



MAY 2006

DIGITAL ARCHIVE
EDITION

PRECISION ARMS WORKSHOP

AND THE AMERICAN GUNSMITH ARCHIVE

A TECHNICAL JOURNAL OF CRAFT, REPAIR & RESTORATION

05

ARCHIVE ISSUE NUMBER

INSIDE THE ARCHIVE

WORKING COLT'S ALL AMERICAN 2000

IMAGE IS KEY TO FIREARM INDUSTRY'S FUTURE • TAKING DOWN THE SAUER MODEL 202 RIFLE • SALVAGING GRANDPA...

ORIGINAL METHODS. MODERN ACCESS.

ARCHIVE EDITION 030

DIGITAL ARCHIVE EDITION

Preserved for the bench.

This edition presents the original American Gunsmith editorial work in a modern, searchable layout while preserving its issue, author, and source-page history.

ABOUT THIS EDITION

The article text comes from the original issue and has been reflowed for legibility. Obsolete subscription, ordering, association-service, and house-advertising pages are not reproduced.

Original article images appear only where permission has been confirmed. All other image positions remain visibly reserved so approved art can be restored without rebuilding the issue.

Report corrections or rights information to editor@gunsmithmag.com.



AMERICAN GUNSMITH

DIGITAL ARCHIVE EDITION • MAY 2006

ISSUE RECORD

ORIGINAL DATE	May 2006
VOLUME	Archive volume not stated
ISSUE NUMBER	05
SOURCE ID	ag-e52f230b707dc7e8262cc01c

DIGITAL EDITION

PUBLICATION	American Gunsmith
EDITION	Digital Archive Edition
ARCHIVE STEWARD	Innovation Network LLC
CONTACT	editor@gunsmithmag.com

Editorial fidelity. Article titles, author attribution, issue relationships, source-page references, and article text remain bound to the archive corpus. Layout, covers, navigation, and conversion notes are newly produced for this edition. Historical statements remain part of the original editorial record.

IN THIS ISSUE

Contents

A complete guide to the searchable editorial work preserved from May 2006.

2 Image Is Key To Firearm Industry's Future

AMERICAN GUNSMITH EDITORS • ORIGINAL PAGES 2

3 Taking Down the Sauer Model 202 Rifle

CHICK BLOOD • ORIGINAL PAGES 3-6

7 Salvaging Grandpa's Old Double

SERGEY LYALKO • ORIGINAL PAGES 7-9

10 Stuck-Bullet Removal Times For

ROBERT E. FRIED • ORIGINAL PAGES 10-13

14 Modifying the Thompson/Cente TCR '83 Trigger for Field Use

NORMAN E. JOHNSON • ORIGINAL PAGES 14-15

16 Working Colt's All American 2000

RUSSELL CORBITT • ORIGINAL PAGES 16-21

22 Reader Forum

AMERICAN GUNSMITH EDITORS • ORIGINAL PAGES 22-24

FROM THE ARCHIVE

Image Is Key To Firearm Industry's Future

BY AMERICAN GUNSMITH EDITORS MAY 2006

ORIGINAL PP. 2

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1116-P02-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1116-P02-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1116-P02-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1116-P02-F02

Image is everything. And some observers believe the firearm industry has some work to do to build customers for the future. Surveys show a majority of today's Americans support hunting, shooting, and Second Amendment freedoms. But our society is changing, warns business-growth expert Steven S.

Little in a recent press release from the National Shooting Sports Foundation (NSSF). "The perception of sportsmen and sportswomen among the nonshooting and non-hunting public'or bluntly stated, overcoming the "Bubba factor""will play a big part in attracting tomorrow's new hunters and shooters," Little said. Little delivered his message to an audience of the shooting industry's future leaders at the Shooting, Hunting, and Outdoor Trade (SHOT) Show.

Little, a senior consultant for Inc. magazine and a non-hunter and non-shooter, said spotlighting hunters and shooters as conservationists is one way to reach the mainstream. "It was news tome that hunters and shooters consider themselves to be conservationists. I did not know that. And whose fault is that? Is it my fault for not knowing it, or is it your fault for not telling me?" he asked. "The people who care about the wetlands are the ones who are in them every day.

The city people who say they care about the wetlands, they're not there. You are. Let them know that you are the ones doing what's right, said Little. Another strategy for the firearms industry is to create an image appealing to women and minorities, whose influence in American society will continue to grow. Little used NASCAR as an example of achieving monumental growth through restructuring its image.

In the last 10 years, NASCAR has reached out to minorities, women, and others outside its majority fan base, and its popularity and sales have skyrocketed as a result he said. "In 10 years, they took NASCAR from redneck to chic," Little said. As a longtime NASCAR fan and former driver of the Passport Holsters/American Gunsmith Chevrolet, I think that what Little has to say about our industry makes a lot of sense. Image is everything.

And anything we can do to promote the positive image of the shooting sports is worth doing'including, perhaps, encouraging the Vice President to take up golf. Editor Keith Lawrence Technical

MAINTENANCE & REPAIR

Taking Down the Sauer Model 202 Rifle

If you go too far with the disassembly of this rifle, you're asking for trouble.

BY CHICK BLOOD MAY 2006

ORIGINAL PP. 3-6

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P03-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P03-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P03-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P03-F02

The Sauer Model 202, made offshore and imported by SIGarms, is an ultra-precision sporting rifle incorporating a slew of the latest features. At this point, it's too new to have developed a reported track record of malfunctions. Its modular design makes it possible to easily replace individual major components and to change calibers. Before I forget, any measurements given here or listed in the owner's manual will be in the metric system, so take a few notes if you're unfamiliar with the system.

A millimeter equals .03937 inches. The overall length of the 202 rifle in Magnum caliber is about 1170 mm. Multiply that 03937 and you get inches—in this case, 46.06 inches depending on barrel length. A kilogram equals 2.2046 pounds. That same Magnum 202 rifle with a steel receiver weighs 3.8 kg, or about 8.4 pounds, again depending on length of barrel. So much for my doing conversions. All others are up to you. When a Sauer 202 leaves the factory, its metal parts wear a protective coating of oil.

Any excess oil should be wiped off and a clean patch run through the barrel from breech to muzzle before the gun is fired. Chances are very good to excellent the gunowner will not have bothered with such details.

This will lead to a buildup of powder residue and other gunk in the action, which will lead to the rifle being brought in to you with a complaint about misfires, poor extraction, and—in extreme cases of fouling—failures to feed. (This will probably be due to the magazine-follower spring being frozen in place or having its movement restricted with crud.) Chances are also good that the same owner will have lost, discarded, or simply forgotten to bring along the disassembly tools that come with the rifle.

If so, you'll be able to substitute for their absence with a set of longshank Allen wrenches (in metric sizes, of course). Field Stripping There's a bolt release in the trigger assembly (#711). It shows itself by extending downward from the triggerguard, similar to the release on a shotgun. Press it upward and withdraw the bolt from the receiver. Insert a 5mm Allen wrench into the

buttstock (#401), back off the buttstock screw (#403) and dump parts #402, 403, and 404 out onto your bench.

Once they're all set aside together, remove the buttstock to the rear. After pressing in on the center of the forend sling swivel and pulling it out, use the same Allen wrench to undo the forend screw (#501) and remove the wood toward the muzzle. This will give you a pretty good look at where you can go from here. Taking the stocks off a Sauer 202 is a little like taking the grip panels off some imported pistols. Almost all the innards are showing.

Removing/Changing the Barrel Do you see the three 4mm clamping screws (#203) at the front end of the receiver just under where the barrel breech joins it? Loosen (but only just loosen) the back one. Do the same with the middle one, then back out the front screw completely. The key/insert (#208) that locates the barrel rotationally can now be detached and removed downward. In most cases, the barrel can be removed as described in the text.

TAKING DOWN THE SAUER MODEL 202 RIFLE CONTINUED

ORIGINAL PAGE 4

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P04-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P04-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P04-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P04-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P04-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P04-F03

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P04-F04. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P04-F04

If the tools are missing, you can substitute a set of long-shank metric Allen wrenches, pulled from the receiver. In others, it might be in too tightly for simple extraction. Don't attempt to drive it off; you'd be risking damage to a very expensive barrel. Instead, take the clamping screw you completely removed and start it in from the opposite side of the receiver. Place a nickel or a penny about half-way into the slot vacated by the key/insert.

The coin will serve as a bearing surface against which you can turn in the clamping screw to widen the receiver's grip on the barrel and pull it out. In this process, you may have to further back out the rear and middle clamping screws as you go or they may prevent the receiver from widening enough. A few words regarding changing from one caliber to another are called for here: With normal (a.k.a. standard) calibers like .30-06, .308, .270, and .25-06, all that's required is a new barrel.

Due to a different bolt configuration, however, going from any of those to .22-250 or .243 requires both a barrel and a bolt. And there's no way The screw head requires a 4mm Allen wrench. The bolt cannot otherwise be fully reinserted in the rifle. a standard/normal caliber can merely be re-barreled up to a Magnum. With the big boomers, the stocks, bolts, and receivers are different. Magazine-Catch Disassembly The catch is a plate (#104) on the right side of the receiver.

Press the lock catch (#207) upward to disengage it with the catch and the catch can be lifted off. The lock-guide pin (#205), compression spring (#206), and lock can be withdrawn downward unless the spring beats you to it. Except for the catch itself, these are very small parts and easily lost. Bolt Disassembly The cocking sleeve (#113) is not threaded into the bolt body (#112). Pull back on the sleeve and turn it counterclockwise to disengage its integral cam with the recess in the body.

Pull out the entire firing-pin assembly. All the parts in this assembly, #103 through #106, are retained by a cylindrical pin (#102). If for any reason you need to remove this pin, keep in mind that the firing-pin spring is extremely powerful; it delivers a 2millisecond lock time. Strong as it is, that spring won't separate the collar bushing (#104) from the firing pin (#106) when the cylindrical pin is removed.

To do that, lock the end of the firing pin between padded vise jaws, unscrew part #103 from #106, and pull the components apart. The vise will be used again to reassemble the bolt. Then you'll have to compress the spring, maintain pressure while you install the collar bushing, force the firing pin into the bushing, align the holes in the firing pin nut (#103) and firing pin, and install the cylindrical pin. Be ready for a fight with the spring. Ejector/Extractor Assembly Parts #108 are two identical springs.

One serves the ejector, the other the extractor. The ejector itself (#107) is



ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P05-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1117-P05-F01

Sauer Model 202 Semi-Automatic Rifle (Specifications subject to change without notice) 100 Bolt Assembly 102 Cylindrical Pin 103 Firing Pin Nut 104 Collar Bushing 105 Firing Pin Spring 106 Firing Pin 107 Ejector Pin 108 Ejector Spring 109 Ejector Spring Pin 110 Extractor 111 Extractor Plunger 112 Bolt Body 113 Cocking Sleeve 200 Receiver Assembly 201 Magazine Ejector Spring 202 Receiver (Alum.

Alloy or Steel) 203 Clamping Screws 204 Magazine Catch 205 Magazine Lock Guide Pin 206 Magazine Lock Spring 207 Locking Catch 208 Insert retained by a roll pin (#109).

After placing a piece of tape or a plastic bag over the bolt face, drive pin #109 either up or down enough to allow the 209 Slotted Pins (2) 210 Tang Safety Button 211 Tang Safety Threaded Pin 300 Barrel Assembly 301 Barrel 302 Slotted Spring Pin 303 Screw 304 Rear Sight Blade 305 Screw 306 Rear Sight Base 307 Screw 308 Front Sight Base 400 Stock Assembly 401 Buttstock 402 Retaining Bushing 403 Buttstock Screw 404 Serrated Washer 405 Washer 406 Countersunk Woodscrew 407 Sling Swivel Bushing 408 Butt Cap 409 Butt Cap Screws (2) spring to push the ejector outward.

Whenever possible, and in this case it is, I advise you not to drive the pin completely out.

When you get around 500 Forend Assembly 501 Forend Screw 502 Forend 503 Sling Swivel Socket 510 Cap 600 Magazine Assembly 601 Magazine Base 602 Magazine Spring 603 Feeder (Follower) 604 Magazine Box 700 Trigger Assembly 701 Striking Lever 702 Cylindrical Pin 703 Compression Spring 704 Sear 705 Cylindrical Pin 706 Trigger 707 Cylindrical Pin 708 Compression Spring 709 Shims (2) 710 Rocker Arm 711 Bolt Catch 712 Action Catch Pin 713 Bolt Catch Spring 714 Safety Release Catch 715 Two Cylindrical Pins 716 Compression Spring 717 Spring Pin 718 Trigger Bar 719 Safety Catch 720 Spring Pin 721 Compression Spring 722 Trigger Spring Adjusting Screw 723 Rocker Arm 724 Spring Pin 725 Spring 726 Safety Lever 727 Spring Support 728 Trigger Housing 729 Adjusting Screw 730 Roller Note: All trigger-assembly components are restricted to factory service only.

Complete replacement assemblies are available. to reconstructing the bolt, this eliminates the need for roll-pin starter punches (Brownells) or the need for foul language when trying to com-

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1117-P06-F01. Know the rights holder? Please ask them to contact us.
AG-E8262CC01C-A1117-P06-F01

The lockcatch spring can be seen here (C) as well as the two roll pins retaining the trigger assembly (D). press and start a small roll pin into its hole without them. The extractor has no retaining pin. It's removed by inserting a small tool between the back end of the extractor (#110) and its plunger (#111). Depress the plunger, press the rear of the extractor down, and rotate it away from the bolt face. You won't forget to restrain the plunger will you? Good.

That way, the spring and plunger won't disappear forever. The Trigger Mechanism This whole assembly is attached to the receiver as a modular unit by two pins (#209). Usually, the Model 202 is equipped with a direct trigger, but a double-set trigger is available. A safety (#726) is integrated with both types. It consists of two pressure pins separated one from the other. The safety release (#719) is located in front of the trigger and is well protected against accidental release.

When the release is pressed upward, the tang safety (#211) pops up to reveal a red ring to inform the shooter the safety is "off." Pushing down the tang safety resets the release, covers the red ring, and the safety is then "on." Parts #720, 721, and 722 adjust the sear pressure. Part #729 adjusts sear engagement. Both subassemblies are sealed with lacquer at the factory after the trigger has been set to crisply disengage the sear (#704) at 3-1/4 pounds. We're seeing more and more of these lacquered seals.

When absent, damaged, or substituted for, they're a sure tip-off to factory-service workers that someone has been tampering with the trigger assembly. Lawyers repre-

sending firearm manufacturers love these seals. Lawyers representing those bringing an action against a manufacturer for "malfunctions" hate them.

I'll repeat some advice given several issues back on the subject of doing trigger work while avoiding its possible consequences: If someone brings you a gun, particularly a rifle, with the request for a lighter trigger pull, stay away from the seals just mentioned. It's impossible to know the composition of the material used by the gunmaker, and many of these compounds are proprietary.

If there's a high-quality aftermarket trigger made to fit the rifle, remove the factory trigger assembly entirely, replace it and store it suitably identified in your safe. If the rifle ever has to be returned to the manufacturer for repairs restricted to "factory service only," take off the replacement trigger and reinstall the original. I promise you, if a rifle ever reaches a service department wearing someone else's trigger it will be returned wearing a factory original for which you will be charged.

And you may not ever see the aftermarket trigger again. The owner of the gun will probably want you to reimburse him for the cost of the aftermarket trigger, and he's not going to be happy about paying for another factory trigger. You lose both ways. It's easy to separate the 202 trigger assembly from the receiver. It's also easy to take it apart. Just knock out a few pins.

The bad news is you will never get it back together without the numerous slave pins, fixtures, and precision tools to measure stuff

like sear pressure that are used by factory assemblers. Beyond that, all're peat'all of the parts are restricted. No exceptions. (You can purchase a complete new assembly, though, if you take the trigger assembly apart and can't manage to put it back together.) Sure, you can fabricate all the slave pins required.

And, given enough time, you might be able to reassemble this particular trigger if you buy a second, complete trigger assembly to keep standing by as a reference. Even then, however, you'd still be missing some very unique measurement and reassembly tooling. You've been warned. B About Bolt Reassembly The bolt has to be cocked before it will slide fully into the receiver. Insert one end of a proper size Allen wrench into the lateral bore hole of the cocking sleeve (see photo).

Twist the cocking sleeve clockwise until its cam engages the cam recess in the bolt body. Make a note and remind your customer that the rifle is ready to fire when the cocked bolt is pushed forward and into battery by pressing the action catch upward. If the trigger is pulled, the sear will release the firing pin. And Finally, About the Magazine The floor plate (#601) slides off to the front. The magazine spring (#602) and follower (#603) drop out the bottom.

Part #201 is the magazine-ejector spring that lives in a grooved recess in the receiver. As long as it isn't broken, it will stay put since it's trapped against the receiver by the magazine. I

HISTORY

Salvaging Grandpa's Old Double

Salvaging Grandpa's Old Doub Old double shotguns with worn or damaged firing-pin channels can be restored to service with this simple and straightforward repair.

BY SERGEY LYALKO MAY 2006

ORIGINAL PP. 7-9

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P07-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P07-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P07-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P07-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P07-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P07-F03

It's true that expensive guns get the most attention. Because of their intrinsic and historic value, we try to repair and restore them to the best of our abilities. But what about inexpensive doubles? Perhaps those with only sentimental value? There's an ocean of them out there. These guns were not purchased for their beauty or as an investment. They were the everyday tools of farmers, builders, railway workers, and many others. It's a pity to discard such a gun, even if it's damaged to some extent.

The gun used in the preparation of this article is a good example. This Fox Model B, made by Savage-Stevens, was brought into my shop by someone who remembers dry-firing it when he was a child. This play destroyed the standing breech of the gun. Figure 1 shows the problem; the firing-pin channels do not have The standing breech of this Fox Model B shows the destroyed firing-pin channels.

In this photo, A is the original firing pin, Bis anew firing pin in the making, and Cis the new firing pin after finishing. front walls. The good news is that the rest of the gun was in pretty good condition. Destroyed firing-pin channels are not unusual on older guns. One problem associated with this damage is wobbling firing pins, with off-center strikes on the primers. Another problem is that, during the shot, the primer becomes perforated and explodes into the action through the channel.

Finally, this creates a problem with opening the gun in those instances when it does shoot. In other words, a gun in this condition is surely out of service. Although a damaged standing breech often results in a gun being relegated to the wall above the fireplace, the fix is neither difficult nor expensive. In this article, I'll describe one way to take care of this problem.

Another way of fixing firing-pin channels is to use removable bushings, which was described in my article "Fixing Factory

Misplaced Firing Pins" in the October 02 issue of this magazine. Repairing a Damaged Standing Breech First, we have to understand the reason why the breach became damaged with the original firing pins in order to exclude this problem in the course of the repair. The actual damage has been done by the spring plunger (identified by the number 1 on the firing pin shown in Figure 2-A).

Repeated pounding of the front wall by this part of the firing pin broke the wall. Actually, this wall of the breech is the only way of stopping the firing pin. Being thin and made of soft metal, the wall cannot withstand this pounding forever. My plan of repair in such cases is to first restore the front wall and then restrict the travel of the firing pin by providing a rim (see number 2 in Figure 2-C).

This rim has a diameter greater than the channel, and stops the firing pin as soon as it reaches the internal surface of the action. The action in that area is massive and

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P08-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P08-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P08-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P08-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P08-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P08-F03

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P08-F04. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P08-F04

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P08-F05. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P08-F05

The internal part of the action is shown here with the new firing pin installed. A drill or reamer is used to remove any internal burrs and uneven surfaces in the firing-pin channels. cannot be easily damaged. Figure 3 shows the internal part of the action with the firing pin installed. In this case, the front wall of the breech is not reached by the firing pin and it's not going to be damaged again.

Obviously, each different action requires a somewhat different approach, but the procedure described here is applicable in many different situations. The method of restoring the standing breech is to provide permanent bushings. Removable bushings could also be installed, but these take much more effort to fit and to provide a means of putting them in

and taking them out of the action. Permanent bushings are easier to install by following these steps: 1.

Normalize the firing-pin channels by passing an appropriate drill or reamer all the way through the channel from behind the action as shown in Figure 4. The goal is to remove any internal burrs and uneven surfaces, including debris left from the damaged front wall. Choose a drill or reamer diameter associated with a certain tap. In this particular case, the closest tap was 10x1 mm. Attention should be paid during drilling to maintain the original direction of the channel.

Otherwise, it may become difficult to center the firing-pin strike. Threads are cut in the breech for the new bushings. The breech is

shown here after soldering new bushings in and cutting them off. 2. Cut the thread from the front of the breech as shown in Figure 5. The depth of the threaded part is not critical, but it has to be a minimum of about 1/8 inch. Remember that channels are not perpendicular to the breech, therefore the depth of the thread is different for the top and the bottom of the channel.

It's important to keep the angle of the original channel unchanged. On one previous similar job, I prepared a tap by grinding its front part so that it worked as a pilot. To make the tap with pilot precise enough, I used a grinding attachment on the lathe. (This is not a very popular device, but when you have one many tasks become easier.) 3. Preparing the bushings requires a

SALVAGING GRANDPA'S OLD DOUBLE CONTINUED

ORIGINAL PAGE 9

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P09-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P09-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P09-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P09-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P09-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P09-F03

A rod is used to test the position of the firing pin holes in the new bushings. The restored standing breech with new firing pins is now ready for final testing, lathe. The most important aspect of this step is to prepare the firing-pin-hole so that its position can be corrected later. For this, I assume that the final diameter of the firing-pin nose should be about 7/64 inch and so I drill the hole in the bushing with a 1/16-inch diameter.

Later, this small hole can be expanded to 7/64 in the required direction to bring it to the center of the primer. Actually, the final hole can be as large as 1/8 inch, but shouldn't be any larger. The only other step in the preparation of the bushings is to cut the threads corresponding to those made in the breech. 4. The next step is to install the bushings into the channels. I prefer to softsolder them.

This way, we don't have to worry about them unscrewing or moving later on. I make the threaded bushings longer, so that the tails are

sticking out of the breech. I then cut the screwdriver slots in the tails for rotating the bushings when the solder melts. Figure 6 shows the breech after soldering the bushings in and cutting the tails off. Finish this step by leveling the bushings flat with the standing breech. 5. Next, check the centering of the new bushings.

For this, I use "dummy" primers and a thin rod that fits snugly into the bushing holes. It's a good idea to shape one end of the rod as a normal firingpin nose. Empty shells with dummy primers have to be put into the chambers, and the barrels have to be installed on the action. To maintain the correct barrel position (continued on page 15) tion, it's necessary to put the bolt back in place and lock the barrels properly. With the rod protruding through the bushing holes, punch it with a hammer from behind the action.

This should leave a clear mark on each primer. Figure 7 shows the result. From this photo, it's obvious that the firing-pin holes need some correction, which we anticipated

anyway. I marked arrows on the shell heads before closing the gun to control the position of the punch. By the way, dummy primers can be produced by keeping normal ones in a jar of WD-40. I keep a small jar of them, since they're useful for testing mainsprings and firing pins.

Just remember that if the primers are removed from the jar and allowed to dry, their original explosiveness will return. 6. Correcting the position of the firing-pin hole can be a little tricky. The idea is to expand the hole in the direction of the primer's center, and then round it with a 7/64-inch drill. The expansion of the hole can be made with around needle file, being careful to maintain the direction of the firing-pin channel.

When the hole is expanded enough to be in the center of the primer, it has to be rounded with a needle file as much as possible first, and then finished with the drill. Making New Firing Pins Figures 2-Band 2-C show unfinished and finished firing pins. Normally, for making firing pins, I use oil hard-

SALVAGING GRANDPA'S OLD DOUBLE CONTINUED

ORIGINAL PAGE 15

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P15-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P15-F01

ening drill rods. I also heat treat them. When firing pins are not properly hardened and tempered they can either get riveted or bent. I think the heat-treatment is especially important in cases like this one where the firing pins are not easily accessible, since you have to disassemble the whole gun if a firing pin breaks. Conclusion Finally, the springs can be installed on the firing pins and the gun reassembled. Figure 8 shows the restored breech with the new firing pins.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1118-P15-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1118-P15-F02

After the installation is finished, testing with live primers should be done to check the position of the firing-pin strikes. Figure 9 shows the result of the test performed on this gun. Damaged firing-pin holes on the standing breech of a shotgun often render it unusable even when the rest of the gun is in good condition. With this simple repair, however, such a gun can be returned to the field rather than having to spend the rest of its life as a wallhanger. I

PISTOLS

Stuck-Bullet Removal Times Fo

Removing a single stuck bullet is usually easy, but what do you do when you have four? Here's a method that proved to be better than what the gun manufacturer suggested.

BY ROBERT E. FRIED MAY 2006

ORIGINAL PP. 10-13

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1119-P10-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1119-P10-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1119-P10-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1119-P10-F02

Some days, it doesn't pay to get out of bed. On one such day, I picked up a Smith & Wesson Model 15 .38 Special from a local gunshop I do gunsmithing for. Just like a chain-reaction collision on the freeway, this revolver had four 'yes, four!' bullets backed up and firmly lodged against each other in the barrel. The last bullet was lodged between the cylinder and barrel. And, for good measure, there were two live rounds in the cylinder to boot.

I would have known how to handle a single bullet stuck in the barrel or one stuck between the cylinder and barrel (see "Removing Squib Loads," in the May 94 issue), but what about three bullets, plus the one between the cylinder and forcing cone? I figured I had a number of options. The one option I did not have was to remove the barrel from the frame, due to the fact that I couldn't open or remove the cylinder.

Unlike a single-action revolver, where the barrel can be removed with the cylinder in place, this was not possible on the S&W. On this double-action revolver, with the extractor rod engaged to a lug under the barrel, I was limited to working with it on the frame. One option I considered was to use a jeweler's saw to saw through the bullet between the cylinder and barrel.

Unfortunately, I couldn't find one small enough to fit in the narrow space between the cylinder and barrel.

Another option was to try to pull each bullet like you would do with a muzzleloader. They wouldn't budge, however, and the puller would simply strip out of the soft lead since the copper jackets were firmly engaged in the barrel's rifling. Eventually I decided to disassemble the pistol as far as I could, after I determined that the case behind the hammer had indeed been fired. Next I drilled a small hole in the back of the case through the firing-pin hole.

The idea was to use a small piece of drill rod to try to knock the bullet forward enough that I could open the cylinder and thus remove the barrel. This failed also. Next, I placed a call to the Smith & Wesson service department. The factory technician I spoke with suggested I put the frame in a vise and knock the cylinder out, shearing the bullet and destroying the cylinder in the process. With this approach, there was also a danger of bending the frame. Leather vise pads were used to protect the barrel, as well.

I told them "thanks" (but "no thanks"). I knew there had to be a way to get this done without destroying the cylinder or barrel in the process. After leaving the pistol laying around the shop (hoping, perhaps, that it would miraculously cure itself) I came upon the idea of drilling the bullets out but not in the conventional way. I have a South Bend lathe and a Palmgren milling attachment (from Brownells).

I mounted the pistol in the milling attachment, lining it up with a piece of drill rod I had turned to the inside diameter of the bore. After it was set up and leveled, I used an "R" letter drill inserted into the collet chuck. I turned this by hand, removing it after several turns to clean away the lead chips. This, it seemed, was going to work. After I had turned the drill in as far as I could.

I moved the milling attachment on the carriage down the raceway, turned down the drill shank to fit into a piece of 5/16-inch drill rod, and soldered the shank to the rod. I then moved the attachment back into position and continued to turn the collet chuck by hand, and continued to remove the drill after several turns to clear out the lead chips. After working patiently, I eventually drilled through the last bullet. I

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1119-P11-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1119-P11-F01

could then open the cylinder and check the inside of the barrel. There I found I had another problem. I had drilled out the lead cores of four jacketed bullets, but at least three of the copper jackets remained in the barrel. Next, I removed the barrel from the frame. It's held in place with threads and a pin, making removal quite simple. But once again, I had to think over several options for removing those copper jackets. I knew whatever option I used, I had to avoid doing any damage to the inside of the barrel.

I had some 3/8-inch-diameter plastic rods, so I turned apiece down on the lathe to an approximate diameter of .355. I put this into the barrel throat, and drove it through the barrel with apiece of brass rod. The plastic was too soft and simply squeezed between the jackets and did not push them out. Whatever I used had to be hard enough to push the jackets out, but soft enough not to damage the bore. Next I tried some aluminum round stock left over from building custom cleaning rods.

Again, I turned a short piece down to .355 diameter, with a slight taper to .351. Using the brass rod, I drove the well oiled aluminum into the barrel, taper first. I could feel the jackets give as I drove the rod through. I taped a plastic bag over the muzzle to capture the jackets so I could show them to the customer. Another alternative might have been to use one of the several copper solvents available. Some are strong enough to etch the bore, so you must avoid using them for extended periods of time.

Another thing I could have tried would have been to plug the breech and fill the barrel with Kroil (available from Brownells). After letting it stand for a few days, a very tight-fitting patch might have Since the Rletter drill bit was not long enough, an extension was used to finish the drilling. been sufficient to push what was left of the copper jackets out of the barrel. This procedure would be highly recommended if you have any doubts about damaging the bore with copper solvent.

Conclusions After a thorough cleaning and reassembly, the pistol was test fired with factory ammunition. It fired all six shots without a mishap. Remember the two unfired rounds that were still in the chamber? I pulled the bullets and weighed the powder. They were loaded with what appeared to be Red Dot powder, and had less than half of the recommended starting load. This is probably what saved the gun owner and why the barrel didn't bulge.

I learned later that the gun owner had loaded up some "test" loads and stepped outside and fired them as fast as he could pull the trigger. Until, of course, the cylinder wouldn't turn. As every gunsmith knows, it pays not to give up on the task at hand. It's often possible with a little patience and a lot of thought and determination't o come up with an alternative to what would otherwise prove to be an expensive and extensive repair for the gun owner.

RIFLES

Modifying the Thompson/Center TCR '83 Trigger for Field Use

Most rifles equipped with a set-type trigger are not easily adjusted for field use. With the TCR '83 rifle, however, a simple and inexpensive temporary conversion can result in a very satisfactory hunting firearm.

BY NORMAN E. JOHNSON MAY 2006

ORIGINAL PP. 14-15

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1120-P14-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1120-P14-F01

Original caption: Right top: This underside view of the trigger guard and set trigger used on the TCR '83 rifle shows the sear-engagement adjusting screw, as well as the slot (arrow) used by the author for an auxiliary spring to increase trigger pull. When the adjusting screw is turned inward, the sear let-off is more sensitive. Right bottom: The auxiliary trigger spring is seen in position at the rear of the trigger.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1120-P14-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1120-P14-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1120-P14-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1120-P14-F03

With its set trigger, the Thompson/Center TCR '83 singleshot rifle is easy to shoot and extremely accurate—especially when shooting from bench rest. But for field use and hunting, at just over a pound, the trigger is a bit

too light. The rifle can be fired with the trigger in the unset position, which the owner's manual suggests is suitable for hunting.

But with a pull weight at this stage of about 7 pounds, most shooters would find this to be too heavy for field shooting and hunting. Installing an Auxiliary Spring Fortunately—and this is obviously something

you won't find in the owner's manual—the TCR '83's set trigger can easily be altered to a satisfactory hunting pull weight in just minutes with the installation of a small spring.

When turned outward, the set screw between the triggers increases trigger-sear travel, which makes the trigger seem to pull heavier.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1120-P15-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1120-P15-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1120-P15-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1120-P15-F02

On top of the gauge is the spring used to increase trigger pull. In order to prove his point, the author insisted we include this gratuitous photo of himself, the altered Thompson/Center TCR rifle, and his trophy whitetail buck. However, the adjustment does not directly increase or decrease the pull weight. Rather it regulates the amount of let-off travel when the rifle is being fired with the trigger in the set position.

Thus, this part of the set trigger adjustment involves sear/trigger engagement, and not pull force. On close inspection of the Thompson/Center rifle, you'll see a small space immediately behind the base of the trigger and the upper aspect of the trigger guard. This rectangular space is 0.187 inch in length by about 0.130 inch wide, providing ample room for a flat compression spring to fit in this space.

The margins of both surfaces are perfectly square and are perfectly suitable for the application of a compression spring. If such a spring is made perfectly square, tension holds it in place as it works to increase trigger-pull force. To accomplish this, I found a spring that fit

nically into the T/C's 0.130inch opening. The opening provides ample length to easily push a compressed spring into position.

I was able to push the spring into place with my fingers and it remains firmly wedged against the opposing surfaces during shooting. While installing the spring, I also increased the amount of trigger/sear let-off travel by turning the adjusting screw counterclockwise a full turn. This gives the hunter a feeling of increased trigger pull by itself, although this let-off adjustment alone only serves to adjust triggersear travel.

Conclusion Increasing trigger pull force from 1.2 pounds to just over 2 pounds on the Thompson/Center TCR '83 single-shot rifle makes it a safer and better hunting rifle. The greater the spring strength, the more difference will be noted on the trigger pull. This minor conversion is easily accomplished, for a few minutes of time and the price of a small spring. When not needed, the spring is easily removed and stored for later use.

But for those who enjoy shooting a set trigger and prefer a little more pull weight, the auxiliary spring can be left in place at all times. I

PEOPLE & COMPANIES

Working Colt's All American 2000

Except for a few minor similarities to the M1911, this excellent pistol design was a radical departure from Colt's usual fare.

BY RUSSELL CORBITT MAY 2006

ORIGINAL PP. 16-21

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P16-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P16-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P16-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P16-F02

Designed by Reed Knight, the Colt All American 2000 utilizes a recoil-operated, rotating-barrel breech-locking system. Unlocking is delayed by the bullet's inertia; the barrel is rotated with a cam operated by a slot in the trigger group in a manner similar to the AR-15/M16. It was introduced in 1991 and marketed primarily as a police sidearm. Although it was not especially popular with police or the public and was discontinued in 1993, there are enough in circulation that one will eventually come across your bench.

A recall was issued shortly after the AA 2000s introduction, replacing the original solid trigger with an articulated unit designed to reduce accidental discharges associated with a foreign object in the trigger guard when re-holstering the pistol. The pistol has along-stroke double-action-only (DAO) trigger mechanism, unusual in that the trigger moves linearly in the guard instead of pivoting on a pin. Bearing surfaces of the trigger assembly have rollers on them to smooth the draw.

Firing the pistol is very similar to firing a revolver in the double-action mode. Since the AA 2000 does not use a pre-tensioned striker, it allows repeated attempts to fire a

chambered cartridge with multiple pulls of the trigger. The striker is blocked from unwanted movement by a plunger arrangement (similar to the 1911s Series-80 firing-pin block) unless the slide assembly is in battery and the trigger is fully drawn.

Field Stripping At no time should you use any force to field-strip, disassemble, or reassemble this pistol, unless specifically outlined in the text. If it doesn't come apart or replace easily, you're doing something wrong. Depress the magazine catch (#13) and remove magazine assembly. Retract the slide (#37) to its rearmost position and engage the slide stop (#51) into its notch in the slide. Inspect the chamber end of the barrel (#1) to ensure there is no cartridge in the pistol.

Push the takedown pin (#21) out from right to left (facing the rear of the pistol) until it reaches the end of its travel. Note that this pin will not come completely out; it's held captive in the cam block (#4). Move the slide stop out of its notch in the slide, control the slide, and allow it to return to its in-battery position. The slide can now be removed by simply continuing its forward movement off the receiver (#25).

Grasp the takedown pin and lift the cam block and trigger assembly (#52) out of the receiver. Separate the trigger assembly from the cam block and turn your attention to the slide. Pull the recoil-spring assembly (#26) out of the slide. Holding the slide firmly in one hand, turn the barrel bushing (#2) 45 degrees either direction. The barrel bushing will separate from the slide and can now be removed. Next, rotate the barrel just a bit and it will come out of the slide.

The barrel can be turned in only one direction, and it can be removed in only one position when its locking lugs are aligned with the corresponding clearance cuts in the slide. This constitutes field stripping and is all the disassembly needed for routine cleaning. Detailed Disassembly For a more thorough cleaning, the various assemblies are broken down as follows: Slide.

Using a small punch, depress the plunger protruding through the firing-pin spring retainer (#29) and simultaneously slide the retainer down toward the open side of the slide, just as if you're removing the

WORKING COLT'S ALL AMERICAN 2000 CONTINUED

ORIGINAL PAGE 17

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P17-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P17-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P17-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P17-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P17-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P17-F03

Unless the pistol is malfunctioning or parts need to be replaced, this is all the takedown necessary. firing pin and stop from a 1911. Once clear, the firing-pin spring assembly (#38), firing-pin assembly (#9, 31, and 32), and firing-pin return spring (#42) can be removed. Be very careful with the return spring. It's a relatively weak compression-type spring and is easily stretched to the point of uselessness.

The best tool I've found for damage-free removal is along pick with a small 90-degree tail, similar to the tool one uses when checking bottlenecked rifle cases for incipient head separations. The tail end is run through the center of the spring and hooks the spring by its embedded end, allowing you to pull the spring out without stretching it. If desired, the firing-pin roller (#32) can be removed by

driving its roll pin (#31) out. Next, the firing-pin block plunger pin (#18) is driven into the firing-pin tunnel.

Dump out the pin, pull the punch out, and the firing-pin block (#22) and spring (#41) can be removed. Should removal be necessary, the rear sight is pushed out from left to right. Apparently, only a few of the short-retainer type made it into circulation. Now, we're at the party item: the extractor.

The Colt owner's manual describes how easily the extractor can be moved into a "cleaning position," while other documents tell you that the extractor is "effortlessly removed for service." Unfortunately, no one seems to have informed the extractors. I've owned and worked on several of these pistols, both pre- and postrecall, and I've not seen one with the extractor depicted in the exploded diagram. Rather, the extractors have been the type shown in the photo below.

This style of extractor is removed by using miniature long-nosed pliers to rotate the retainer (#28) 90 degrees in either direction. This disengages the spring boss on the bottom of the extractor retainer from the extractor spring (#40). The retainer is now pushed rearward into the slide, using the pliers. Keep your thumb over the extractor to prevent the spring from enjoying its liberty when the retainer is clear. Dump out the spring and extractor, then shake the retainer free of its hole in the slide.

The "other" extractor is removed by drawing the retainer back from the extractor, lifting the extractor out, and controlling the retainer/spring during their removal. The barrel-bushing detent (#5) and its associated spring (#39) are staked into the barrel bushing, much like the magazine-cap detent on older Remington shotguns. Should it be neces-

WORKING COLT'S ALL AMERICAN 2000 CONTINUED

ORIGINAL PAGE 18

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P18-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P18-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P18-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P18-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P18-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P18-F03

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P18-F04. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P18-F04

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P18-F05. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P18-F05

Keep your thumb over this area as you push the retainer into the slide or you'll have to go on safari to find the spring. sary to remove the detent and/or spring, you'll have to remove the staking around the detent's hole. You can use a prick punch or (if you have one) a staking punch for the Remington detent plunger to secure the parts after re-assembly. The front sight is an integral part of the barrel bushing and can't be removed. Receiver. Remove the stock screws (#50) using a suitably sized hex wrench.

The magazine catch is removed by pushing the magazine-catch lock (#14) in from outside the receiver with a punch or pick. Don't poke it completely out just far enough that

the magazine catch pops loose. The mag catch can now be removed in either direction. Work the slide stop out away from the receiver, and use a small screwdriver to gently pry the slide-stop spring (#46) out with the slide stop. You might want to keep a finger or thumb over the slide detent (#6) as you remove the slide stop.

Once the slide stop is clear, the slide detent, slide-detent spring (#45), and ejector (#7) are free and can be removed. Lay Push the catch lock inward gently until the magazine catch is free to move without spring tension. the receiver on its left-hand side (the side that the slide stop was on) and locate the sear roller pin (#19). It's about 1 inch from

the rear of the receiver and should be approximately flush with the receiver's right-hand side.

You want to drive this pin gently in until it's about flush with the receiver's left-hand side. At that point, it should be deep enough to have released the sear spring (#44). If not, continue to gently move the pin over until the spring is loose. The spring is pulled straight forward with miniature pliers to remove it from the receiver. The sear spring has a tab with two bumps on its aft section; this tab fits tightly into a corresponding slot in the receiver.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P19-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P19-F01

1 Barrel 2 Barrel Bushing 3 Base Plate 4 Cam Block 5 Detent Barrel Bushing 6 Detent, Slide 7 Ejector 8 Extractor 9 Firing Pin (Striker) 10 Follower, Magazine 11 Lift Plunger 12 Magazine Tube 13 Magazine Catch 14 Magazine Catch Lock 15 Magazine Catch Spring 16 Pin, Front Trigger 17 Pin, Plunger The takedown pin is retained in the cam block by a piece of plastic tubing (#53). It should not need removal unless the cam block will be subjected to conditions which will destroy plastics (like, say, a bluing tank).

The lift plunger (#11) is re- Colt All American 2000 Semi-Auto 9mm Pistol (Specifications subject to change without notice) 18 Pin, Plunger 19 Pin, Sear Puller 20 Pin, Rear Trigger 21 Pin, Takedown 22 Plunger, Firing Pin Block 23 Plunger, Trigger Spring 24 Rear Sight 25 Receiver Assembly 26 Recoil Spring Assembly 27 Retainer, Base Plate 28 Retainer Extractor 29 Retainer, Firing Pin Spring retained in the cam block by a roll pin (#17).

If it's necessary to remove the lift plunger, the roll pin is driven in, a small amount at a time, until the plunger can be lifted out of its hole.

When replacing the pin, drive it in only until it's flush with the cam block. 30 Retainer Roller (2) 31 Roll Pin, Firing Pin Roller 32 Roller, Firing Pin 33 Roller, Sear 34 Roller, Trigger (3) 35 Roller, Trigger, Steel 36 Sear 37 Slide 38 Spring Assembly, Firing Pin 39 Spring, Barrel Bushing Detent 40 Spring, Extractor 41 Spring, Firing Pin Plunger 42 Spring, Firing Pin Return 43 Spring, Magazine 44 Spring, Sear 45 Spring, Slide Detent 46 Spring, Slide Stop 47 Spring, Trigger 48 Stock Assembly LH 49 Stock Assembly RH 50 Stock Screw {4} 51 Stop, Slide 52 Trigger (Trigger Assembly) 53 Tubing (Plastic) The firing-pin spring assembly can be broken down by compressing the spring completely onto the plastic part of the guide and rotating the steel part of the guide to allow its removal.

MAGAZINE. THE MAGAZINE DISASSEM-

WORKING COLT'S ALL AMERICAN 2000 CONTINUED

ORIGINAL PAGE 20

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P20-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P20-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P20-F02. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P20-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P20-F03. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P20-F03

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P20-F04. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P20-F04

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P20-F05. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P20-F05

The pin is splined on one end and must be driven out away from the roller. Pushing it out the wrong direction will almost certainly break the sear spring. In a fairly conventional fashion. Use a punch or other small tool to reach through the hole in the magazine baseplate (#3). Depress the baseplate retainer (#27) and slide the base plate forward off the magazine. Note the attitude of the magazine spring (#43); the magazine will not function properly if the spring is replaced improperly. While It's Apart...

The owner's manual says nothing about the use of chlorinated solvents. However, I'd keep any such chemicals off the plastic parts;

they should clean up easily enough with conventional nitro powder solvent or mineral spirits. Examine the firing pin with a loupe or magnifying glass for cracks, especially around the point where the "tail" branches off to form the sear engagement surface/firing-pin roller boss. The trigger/sear assembly should be left alone unless it actually needs replacement or repair.

Check the sear for rough or ragged areas inside the Don't pry or attempt to raise the spring up; it slides straight forward out of a small slot in the receiver. slot. These can be carefully stoned away. The sear is as delicate

as glass if mishandled. It will not tolerate any twisting or bending; it's tempered as hard as Colt could get it to reduce wear.

Don't attempt any "adjustments." The trigger rollers (#34 and 35) are retained on headed pins (#16 and 20) by small spring clips (#30), which are easily destroyed if you are ham-handed in attempting removal. The trigger-return plunger (#23) and trigger-return spring (#47) are retained in the trigger by the front trigger pin. Reassembly Tips Fortunately, this gun goes back together pretty much the reverse of its takedown. There are only a few "buts."

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1121-P21-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1121-P21-F01

If you get it wrong, you'll have extraction/ejection problems. Far Put all the tiny pieces back together to recreate the field-stripped subassemblies. If you removed the searroller pin from the receiver, make absolutely sure that you replace it from the receiver's left, with the splined part going in last. The magazine catch is reversible. It can be installed from either side, to operate from either side.

When reinstalling the mag catch, locate the flat side about flush with the receiver and push the mag-catch lock back into its hole with a screwdriver. The lock only needs to be pressed in until it's flush with the mag catch. Bits and Pieces Don't get carried away when replacing the stock screws. The plastic receiver does not rattle and vibrate like a metal receiver does, and the screws aren't prone to working loose.

If the pistol is having function problems, over-lubrication at some time in the past is a possible cause. This pistol requires little-to-no lubrication, and it doesn't need grease anywhere. According to the factory literature, the trigger rollers need only a dab of light oil on their axles (the roller pins). A tiny amount of oil is also applied to the sear roller, the firing pin roller, and their axles. The balance of internal parts can be wiped with a lightly oiled cloth or brush.

Colt advises that no oil at all be used in freezing temperatures; I would extend this to include other inclement conditions such as sand and dust. You should also check to ensure that the slide detent is moving freely in its frame pocket. The detent's function is to help hold the slide in battery against the

firing-pin spring's compression as the trigger is pulled. If it's sticking, the slide will be robbed of recoil energy and function will be adversely affected.

If the detent spring is weak or broken, the slide may be moving back during trigger operation. This results in weak primer strikes or failures to fire due to an insufficiently compressed firingpin spring or because the slide has moved out of battery enough to activate the firing-pin block. I lube almost all internal gun parts with a light paste made from a good gun oil (or synthetic oil) and molybdenum disulfide powder.

The moly remains after the oil evaporates, leaving a dry film of lubricant that's 100 times more slippery than graphite. Don't get it on your clothes; it's nearly permanent. Most feeding problems can be traced to the magazine. Check to see that it's the right magazine. Check to see that it's assembled properly ("Honest, I've never taken it apart. I don't know how it got put together wrong!"). Make sure the extractor can be moved.

If it's stuck, the pistol will have problems with the slide not going fully into battery or it won't reliably extract fired cases. This pistol is a locked-breech, recoil-operated, inertially delayed design. It can be very particular about what it's fed. I've found that the AA 2000 generally responds better to heavier bullets at lower velocities than to ultra-light bullets at hyper-velocities.

My best guess is that the longer recoil impulse from the slower, heavier bullet is more conducive to smooth operation than a high-

er-energy (but durationally shorter) recoil impulse from ammo loaded with light bullets and fast powders. This is not a totally unusual situation; both the Glock and Sig-Sauer pistols in 9mm are similar in their dietary requirements.

Specifically, these pistols often do not function well with "generic" ammunition, but will work perfectly with ammunition loaded to the same velocity, with the same bullet, but with a slowerburning powder. All of the AA 2000s I have had the opportunity to shoot have worked perfectly with everything except light-loaded "match" ammo.

Conclusions Offered only in 9mm, this design begs to be powered up to a cartridge such as the 10mm; the barrel bushing just cries out to be ported or replaced with an integral compensator. I believe the main reason that the AA 2000 was not a great commercial success is that it was not what the buying public was looking for when they went looking for a Colt.

It seems to me that Colt's managers basically painted themselves into a corner by refusing to develop and introduce new products'only variations on an older theme. And by the time they tried to break free of the constraints they had placed on themselves, it was a case of too little, too late. Sadly, in my opinion, Colt is stuck in a rut from which there seems to be no escape'witness the 1911, AR-15, and the tiny selection of revolvers left from the great old days when Colt was "The Arm of Law and Order." I

MAINTENANCE & REPAIR

Reader Forum

BY AMERICAN GUNSMITH EDITORS MAY 2006

ORIGINAL PP. 22-24

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1122-P22-F01. Know the rights holder? Please ask them to contact us.

AG-E8262CC01C-A1122-P22-F01

Doubling Revolver? I have a Smith & Wesson Model 29 in for repair (it was a gallery gun at a local shooting range) that multiple people have witnessed doubling! So, besides being sure that the cylinder stop is properly fit, what should I be looking for?

What about the depth on the cylinder notches; is there a minimum number on that? (The notches do seem worn, and the hammer will push off easily) Could the cylinder stop be bouncing out under recoil, then the cylinder indexing from torque, and then the hammer bouncing enough from a primer to fire? It's important to me for a number of reasons to solve this problem and get the gun back in service. Any help would be greatly appreciated.

Among many others, we consulted at length with three members of the Pistolsmiths Guild as well as a high-level technician at the S&W Performance Center. Their reactions to your query ranged from "you've got to be kidding" to "I've seen it happen" and "I've had it happen." The consensus is that, under certain conditions, recoil action can cause the revolver to recock when maximum loads and heavy bullets are being used.

The "certain conditions" are: if the cylinder stop cams away from the cylinder; if the revolver lacks the "Magnum package" (an S&W modification that includes a

slight lengthening of the cylinder notches; and if the gun is loosely held. To expand on the latter: At the moment of ignition (in single action), the revolver is driven back, runs away from the trigger finger, and can reset.

The shooter might then pull the trigger either unconsciously or involuntarily. (This has been witnessed by S&W personnel.) A firm, two-handed hold with the weak hand thumb hanging onto the strong-hand wrist should resolve this particular problem. Assuming, however, that the revolver has doubled with more than one range visitor and the shooter is able to control it, then we suggest installing the heaviest stop spring offered for the gun.

Advise the range owner to use lighter bullets in the revolver, say, 200 rather than 240 grain. Also check the mainspring to see whether it has been excessively thinned or cut down by someone who thought they knew how to do a "trigger job." If possible, inspect the spent cases that have doubled. The primer hit will be centered on one and offset 30 to 40 thousandths on the second. Compare the cylinder-stop notches on a brand new Model 29 with those on the range gun.

READER FORUM CONTINUED

ORIGINAL PAGE 22

If the range gun's slots are badly worn and not as long as those on the new gun, the cylinder should be replaced. Unfortunately Smith & Wesson will not sell you a cylinder, restricting its replacement to factory service. Mismatched M1911 I have a customer that wants me to use a Series-80 slide with a 1911 Government frame. I can see the difference in the slides. Isn't that enough to prevent it from working properly? If the frame and slide are both Series- 80, meeting Colt specifications, you'll have no problem.

If the frame is a Series-70, and the wish is to marry it to a Series-80 slide, you'll have to remove the firing-pin lock and lock plunger from the slide, leaving your customer without these additional safety components'and leaving you fully responsible for any accidental discharge and/or injury resulting therefrom. In other words, don't do it. Taurus 66 & Marlin 57 I have been looking for a sideplate for a Taurus Model 66 and a receiver for a Marlin M57. I've looked at Numrich every day for the past year.

I've tried Jack First and someone whose name I've forgotten in Missouri. I contacted Taurus and sent my pistol to them, and they sent it back telling me they could not (I took that as a "would not") replace the sideplate. I would appreciate any help you can give me, even if it

is to tell me there is no way I will ever get these parts unless I make them myself, so I can stop looking for them. If you can tell me something helpful in the area of making the parts myself I would appreciate that as well.

Your Marlin was last made in 1965. A receiver for it would be classified as a firearm by the BATF. Your best approach would be to attend some gun shows, and try to find a used Model 57 in decent shape and purchase it for the receiver. We called Taurus They have sideplates for the Model 66 in either blued or stainless. If you call and ask for extension 242, they'll be willing to sell you one. Interchangeable Gas Rings? I have a question on the Weatherby SAS Shotgun.

Is this the same autoregulating gas-system shotgun manufactured by SKB for Ithaca? And, if it is, are the gas rings interchangeable? Thank you for your time and assistance. Weatherby did not link up with SKB for anything resembling an extended period of time. However, the technician we spoke with tells us that, if your Weatherby shotgun carries a serial number prefixed with the letters SA, it's the SKB design briefly marketed by Weatherby and the gas rings would be interchangeable. Otherwise, no.

FROM THE ORIGINAL PAGE

Winchester Model 06 Info Where could I find detailed disassembly info and a breakdown on the Winchester Model 06, .22-caliber pumpaction, exposed-hammer, slidingbreach-bolt rifle? I've tried Gun Digest, Part III; NRA Firearms Assembly; Gun Digest Exploded Firearm Drawings, 3rd edi-

THIS DIGITAL ARCHIVE PRESERVES THE RECOVERABLE SOURCE TEXT.

READER FORUM CONTINUED

ORIGINAL PAGE 23

tion; and the Numrich catalog without success. I'm planning to reline the barrel for a friend. I don't have this rifle in my hands as yet, but do want to know how the barrel is attached to the receiver. Threaded? RH? Pressed? Pinned? Thanks, in advance, for your help. The Model 1906 is a modification of the Model 1890 that allowed interchangeable use of Short, Long, and Long Rifle cartridges. A schematic of the gun in the Jack First, Inc. catalog, Vol.

II shows a threaded barrel and our historical source informs that removal is traditional "lefty loosey, righty tighty." Takedown details are provided in Gun Digest's book dedicated to rimfire rifles (see the Winchester Model 90). Ross 1905 Rifle Assembly I need assembly and disassembly info and any special tips or warnings related to a Ross 1905 Canadian military rifle. The one I'm working on has been converted to a sporter by parties unknown.

The Ross has a history of blowing the bolt out of the receiver and into the shooter's head if the bolt is not assembled correctly. Since a few of these Canadian rifles reached the American military, information on the correct disassembly and reassembly of the quite complicated bolt may be available from the U. S. Army Ordnance Museum, Aberdeen, Maryland. If it isn't, the museum may be able to provide a Canadian source for you to contact.

On the positive side, it's likely that the bolt of this modified rifle hasn't been touched. (The fact that it hasn't killed someone should provide some assurance.) If all that it needs is a cleaning, it doesn't

have to be disassembled. Submerge the bolt in mineral spirits overnight, then use a squeeze bulb to force the fluid through and flush out any loosened residue. Repeat until no grittiness is felt when the bolt is cocked. Then blow it dry with compressed air and lubricate lightly.

Savage Parts I do volunteer work with the San Diego-Imperial Boy Scout Council. We own eight older Savage Mark I .22 rifles so old that the new Savage Company won't work on them. What I need is a source of parts, particularly the main spring in the bolt. Neither Numrich nor Brownells has them. Do you have any suggestions, either for a source of parts, or a suitable replacement spring? Thanks.

Any time we've called Savage in search of out-of-production gun parts we've always been referred to The Small Arms Shop, Inverness, Florida. Malfunctioning S&W 459 I've been a subscriber to AG for quite awhile and have derived much good information from its pages. I now have a problem that perhaps you can assist me with. I took in an S&W 459 to sell for a customer. On checking it out, I found that if the trigger is pulled straight back every time, the gun functions as it should in double-action mode.

However, if there is any sideways pressure applied with the tip of the trigger finger while stroking through, the hammer falls only partway, catching on the safety notch. Single-action is okay. I would not want to sell this gun in its present state. I have it apart and don't see any excessive wear on the engagement surfaces, except on the safety notch itself. I never cared much for 459s, and have no experience with them.

Having no illusions about my capabilities, I fix guns that I can and send them to others if I can't. Do you have any clues to what's going on here? Thanks. Not having the gun in hand to examine, we have to assume the problem lies with the side-to-side trigger movement.

Try taking up the slop with endshake washers (Brownells) by installing on one or both sides of the trigger. Also see if there is similar movement with the hammer; it may have to be replaced because of the wear you mentioned. Remington 7400 Feeding Do you have any tips to offer on solving feeding problems with the Remington 7400like getting the correct combination of mag-latch length and mag-lip angles? Thanks. Mike Haliburton, Ontario "Feeding problems" covers abroad area.

The most common cause is related to poor extraction or ejection. Since you don't mention them specifically, we'll delve into other areas. Bolt override happens because the magazine is riding too low in the gun. It's corrected by replacing the mag latch with one higher in number. A magazine riding too high in the gun will block the bolt and is not a cause of override. An action that fails to blow back far enough is, however.

This can be traced to a binding action, a defective gas orifice, a defective gas nozzle, a rough barrel chamber, or a gas nozzle hole in the action sleeve that has broken through into the receiver's spring hole. A binding action may be attributed to a misaligned ejection-port cover, the magazine, the action spring. dan email to Chick Blood, Technical Editor, at

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-E8262CC01C-A1122-P24-F01. Know the rights holder? Please ask them to contact us.
AG-E8262CC01C-A1122-P24-F01

(continued from previous page) jamming the action-bar sleeve, the extractor or the ejector spring binding in the breech bolt, the action-bar sleeve binding the forend, the bolt dragging on its receiver guide rails, or a bent action tube. Solutions to the above include replacing the port cover, action spring, action tube, and cleaning the ejector spring hole and/or replacing the spring along with the magazine.

Beyond those simple fixes, the operating-handle retaining pin must assemble flush with the bottom surface of the bolt carrier, the action bar must fit closely to the receiver wall, the disconnecter must assemble correctly to the end of the action bar and hug the receiver wall, and you may need to clean up "rivet head" on the action-bar assembly.

If the bolt is dragging its receiver rails and you are unable to smooth up the trouble spots, the rails may have to be overhauled. (There used to be a factory fix for this problem. Performed by Remington, it involved welding up the rails and recutting them, but they no longer offer this service.) A fresh bolt can be found, however, in the parts aftermarket. Any breakthrough of the gas nozzle hole into the receiver spring hole will require replacement of the action sleeve and spring.

As for the correct gas orifice/nozzle diameters, they differ from caliber to caliber, so they depend on the chambering of the M 7400 on which you're working. .22 to .17 Conversion I have a Marlin Model 80 .22 rimfire that I am thinking about converting to the 17 Mach 2 cartridge, utilizing one of

the Redman rimfire barrel liners offered by Brownells. Do you have any thoughts or advice on this project? g The Model 30 is a 30-year-old rifle. It probably has the structural integrity to accept the Mach 2.

The problem could lie with the magazine. Being intended for .22 caliber, and having been designed with no thought of the .17 caliber that came along years later, the magazine might have some trouble feeding the bottleneck case. You can check this out by filling the magazine with .17-caliber rounds, installing it in the rifle, and cycling the bolt. Don't fire it! And keep your finger off the trigger!

The last thing you want to have happen is a .17 Mach 2 cartridge blowing itself apart in a .22-caliber chamber. (We'd insist you use dummy rounds for the feeding test, but the .17 is in such high demand as alive load we don't believe there are any duds to be had. We haven't seen any at any rate.) Taurus PT 24/7 Trigger Job? A customer recently brought in a Taurus PT 24/7 pistol in .45 ACP to see if I could smooth up the trigger pull. Apparently, no one else in this area will touch it.

He purchased it for concealed carry and IDPA competition, and is very happy with everything but the trigger pull. Before I started on it, it broke at 8.5-9.5 pounds. To reduce friction, I've polished all the trigger-bar contact surfaces, the firing-pin sear surface, the ramp surface, and reshaped the trigger bar where it contacts the firing-pin sear surface. This has made the pull some-

what lighter (about 6.5-7 pounds), but there is still some stacking at the end of the pull before it breaks.

Since this was the customer's initial complaint, is there anything else I should be looking at (perhaps a slight reshaping of the trigger-bar ramp)? I checked the firing-pin spring assembly, but since it's molded on a plastic guide rod, there doesn't appear to be anything I can do with it without destroying it. Does anyone manufacture a slightly lighter spring/rod assembly?

The construction and performance of this pistol impressed me so much that I'm bringing one in for myself to play with, and to show to other customers in the shop. Any suggestions would be appreciated. No reshaping, please. If you've polished all trigger-bar contact surfaces as you say, are quite certain friction has been eliminated even on such things as the trigger pin, and there is no drag between the trigger and tail of the striker, send the trigger spring and striker assembly to Wolff Spring Co.

Newtown Square, PA 19073). They don't make replacement assemblies (and neither does anyone else we know of), but the folks at Wolff may be able to provide some lighter springs that could be substituted. Also see the 24/7 article in the October 04 issue. While it doesn't address triggerwork specifically, it does provide some reassembly tips you'll find very useful, and reminds all concerned that this pistol was designed for self-defense rather than target shooting.

Using it frequently and keeping it clean will smooth the pull to a point that feels lighter.

SEARCHABLE ISSUE RECORD

Archive index

Image Is Key To Firearm Industry's Future American Gunsmith Editors	2	Modifying the Thompson/Cente TCR '83 Trigger for Field Use Norman E. Johnson	14-15
Taking Down the Sauer Model 202 Rifle Chick Blood	3-6	Working Colt's All American 2000 Russell Corbitt	16-21
Salvaging Grandpa's Old Double Sergey Lyalko	7-9	Reader Forum American Gunsmith Editors	22-24
Stuck-Bullet Removal Times For Robert E. Fried	10-13		

Rights and corrections. Images without confirmed permission remain reserved in place. Authors, photographers, and rights holders may contact editor@gunsmithmag.com. Corrections to searchable text are tracked against the source-page record.



American Gunsmith

The complete searchable archive of a technical journal devoted to craft, repair, maintenance, machining, and restoration.

GUNSMITHMAG.COM • EDITOR@GUNSMITHMAG.COM