can almost always combine the barrel break in process with zeroing the scope, and by the time I had fired the break-in rounds, the Leupold was just right and it was obvious that accuracy was going to be good. I knew from the outset that this was going to be as much a handloading project as it was a gun test.

Point Of Departure

Reference ammo, in the form of factory loads, was limited to three: new Remington with 50-grain Hornady V-Max bullet, Cooper's Varmint Extreme which is loaded with a 42-grain Calhoun custom bullet and some 20-year old Remington that was loaded with a 50-grain softpoint. In order to judge our handloads we need to have a baseline measurement provided by factory loads.

The older Remington ammo was eliminated when the first couple of groups were over 1.5 inches.

Handloading Begins

There is plenty of loading data for the .221, and the search for accuracy began with a systematic investigation of both powders and bullets. The initial work included bullets of 40-, 50- and 52-grain weights, and Accurate 1680 and 2015 BR, Norma N200, Hodgdon 4198 and Alliant Reloder 7.

Over the course of several weeks, a total of 27 five-shot groups were fired with various combinations of these components. Things looked pretty good as I was shooting but when all the groups were measured, those 27 groups averaged .430 inch. What had begun as a fun exercise has turned into an accuracy crusade that continues to this day.

Accuracy of the little Cooper rifle is phenomenal and I have seen some pretty fancy rifles — costing a heck of a lot more — that didn't shoot nearly as well. It's surely a tribute to the maker, but the little cartridge has also proven to be ever so versatile. And the cool thing is that you can shoot it all day without concern for recoil and with considerably less noise.

The crusade has expanded to include other bullets, powders and primers and advanced loading techniques of neck sizing, neck turning and case forming. All those adventures will take some time to tell, so look for a follow-up next month on loading the .221 Fireball.

Couldn't Part With It

I have been far too busy having fun with my Cooper to send it to Ichiro Nagata for photography, so the rifle you see here is a show gun that Cooper exhibits. It's a Model 21 (as is mine), in the Montana Varminter stock. The ventilation cuts in the forend are there to help with barrel cooling, and are the visible identifiers of the Montana Varminter model.

This one happens to be chambered for the .223 Remington, and has a fluted barrel, which is an extra cost option. The stock is AAA Claro walnut, also an extra cost upgrade. The scope is a Leupold 6.5x20 Vari-X III in Talley rings.

Truly, we shooters suffer from an embarrassment of riches today. We have rifles of elegant style and beauty and we have extraordinarily fine shooting rifles but it's not common to find them in coexistence. In the Cooper they do — in spades.

My experience has created a condition that can best be described as lust. And some idle conversation with Dan Cooper is going to lead us to yet another adventure.

I remarked that I had yet to see a .22-250 that shot as well as everyone claims they do. Cooper's smirk indicated he thought otherwise. So the deal was done, and pretty soon we'll find out. I can't wait.

Cooper centerfires start at \$995



FOR MORE INFORMATION CONTACT:

Cooper Firearms of Montana

[406] 777-0373

www.cooperfirearms.com



HANDGUNS BY MASSAD AYOUB

The Real Reason We...

"It must be the best, because so-and-so uses it."

How many times have we heard that? And how many times, heaven help us, have we bought something for that reason, only to find out later that so-and-so had different needs than we did, and what was right for so-and-so wasn't right for us?

It applies to handgunning, too. Let's look at a few examples.

Why A Revolver?

I was on the indoor range at my gun club, and at the opposite end of the firing line from a couple of young guys who were busily potting away with their auto pistols, while I was getting in some practice time with a double-action sixgun. Through my Gentex active hearing protectors, I heard a whispered conversation. They were discussing why old guys like the one on the end didn't trust modern technology and only used old-fashioned revolvers.

I couldn't help but smile. While I can't deny being something of a Luddite geezer, that wasn't the reason for the wheelgun. This particular range is very strict about not leaving brass on the floor when you're done. An auto would give me the choice of sweeping it up with a broom and putting lead dust in the air, or bending down with my old back to pick up a hull at a time from the dirty floor.

With the swing-out cylinder gun, I could simply punch the empties out onto the table and pick them up in one swoop at the end of the session and dump them in a plastic bag. I had come to shoot for fun.

Why A 9mm?

Most would answer that question, "More bullets." Well, there's that, but there's a little more to it.

The more ammo thing takes different forms. I travel to

firearms teaching sites by air for the most part, and FAA limits how many pounds of ammo can be carried on board in checked baggage. I can get a helluva lot more 9mm Luger rounds within that poundage than I can .45 ACP rounds.

If the range we're using is remote and buying ammo locally would be inconvenient, switching to 9mm will get enough carry loads and practice ammo in under the limit to get me through the week.

Since 9/11/02, there has been another possibility that makes the 9mm more attractive to travelers. On that day, air travel in the U.S. shut down and stayed down for some time. Travelers were left to make their own way home, sometimes across several thousand miles, and there were horror stories of people hitchhiking their way back.

My wife and elder daughter were trapped in Las Vegas by the shutdown, and unable for days to get rental cars due to the swollen demand. I felt comfortable knowing they were armed.

Some modern terrorist scenarios involving biological weapons have led authorities to predict longer transportation shutdowns than the last one. If it happens, a traveler relying on 9mm will have more ammo to get him home than the one with the .45, if the ammunition supply cannot be replenished in transit, which might indeed be the case.

Besides, the 9mm kicks less, and that matters to some more than others. Also generic ammo is way cheaper for 9mm than for larger calibers.

Why A .45?

"More power" is the standard answer. Well, yes and no. The fact is, the best modern 9mm defense loads (115 grain JHPs at 1,300 fps or better, and 124 grain JHPs at 1,250 foot-seconds or so) will deliver dramatically more tissue damage than a 230 grain ball .45 round.

Of course, the .45 is more effective with JHPs, but it's less dependent on projectile design for terminal efficiency than is a smaller caliber gun throwing a bullet of only half the weight.

I'm partial to the .45 Auto for police issue, and for defensive use in cold weather. One reason is that even the most efficient hollowpoint bullet can plug if it has to go through enough layers of winter clothing, and a JHP whose cavity is filled with inert matter is a JHP that will probably not expand. If the bullet is going to turn into flat-nosed ball, I want it to turn into large diameter flat nosed ball.

Military history throughout most of the 20th century, being repeated now in Afghanistan, shows us that 9mm ball is an impotent manstopper, and .45 ball is a pretty efficient one. Certainly, .45 hardball penetrates too much to be ideal for American law enforcement or citizen self-defense settings, but the same is true of 9mm ball.

While the citizen can change guns or ammo with the season, most cops can't, and in regions where winter brings deep cold, the .45 caliber makes particularly good sense as an all-weather police duty weapon.

The reasons that compel another handgunner's choice may not be on point to our own needs. As a rule, the question "why" generally needs to go past just the initial asking to be truly informative, and certainly needs to go past supposition.





Levergun Loads: THE **.35** REMINGTON

By John Taffin

1952— a truly wonderful year. Ike was elected president and I started high school a year ahead of time. To this day I'm not sure how I got out of grade school early. That is, I have never figured out if I was smart enough to make the leap, or if my grade school teachers just wanted to get rid of me as fast as possible.

High school was a wonderful experience for me especially because of three old maid school teachers. My two English teachers always allowed me to write about hunting and the outdoors, and our school librarian had the shelves stocked with Theodore Roosevelt's books, all kinds of books on exploring and hunting, and even Robert Ruark's books. I first read *Something Of Value* by checking it out of the school library.

Firing A Young Imagination

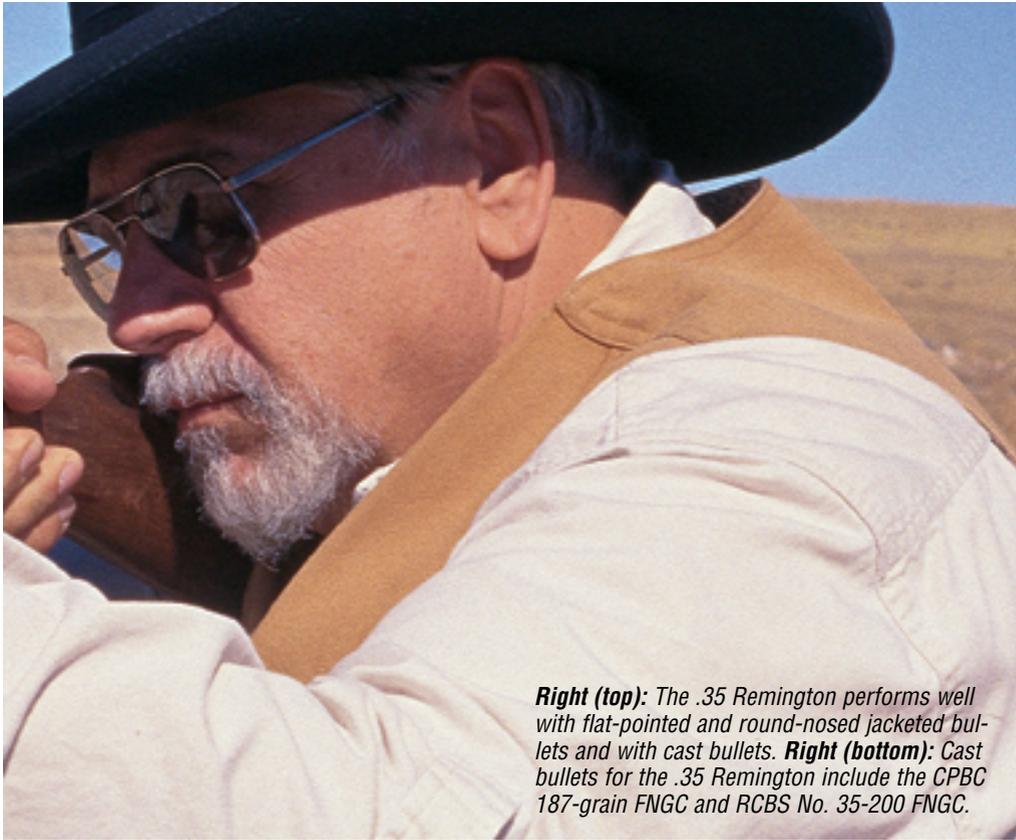
My three main sources of background material were found in *Field & Stream*, *Outdoor Life* and *Sports Afield*. Each made their appearance on the high school library magazine rack each month. I was kept continually enthralled by writers such as Robert Ruark with his wonderful tales of *The Old Man & The Boy*. Corey Ford's *Lower Forty*, *Shooting, Angling*, and *Inside Straight Club* and all the member characters thereof. And, of course, Jack O'Connor's hunting exploits all over the world.

At this point in my life I had not yet really discovered the great joy of sixguns and most of my time was spent going through the pages of these magazines looking at the advertisements for rifles and planning my future hunts.

Something else of significance happened in 1952. Marlin chambered their Model 336 lever action for the .35 Remington cartridge.

The 336 arrived in 1948 as an improved version of the Model 36. However, it was chambered only in .30-30. The more potent .35 Remington originally saw the light of day before World War I, chambered in Remington's semi-automatic Model 8. Both the Remington rifles and the cartridge were very popular with woods hunters between the two World Wars. Now, Marlin had very wisely chambered the .35 Remington in a quality levergun.

Marlin had wonderful ads for their rifles in the magazines I spent so much time with in the early 1950s. Someday I would have a .35 Remington Marlin levergun... Someday.



Right (top): The .35 Remington performs well with flat-pointed and round-nosed jacketed bullets and with cast bullets. **Right (bottom):** Cast bullets for the .35 Remington include the CPBC 187-grain FNGC and RCBS No. 35-200 FNGC.



Questing For A Big Bore

As my high school days ended, I soon discovered the joys of sixguns and all my early Marlin's were chambered for sixgun cartridges. I still wanted that .35 Remington 336 someday. Well, "some-days" come and go all too quickly. The 1950s became the 1960s, which even more quickly passed into the 1970s and 1980s and I still didn't own a Marlin chambered for the .35 Remington.

Finally, about ten years ago, I began looking earnestly for a straight gripped Marlin 336 chambered in the big .35. It

was easy to find versions with a pistol grip buttstock, however that slick and trim little straight-gripped carbine eluded me. I even had several friends around the country looking on my behalf. We got nowhere.

At the time I had a place in the mountains 100 miles north of home and we would often go up there to camp out for the weekend. About 25 miles south of our place, a small combination gun and pawn shop opened up, however it was always closed when I went by. Then about five years ago, I found them open on Labor Day weekend.

Twenty Percent Off To Boot

We stopped in and looked around. A large sign heralded "Special Labor Day Sale — 20 Percent Off Rifles." As I looked around I spotted a straight gripped Marlin 336 on the rack behind the counter.

"What is the old Marlin you've got back there?"

"Ahh, you don't want that one. It's not a .30-30. It's one of those Remington .35s."

My spirit soared and my heart skipped a beat or two. I forced myself to calm down and with as little excitement as possible I asked to see the worthless old .35





Two excellent .35 Remingtons are the Marlin 336 and the T/C Contender Super 14.

Remington. It looked to be in great shape — with only normal wear on the outside, a very smooth action, and a perfect bore.

I looked at the price tag. The amount was very reasonable even before taking 20 percent off. My search was over and that gun shop owner never knew what joy he gave that day.

Last Of Four

The .35 Remington is one of a quartet of rimless cartridges developed by Remington around 1906. The others were the .25, .30, and .32 Remington. The first rifle for which they were chambered, as mentioned, was the Model 8 semi-automatic. By the time Marlin chambered the 336 for the .35 Remington in 1952, Remington had chambered the cartridge in both pump and bolt action rifles, and Winchester had even offered the Model 70 in .35 Remington.

This makes this nearly 100 year-old cartridge one of the few that has been chambered in all four American made repeating rifles, semiautomatic, pump action, bolt action, and lever action.

Why did the .35 Remington survive when the other three Remington cartridges passed into oblivion? Winchester had the

extremely popular Model 94 chambered in .25-35, .30-30, and .32 Winchester Special. Remington's three cartridges were simply rimless versions of the rimmed Winchester cartridges. They are so similar, in fact, that some early .30 Remington rifles are marked .30-30 Remington. That surely was very confusing for shooters.

The .35 Remington was not a copy of anything. The .35 Winchester — which existed at the time in the Model 95 — was more powerful than the .35 Remington, in fact falls between the .35 Remington and the .358 Winchester. The .35 Remington survived for several reasons.

It was chambered in lightweight, easy to pack rifles; recoil is relatively mild compared to other big bores; and most importantly it's an exceptionally good deer and bear cartridge, especially when used in the woods or heavy brush.

And let's make no mistake about what a "brush gun" is. No rifle that is light enough to carry will penetrate brush nor should it be expected to. If it's not a clean shot, it should not be taken. A brush rifle is simply one that is easy to carry in heavy cover with a cartridge powerful enough to stop deer and black bear at close range.

Tubular Magazine Cautions

One of the "drawbacks" in using the lever action rifle with a tubular magazine is that one cannot use spire-pointed bullets. The problem, of course, is that a pointed bullet pressing against the primer of the cartridge ahead of it could cause a discharge in the magazine as the gun recoils. This caution also extends to round-nosed bullets in heavy recoiling rifles such as the .45-70.

I have never heard of this being a problem with the relatively easy recoil of the .35 Remington, and round-nosed factory loads for the .35 are available from several manufacturers. Various loading manuals also give data using round-nosed bullets in the .35 Remington.

Good Tools Produce Good Ammo

For reloading the .35 Remington, I use Lee dies in the RCBS Rockchucker press. I prefer Remington nickel plated brass when I can get it. All brass, whether brand spanking new or previously fired is lubricated with Midway spray-on lube and then full-length resized.

CCI's No. 200 Large Rifle Primers are seated with an RCBS hand priming tool,



.35 REMINGTON MARLIN MODEL 336, 20-INCH BARREL

CAST BULLET LOADS

Bullet	Load	MV	3 Shots/50 Yards
CPBC 187 gr. FNGC	18.0 gr. XMP5744	1,462 fps	1½"
CPBC 187 gr. FNGC	15.0 gr. XMP5744	1,212 fps	5/8"
RCBS 35-200 gr. FNGC	39.0 gr. BLC-2	1,998 fps	1¼"

JACKETED BULLET LOADS

Bullet	Load	MV	3 Shots/50 Yards
Winchester 200 gr. PPSP	Factory	1,896 fps	1¼"
Federal 200 gr. Hi-Shok	Factory	1,986 fps	1¼"
Speer 180 gr. FN	38.0 gr. AA#2520	1,959 fps	1¾"
Speer 180 gr. FN	42.0 gr. BLC-2	2,088 fps	2½"
Speer 180 gr. FN	33.0 gr. H322	1,972 fps	1¾"
Speer 180 gr. FN	35.0 gr. H322	2,066 fps	1¾"
Speer 180 gr. FN	34.0 gr. AA#2015	1,925 fps	1¾"
Speer 180 gr. FN	36.0 gr. AA#2015	2,040 fps	¾"
Speer 180 gr. FN	28.0 gr. Reloder 7	1,732 fps	1¾"
Speer 180 gr. FN	30.0 gr. Reloder 7	1,832 fps	2"
Speer 180 gr. FN	42.0 gr. Reloder 12	1,967 fps	1¼"
Speer 180 gr. FN	44.0 gr. Reloder 12	2,052 fps	1¾"
Hornady 200 gr. RN	39.0 gr. BLC-2	1,930 fps	1½"
Hornady 200 gr. RN	31.0 gr. H322	1,830 fps	1¾"
Hornady 200 gr. RN	33.0 gr. H322	1,875 fps	1¼"
Hornady 200 gr. RN	29.0 gr. Reloder 7	1,817 fps	1¼"
Hornady 200 gr. RN	31.0 gr. Reloder 7	1,898 fps	1¾"
Hornady 200 gr. RN	31.0 gr. AA#2015	1,687 fps	1¼"
Hornady 200 gr. RN	33.0 gr. AA#2015	1,831 fps	1"
Hornady 200 gr. RN	36.0 gr. H4895	1,791 fps	1¾"
Hornady 200 gr. RN	38.0 gr. H4895	1,924 fps	2½"
Sierra 200 gr. RN	39.0 gr. BLC-2	1,962 fps	1½"
Sierra 200 gr. RN	29.0 gr. Reloder 7	1,832 fps	1"
Speer 220 gr. RN	38.0 gr. AA#2520	1,958 fps	1¾"
Speer 220 gr. RN	30.0 gr. H322	1,756 fps	2"
Speer 220 gr. RN	32.0 gr. H322	1,841 fps	1¾"
Speer 220 gr. RN	28.0 gr. Reloder 7	1,802 fps	1½"
Speer 220 gr. RN	30.0 gr. Reloder 7	1,869 fps	1¼"
Speer 220 gr. RN	30.0 gr. AA#2015	1,643 fps	1¾"
Speer 220 gr. RN	32.0 gr. AA#2015	1,788 fps	1¼"
Speer 220 gr. RN	34.0 gr. H4895	1,664 fps	1¼"
Speer 220 gr. RN	36.0 gr. H4895	1,820 fps	2"

and powder charges dropped from an RCBS powder measure are checked on my RCBS digital powder scale. As with all sixgun and rifle cartridges destined for use in tubular magazines, I crimp all .35 Remington loads.

Several .357 Magnum bullets are useful in the .35 Remington. Standard 158-grain JHPs can be loaded at the 2,200 to 2,300 fps level to give sort of a super .357 Magnum with an explosive bullet for use on varmints. I take a different path, and instead use heavyweight cast bullets designed for the .357 Magnum, and they are fired at very modest velocities. The result of which is exceptional accuracy and very mild recoil.

Cast And Jacketed

My favorite bullet for this task is Cast Performance Bullet Co.'s 187-grain FNGC. I normally shoot these bullets to 1,200 to 1,300 fps in .357 sixguns, and the same load is duplicated in the .35 Remington with 15.0-grains of Accurate Arms XMP5744. This load clocks out over the Oehler Model 35P at just over 1,200 fps, and is also the most accurate load I

Excellent propellant choices for reloading the .35 Remington.



Kershaw Leek
Item # KS-1660



4" Closed linerlock, 420 stainless blade with thumb stud that features a Speed-Safe torsion bar mechanism. Brushed 410 stainless handles with lanyard hole and stainless pocket clip. Designed by Ken Onion Retail ... \$69.95

Our Price ... \$49.95 **Special ... \$44.96 plus \$7.99 S&H**

OFFER ENDS 05/31/03

Free to first time buyers ... Normark Pocket Sharpener (NK-4)

Catalog with over 100 brands available, 744 pages ... \$8.00



Groves Edge, Inc.

3760 E. 350 S., Bringham, IN 46913

1-800-248-2181



**THE TWO MOST FRIGHTENING WORDS A CRIMINAL
 WILL EVER HEAR... BOUNTY HUNTER**

Cops aren't a criminal's worst nightmare - they need warrants, probable cause and have limited jurisdiction. Not so Bail Enforcement officers, today's tough bounty hunting team. They cross state lines at will, carry unusual weapons and equipment. They're professional, they get their man, and their gear, all their gear is world class! **THIS IS THEIR BADGE.** Heavy gold plate with red, white and blue enamel. \$29.95 + \$4. postage and insurance. Satisfaction guaranteed! Order from:



THE L.L. BAIRD COMPANY, DEPT. G203
 1270 West Markham, Perris, CA 92571
 Order by phone: 909-943-4180, Fax: 909-943-8491

24 Hour hotline
 909-943-6769

**ARMED FORCES
 MERCHANDISE OUTLET**

[WWW.AFMO.COM](http://www.afmo.com)



Find Your "HARD USE"
GEAR BAG @
www.afmo.com

ORIGINAL
 S.W.A.T.

BDU's/Field Gear
 100s of Brands
 Combat Boots
 Desert
 Jungle
 Goretex



Thousands of Items On Line
1-800-282-3327
 Just In Time!



SHOOT! MAGAZINE

The 1800's today!
 Guns • Gear • Shooting



Get the best of **Western-action shooting** and the **Old West**, including **guns & replicas** of the mid to late 1800's, **ammunition, shooting events, western gear, leather, history** and much more!
 Subscribe today and have **SHOOT! MAGAZINE** delivered to your mailbox at a discount of 22% off the cover price (\$27.95 for a 1-year subscription).

1-800-342-0904 (208-368-9920 outside the US)

ON-LINE: WWW.SHOOTMAGAZINE.COM

Cowboy Action • Black Powder Cartridge Silhouette • Mounted Shooting

have found in this particular Marlin 336. It will place three shots at 50 yards into 5/8 inch. This with a commercial cast bullet, and in an iron-sighted levergun.

When it comes to jacketed bullet loads in the .35 Remington, I go with the Speer 180-grain FN, Hornady and Sierra 200-grain RN, or the Speer 220-grain RN. The most accurate jacketed bullet load I have found is Speer's 180-grain FN bullet over 36.0-grains of Accurate Arms No. 2015 for 2,040 fps. Three-shot groups average 3/4 inch at 50 yards. All groups are shot with iron sights, however, the standard rear sight has been replaced with a receiver sight which works much better for my eyes.

Many loads with all four bullets are in the one-inch category for three shots at 50 yards with iron sights. Some of these include the Hornady 200-grain RN over 33.0-grains of Accurate Arms No. 2015 for 1,831 fps, and Sierra's 200-grain RN over 29.0-grains of Reloder 7 for 1,832 fps. Speer's 220-grain RN is another fine bullet, and yields the following: With 30.0-grains of Reloder 7, 1,869 fps; 32.0-grains No. 2015, 1,788 fps and with 32.0-grains H322, 1,841 fps.

The .375 Winchester and the .35 Winchester — both more powerful than the .35 Remington — have disappeared and yet the Remington remains. One great reason may be that the .35 Remington uses the big bullets of the dead duo with not much more recoil than the .30-30. The .30-30 is a great cartridge when mated to a slick-handling, flat-sided saddle gun. The .35 Remington is probably just a shade greater.

Not Just Rifles

The .35 Remington also has another dimension. For many years it was chambered in Thompson/Center's Super 14 Contender. I often recommended it to handgun hunters who were looking for a single-shot handgun that would handle anything in the lower 48 without excessive recoil. It is also superbly accurate.

Using Hornady's 180-grain Spire Point, which cannot be used in the Marlin, over 32.0-grains of Alliant's Reloder 7 yields a muzzle velocity from the scope-sighted Super 14 of 1,983 fps and three shots in less than one inch at 100 yards. There are a lot of high-dollar bolt actions chambered in more modern cartridges that will not do this.

Other excellent hunting loads I have found for the Super 14 Contender in .35 Remington are Sierra's 200-grain RN over 37.0-grains of Accurate Arms No. 2520 for 1,827 fps. Speer's 220-grain FN over 38.0-grains of Hodgdon's H322 produces 2,035 fps. And Speer's hard-hitting 220-grain FN loaded over 36.0-grains of IMR 3031 clocks 1,827 fps.

Cartridges come, and cartridges go. The .30-30 has been around since 1895 and the .35 Remington since 1906. I expect both of them to be around for many more years with shooting pleasure in store for many more generations of levergun lovers.



AT HORUS VISION, EVERYONE IS A SHOOTER... CALL OR WRITE FOR HELP... WE'VE BEEN THERE — DONE THAT. YOU NEED HORUS' SYSTEM!

Play the Ranging Game... www.horusvision.com



HORUS VISION

Phone: 650-583-5471 • Fax: 650-589-4569 • Email: dennis@horusvision.com



LASSEN COLLEGE

continued from page 34

While Lassen offers a wide range of vocational programs, one of the longest running and certainly the most notable is their gunsmithing program.

Here a student can earn a fully accredited Associate Science degree in gunsmithing after successfully completing one of their two-year courses. Located in the John Wise Vocational Gunsmithing Building are three classrooms with benches, a machine shop, armory and safe area.

It Takes Tools To Teach

The machine shop houses 21 lathes, four mills, three drill presses, two sand blasters, three buffers, seven grinders, a planer, two TIG welders and a complete tool room. Their armory boasts nearly 250 different makes and models of arms for instructional aids. In addition, a 700 yard range is located a short distance from the campus.

My visit to Lassen took place this past July, while they were teaching one and two week NRA gunsmithing courses. Before I arrived I wasn't sure of what to expect, or if my quest was at an end, but pulling into the campus I liked what I saw.

I was impressed by the school's layout, well kept grounds, and modern buildings. In addition, the school is located in scenic north eastern California and the view from the school, especially at sunset, is spectacular. During my visit there were four different summer courses being taught. Of the four, three were being taught by visiting professionals.

Outside Expertise

These classes consisted of Wood Stockmaking taught by Charles Grace, Advanced Engraving taught by John Barraclough, and Custom Built 1911 taught by Marc Krebs. In addition, Basic Rifle Barreling was being taught by Lassen's John Martin

I spent my week at Lassen exploring the campus, sitting in on the four classes, talking to students and faculty members, and snapping pictures. I was very impressed by the quality of instructors Lassen is able to provide students.

Stockmaker Charles Grace

For example, Charles Grace graduated from Trinidad State Union College in 1973 and has been doing full-time custom stockwork since 1980. He's not only a charter member of the American Custom Gunmakers Guild, but is also on their Board of Directors. His skill with wood can be seen by the fact he was chosen to stock the guild's 2001 annual project rifle. This is a great honor that reflects his abilities.

I asked Grace what made him take time from his hectic schedule to teach at Lassen. His answer was a simple one, he liked working with the students, and remembers what it was like when he first started. He says that one of the most difficult hurdles for a student to get past is when they suddenly realize just how much time and hard work stockmaking requires. While it was his first time teaching at Lassen, he said he really enjoyed it and looked forward to coming back. This is a good thing, as his students loved him and couldn't say enough about his teaching skills.

Engraver John Barraclough

Whereas this was Charles Grace's first time teaching at Lassen, John Barraclough has been coming back to teach engraving for 22 years. Born, raised, and educated just outside of London, Barraclough initially learned the art of engraving from a Master English gunsmith in the late 1940s. This old gentleman would get work from Holland and Holland and other shops who received guns in from around the Empire. He taught John how to engrave to "get him out from under his feet."

In 1949 Barraclough moved to the U.S. and eventually studied under Neil Hartliep. He began teaching at Lassen in 1980 and his work is truly amazing.

Barraclough is a very likable and easy going man, no doubt partly due to the amount of patience his work requires. As we chatted about engravers I mentioned that I had visited Tula's museum in Russia and he rolled his eyes and smiled. We talked about the exquisite masterpieces there, and then he handed me a Colt

The Bad Guys Hate Us!

We make the strongest safe door in the industry and we put them **Out of Business!**



You buy a safe for only one reason—to protect your valuables and keep the bad guys out. We studied the weakness of the other security products on the market and what the bad guys did with them. Then we built a safe with a **strong, solid, built-like-a-vault door!** A safe door so strong that **the bad guys don't even try.** *The bad guys hate us but our customers love us!*

Call us toll-free at **1-800-242-1055** for your free color catalog and the name of a Cannon dealer near you. *Call right now! You'll sleep a lot better tonight.*

✓ Super Door. 1" edge composite construction. The industry's strongest—18 times stronger than 3/16" door. ✓ Strongest internal hinge in the industry—tested to support a 5000 lb. door—never any door sag and impossible to pry. ✓ Heavy Steel Body, Unibody formed for extra strength. ✓ Super drill resistant triple hardplate—six sides of 60 Rockwell Plus. ✓ 1" solid steel locking bolts. ✓ Heat activated door seal. ✓ Independent laboratory fire tested 1500° F for 30 minutes. ✓ UL listed group 2M manipulation-resistant lock. ✓ UL Burglary rated security safe.

CANNON SAFE, INC.

216 SOUTH 2ND AVENUE
BUILDING NUMBER 932
SAN BERNARDINO, CA 92408
WWW.CANNONSAFE.COM

Career Training in
GUNSMITHING

Earn an Associate (Occupational) Degree in 14 Months.

- 1500 Hands-on Shop Hours
- Financial Aid to those who qualify
- Approved for Veterans Education

"Not a Home-Study Course."

Training Gunsmiths Since 1947 - Further Courses

Colorado School of Trades

call or write 1575 Hoyt St. GN, Lakewood, CO 80215
1-800-234-4394 In Colorado 303-233-4897
www.schooloftrades.com

What Can Stop Rust Before It Starts? This Can!

Just spray it on and block out rust. Protect your firearms investment with our advanced formula anti-oxidation agent. Rust Prevent blocks corrosion and displaces moisture without that heavy oil residue to stain your gun cases.

- Engineered to preserve all gun metals
- Protects against fingerprints and body acid corrosion
- Prevents pitting in tough salt air
- Ultra thin film penetrates for protection



For information, dealer location, or to order on-line visit www.shooters-choice.com



15050 Berkshire Industrial Parkway
Middlefield, OH 44062 USA
Phone: 440-834-8888
Fax: 440-834-3388

100% Money-Back Guarantee

We guarantee our products will out-perform the competition, if not satisfied, you will receive a full refund of the purchase price.

Knife Outlet

Cool Blades!

Hot Prices!



The knives you want at internet prices!

Knife Outlet
Div. of Specialty Web Marketing, Inc.
66400 Oak Road
Lakeville, IN 46536

www.knifeoutlet.com
(800) 607-9948

M1911 in .38 Super. The result of over 1,200 hours (!) of painstaking work, it was beautifully embellished with small intricate gold scrollwork as applied to the presentation guns given by Col. Colt to the Czar of Russia and Sultan of Morocco.

Just something he made for himself, valued at around \$55,000, but who's counting. Barraclough says he comes to teach at Lassen every year for the students. He says he loves to see the light bulb suddenly come on when a student finally grasps an idea and makes it his own. Like Grace, Barraclough's students praised both the content of his course and his teaching skills.

Pistolsmith Marc Krebs

As mentioned, the 1911 class was taught by Marc Krebs. Krebs is well recognized by his peers as being an innovative and talented gunsmith. His work on 1911s brought him national recognition for both his creativity and the quality of his work. As an example, he first created the "snakeskin" effect, now widely copied by others.

Unlike Grace and Barraclough, I knew Krebs, having worked with him on a facts finding mission to Russia in 2001. Also, unlike the others, Krebs is a Lassen graduate.

"Lassen changed my life," remarked Krebs. "By giving me a way to go that I really like. I love gunsmithing, and so I come back every year so that others can learn from my experience."

While a little over the top, Krebs is naturally talented, and works very hard with his students. It's not everyday you can build a 1911 under the guidance of someone like Krebs, and his students devoured his class.

Talented Home Team

While these three men are certainly gifted, Lassen's regular instructors are also excellent. I spent time with Gary Boyd, the Director of the Gunsmithing Program, Steve Taylor who specialized in welding, instructors John Martin and Bob Chavez, and assistant instructor Dave Renner.

I asked them about their teaching methodology, why they taught, and what they looked for in their students. While I liked what I heard, I was more impressed by how they interacted with their students. All are laid back professionals who joke and kid amongst themselves while teaching their students, but this relaxed approach doesn't hide their dedication to the school and its mission.

In addition, the school's Vice-President, Linda Kennedy, is an ardent supporter of the gunsmithing program and a shooter herself. Considering how liberal and anti-gun much of California is, it was good to see a community college there with a well-established gunsmithing program.

The Clark Gator AR

Clark Carbon Fiber Handguard (Pictured) \$1,340

DPMS Vented Aluminum Handguard \$1,257
(Pictured with optional Harris Bipod & Bushnell Hotosight)

- 1/2 MOA Accuracy Guarantee
- 1st Ever CLARK Manufactured Firearm
- Custom left hand control stainless barrel
- Light weight, heat defying carbon fiber free float handguard
- JP Enterprises Adjustable trigger system
- JP Enterprises Adjustable gas system
- Scope / Bipod optional

FREE
Catalog with
Mention of
this Ad!

CLARK
CUSTOM GUNS, INC.
MEMBER AMERICAN PISTOLSMITH GUILD

Let us
accurize your
Ruger Mini-14

Dept. GM • 336 Shootout Ln. • Princeton, Louisiana 71067
1-318-949-9884 • Fax 1-318-949-9829
Toll Free Ordering: 888-458-4126 • Shop Online www.clarkcustomguns.com

Call or visit our web site for more information. Business hours: 7AM-4PM CST

Students Make The School

And just what are Lassen's students like? A good and diverse bunch from all walks of life. Men and women who ranged in age from 20 to 80-something and from across the country. Some were full time students while others attended part time. They all had one thing in common though, a love of firearms and a desire to learn.

Some were here with the desire to eventually become professional gunsmiths, others were practicing professional gunsmiths here to increase their knowledge and skills, and some were here just to learn for their own knowledge. I spent as much time as I could with as many different students as possible, talking and listening to what they had to say, seeing what they were working on, and just talking guns.

Some had been taking summer courses at Lassen for decades in an effort to broaden their skills. There were a number of fellows who said, "I come here for a week or two every summer, it's like my vacation, the one thing I do just for me." That speaks very highly of the school, its instructors, and the curriculum being taught.

Lofting Bowling Balls

Lassen isn't all work and no play. I had the opportunity to go to the range with some of the students and instructors for a little fun. Here we relaxed and I had a chance to shoot some of the rifles built by the staff and students. I have to admit though that one of the female students from the engraving class handily out-shot me with a .50 BMG rifle.

The highlight of the evening was when the instructors broke out a bowling ball mortar. Lassen offers a huge array of courses, one of which is cannon building! So we sat back and watched as their creation threw full size bowling balls almost out of sight. It was, to say the least, spectacular.

My quest came to an end at Lassen Community College. An old and well respected school that's fully accredited, Lassen has been forging gunsmiths since 1945. Their semesters are thoughtfully divided up into one week courses to allow part time students to attend within their work schedules.

In addition to their regular courses they also offer Law Enforcement and NRA gunsmithing courses. If you've ever desired to become a gunsmith, or would simply like to learn some skills to aid you in working on your own firearms, I suggest contacting Lassen. Their gunsmithing program may be just what you're looking for.



FOR MORE INFORMATION:

Lassen Community College
Highway 139
P.O. Box 3000
Susanville, Ca. 96130
[530] 257-6181
www.lassen.cc.ca.us

The Largest Source in the World for New & Obsolete Firearms Parts & Accessories

Suppliers of Fine Products & Parts from Colt • Mossberg
• Marlin • S&W • Remington • Winchester
H&R • Savage/Stevens • U.S. Military
and many other manufacturers



NEW EDITION

Catalog #24 contains 1184 pages featuring 180,000 individual items, over 400 schematic drawings, and our store brand firearms cross-reference list.

The only source you'll ever need for current, obsolete, military parts, gunsmith supplies, military surplus and shooting accessories.

ITEM#PJ-24A \$12.95

U.S. Orders: (Bulk Mail) Shipping charges included.
Foreign Orders: Air Mail 30 day delivery or
surface-90 day delivery. Shipping charges additional.



Mail: 226 Williams Lane, P.O. Box 299, West Hurley, New York 12491
Phone: 845-679-2417 • Toll-Free Fax: 877-GUNPART • Web: e-GunParts.com

PURE ELEGANCE MEETS SOLID PERFORMANCE



CARBON FIBER GRIPS FOR
MODEL 1911S & COMPACTS
CUSTOM-FITTED AND
HAND FINISHED

Carbon Creations has crafted a stunningly beautiful line of carbon fiber pistol grips designed to maximize performance and transform your pistol into a work of art. Each set of grips is manufactured from aerospace quality carbon fiber and carbon/kevlar blends to deliver a precision fit with a flawless finish. Lifetime Guarantee.

\$79.95

Call, write or fax
to receive our free
color brochure.

CARBON CREATIONS

P.O. BOX 1434
VALLEY CENTER, CA
92082

TOLL FREE:
888.757.4747

FAX:
760.749.4490

Double Diamond Pattern

patent # 5797207

WWW.CARBONCREATIONS.COM

Introducing...The Raven Combat

7" Blade S30-V RC 59-60
Gunner Grip™ G-10 Handles
Blackhawk Airborne Sheath
\$299.00

Combat Tested in Afghanistan



Simonich Knives LLC
PO Box 278
Clancy MT 59634
(406) 933-9151

www.simonichknives.com

Forster Case Trimmer System

The all-in-one trimmer/inside neck reamer/outside neck turner/pocket cleaner/primer pocket chamfering tool/hollow pointer.

It's the most versatile case preparation method on the market - bar none. With one miniature lathe and up to five specialized accessories, the Forster Case Trimmer System can help ensure the kind of consistency and reliable performance you've always wanted from your new or recycled cases. Changing calibers is as easy as changing the collet and pilot, and new functions can be added as you go.

Three different case trimmer bases are available:

- Standard (the original trimmer for hundreds of common and not-so-common rifle and handgun calibers)
- Classic (the right choice for hundreds of popular big bore calibers)
- 50 BMG.



The Forster System of precision reloading. It makes sense.

310-T E. Lanark Ave., Lanark, IL 61045
Phone: (815)483-6363 | Fax: (815)483-2371

Send \$2 for our complete catalog or visit us online at www.forsterproducts.com

CAST BULLET PRIMER

continued from page 31

More recently, a product called Marvelux has become a favorite.

In use, a small, pea-sized lump of the material is dropped onto the surface of the molten metal. Use your ladle to stir the melt thoroughly, scraping against the sides of the pot and drawing metal from the very bottom. Be aware that beeswax or paraffin will smoke violently, and may burst into flame. Yet another reason we don't cast bullets in our Lady Fair's kitchen.

After fluxing, all dirt and impurities will float on top of the melt, and may be skimmed off with the ladle. A coffee can is a handy, fire-proof receptacle to dump this dross into.

Readying The Mold

If the mold is a new one, or if we've coated it with oil for storage, it must be cleaned completely with a good solvent and an old toothbrush before use. After the solvent has evaporated, the mold may be "smoked."

Smoking seems to help most (not all!) molds to produce better bullets that drop more easily from the cavities. To smoke your mold, ignite two wooden kitchen matches and play the flame along the mold halves until a thin layer of soot evenly covers the cavities. Often, eight or 10 bullets must be cast before this coating of soot is smoothed out and perfect bullets result, but afterwards, the result is usually much better performance.

Ready to cast our first bullet?

Dip your ladle into the melt, and pour a short stream back into the pot to ensure the nozzle is clear. Bring the mold horizontally to the nose of the ladle, then rotate the mold to vertical. How long you pause in this position depends upon the size of the bullet. Large diameter, heavy bullets may require several seconds to fill properly.

Now, lift the ladle from the mold, and allow a small puddle to form on top of the sprue plate before returning the ladle to the molten lead. Watch the sprue as it grows cold and hardens. When it's fully solidified, you may pick up your casting mallet (a 14-inch length of 1 inch hardwood dowel will do nicely), and strike the protruding end of the sprue plate to shear off the surplus lead.

Open your mold over a padded surface (folded t-shirts under an old towel will suffice) and wait expectantly for that bullet to drop. Odds are it won't. Now, use your casting mallet to gently strike the handle of your mold at the hinge. Molds are individuals. Some drop their bullets easily, others

only after persuasion. Use care though, as you can damage your mold if you beat heavily upon the blocks.

A Matter Of Temperature

When that first bullet drops, you'll probably be disappointed. Likely the mold has not yet come to proper temperature, and the bullet will be less than well filled out, or will show wrinkles. Despair not, but continue casting, and soon your bullets will fall from the blocks in good order.

I like to arrange my cast bullets sequentially in rows. Later, when selecting from the cooled bullets, you'll see many that at first glance looked perfect bear flaws related to temperature of mold or alloy. If you lay them out in order, you'll see the point at which the bullets commenced falling in perfect condition, and if it's the case, you'll also see where they may have again begun to suffer problems.

Match rifle shooters often lube, load, and even shoot bullets in the order cast for the utmost uniformity.

Looking For Flaws

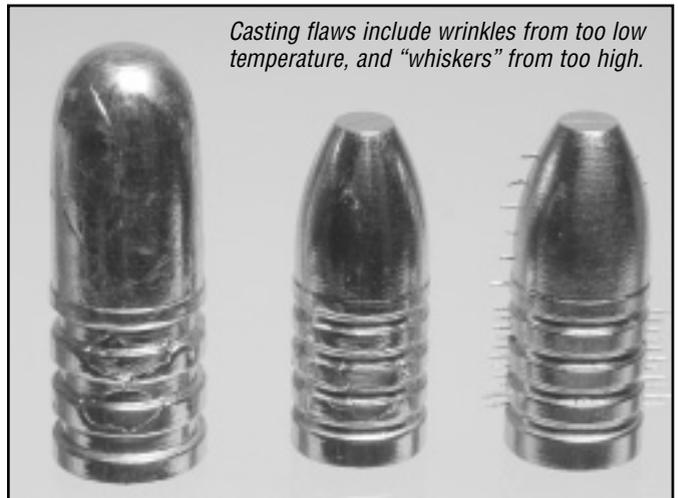
To produce first-class bullets, I find it necessary to constantly adjust the casting rhythm. If the bullets show rounded bands or wrinkling, the mold is too cold, and it's time to pick up the pace. If the bullets assume a frosted appearance, the mold is far too hot, and you must slow your casting, perhaps by alternating with a second mold.

The base of the bullet is an important indicator, and each time the sprue plate is swung open you should examine the bullet's base. A rough or torn looking sprue cut on the base says you're not waiting long enough before striking off the sprue.

A cavity in the sprue cut shows you've not left a sufficient puddle on the sprue plate. As the bullet cools, it draws some of the still molten material from the sprue. If there's not enough material present, a hollow cavity will result.

Other problems to look for are a bullet with a fin around part of the base, due to a loose sprue plate. Adjust the sprue plate

Casting flaws include wrinkles from too low temperature, and "whiskers" from too high.



NEXT MONTH

Beretta Billenium



KIRKPATRICK LEATHER COMPANY
Manufacturing Quality Leather Since 1968

"Marshall"
\$340.00
plus \$8.00/sh.

"Santa Fe"
\$245.00
plus \$8.00/sh.

NOW ON THE INTERNET

For catalog send \$5.00 to:
P.O. Box 6770M
Laredo, Tx 78042
or call us at 1(800) 451-9294

www.KIRKPATRICKLEATHER.com

S&K SCOPE MOUNTS • S&K SCOPE MOUNTS • S&K SCOPE MOUNTS

Home of the Insta-Mounts (for Military Types)

Presents: **Skeletal Bases**
Smooth Contoured Rings
Precision Mounts **Free Price! \$133.29!**

SEND FOR BROCHURE
S & K SCOPE MOUNTS
807 BOX 725
SUGAR GROVE, PA 16350
Tel: 800-578-9662 or
814-489-3091
Fax: 814-489-5466
Website:
www.scpemounts.com

Easy installation
the lightest
the strongest
The Best!
Guaranteed

**TRY THEM!
WEIGH THEM!
USE THEM!**

All Steel, Fully Machined, Windage Mounts

LEGENDARY ARMS, INC.

P.O. Box 197 • Callion, NJ 07830-0197
Phone: (908) 832-0185 • Fax: (908) 832-0812

Send \$5.00 for our 24-page color catalog of the finest reproductions of swords, knives, uniforms, leather equipment, canteens, insignias, etc. We specialize in the American Civil War.

We accept Visa/MC, Discover, AmEx, Checks, Money Orders. No C.O.D.s

Visit our website at:
<http://www.legendaryarms.com/>

U.S. Light Cavalry Saber
Item# 5008, \$125.00 + \$8.00 SH
Tempered Carbon Steel Blade. Made in India.
(Free leather scabbard with order.)

GUNS
MAGAZINE
ONLINE

www.gunsmagazine.com

to drag lightly across the top of the blocks to correct this. Fins or whiskers on the bullet are often the result of a small splatter of lead having been caught on the face of the blocks, but whiskers are sometimes produced when mold and alloy are far too hot.

Afterwards

Having run all the bullets we want for the present, we'll shut off the pot. If you have children around, take care not to leave the area until the pot has grown cold.

This is a good time to closely inspect your product. Bullets with visible flaws may be put back into the pot. Save a few of these culls however, to use in adjusting your seating die, etc.

If you're after the ultimate in accuracy, weigh each bullet as a check for hidden voids. Lube them by your preferred method, and store them carefully in a way that will prevent them from bumping together, and which will keep them dust free. Pistol cartridge boxes with plastic trays work well for cast rifle bullets.

At one time, nearly every shooter or hunter cast his own bullets. Today, it's rather uncommon, and more is the pity. It's not difficult, and it can be immensely satisfying. Why not give it a try?



FOR MORE INFORMATION:

Buffalo Arms
[208] 263-6953
www.buffaloarms.com

Cabelas
[800] 237-4444
www.cabelas.com

Lee Precision
[262] 673-3075
www.leeprecision.com

Lyman Products Corp.
[800] 225-9626
www.lymanproducts.com

Midway U.S.A.
[800] 243-3220
www.midwayusa.com

Rapine
[215] 679-5413

RCBS
[916] 533-5191
www.rcbs.com

SAECO
[607] 753-3331
www.redding-reloading.com

SPG
[307] 587 7621
www.blackpowderspg.com

NEW*

***Yes, and it's
over 50 years old!**

A **Mausers 98K**, Model M48 is the **Strongest** and **Best** of bolt-action Rifles. Made on WWII German Tooling.

Military-New condition with clean, **Bright Bores**, and **Teakwood stocks**.

Maintained **Combat-Ready** for over 50 years, and now it can be yours.

Original Factory matching serial numbers on all rifle parts.

Preserved by an accident of history, this **new group** will not last long.

All original accessories as issued at the time and shown here are included.

This Mauser is ideal for collecting, target shooting, hunting, or customizing.

We guarantee it!

This Collector Grade Rifle is

**Yours for Only
\$395.**

The Rifle without Accessories is \$295.
Add \$12 for S & I in Continental US

**Mitchell's
Mausers**

P.O. Box 9295
Fountain Valley, CA
92728-9295

FAX 714-444-2226
714-444-2220

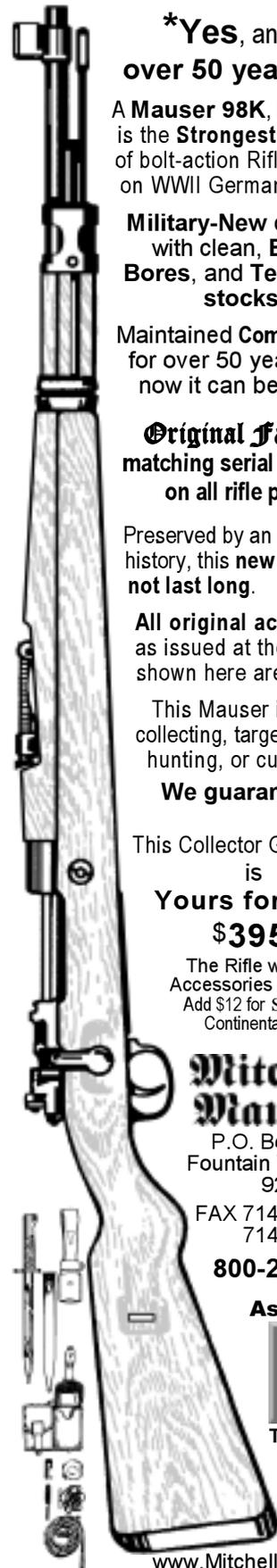
800-274-4124

As seen on



The History Channel tape is available now.

www.MitchellSales.com



GUNS

MAGAZINE

SPRING CATALOG SHOWCASE



A.G. RUSSELL™ KNIVES

The oldest mailorder knife company, A.G. Russell Knives has a tradition of offering the finest quality knives and accessories worldwide. Lines include Randall, Dozier, William Henry, Boker, Marble's, Ka-Bar, SOG, Kershaw, Klotzli, Columbia River, Case, Gerber, Schatt & Morgan, A.G. Russell, and more. Call for a free catalog!

(479) 571-6161
www.agrussell.com

CATALOG INQUIRY #10



AMERICAN GUNSMITHING INSTITUTE

American Gunsmithing Institute (AGI) Repair, Maintenance & Customizing VIDEO COURSES for your Colt, Browning, Glock, Remington, Ruger, S&W, Winchester, AKS, Garand, SKS, AR-15, 45 Auto, H&K, Many More! Armorer Courses for 34 different firearms. How-to videos: Lathe & Mill, stock refinishing, bluing, bedding, barreling, custom pistol & rifle building, more. Professional Gunsmithing Course w/certificate. 1-800-797-0867. FREE catalog & e-zine www.americangunsmith.com

CATALOG INQUIRY #11



AMERICAN HANDGUNNER MAGAZINE

Imagine a magazine with such detailed information that each issue makes you feel like you've fired the guns featured. Every issue provides the latest news on handguns and accessories in a tell-it-like-it-is style you won't find anywhere else. Nothing prepares you for handgunning like American Handgunner. 1 year subscription \$16.95 (outside the U.S. \$36.95)

CATALOG INQUIRY #12



2001 ANNUALS

Reduced! Order each annual individually for \$7.95US and \$17.95 Foreign or order all four for \$25.00US and \$45.00 Foreign

CATALOG INQUIRY #13-17



2002 ANNUALS

Order each annual individually for \$8.95US and \$17.95 Foreign or order all four for \$32.00US and \$52.00 Foreign

CATALOG INQUIRY #18-22

Our catalog display allows *GUNS Magazine* readers to select literature on a wide variety of shooting products.

HOW TO ORDER

Please check the box(es) of the literature you'd like to receive on the attached order card. Enclose (in the envelope provided) a check or money order payable to *GUNS Magazine* for the total literature fees plus \$2.50 handling charge. If paying by credit card, please include all information needed. OR: Send a list of the catalogs you want to request, listing the name and catalog inquiry number of each, with your check or VISA/MC# for the total catalog fees plus \$2.50 handling charge. Mail to: *GUNS Magazine*, P.O. Box 85201, San Diego, CA 92186-5201.

Catalogs will be mailed directly to you by the companies making the offer. Please allow 6-8 weeks for delivery. *GUNS Magazine* and Publishers Development Corporation are not responsible for unprocessed orders.

Companies participating in this section have accepted full responsibility for filling reader requests.



2003 ANNUALS

Order our 2003 annuals for \$9.95US and \$17.95 Foreign individually or order all four for only \$32.00US and \$52.00 Foreign. ORDER TODAY! American Handgunner 2003 Annual available April 2003.

CATALOG INQUIRY #23-27



ARMALITE INC.

ArmaLite offers a comprehensive line of .223, 243 and .308 caliber rifles and carbines. Every ArmaLite rifle and carbine is all new and all American made. Our on-going commitment to innovation, quality and value is what makes our rifles the best value on the market. To order call 1-800-336-0184 Monday - Friday 8:00a.m. - 4:30p.m. CST. \$2.00 (free with signed FFL).

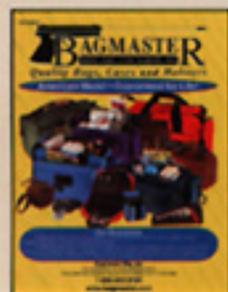
CATALOG INQUIRY #28



AUTO-ORDNANCE

The Auto-Ordnance catalog featuring the famous Thompson, the Thompson Long Guns and the full line of Auto-Ordnance pistols. Free.

CATALOG INQUIRY #29



BAGMASTER MFG. INC.

Over 500 High Quality, American Made, and Life-time Guaranteed nylon products at extremely competitive prices. Bagmaster offers the most complete line of Shooters bags on the market today, different styles of holsters, shooting accessories and a wide variety of tactical and long gun cases!

FREE CATALOG
800-950-8181
www.bagmaster.com

CATALOG INQUIRY #30



BENCHMADE KNIVES

If you're the type that appreciates cutting edge design, patented engineering innovation and built for the world toughness, then Benchmade is your choice for knives. Get our NEW! catalog packed with some of the finest cutlery available today - even by some custom made standards. Be warned though, Benchmade knives are addictive...Catalog \$2.00.

CATALOG INQUIRY #31



BIANCHI INTERNATIONAL

Bianchi International celebrates its 45th Anniversary with their 2003 catalog. Specializing in Holsters and Accessories for Law Enforcement, Military and Sportsmen, Bianchi has the gear you need. \$5.00

CATALOG INQUIRY #32



BLACK HILLS AMMUNITION

Black Hills Ammunition is the choice of the US Army, USMC and the US Navy Rifle Team. We specialize in .223 and .308 Match ammunition. We also have Cowboy Ammunition and superb but economical remanufactured ammunition in many calibers. See your dealer or contact us for assistance. Catalog \$1.00.

CATALOG INQUIRY #33



ED BROWN PRODUCTS

Famous for his 1911 custom handguns, Ed Brown now has a premium line of custom built action rifles based on his proprietary Model 702 action. Complete catalog features the Savanna, Denali, Ozark, Bushveld and Tactical style rifles. Also features handguns, including our new Kobra 1911 style parts and accessories. Visit our website at www.edbrowns.com for a complete listing of rifles currently in inventory, additional information and the most recent photographs, or send \$3.00 for a catalog.

CATALOG INQUIRY #34



BROWNELLS

Brownells Catalog of Gunsmithing Tools, Custom Firearms Accessories and Factory Gun Parts Company; Brownells, Inc. Montezuma, IA 58171

444 pages! Filled with all the top brand-name accessories and 152 pages of factory parts to make your rifles, shotguns and handguns look and work better, plus, how-to books and videos, and specialized gunsmithing tools. Full-time tech staff answers your questions.

Selection. Service. Satisfaction - 100% guaranteed. (Business discounts, call 800-741-0015, dept. #775 for info.) Price of catalog refunded with order. \$5.00

CATALOG INQUIRY #35



AMERICAN HANDGUNNER

Find out for yourself why AMERICAN HANDGUNNER is the first and best handgun magazine of the market. Since 1975, no other publication has given handgun enthusiasts more. From the latest news to the hottest gear, our "tell-it-like-it-is" style has never been surpassed. Send for your sample copy for only \$3.00, and discover why AMERICAN HANDGUNNER has no equal.

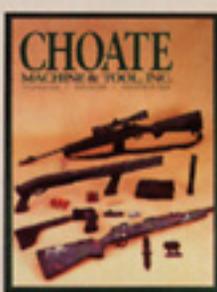
CATALOG INQUIRY #36



BUSHMASTER FIREARMS

Bushmaster Firearms, Inc. has become the largest U.S. commercial manufacturer of the AR15/M16 type rifle system, with models designed for Law Enforcement, Home Defense, Competition and Varmint Hunting. Send for a free catalog, or see www.bushmaster.com for a complete selection of parts and accessories for these high quality rifles and carbines.

CATALOG INQUIRY #37



CHOATE MACHINE & TOOL

Our four color 2003 catalog is packed full of the best synthetic stocks and accessories available today for all of your shooting needs. Featured in this issue is our new target/varmint stock along with all of our other bolt action, semi-auto and shotgun stocks. Our products carry a lifetime warranty. \$2.00.

CATALOG INQUIRY #38



JONATHAN ARTHUR CIENER INC.

Preminent Designer/Manufacturer of 22LR Conversion Units in the World. These allow the use of inexpensive 22LR ammo in your firearms. Products include models for 1911A1, Beretta 92/96, Taurus PT92/99, Glock 17/22 & 19/23 Pistols, AR15/M16, Mini-14/AC556, AK47/84 rifles, Thompson SMG and NEW Browning Hi-Power.

Catalog with info on purchasing direct - \$5.00
www.22lrconversion.com

CATALOG INQUIRY #39



CIMARRON F.A.CO.

Cimarron Firearms offers detailed copies of the firearms used taming the frontier of Texas and the American West. Cimarron is clearly recognized as the leader in authentic high quality Cowboy Action Shooting firearms, supporting SASS since its start in 1987. Send \$5.00 or your FFL to:

Cimarron F.A. Co.
P.O. Box 906
Fredericksburg, TX 78624

CATALOG INQUIRY #40



COLLECTOR'S ARMOURY

Historic collectible and gifts: Medieval, Civil War, Wild West, and World War II. Over 600 authentic reproductions featuring full-size, non-firing replica pistols and rifles, swords, flags, canteens, bugles, insignia, badges, hats, letter openers, holsters, miniature cannons and pistols. As seen in the movies. You won't believe the realism and detail. Catalog \$1.00

CATALOG INQUIRY #41



COMPASSECO INC.

Our SALE catalog is packed full of great bargains with free items & discounts up to 15% on select items. We have the largest selection of all types of airguns. Choose from Tech Force, BSA, Beeman, Talon, Air Arms, Walther, Webley, Smith & Wesson, RWS, Gamo, Crosman & more.

www.compassec.com FREE

CATALOG INQUIRY #42



CRIMSON TRACE CORP.

FREE, Crimson Trace Lasergrips 2003 product catalog. Featuring new rubber overmold lasergrips for the Sig P220, Browning Hi-Power, Walther PPK/S and more. Also included our exclusive special report "Five Things Every Handgun Owner Should Know". For more information call 800-442-2466 or visit www.crimsontrace.com
Crimson Trace Lasergrips...What to have on your side.

CATALOG INQUIRY #43



CUTLERY SHOPPE

Top quality knives at discount prices! Save on Al Mar, Benchmade, CRK&T, Cold Steel, Gerber, Kershaw, SOG Specialty, Spyderco, Victorinox and many more top knife brands. Great selection of First Defense Pepper Spray, Sure Fire Flashlights, Sharpening products, Photon MicroLights, ASP Batons and more. Visit our website at www.cutleryshoppe.com for all the latest. Full color catalog \$2.00.

CATALOG INQUIRY #44



DAVIDSON'S

GalleryofGuns.com features the fantastic new Gun Locator, Retailer Near You, Shooting Times Research Center, Shooter's Lodge, Blue Book Valuations and much more. It's more than an online catalog - it's a great experience... Free.

CATALOG INQUIRY #45



DELTA FORCE

The 64-page color catalog is packed with the latest & hard to find accessories. Handgunner, rifleman or shotgunner. High capacity magazines, handgun grips, quality protective eyewear, tools, Law Enforcement equipment, sniper stocks, folding stocks, leather & nylon holsters, shotgun accessories & more! Send \$4.00 for catalog.

CATALOG INQUIRY #46



DELTA PRESS

"Outrageous books & videos" describes the Delta Press 64-page full-color catalog. You won't find these books in any store. These hard to find items cover firearms, explosives, police science, survival, silencers, self-defense, sniper training, assembly and disassembly manuals, posters & military history. Send \$4.00 for catalog.

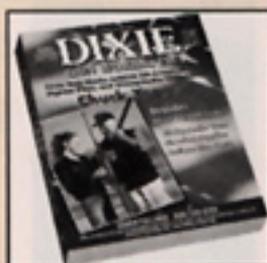
CATALOG INQUIRY #47



DESANTIS HOLSTERS

Original genny-sacks (patented), full line of law enforcement duty and plainclothes holsters and accessories in leather, nylon and synthetic tactical gear, belts, purses, ankle and shoulder rigs, hunting holsters and rifle slings. Extensive selection of cell phone holsters. Catalog \$5.00.

CATALOG INQUIRY #48



DIXIE GUN WORKS

The greatest blackpowder catalog of them all. Dixie's catalog has more than 700 pages of replica guns, antique gun parts, equipment and supplies for the hunter, shooter and historical enthusiast. The Dixie Gun Works catalog also features a section dealing with facts and figures designed to improve anyone's knowledge of this fascinating field. \$5.00 outside US \$10.00.

CATALOG INQUIRY #49



D.P.M.S. PANTHER ARMS

Accuracy is our priority at DPMS. We have been refining the art of manufacturing "AR" rifles since 1986. See for yourself in our new catalog. We also carry a full line of "AR" accessories, manuals, scopes and much more for any shooter. Online ordering available at: www.dpmsinc@aol.com. Phone 1-800-578-3767. \$2.00

CATALOG INQUIRY #50



DSA INC

DSA is the only U.S. manufacturer of FAL, rifles using the original Steyr metric blueprints. High grade materials and ultra-high precision CNC milling and turning centers provide for the most accurate and reliable FAL's available. DSA's catalog also includes a complete line of SASS/FAL parts and accessories. Send \$3.00 for your copy or call 847-277-7258

CATALOG INQUIRY #51



DYNAMIT NOBEL-RWS INC.

Our new 2003 fall color catalog (#22) features over 40 RWS Precision Airguns along with a full line of airgun accessories. We have included our popular RWS, NORMA and ROTTWEIL ammunition lines including the New Rottweil Blitz Slug Cartridge. As the exclusive importer for STEYR MANNLINGER we have included a full line of Hunting and Tactical Rifles. Send \$1.00 for color catalog.

CATALOG INQUIRY #52



EL PASO SADDLERY

Since 1889 El Paso Saddlery has been making the finest holsters, belts and accessories in the world. Our products include antique and modern styles. So why buy a reproduction when you can have the REAL THING. \$5.00

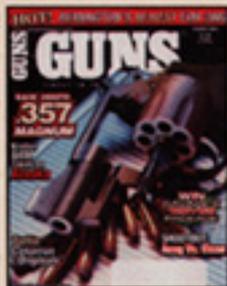
CATALOG INQUIRY #53



GALCO INTERNATIONAL

This full color catalog features Galco's extensive line of fine leather holsters, belts, accessories and artfully crafted purses and briefcases. Galco as always - "For those who demand the best...and know the difference." \$8.00

CATALOG INQUIRY #54



GUNS MAGAZINE SUBSCRIPTION

GUNS Magazine makes the shooting sports more enjoyable. Read about the latest shooting trends and newest guns. Tips and test reports will help you buy better and shoot straighter. Discover why sportsmen all over the world have been shooting with GUNS Magazine for over 40 years. 1 Year Subscription \$19.95 (outside U.S. \$39.95)

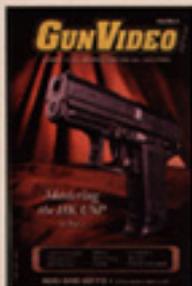
CATALOG INQUIRY #55



GUNS MAGAZINE BOOKS/MERCHANDISE

This new catalog features a variety of topics from collecting and gunsmithing to hunting and self defense and cowboy action shooting. Enjoy exciting hunting from Africa or get closer to home with a video on better home safety and personal protection. Take advantage of hardcover books featuring full color photos of firearms. Get first Team merchandise and more. \$1.00 (outside US \$2.00) refundable with order.

CATALOG INQUIRY #56



GUN VIDEO

Shoot better with the largest and best selection of instructional videos for gun owners, competition shooters, law enforcement, military, reloading, long range rifle shooting, concealed carry & self-defense. New catalog with over 250 different titles! Special "Buy any 5 for just \$99.00" offer included! Visit www.gunvideo.com. \$1.00

CATALOG INQUIRY #57

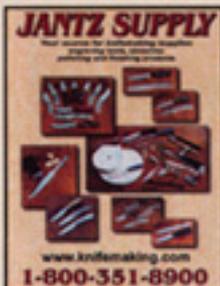


HOGUE GRIPS

Hogue Grips is famous for their complete line of Exotic Hardwood, Soft Rubber and HandAid™ Sleeve Grips, that fit most popular handguns. Hogue has also applied their patented Soft Rubber OverMolded™ technology to Rifle & Shotgun Stocks. Other products include: the Universal PowerSpeed™ Holster, Custom Grip Screws and the New EZG Recoil Pads. FREE Catalog.

Hogue Inc 1-800-GETGRIP
www.hoguegrips.com

CATALOG INQUIRY #58



JANTZ SUPPLY

Knifemakers, gunsmiths, spurnmakers, woodcarvers, engravers are just a few of the professionals and hobbyists served. Jantz offers a full range of pre-shaped blades, knifemaking kits, rivets, guards, tools, abrasives, sheathmaking materials and finishing products. Visit our website www.knifemaking.com or our showroom is open Mon-Fri 8:30am-5:30pm central time. Complete catalog with color photos \$5.00.

309 West Main, Davis, OK 73030
(580) 369-2136 Fax (580) 369-3052
jantz@brightok.net

CATALOG INQUIRY #59



KAHR ARMS

Kahr's complete line of USA built ultra compact double action only handguns are described in this four-page brochure. Kahr's newest 9mm model, the Kahr P9 with a lightweight polymer frame and stainless slide is shown. Also the Thompson line of long guns and the Auto-Ordnance line of handguns are described. Free catalog.

CATALOG INQUIRY #60



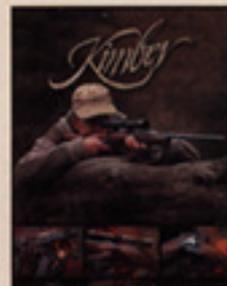
KATZ KNIVES

Safari Kit™ Very, very compact.

You don't need a suit case or a pack horse to carry your tools. One handle locks in all these tools extremely tight. Every outdoors man, camper, fisherman, hiker, hunter, ATVer and Motor home owner. 4" hunting blade and hand axe in a Leather sheath. Safari Accessory Kit™ comes with a 6" boning & 7 1/2" fillet blades, 8 1/2" wood, 8 1/2" bone/meat saw and backing plate, also in a Leather sheath. Safari Accessory Kit™ purchased separately. (Patent Pending). Send \$2.00 for catalog.

Katz Knives, Box 730 Chandler, AZ 85244. Tel: (480) 786-9334.
E-Mail: Katzknives@aol.com. Web site: katzknives@aol.com.

CATALOG INQUIRY #61



KIMBER

Kimber is introducing forty new pistols and rifles in 2003. Highlights include a complete 1911 pistol and conversion kit, a Tactical series of .45 ACP's, new rimfire rifles, lightweight stainless/synthetic hunting rifles and an all-new rifle family chambered for Winchester's great WSM cartridges. Complete catalog \$2.00

CATALOG INQUIRY #62



KING'S GUN WORKS

King's catalog features over 80 quality custom parts for the Colt 1911 & similar quality auto pistols. King's has been the leader in after-market accessories for the 1911 including the Para-Ordance, Custom Handguns - Accuracy Jobs - Checkering - Custom Sight Installations. King's...where quality counts. Send for your catalog \$2.00

CATALOG INQUIRY #63



LOCK, STOCK & BARREL

Our free 120-page catalog has over 9,000 different items in it to satisfy your reloading needs. We also carry a complete line of accessories to compliment your guns. 100 different manufacturers are represented by our company with over 25 years of service to you, the shooter. Free catalog.

CATALOG INQUIRY #64



MAG-NA-PORT INTERNATIONAL

For over 30 years Mag-na-port has been reducing recoil and muzzle jump for shooters worldwide. Offering E.D.M. porting services, the finest muzzle brake, and custom pistolsmithing. Services designed to provide more comfort and enjoyment to all firearm sports. Catalog \$1.00

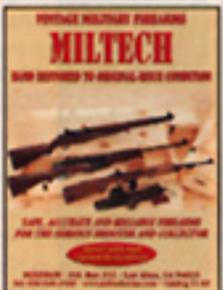
CATALOG INQUIRY #65



MEPROLIGHT

Kimber is the exclusive North American distributor of Meprolight night sights and accessories. Fixed and adjustable Tritium night sights sets for most popular pistols, rifles and shotguns along with archery sight pins and reflex sight systems are detailed in a free brochure.

CATALOG INQUIRY #66



MILTECH

For over 20 years MILTECH has been the foremost restorer of vintage military rifles. Each firearm is completely overhauled to function SAFELY and ACCURATELY. MILTECH sells completely restored rifles as well as offering a custom rebuilding service for the M1 GARAND, M1 CARBINE, 1903 SPRINGFIELD, 1917 ENFIELD and 98k GERMAN MAUSER. Color catalog \$1.00.

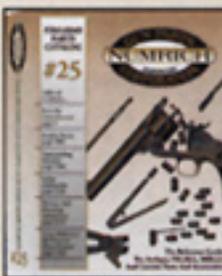
CATALOG INQUIRY #67



NILL-GRIP USA

For 30+ years we're the leading manufacturer of high quality wood grips in Europe. Now available direct in the USA. Nill-Grips offers a wide assortment of custom pistol grips, with styles ranging from adjustable match grips, combat style, personal carry, automatically and orthopedically contoured match grips. Order our 16 page color catalog with more than 500 different revolver and pistol grips. FREE

CATALOG INQUIRY #68

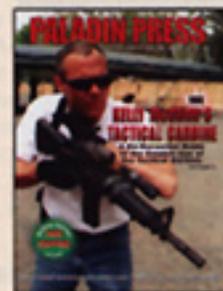


NUMRICH GUN PARTS

New 25th Edition! 1,200 pages feature over 500 schematics for identifying obsolete and current commercial, military and foreign gun parts. Over 180,000 parts and accessories available. It's the industry's leading reference book for firearms parts for over 50 years. Toll-free (866) 686-7424. \$12.95

NUMRICH GUN PARTS CORP.
P.O. Box 299, West Hurley, NY 12491
www.gunparts.com

CATALOG INQUIRY #69



PALADIN PRESS

Looking for practical information and real solutions for today's world? Paladin Press (www.paladinpress.com) publishes books and videotapes on subjects such as firearms, contact shooting, personal/financial freedom, survival preparedness, military and police tactics and other subjects on the outer fringes of the First Amendment not found in shopping mall bookstores. 800+ titles. FREE

1-800-392-2400

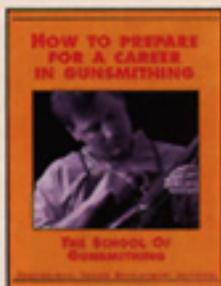
CATALOG INQUIRY #70



REDDING RELOADING

Redding's 2003 catalog features their Competition Seating Dies for the new "Short Magnum" cartridges. In addition the "T-7" and "Big Boss" presses are now available with the "Slide Bar Automatic Primer Feeding System". Contact Redding for a full description of these and other new products. FREE

CATALOG INQUIRY #71



SCHOOL OF GUNSMITHING

With our approved home study course, you'll know how to repair and service firearms at home using easily learned techniques. Be an expert with all kinds of handguns, rifles and shotguns. Make great profits without hightech instruments or a costly workshop. Catalog .75 cents.

CATALOG INQUIRY #72



SINCLAIR

Our new 120-page Sinclair color catalog is full of high quality shooting and reloading products for the precision rifle shooter. Shooting rests, reloading tools, hard-to-find components, specialty cleaning tools and gunsmithing tools are among the thousands of products found in our FREE catalog.

Sinclair International Inc.
2330 Wayne Haven Street, Fort Wayne, IN 46803
260-493-1858 • Fax: 260-493-2530
www.sinclairintl.com • support@sinclairintl.com

CATALOG INQUIRY #73



SMITH & WESSON

The new 32 page Smith & Wesson 2003 Handgun & Accessories catalog features the world's broadest line of revolver and pistols and is formatted to help the first-time handgun buyer find the revolver or pistol that best fits their need. Call 1-800-331-0852 to receive a free copy.

CATALOG INQUIRY #74



SPRINGFIELD ARMORY MINI CATALOG

Springfield Armory offers a full line of XD pistols, Custom Loaded 1911-A1 pistols, M1A rifles, M6 Scouts and Professional Optics - all include a Lifetime Warranty. For a free mini catalog call

800-680-6866, or write,

Springfield Armory,

420 West Main Street, Geneseo, IL 61254.
Shop on the web at springfieldarmory.com

CATALOG INQUIRY #75



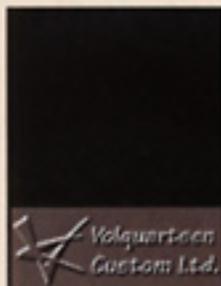
SWAROVSKI OPTIK

Attractive, four color, fold out brochure giving information and full specifications on the complete line of premium rifle scopes, binoculars, spotting scopes, rangefinding and night vision equipment. Retail price list included.

Contact customer service dept.

800-426-3089 or e-mail
service@swarovski.com - FREE!

CATALOG INQUIRY #76



VOLQUARTSEN CUSTOM

Volquartsen Custom specializes in producing some of the most accurate rimfire rifles and pistols available. We are currently mfg. semi-auto .221r, 22 WMR and 17 HMR rifles and pistols. We also mfg. some of the finest aftermarket parts available for the Remington 597. Catalog available for \$5.00.

CATALOG INQUIRY #77



WALTHER USA

Walther USA offers an extensive line of the finest pistols made as well as a full line of Co2 pistols and revolvers. To receive a free 2003 Walther USA catalog or to find the nearest retail outlet for Walther products, write to Walther USA at 2100 Roosevelt Ave. Springfield, MA 01102-2208, call toll free (800) 372-6454 or visit the Walther USA website at www.walther-usa.com FREE

CATALOG INQUIRY #78



WILSON'S GUNS SHOP

The 2003 Wilson Combat®/Scattergun Technologies™ 84 page color master catalog is your complete source for self-defense and tactical shooting guns and gear. **New for 2003:** Tactical Super Grade Compact; Service Model Tactical Rifle and other accessories. \$3.00 (refundable w/order).

CATALOG INQUIRY #79



WOLF PERFORMANCE AMMUNITION

WOLF Performance Ammunition®

High quality rifle, pistol, rimfire, and shotshell ammunition.

Toll Free 888-757-WOLF

Fax: 714-635-9276

Email: info@wolfammo.com

Website: www.wolfammo.com

FREE catalogs

CATALOG INQUIRY #80

PUMPING UP THE **.223**

Experiments with a **self-loading** **.223 Ackley Improved**

By Dave Anderson

With all the new cartridges appearing in recent years, it's curious that the selection of .22 centerfire cartridges seems to be declining. Such once famous wildcats as the .219 Donaldson Wasp and 2R Lovell, and such good factory rounds as the .222 Rem. Mag., .225 Win. and .224 Weatherby are dead or dying.

Others, such as the .22 Hornet, .222 Rem. and .220 Swift have loyal followings, but their glory days are past. What's the reason for all this, at a time when interest in varmint hunting and varmint rifles is higher than ever? Two reasons — the .223 Rem. and the .22-250 Rem. cartridges.

Changing Varmint Scene

The .223 has the huge advantage of cheap, high quality military surplus ammunition and brass. It is accurate, light recoiling, easy on barrels, and inexpensive to reload. Its ballistics are more than adequate for the ranges and size of game most often encountered. Need more velocity and power for flatter trajectory and bigger targets? The .22-250 fills the gap.

Many varminters are coming to recognize the virtues of AR-type rifles. The best modern ARs are capable of astonishing accuracy, better than all but the best bolt-action rifles.

They also have the advantage of an immediately available follow up shot. The shooter can observe the bullet strike through the scope and if it is a little off the mark, immediately correct and fire again.

Most ARs are available in .223 only, and the design of the action and the magazine limit caliber choice to cartridges of similar length. For those wanting more power, the obvious answer is a wildcat based on the .223 case. One of the best and most popular choices is the .223 Ackley Improved.

Enhanced Performance

To "improve" a cartridge means to reshape it to increase its capacity. This can include reducing body taper, sharpening the shoulder angle, and (sometimes) moving the shoulder forward and reducing neck length. Improving cartridges was especially popular in the post-WW II era.

The easiest way to get formed cases for an improved chamber is by fireforming. Cartridge brass is pliable stuff. When a factory round is fired in an improved chamber, gas pressure blows it out to conform to the new chamber dimensions. The problem is to maintain proper headspace.

With rimmed cases, the rim keeps the case from moving forward at the blow of the firing pin. Similarly, the belt on belted magnum cases maintains headspace. That's one reason why wildcats based on the belted H&H magnum case became so popular.

With rimless cases, which headspace on the shoulder, it's not so simple. If you want to fire standard .223 ammunition with its 23-degree shoulder in an Improved chamber with a 40-degree shoulder, chamber dimensions have to be such that the factory round is a tight "crush" fit. This is the only means of ensuring correct headspace. Just running a reamer into a standard chamber generally won't do it.

Here's what P.O. Ackley himself said:

"The chamber can be reamed out so that the new chamber just barely cleans up the corner between the shoulder and neck, but this will not produce a crush fit which is necessary for fireforming factory ammunition. So the headspace has to be about .004 inch under minimum go gauge... it is almost always necessary to turn the barrel in a little bit in order to minimize headspace."

Guns & Ammo, December 1971

Ackley improved just about every case he could get his mitts on, including rimmed and belted cases. I don't believe the term "Ackley Improved" was ever copyrighted or trademarked, but when today's shooters speak of an Ackley Improved rimless cartridge, it is generally understood to mean a case with minimum body taper, a sharp shoulder (usually 40 degrees), and a chamber that will accept and fire the standard factory cartridge.

The Custom AR Arrives

In the late 1980s, practical shooting competition was expanding from handguns to include rifle and shotgun matches. I noticed several top shooters using AR-type rifles with upper units built by Lee Mosher, owner of Insight Shooting Systems Inc. (ISSI), located at Pueblo, Colo.

I shipped Mosher an AR upper to which he fitted his match package. This included a 20-inch, heavy free-floating match barrel and steel handguard with a very attractive and comfortable polyurethane cover.

MUZZLE VELOCITIES (FPS)

Load	Factory rating from 24-inch barrel	Les Baer 20-inch barrel	ISSI 26-inch barrel
Black Hills 50 gr. V-Max	3,300	3,251	3,394
Black Hills 52 gr. Match	3,300	3,253	3,387

Mosher converted the receiver to “flat top” configuration with a machined scope mounting rail, cut the chamber to minimum dimensions, adjusted headspace, and fitted and tuned it for accuracy and reliability.

To say the accuracy of the ISSI unit came as a shock is putting it mildly. With just a 1.5-4.5x Weaver scope, heavy factory trigger, and various brands of factory and surplus ammunition, the ISSI unit never fired one five-shot group that exceeded an inch. With a higher-powered scope, 1/2-inch groups were routine. I wrote about this unit in the November 1990 issue of *GUNS Magazine*.

Out Of The Blue

I hadn't talked to Mosher in over a decade, though I'd see his systems being used at matches and knew he was quietly going about his business. So it was a pleasant surprise when Mosher called in late 2001, and an even more pleasant surprise to find he was also interested in the .223 AI cartridge. He was kind enough to let me test one of his prototypes, the second .223 AI he had ever built.

Mosher built the unit around a 26-inch,

match-grade, stainless steel Hart barrel with a 1:12-inch twist. He fitted his machined scope rail, a chrome bolt and carrier, one-piece gas ring and titanium firing pin.

He used a JGS precision reamer to cut the chamber to correct dimensions so that factory .223 ammunition can be fired. Quality of workmanship is outstanding. The unit exhibited excellent fit, finish, and function.

The ISSI upper fit beautifully on a Les Baer lower receiver, chosen for its high quality and for the great 27-ounce Jewell two-stage trigger it carries. Fit was rock solid, with no perceptible play between the two components. I used Burris Zee rings to fit a 3.5-10x Weaver Grand Slam scope.

First order of business was to fireform some cases, which was also an opportunity to check accuracy with standard .223 ammunition and compare velocities from the 26-inch barrel to those from a standard .223 with 20-inch barrel. (See chart above).

Both types of Black Hills ammunition printed five-shot groups right around 3/4 inch in the ISSI unit. Improving a chamber generally reduces the velocity of factory ammunition slightly, due to the larger combustion chamber, but the longer barrel more than made up the difference.

Superior Quality Dies

Mosher included a set of Redding Competition dies. These dies are simply superb quality. Both sizing and seating dies use a sliding sleeve that keeps the case straight and supported. The sizing die, with interchangeable bushings, gives complete control of how much and how far the case neck is resized.

The seating die has a micrometer-adjustable dial calibrated in .001-inch increments. The first round loaded was slightly too long to fit the magazine. I measured the overall length with a dial caliper, turned the knob on the Redding die down .005 inch and ran the round through again. Checking with the caliper revealed overall length was reduced precisely .005 inch. Imagine that!

Bullet and powder manufacturers provide load data for cartridges whose case dimensions, capacity and pressure limits have been standardized. In North America the standards are maintained by the Sporting Arms and Ammunition Manufacturers Institute (SAAMI).

Companies that stamp, for example, “.270 Winchester” on cartridges, rifles, or loading dies are guaranteeing their product falls within tolerance limits for that cartridge as specified by SAAMI.

For obvious safety reasons we can't provide load data that has not been pressure tested and found to be within industry limits. Since wildcat cartridges by definition have not been standardized, there are no industry standards. Different versions of “improved” cartridges can vary significantly in such dimensions as shoulder angle, neck length, and capacity.

Thirteen Percent Increase

Even standard cartridge cases can vary in capacity due to differences in brass thickness. For comparison purposes I pulled the bullets from several .223 factory rounds, dumped the powder charge and checked case capacity. The cases held from 28.7 to 29 grains of water.

Cartridges from the same box of ammunition were then fired in the ISSI chamber, resized, and their capacity measured. These held 32.5 to 32.7 grains of water, indicating a case capacity increase of 12 to 13 percent. The next step was to go through my current reloading manuals and check load recommendations for the parent .223 Rem. cartridge.

For each powder/bullet combination, I averaged the starting load from the different manuals. Since I knew case capacity of the Improved cases had increased by 12 to 13 percent, I felt it was safe to increase the starting load by 10 percent.

From this starting point it was simply a matter of increasing powder charges in .5-grain increments while watching for pressure signs. I consider a chronograph an essential tool for load development.

Experimental Loading Tip

Each powder increment should produce a velocity change that is roughly linear, and any change in that progression is a sign it's time to back off.

For example, let's say adding .5-grain of powder increases velocity 55 fps over the starting load. Another .5-grain addition shows a 62 fps gain, the next .5-grain addition a 52 fps increase.

Then, we add an additional one-half grain powder and gain only 20 fps (or conversely, jump up 100 fps). Any significant change such as this, or in extreme spread or standard deviation, should be considered a warning sign.

Test Components

Both Lee Mosher and I found powders recommended for the parent .223 Rem. case, particularly those on the medium/slow end of the range, produced excellent results in the .223



A new generation of varminters are taking to the accurized AR.



AI. These included Hodgdon BL-C2, W-W 748, Alliant's Reloder 12, and IMR-4064. Faster powders such as IMR-4198 and Reloder 7 gave good accuracy, but didn't achieve quite as high velocities at safe pressures.

Hodgdon H-335 seemed to work particularly well with the unit I had, with low extreme spreads and standard deviations and excellent accuracy. Mosher advised his personal favorites were two Accurate powders, AA-2460 and AA-2520.

Test bullets included the 40- and 50-grain Hornady V-Max, 50- and 55-grain Nosler Ballistic Tip, 52-grain Speer JHP, and Sierra 50-grain BlitzKing. Different powders, bullets, and individual strings of fire gave velocities in the following ranges: 55-grain bullets: 3,500 to 3,600 fps; 50-grain bullets: 3,650 to 3,750 fps and 40-grain bullets: 3,900 to 4,000 fps. These are about 250- to 300-fps faster than the same bullet weights in most factory .223 Rem. loads.

We used 26-inch barrels, while factory velocities are taken in 24-inch barrels, which likely accounts for about 70 to 100 fps velocity gain. Both Mosher and I are satisfied that these loads are safe in our individual rifles with the components and loading equipment we use.

And He's Not Satisfied Yet

With the prototype unit I was using, five-shot groups consistently averaged a bit better than 3/4 inch at 100 yards. Mosher got roughly the same accuracy with his unit. These, remember, were the first two he built. Although this is very good accuracy, it isn't as good as my older .223 Rem. ISSI unit. Based on experience with the two prototypes, Mosher had JGS make him a new reamer to his specifications.

The prototypes have a throat diameter of .254 inch. The new reamer cuts the barrel throat to a tighter .250 inch. The new reamer also cuts a slightly shorter throat than the original. With the shorter throat, bullets can be seated deep enough to fit and feed from the magazine and still have a short jump to reach the barrel lands. Another change was to go to a 1:14-inch twist, which Mosher felt was better suited to the lighter 40 and 50 grain bullets.

He has tried barrels from Lawrence Rifle Barrels and found they were equally as accurate as the fine Hart match barrels. He reports both makes of barrels cut with his new reamer have been producing superb accuracy, with many groups in the 1/4-inch range.

Other Details

In the course of firing some 200 rounds of standard 223 Rem. and 300 .223 AI cartridges the ISSI unit functioned perfectly.

"The AR-15 is almost perfectly suited to feeding the 40-degree case," Mosher commented, "better than most bolt guns."

Something I like to see with any semi-auto, rifle or pistol, is a consistent ejection pattern. Wanting to recover the cases while shooting the .223 AI unit from the bench, I



.223 Ackley Improved cartridge (left) shows sharpened shoulder angle that increases case capacity.

noted where the first case landed, then set a range bag on the spot. From then on, just about every case ejected from the ISSI unit went spinning neatly into the bag.

Mosher does a lot of tuning and fitting to ensure smooth functioning. He found that the bolt locking lugs at the 1:30 and 3:00 positions tended to scratch cases. Relieving the edges of the lugs not only stopped the case scratching but led to a more consistent ejection pattern.

Latest Developments

Although both prototypes functioned reliably, Mosher felt the feed/ejection cycle could be smoother. On current models he slightly reduces the gas port diameter, and he now uses a Les Baer bolt and bolt carrier (1/4 ounce heavier than standard), and a chrome silicon recoil spring buffer from David Tubb. The result, he says, is superbly smooth operation.

Are improved cartridges worth the trouble? In his later years, P.O. Ackley himself seemed to doubt it. At the age of 63, he wrote:

"You cannot change the shoulder angle a few degrees and blow out the case a few thousandths and revolutionize the industry"

Guns&Ammo, March, 1970

The .223 AI may not be revolutionary, but it's an absolute charmer nonetheless. It is amazingly efficient in terms of velocity produced per grain of powder. Cases expand so little they scarcely seem to need trimming, and resizing is virtually effortless. With the .223 AI, performance nearly equals that of the .22-250 Rem., and the same rifle can still shoot economical .223 Rem. ammunition. That's an impressive combination.



FOR MORE INFORMATION:

Insight Shooting Systems, Inc.,
P.O. Box 3525, Pueblo, Colo.,
81005
[719] 564-8411

Redding Reloading Equipment
[605] 348-5150
www.redding-reloading.com

REEL GUNS FOR SALE
Guns from the Movies

• Target Practice • Protection •

• Full Size

• Detachable Magazines • Accurate •

• Complete with 100 rounds • Free Concealed Weapons Permit • No Red Tape No Background Check Required • No Permit Required

FREE - 200 PRACTICE BULLETS FOR MAIL ORDERS

1 each \$30/200
Nobloch Hollowpoints \$29/200
Blazer Sport Bullets \$19/200

.22 cal Detective Special \$39.95
All metal snub nose. Chrome or black. Holds 8 / .22 cal self defense rounds. Extra rounds \$10

Pocket .410/45 Pistols

- Solid Steel Double or Single Barrel Pistols
- Comes w/10 Bullets (Black Powder)

Single barrel \$59.95
Double barrel \$99.95 (shown)

AWESOME 12 Ga. Pistol

\$59.95

- Break open type
- Hammerless
- Safety
- Comes w/ 3 self defense rounds

INSTANT FULL AUTO!

"So Easy to Use" • "Single, 3-Shot Burst, or Full" • "Awesome"

Have you ever wanted to shoot full auto but red tape always got in the way? Well forget all that! We have a custom system for your semi-auto that will empty a 30 round magazine in 3 seconds! Right out of the box you'll be able to shoot single shot, 3 shot bursts or full auto type fire accurately and legally! Get Yours Today!
Instant full auto - \$34.95

MAC/VISA call: (970) 249-0302
SEND NAME, ADDRESS, CHECK, or MO • \$5.00 P&H TO:
FLASH DISTRIBUTING
28 S. Grand Ave. • Montrose, CO 81401
Send \$3.00 for catalog

YOU CAN WIN THIS

PARA-ORDNANCE C7.45 CARRY OPTION LDA

The widespread adoption of “shall issue” concealed carry laws has put a new face on the semiauto pistol. The modern handgun buyer wants a pistol that is smaller and easier to carry, but is unwilling to give up fight-stopping power. Downsized .45 autos are one of the hottest selling classes of carry gun.

Para-Ordnance has listened to this demand and produces some of the most sought after compact .45s on the market. An excellent example of this is the C7.45 “Carry Option” version of the Para Companion.

The original Para Companion is a darn good carry gun, but the Carry Option (model number CC745SN) goes to the ultimate extreme to minimize bulk. In contrast to the regular Companion, the C7.45 wears a standard, rather than extended thumb safety. The spurless hammer not only shortens the overall length, but also is snag free. Handsome cocobolo slimline stocks, diamond-checked, keep frame thickness to a minimum while providing a firm gripping surface.

Of course the most notable feature of the Para Carry Option series is the absence of a protruding grip safety tang. With no hammer spur to bite you, why put up with all that unneeded bulk? In its place the smoothly contoured frame ears offer no sharp edges to wear or catch on clothing.

The proven Lightning Double Action offers greater peace of mind than cocked and locked carry, while losing nothing in speed. Snag-free, 3-dot tritium sights and rustproof stainless steel construction round out a great carry gun.

For more information on the complete Para-Ordnance line, see your local dealer or call Para at [416] 297-7855. They may also be found on the Web at www.paraord.com.





TO ENTER CONTEST: Use a postcard (no envelopes, please) and follow sample. Send to GUNS Magazine, GOM APRIL, P.O. BOX 639033, San Diego, CA 92163-9033. Entries must be received before MAY 1, 2003. Limit one entry per household.

QUESTION OF THE MONTH:

I Purchase GUNS Magazine:

- (A) *By subscription*
- (B) *At the newsstand*

Name _____
 Address _____
 City, State, Zip _____
 Email Address _____

CIRCLE ANSWERS TO QUESTION OF THE MONTH:
 (A) (B)

IF I WIN, SHIP MY GUN THROUGH:
 FFL Dealer _____
 Address _____
 City, State, Zip _____
 Phone # (____) _____
 Store Hours: _____ a.m. thru _____ p.m.

QUESTION FOR INFORMATION ONLY; ANSWERS HAVE NO BEARING ON YOUR CHANCE OF WINNING. WINNERS CHOSEN BY RANDOM DRAWING.

To protect the privacy and security of winners, their names will NOT be made public. Contest void where prohibited by law. Winners must undergo a background check and comply with all other federal, state and local laws. Contest open to U.S. residents only. Employees and agents of Publishers' Development Corp. not eligible. No purchase necessary. Winners will be notified by CERTIFIED MAIL on official letterhead.



Win Prizes Selected "Best of the Year!"

The prizes featured here were judged best of the year for 2002 by the Shooting Industry Academy of Excellence. The manufacturers are celebrating by giving you a chance to win their award-winning products.

Claim Your Prize Today!

Return the Official Sweepstakes Entry Certificate to activate your entry (see certificate in this issue for details).

EXCELLENCE Prize Package

One lucky entrant will win the Accessory, Ammunition, Knife, Optic, High-Tech and Specialty Product of the Year!

To learn more about the Shooting Industry Academy of Excellence visit www.shootingindustry.com.



THREE-GUN GRAND PRIZE



Win all three guns named "Best of the Year" by the Academy:

Kimber Eclipse Custom II .45 ACP;
Ruger 77/17RM .17 Mag.; and
Ruger Gold Label Side-By-Side 12 gauge.



HANDGUN of the Year Prize



Win All Three Guns:
Kimber Eclipse Custom II .45 ACP
* Ruger Super Blackhawk Hunter .44 Mag.
* Springfield Armory X-Treme Duty 9mm

SHOTGUN of the Year Prize



Win All Three Guns:
Ruger Gold Label Side-By-Side 12 ga.
* Benelli Super Black Eagle 12 ga.
* Beretta A391 Xtrema 3.5

RIFLE of the Year Prize



Win All Three Guns:
Ruger 77/17RM
* Marlin Model 1894SS
* Thompson/Center Omega .50



OPTIC of the Year Prize
Leupold Mark 4 CQ/T 1-3x14mm
Riflescope leupold.com

*2002 Gun of the Year Nominee

A purchase is not required to enter and will not improve your chances of winning. If Entry Certificate is missing write to: Sweepstakes at PO Box 85201, San Diego, CA 92186

MANUFACTURER

of the Year Prize

taurususa.com



Taurus celebrates their award by giving away three Titanium revolvers – Model 445 .44 Special, Model 731 .32 H&R, and Model 85 .38 Special!

HI-TECH PRODUCT

of the Year Prize

Leica

LRF 1200 Rangemaster

laser rangefinder leica-camera.com



AMMUNITION

of the Year Prize



Winchester
.270 WSM
ammunition
winchester.com

SPECIALTY PRODUCT

of the Year Prize



Streamlight
Stinger HP
Flashlight
streamlight.com

**ALL PRIZES
WILL BE
AWARDED!**

KNIFE of the Year Prize

Benchmade Model 556
Mini-Griptilian
benchmade.com



ACCESSORY of the Year Prize

HiViz TriViz Shotgun Sight
hivizsights.com

THE TWO BEST Ways To Enjoy Gun Sports!



Facts you can trust in every issue

Every time you pick up an issue of *American Handgunner* and *GUNS Magazine*, you can count on learning something new.

News and reviews presented in an easy-reading style make spending a few minutes or a full evening with either magazine both enjoyable and rewarding.

So whether it's deciding which ammo to use for the big hunt or advice for choosing the best home-defense guns, you'll find it in *American Handgunner* and *GUNS Magazine*.

Don't miss an issue. No Cash? No problem! Subscribe today and pay for either magazine in three easy payments.

GUNS Magazine has a great new look and feel – you won't want to put it down. Check out the new features and MORE!
American Handgunner is the first place serious handgunners turn for facts, not fluff.

**Get both
magazines plus
four free gifts
Only
\$29.95!**

FREE GIFTS

Get these FREE gifts with your paid subscription to *American Handgunner* or *GUNS Magazine* through this sweepstakes

Collector Pins
New Limited Edition
Patriotic Designs for
2003.



Get one FREE with two- and three-year individual subscriptions and both FREE with combination subscriptions.

Range Bag



Get this custom *American Handgunner* and *GUNS Magazine* range bag with any three-year subscription. Made of Denier Nylon, it features three zippered pockets and shoulder strap. It folds down to one small pocket for easy storage.

EASY SEARCH!

2002 Digital Editions

Miss an issue last year? Get all six 2002 issues of *American Handgunner*, all 12 issues of *GUNS Magazine* plus Special Editions on two CD-Roms. View and search each issue on your computer. One FREE with individual subscriptions and both FREE with combination subscriptions.



FOR MORE NEW PRODUCTS VISIT US
ONLINE AT WWW.GUNSMAGAZINE.COM

NEW PRODUCTS

APRIL 2003

450 AutoBond From Bond Arms

The new .450 AutoBond 1911-style pistol from Bond Arms propels a 100-grain bullet at 2,300 fps with a kinetic energy of 1,174 ft.-lbs. The recoil generated is slightly more than a typical 230-grain .45 ACP round. The AutoBond is designed to use the hot .450 AutoBond ammunition, but it will also perform well using traditional .45 ACP without modifications. Contact Bond Arms, P.O. Box 1296, Granbury, TX 76048, telephone: [817] 573-4445. FAX: [817] 573-5636. Website: www.bondarms.com



American Western Elk From Eagle Grips

Eagle Grips is offering stunning American Eagle elk grips for most popular semi-automatic and revolvers. These handmade grips are paired and matched for the ultimate in performance



and eye appeal. Contact Eagle Grips for a full color brochure showcasing its entire line of quality products: 460 Randy Rd., Carol Stream, IL 60188-2129, telephone: [630] 260-0400, FAX: [630] 260-0486, Website: www.eaglegrips.com

New Military Knives From George Tichbourne

Master Canadian knife designer George Tichbourne has added a pair of handsome and highly functional Military knives to his line of fine blades. Available in both a large (8-inch blade) and small (5½-inch blade), both feature 440C-Re 56-58

cryogenically treated for maximum edge holding. Other features include stainless steel guard and pommel and black linen micarta handle. Contact George Tichbourne by calling [905] 670-0200. Visit the newly updated website: www.tichbourneknives.com



Rossi Muzzleloader From Taurus

The new line of Rossi muzzleloading .50 rifles from Taurus International are offer reliable performance at an attractive price. They come standard with breech plugs, sling swivels and frame-mounted telescoping ram rod. They use a 209 primer and feature a fully-

adjustable TRU-GLO fiber optic sight system. Available in choice of matte stainless or blue steel finish with polished hardwood stock and forend. Contact Taurus International, 16175 NW 49th St., Miami, FL 33014, telephone: [305] 624-1115, FAX: [305] 623-7506, Website: www.taurususa.com

Benchmite Folder

From Benchmade

Benchmade's nifty new compact Benchmite folding knife is the latest creation from designers Bill McHenry and Jason Williams. A slight squeeze on the outside scale raises the locking device pin allowing the 1.92-inch stainless steel blade to open in a flash.

The skeletonized handle makes the Benchmite a featherweight in your pocket and a workhorse in your hand. Contact Benchmade Knife Co., 300 Beaver Creek Rd., Oregon City, OR 97045, phone: [503] 655-6004, FAX: [503] 655-6223, Website: www.benchmade.com



.50 Cal Browning Ammo

From Mitchell's Mausers

Mitchell's Mausers announces the arrival of its new .50 caliber Browning ammunition. Designed for tighter tolerances for long range shooting, it propels a 700-grain FMJ bullet a velocity of 2,910 fps. The ammo is so precisely built that the muzzle velocity variance is a maximum of plus/minus 30 fps. Supersonic range is 2,000 yards and effective range is 4,000 yards. Contact Mitchell's Mausers, P.O. Box 9295, Fountain Valley, CA 92728-9295, phone: [714] 444-2226, Website: www.mitchellsales.com

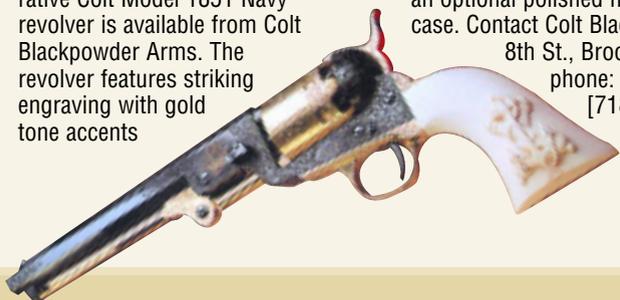


Special 1851

Navy Revolver

From Colt Blackpowder Arms a special 150th Anniversary commemorative Colt Model 1851 Navy revolver is available from Colt Blackpowder Arms. The revolver features striking engraving with gold tone accents

and the traditional U.S. Navy anchor insignia in relief on the grips. The six-shot .36 caliber cap-and-ball revolver has an impressive 7.5-inch barrel. Available with an optional polished hardwood presentation case. Contact Colt Blackpowder Arms, 110 8th St., Brooklyn, NY 11215, telephone: [718] 499-4678, FAX: [718] 768-8056, Website: www.coltpb.com



Scoped Rifle Case

From Blackhawk Industries

Blackhawk Industries has a new scoped rifle case, which offers lightweight carry protection for most popular rifles. Features include wrap-around handle, detachable shoulder strap, non-slip shoulder pad and full opening zipper capability. Contact Blackhawk Industries, 4850 Brookside Ct., Norfolk, VA 23502, phone: [757] 436-3191, FAX: [757] 436-3088, Website: www.blackhawkindustries.com



Duck Stamp Knife

From Imperial Shrade

Shrade and the Dept. of the Interior have teamed to produce a special Federal Duck Stamp commemorative folding knife in a handsome laser-engraved hardwood presentation case. The dual blade knife has a clip-blade with a "Ducks in Flight" design etched on it, while the second blade is fully scalloped. Contact Shrade by phone [800] 272-4723 or visit the Website: www.schradeknives.com



Classified ads \$1.00 per-word insertion. (\$.80 per-word insertion for 3 or more) including name, address and phone number (20 word minimum). Minimum charge \$20.00. **BOLD WORDS add \$.65 per word.** Copy and rerun orders must be accompanied by **PAYMENT IN ADVANCE. NO AGENCY OR CASH DISCOUNTS ON LISTING OR DISPLAY CLASSIFIED ADVERTISING.** All ads must be received with advance payment BY NO LATER THAN THE 1st OF each month. **EXAMPLE:** Closing for DEC. 2001 issue (on sale NOV. 5th) is SEPT 1st,

2001. Ads received after closing will appear in the following issue. Please type or print clearly. **NO PROOFS WILL BE FURNISHED.** Include name, address, post office, city, state and zip code as counted words. Abbreviations count as one word each. Mail to GUNS MAGAZINE CLASSIFIEDS, 591 Camino de la Reina, Suite 200, San Diego, California 92108. **NOTE: WE NOW HAVE DISPLAY CLASSIFIEDS IN BOTH GUNS MAGAZINE AND AMERICAN HANDGUNNER. ASK FOR OUR NEW RATE CARD. (619) 297-6655.**

ACCESSORIES

WRB SHOP ONLINE
www.WRBss.com

ORDER TOLL FREE
(888) 824-2899

Factory Direct

Free Shoulder Comfort Pad

PRO-SHOOTER RANGE BAG

PSRB-15" Appx. 15" L x 9" H x 7" W \$84.95
PSRB-13" Appx. 13" L x 9" H x 7" W \$74.95

- Corduroy/Nylon 1000 Denier
- Two Large Outside Pockets, each has Padded Pistol Insert w/Mag Holders
- Removable Padded Center Insert w/Two Dividers
- Colors: Black-Navy-Red-Green
- #9 YKK Zipper- Hard Bottom

FREE S&H

GUN PLATING & ANODIZING

Hard Chrome (Bright or Satin), Electroless Nickel, Parkerizing, Teflon, Black Hard Anodizing, Bluing (stainless). We Specialize in firearms. References Available.

FREE SERVICE BROCHURE 1-800-375-2846

TechPlate, Inc.
1571-H S. Sunkist St., Anaheim, CA 92806
(714) 634-9254 www.techplate.com FAX: (714) 634-9382

OWN A MACHINE SHOP!

Do your own machining and shop work with a Smithy 3-in-1 Lathe*Mill*Drill

DO IT YOURSELF!

• Easy to use- Free training. You'll be doing quality work right away

• Affordable- Six models to choose from starting at \$995

• Versatile- Work metal, wood or plastic

• CNC Adaptable

CALL TODAY!
1-800-345-6342

Or Write **Smithy**
Dept. Gun PO BOX 1517
Ann Arbor, MI 48106-1517

FREE INFO PAK

Visit us at www.smithy.com

Mernickle Custom Holsters

www.mernickleholsters.com
Email: sales@mernickleholsters.com

This unique concealment holster is designed for quickness and compactness. It is hand made, hand moulded and IDPA approved. The P58 is our most popular concealed carry holster to date. It is also one of the highest ride belt carry holsters on the market today. The P58 comes with a unique paddle device that goes behind the belt to stop the famous lip out associated with high ride holsters. **Starting at \$69.95**

Mernickle Custom Holsters makes one of the largest varieties of western holsters in the market place including the CAB-6 as shown. Each holster is custom measured to ensure a perfect fit to the user each and every time. Check out our full line of Western holsters including Shoulder rigs.

34552 Bobcat Drive
Mission, B.C.
Canada V2V 5L1
Tel: 604-826-6804
Fax: 604-826-0518 **Starting at \$289.95**

TEXAS GUNSLINGER
Quality Gun Leather
The "Gunslinger" Rig
Dark, rich, walnut brown

- Large stock to ship from
- Satisfaction Guaranteed
- Soft Suede Lined
- American Quality Saddle Cowhide

\$129.95 (S&H rig) • \$179.95 (DBL rig)
(800) 228-8811 (800) 578-8811

TO ORDER SPECIFY JEAN SIZE MAKE MODEL OF GUN CALIBER BARREL LENGTH. ADD \$5.00 TEXAS RESIDENTS ADD 7.75% \$2.00 FOR COLOR CATALOG. TEXAS GUNSLINGER 20215 ZOOBOPR, C-21 DEPT. HL ARLINGTON, TX 76010 • 817-465-3666 • FAX 817-612-4446

THE RINGO

100% American made individually hand-crafted made from the finest vegetable tanned leather

MODEL BH225 **ONLY \$229.95**

Each rig is custom made, fully lined and available in Natural Russet, Dark Chestnut and Black

RUDY LOZANO
Black Hills Leather
410 West Aurora, Laredo, TX 78041
Tel: 956-712-9434 Fax: 956-712-8330
"Big Sugar" SASS #5589, Founder
Website: www.blackhillsleather.com

pro mag We're taking over the magazine market the old fashioned way.

Making a higher quality product at a lower price. Over 150 different models available!

PROMAG INDUSTRIES
10654 S. Garfield Ave
South Gate, CA 90280
562-861-9554
www.promagindustries.com
SEND \$2.00 FOR CATALOG

FAST DUAL SAFE SAFE
DEPENDABLE
CHECK THIS WEB SITE
www.dualsafe.com
(YOU'LL BE SURPRISED)

FREE MACHINERY CATALOG

BLUE RIDGE Machinery & Tools
PO Box 536-G, Hurricane WV 25526
800-872-6500
All New • All Brand Name
www.blueridgemachinery.com

SAFE HEADQUARTERS FORT KNOX

HERITAGE
AMERICAN
BROWNING
Handgun Sales
Lowest Price!
Call us before you buy!
1-800-222-7233
www.agenglish.com
A.G. ENGLISH, INC.

Rifle & Handgun
corrugated shipping boxes.
Corrosion inhibiting storage bags. Gun barrel piping. VCI Corwipes. Gun cloths.
www.gunbagsunlimited.com



CLIPS, GRIPS, LASERS, HOLSTERS, BOOKS & VIDEOS. Two Great Websites:
www.gunaccessories.co &
www.booktrail.com.

AMMUNITION

www.jamescalhoon.com

19 CALIBER RIFLES & Re-Barrel Kits
Bullets: 17, 22 & 19 cal
PH: (406)395-4079
Varminting Articles!



AUCTIONS/SHOWS

BOOKS

www.gunbooksales.com

BUSINESS OPPORTUNITIES

COLLECTORS

EMBLEMS & INSIGNIA

FIREWORKS

FIREWORKS CHEMICALS !!! POTASSIUM PERCHLORATE, POTASSIUM CHLORATE, NITRATES, ALUMINUM, MAGNESIUM, TITANIUM POWDERS. COLOR PRODUCERS, 100's of chemicals, WATERPROOF FUSE, PAPER TUBING/MAKE ROCKETS, SMOKE GRENADES, NOISE MAKERS ETC./HOW-TO BOOKS, VIDEOS, ROCKET MOTOR KITS! LAB ACIDS, SOLVENTS, GLASSWARE, "GREAT PRICES" BULK DISCOUNTS. CATALOG \$3.00: PYROTEK, RR 2 BOX 2520 B, HALL-STEAD, PA 18822. (570) 879-2580. WWW.PYROTEK.ORG

FOR SALE

WOLF CROSSBREDS Rare raven black. (Via-air shipping available.) Youngwolf. 51 Andy, Canton, NC 28716. Private kennel (since 1978). 828-648-7813. (www.youngwolf.com)

DISCOUNT CIGARETTES, cigars, chew, snuff, roll, pipe tobacco. 600+ brands shipped tax free to your door. Toll-free order line: 888-388-1964. Order Online: CigarettesAmerica.com

GUN PARTS

GUNS FOR SALE

NEW/USED FIREARMS, IMPERIAL SIZING DIE WAX, SEND \$1.00 FOR LIST OR SEE WEBSITE www.jcunard.com. J. CUNARD & COMPANY, P.O. BOX 755G, NEWARK, OH 43058-0755, EMAIL joel@jcunard.com. 740-345-6646.

Concealed Firearm Classes. Valid training in Nevada and 20 other states for nonresident permits! Visiting Vegas? You can shoot real submachineguns or test your skill in our live fire video FATS range! The Gun Store, (702) 454-1110. www.thegunstorelasvegas.com

ANTIQU/COLLECTIBLE GUNS. "Dispatch" illustrated mail order catalog \$5, subscription \$35. We buy collections. Consignment, auction, appraisal. Old Town Station Ltd, POB 14040, Lenexa, KS 66285. Jim Supica, President. (913)492-3000.

GUNSMITHING

Learn Gunsmithing Two-year individualized program; excellent facilities; financial aid available; VA approved. Piedmont Community College, P.O. Box 1197, Roxboro, NC 27573; phone (336) 599-1181; www.piedmont.cc.nc.us

INSTRUCTION

Be A ... **PRIVATE EYE**
Have a life filled with excitement, intrigue and adventure! The REAL experts teach you secrets and techniques of:
Investigation • Surveillance • Skiptracing
Start Your Own Business
Work from Home • Full or Part time
800-720-1922
www.piacademy.com
United States Academy of Private Investigation
P.O. Box 2133 (GM) Beverly Hills, CA 90213



Be A **PRIVATE EYE**
You WILL learn, at home, secrets from a World Famous P.I. Best Course - Lowest Cost!
FREE Call: 888-337-8839
GLOBAL INVESTIGATION, Suite G
535 N. Farms Rd., Northampton, MA 01062



#GPC **Be A Gun Repair Professional**
100% Guaranteed!
Fast and Easy
At Home Video Instruction
Learn to repair and customize
Pistols, Revolvers, Rifles and Shotguns.
For Free Information Call!
800-797-0867
www.americangunsmith.com
American Gunsmithing Institute



KNIVES & SWORDS

MILITARIA

MILITARY SURPLUS

US Military Equipment & Camo!
Discount Catalog, Lowest prices any place, over 130 items. Packs, Web gear, Helmets, Knives, Mag pouches, Boonie hats & more. \$2.00 for refundable catalog, OLCG, POB 1618, Alamogordo, NM 88311-1618 check out our on line catalog, www.olcnet.com



MISCELLANEOUS

CONCEALED WEAPONS License Identification Badge. Finest quality, made to order with your License Number; name optional. Catalog with or without CD Rom supplement - Free. Seven Seas, 824 Symphony Isles Blvd., Dept. 38, Apollo Beach, Florida 33572. Phone 813-645-2621, Fax 813-641-1721. badge0@seven-seas-shields.com; <http://www.seven-seas-shields.com>

HOW TO OBTAIN AN \$800.00 LOAN BY MAIL INTEREST FREE! INFO \$1.00. DON ROARK, DEPT C BOX 883, PALM DESERT, CA 92261.

OPTICS

Riflescopes.com
1000's of Optics Available to Ship Today!
SWFA
972-Scope-It • 8:00 am - 5:00 pm Central Time M-F



US NIGHT VISION - High quality night vision at the most competitive pricing. Night Vision Goggles, Monoculars, Night Vision Weapon Sights, Camera Adaptable Night Vision. We carry all major brands and manufacturer our own exclusive line. CALL FOR YOUR FREE CATALOG 1-800-500-4020. Visit us on the web at www.usnightvision.com. US Night Vision Company, 5122 Bolsa Avenue, Suite #103, Huntington Beach, CA 92649. 714-901-2626. Fax 714-899-4485.

POLICE EQUIPMENT

LAW BADGES and patches. Send \$2.00 for list or \$8.00 for 12 monthly lists. BPEC Department G302, BOX 7240, Sunnymead, California 92552-7240.

REAL ESTATE

GOVERNMENT LAND now available for claim (including agricultural). Up to 160 acres/person. (www.usgovernmentinformation.com). Free recorded message: (707) 448-1887. (4JR4)

SURVIVAL

VIDEOS

WANTED TO PURCHASE

GUNS

MAGAZINE

APRIL 2003

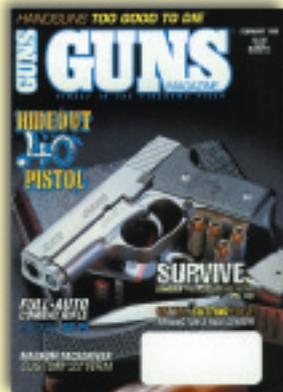
ADVERTISER'S INDEX

ADVERTISER PAGE

Kirkpatrick Leather	.61
Knife Outlet	.58
Lee Pecision	.25
Legendary Arms	.61
Michael's of Oregon	.15
MidwayUSA	.35
Mitchell's Mausers	.61
MTM Molded Products	.49
Numrich Gun Parts	.59
Otis Technologies	.3
Outdoor Channel	.21
Shoot Magazine	.56
Simonich Custom Knives	.59
S & K Scope Mounts	.61
Smith & Wesson	.C2
Springfield Armory	.6
Stoney Point Products	.26
SureFire	.9
Ventco/Shooters Choice	.58
Wilson Combat	.39
Winchester/Olin	.13

ADVERTISER	PAGE	ADVERTISER	PAGE
Adco	.7	Columbia	
Armed Forces		River Knife & Tool	.26,81
Merchandise Outlet	.56	Crimson Trace Corp.	.31
Baird Co.	.56	DeSantis Holster	.25
Barrett Firearms	.14	Flash Distributing	.71
Benchmade Knives	.48	Fobus USA	.35
Beretta	.19	Forster Products	.60
Blackhawk Industries	.17	Fort Knox Security	.35
Camillus Cutlery	.50	Glock Inc	.C3
Cannon Safe	.57	Groves Edge	.56
Carbon Creations	.59	GRS Tools	.49
Charles Daly	.31	Hodgdon Powder	.16
Clark Custom Guns	.58	Horus Vision	.39,57,81
Colorado		Jantz Supply	.27
School of Trades	.57	Kimber	.C4

DON'T MISS AN ISSUE



ORDER BY FAX

GUNS MAGAZINE

all year for only \$19.95

When you want the latest news on gadgets, guns and gear - turn to GUNS Magazine every month.

1 Year \$19.95 (Single copy \$47.40) 2 Years \$34.95 (Single copy \$94.80) 3 Years \$46.95 (Single copy \$142.20)

Outside U.S. add \$15 per year. Allow 4-6 weeks delivery.

Bill my MC/Visa/Discover No. _____
 Exp. Date _____ Initial _____ Check/MO Enclosed (only if mailing)
 Name _____
 Address _____
 City _____ State _____ Zip _____
 E-mail Address _____

Or Mail to:
 GUNS MAGAZINE
 591 Camino de la Reina,
 Suite 200
 San Diego, CA 92102

HA5-GS001

TO ORDER BY FAX, SEND TO: (619) 297-5353

CAMPFIRE TALES

continued from page 82

However he didn't stop there. The entire 3,000 acres has been returned to native grasslands and boasts a good-sized buffalo herd.

Buffalo hunting is a little different on the Hawes Ranch. The cook shack is a real Kansas prairie dugout complete with sod roof. Hunters sleep in teepees and pursue buffalo on horseback. Firearms? Buckskin clad Lee prefers his hunters continue the 19th-century tradition by using single-shot rifles, either muzzleloaders or black powder cartridge style.

His backup rifle is a custom Lone Star rolling block built by Dave Higginbotham and chambered in .50-70. Lee is a dinosaur, a throwback, and a real part of an America we must not lose. Those who forget the past have no future. I feel tremendously blessed for being able to spend three days with him. Oh, yes, my freezer's now packed full of buffalo meat. I took mine with a .45 Colt sixgun.

Texans Then And Now

From Kansas, we headed south to Texas, a state literally overflowing with real American history. What could be more representative of Texas than the Texas Rangers? We were able to spend a day at the Texas Ranger Hall of Fame and Museum in Waco.

Not only is this a vital part of Texas history, it is also the history of sixguns as one studies the hundreds of handguns used from the Paterson of John Coffee Hayes, up to the most recent Colt 1911s and Smith & Wesson Magnums.

Then it was off to Fredericksburg, Texas, and the Admiral Nimitz Museum (Nimitz, a native of Fredricksburg, commanded more men in the Pacific Theater of WW II than any commander before or since.); The National Museum of the Pacific War; and the simulated Pacific Combat Zone all in one complex.

Dedicated to the men and women who brought us victory in WW II, I felt a complete sense of awe and respect for all the young Americans that sacrificed everything so I could still be free 60 years later.

A few blocks from the Pacific landmark I found another part of real America. His name is Joe Gish, and he is a lifetime collector of things western.

Gish maintains a large private museum, no entry fee, no donations, and he is willing to give everyone a private tour. One caution, however. He is not interested in meeting with large numbers of general tourists, but rather those like Ray and I who are really interested in Western history, especially Joe's part of Western history.

Gish has been collecting since the 1940s with his main interest being silent movie westerns, real cowboy equipment, and Texas Rangers. His large museum houses thousands of items ranging from saddles to sixguns, movie posters to very rare leather belts and holsters, uniforms, badges, you name it, if it is pre-war western, it is probably in Joe's museum.

He asked nothing in return for the tour and the opportunity to handle many of his valuable items except that we share the same appreciation he feels. There are no signs, but just about anyone in Fredericksburg can direct a seeker to Joe's Museum.

Going The Extra Mile

Finally, we left Texas on a Saturday afternoon headed back to Kansas to pick up our frozen meat for the trip home. The meat processor was closed on Saturday and Sunday, however he gave us his home phone number so we could call and inform him when we left Texas and he could meet us at the plant.

Good plan, but as Bobby Burns put it so eloquently, the best-laid plans don't always work. As we traveled, we cell-phoned throughout the afternoon and evening. We called the home number only to get an answering machine. Since we couldn't connect, we stopped about 100 miles out for the night. We were back up and on the road at 6 a.m., and at the plant by 8 a.m. on Sunday morning.

Tim Copeland had indeed received our message, but for some reason could not connect with us. So he did what seemed natural to him, going the extra mile. He was waiting for us when we arrived at his place of business.

America is still out there, and it still works because of millions of people like the Turkey Creek Kid, Bonnie Tear, Possum Creek Bill, Lee Hawes, Joe Gish, and Tim Copeland. May it ever be so.





C/K MSRP \$69.99 & \$74.99
P/K MSRP \$59.99



Crawford/Kasper and Polkowski/Kasper. These very popular Bob Kasper collaborative designs are now available in Black dress. Choose the C/K folder with LAWKS®, or the dual sheath P/K fixed blade.



MSRP \$69.99 & \$49.99

Ryan Model Seven and Plan B. Steve Ryan's popular designs with zig-zag Zytel® scales and black Teflon plated blades. Plan B has a custom sheath, Model Seven folder has removable clip and LAWKS®.



MSRP \$99.99

M16-13SF. A unique version of Kit Carson's M16 with Tanto blade, dual Carson Flippers forming a hilt blade guard, CNC machined hard anodized 6061 T6 aluminum frame, all in black non-reflective dress.



MSRP \$79.99 & \$89.99

M16-LE Series. Kit Carson's original CRKT 6061 T6 aluminum build M16s with LE Blue hard anodized handles and black Teflon-plated AUS 8 combo blade, Carson Flipper, removable clip and LAWKS®.



Toll free: 1-800-891-3100 • E-mail: info@crkt.com
See our catalog on the web:

www.crkt.com

UNLEASH THE POWER OF YOUR SCOPE!

HORUS VISION • SWAROVSKI • NIKON • SCHMIDT & BENDER
ZEISS • KAHLES • LEUOPOLD • BURRIS • SHEPHERD
SIGHTRON • BAUSCH & LOMB • SWIFT • BUSHNELL • TASCO
PENTAX • SIMMONS • FUJINON

Play the Ranging Game... www.horusvision.com

BURRIS • SHEPHERD • SIGHTRON • BAUSCH & LOMB
SWIFT • BUSHNELL • TASCO • STEINER • PENTAX • SIMMONS
FUJINON • NIGHTFORCE • HAAKO • WEAVER • HORUS VISION

CAMPFIRE TALES

BY JOHN TAFFIN

AMERICA: IT'S STILL OUT THERE!

At one time in this country, there was one America. Today there are several. There's the America presented by the media. It is most often distorted and oblivious to the values of real America.

Everyone has seen the map showing "blue" America and "red" America. The Blue Zone exists along both coasts in areas where many residents do not consider red America's existence. The Red Zone, a.k.a. The Heartland as well as The Fly-over Zone, is an almost totally different world. It is the closest thing to real America, at least the America I grew up in.

The Red Zone is still populated with those more likely to farm, ranch, hunt, fish, drive pick-ups, even attend church regularly. Most do not care for Hollywood's brand of morality, in fact they cling to the real family values the other America often ridicules.

Millions of "Red Zoners" have made Rush Limbaugh an American institution, and have shunned the big three alphabet network news broadcasts for Fox's "We report; you decide." Most simply want to live their own lives, not try to tell others how to live theirs.

Trip Through Real America

Two weeks prior to the last election, my friend Ray Walters and I voted by absentee ballot before loading his four-door, 4x4 Ford F150 to spend three weeks and 5,000 miles in our America, the Red Zone. Traveling through eight states, Idaho, Wyoming, Nebraska, Kansas, Missouri, Oklahoma, and Texas, we were in the very Heart of the Heartland.

We traveled through rugged mountains, desolate deserts, rolling hills, flowing plains, as well as areas with thousands of hardwood trees showing their autumn colors. We were rained on hard enough to look for a second ark, we drove through three snowstorms in the mountains, we froze in a harsh Kansas wind, and we sweltered in southern Texas heat.

We hunted, we shot, we ate, we saw, we rested, and

above all we met great people in our Real America. Space precludes listing all of them and the reader would certainly tire of an endless list, so I share a few that to me represent America at its best.

The Future Of Shooting

Just north of Branson, Miss., we attended the SASS Regional shoot hosted by the Southern Missouri Rangers. It's always a joy to meet new people at these shoots. However, on this occasion I met a new friend who was head and shoulders above the rest even though he was all of about five feet tall. My new friend's name is the "Turkey Creek Kid." He's 12-years old, and he's a Cowboy Action Shooter.

Totally polite, very unassuming, and with a smile that will soon be melting teenage girls' hearts, he was excited about shooting. So much so, that he had a large Cowboy Action Shooting decal that would be going on the outside of his school locker on Monday morning.

When it comes to shooting, I'm pretty much the past. The Turkey Creek Kid is the all-important future. We *must* encourage young people if we expect the shooting sports to survive.

Turkey Creek didn't show up all by himself. He is a very fortunate young man to have grandparents that care enough about him to spend quality time with him. My hat is off to Bonnie Tear and Possum Creek Bill for taking the world's most important jobs, that of being grandmother and grandfather, seriously. We need more like them.

The Buffalo Hunter

Lee Hawes of Ford, Kan., is pure America. Lee and his wife Tamie have the Hawes Ranch Outfitters outside of Ford, Kan., which is just southeast of historic Dodge City. Lee is also known as "The Buffalo Hunter," since much of his living is made hosting buffalo hunters on his fourth-generation ranch.

In the early 1870s, Dodge City was one of the main buffalo hide shipping areas with nearly 400,000 hides going out in the years from 1872 to 1874. Hawes's great-grandfather started a ranch in the area in 1880. Lee is totally connected with the past, and by purchasing and leasing, he has managed to put his great-grandfather's ranch back together.



MAGNUM *performance*

IS NOW AUTOMATIC

Now you can get high-performance ballistics without sacrificing the tactical edge of a high-capacity autopistol.

GLOCK has taken its proven "Safe Action System" technology and applied it to the sizzling new .357 auto cartridge.



G31
Full Size



G32
Compact



G33
Sub-Compact



PERFECTION



Kimber. The Choice of America's Best.

USA Shooting Team Chooses Kimber!

To prepare for the 2004 Olympics the USA Shooting Rapid Fire Pistol Team hosted a special training event with America's best practical pistol shooters. The training proved so valuable that team members will be joining the pro shooters on the competition circuit. Accustomed to shooting the world's most accurate firearms and guided by their new mentors, they chose Kimber™ to build their pistols. This new model will also be available to the public and Kimber will donate \$100 from each sale to the USA Shooting Team.



The Team Match II™ .45 ACP has a stainless steel slide and frame machined from solid forgings and the new, innovative external extractor system. Special features include a match grade barrel and trigger, 30 LPI front strap checkering, adjustable sight and special USA Shooting Team grips.

America's best shooters choose Kimber for accuracy, absolute dependability and quality. For defense, competition or just plain fun, a Kimber is always your best choice.



For complete information on
Kimber firearms please send \$2 to
Kimber, Dept 12, One Lawton Street,
Yonkers, NY 10705,
call (800) 880-2418
or visit
www.kimberamerica.com



Built for the USA
Shooting Team, the
new Team Match II
.45 ACP is available
at Kimber Master
Dealers.

Information and specifications are for reference only and subject to change without notice. Firearm safety is every gun owner's responsibility. Use and store all firearms safely. Teach everyone in your home, especially children, proper firearm safety. Kimber firearms should only be purchased and used in complete compliance with all national, state and local laws. All suggestions for use in this ad or any Kimber literature must be taken within the context of these laws. Kimber firearms are shipped with a California-approved cable lock as a safety measure. Additionally, pistols are shipped in a lockable high-impact case. Use of the cable lock at all times is encouraged when a firearm is in storage. Kimber owners may request a free cable lock by mail. Include \$59 for postage and handling. Copyright 2002, Kimber Mfg., Inc.

Continuing The Legacy