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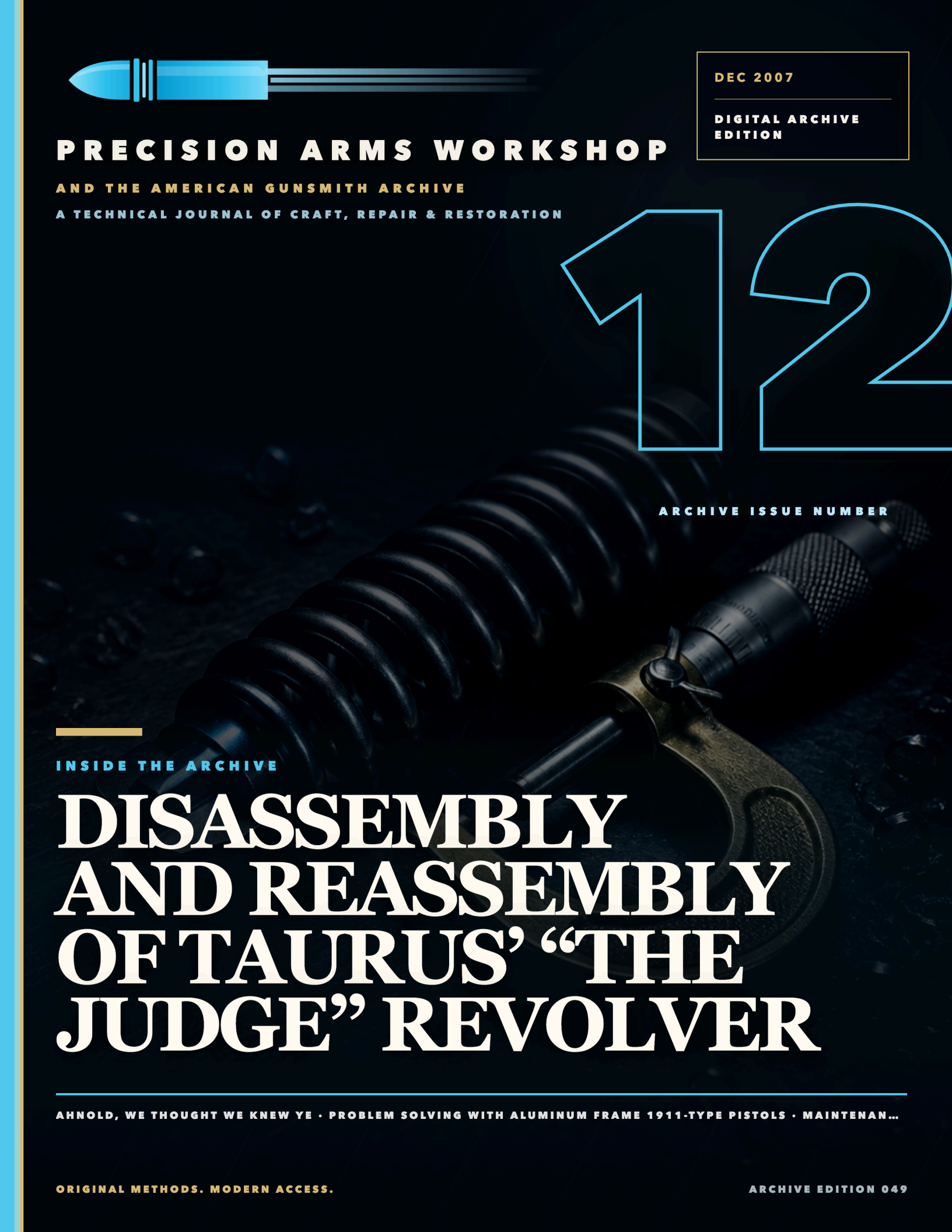

INSIDE THE ARCHIVE

DISASSEMBLY AND REASSEMBLY OF TAURUS' "THE JUDGE" REVOLVER

AHNOLD, WE THOUGHT WE KNEW YE · PROBLEM SOLVING WITH ALUMINUM FRAME 1911-TYPE PISTOLS · MAINTENAN...

DIGITAL ARCHIVE EDITION

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A complete guide to the searchable editorial work preserved from December 2007.

FROM THE ARCHIVE

Ahnold, We Thought We Knew Ye

BY AMERICAN GUNSMITH EDITORS DECEMBER 2007 ORIGINAL PP. 2

If you recall, last month I reported on the California Senate's passage of a bill requiring "microstamping" on firearms sold in California. Microstamping is a patented single-source process by which a firearm's make, model, and serial number are laser-engraved on the tip of the firing pin so, in theory, that information is imprinted on any cartridge case fired in the gun.

Despite numerous studies that concluded the technology was unreliable'including a state-funded study done by the University of California that called microstamping a "flawed" technology't he bill was passed, largely along "party lines." And you know what I mean when I say "party lines." But it would be ridiculous to think that the Republican Governator, Arnold Schwarzenegger, would actually sign such a misguided bill into law, wouldn't it? Yes, it would. But, yes, he did. Why would he crawl into bed with the enemy?

Well, actually, he's been sleeping with the enemy since 1986, when he married Maria Shriver. On the subject, Lawrence Keane, spokesman for the NSSF said: "The governor's decision to mandate this unreliable technology is clearly one of family politics, not sound public policy." By "family politics, he was referring to Maria's uncle, Ted Kennedy, who has announced plans to introduce a similar federal microstamping bill into the U. S. Senate.

Of course, for all I know, the Governator might also be sleeping with Todd Lizotte, who patented firearms microstamping, and with ID Dynamics, the company that owns the patent. As the sole source for firearms microstamping, it's anybody's guess how much money Lizotte and ID Dynamics will make as a result of Schwarzenegger's signature. If that's not bad enough, the Governor also signed into law a bill that bans traditional ammunition in the prime hunting areas of the state.

Assembly Bill 821, backed by anti-hunting extremists, is supposed to save the California condor from lead poisoning'd espite the fact that no one seems to be able to come up with any evidence that the birds are actually getting sick from eating ammo fragments. Advising the Governor on this issue was Marty Wilson, who, according to NSSF, "entered a business relationship" this year with the very-well-funded Audubon Society, which is known for spreading around money on its anti-hunting crusades.

It would be interesting to know where all that money ends up. Despite the bleak news from California, the news is decidedly mixed on the presidential-campaign front. While former New York Mayor Rudy Giuliani tries to put a "positive spin" on his anti-gun record, my old friend Arizona Senator John McCain was quoted recently saying something really profound for a politician. McCain said: The Second Amendment is not about hunting, it's about freedom. Now there's an American who understands.

PEOPLE & COMPANIES

Disassembly and Reassembly of Taurus' "The Judge" Revolver

This new Taurus wheelgun could be the best dual-purpose personal-defense/varminter ever created. It's certain to be popular with subscribers to the "bigger is better" theory.

BY CHICK BLOOD DECEMBER 2007 ORIGINAL PP. 3-6

Once in awhile an existing revolver design with a fine track record takes anew turn that gets me excited. Smith & Wesson did that when they introduced the 500, Colt did it with the Python, Ruger has done it more than once, and now Taurus-USA has joined that list with "The Judge." The Judge, in my opinion, combines a ton of versatility with an unusual combination of awesome firepower and terrorizing flame.

The flame I'm referring to is what spews from its 3-inch barrel, and it doesn't spew much less fire from the 6-1/2inch barrel on the model I received for this article. By the time you read this, this stainless-steel handgun will have changed a bit, but only for the better. Beginning in late 2007, it will be produced with a titanium cylinder and an aluminum-alloy frame with a stainless barrel insert. This will lighten its present weight of 39 ounces.

The cylinder carries six rounds in any combination of 2-1/ 2-inch .410 gauge and .45 Long Colt. A 2-1/2-inch .410 packs three tripleought bucks, while the Long Colt pushes out a 350-grain slug. Not enough? The Judge is available with a 3-inch cylinder. Each 3-inch .410 hull holds five tripleought buckshots. That's the equivalent of five 9mm lead balls leaving the barrel in a big hurry. Or, figured another way, that's a total of 30 9mm slugs when all chambers are charged with .410.

Scatter a couple of Long Colts in between and you're holding a major distraction'and the potential for major devastation'in your hand. And for minor annoyances, you can tone down the devastation with something far less lethal but still highly discouraging by loading .410s with up to 68 pellets of #4 shot. That would probably be enough to chase a "pesky wabbit" out of your vegetable garden.

Step-By-Step Disassembly An article on the Taurus .454 "Raging Bull" appeared in the January 02 issue. (I'm told that reprints of that issue are no longer available.) Since all Taurus revolvers, including The Judge, are disassembled in a similar manner, if you have a copy of that issue, you can consider what follows to be a refresher course.

If, however, you've joined us since the raging Bull article appeared, you'll want to keep this issue in your permanent reference files, as it will apply to other Taurus revolvers. Once you're certain the revolver is unloaded, the first item you'll want off the gun is the grip (#51). This is a tight-fitting wrap-around piece of rubber held to the grip frame by a single screw (#52). Merely backing out that screw will gain you nothing, particularly with anew gun.

On those, after removing the screw, firmly grasp the grip and pivot it back and forth while tugging it backward. Soon and suddenly it will part from the frame. The yoke-retaining screw (#47) is located forwardmost in the sideplate (#46). Within the screw and removed To reduce the total weight, a future version will feature a titanium cylinder, an aluminumalloy frame, and a stainless-steel barrel insert.

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4 In this form, the gun can be thoroughly cleaned and lubricated. with it are the yoke-retaining pin spring (#48) and pin (#49). Keep the yoke screw apart from the other two sideplate screws (#50) when you take them out next. There's a rawhide mallet shown in an accompanying photo. Grab the barrel of the gun tightly and smack the grip frame with the mallet on the opposite side from the plate. If the plate fails to move or moves only slightly, resist the temptation to pry it off.

Get a tighter grip on the barrel and whack the thumb piece. If the plate doesn't fall off, it will probably separate from the frame enough for you to get a fingertip under it. Push it rearward and lift it away. Be careful with your fingertip, however; with the possible exception of a razor blade, nothing can slash up a digit like the edges of a revolver's sideplate. Now open the cylinder and tap it towards the muzzle until you can pull 3 2 1 it and the yoke assembly out as a unit. Set this aside until later.

Do you see that paper clip in the photo with the mallet? It's magic. Straighten it out and put a 1/4-inchlong 90-degree bend in one end. Pull the thumb piece to the rear, cock the hammer, and keep your eyes peeled for a hole to reveal itself in the bottom of the mainspring center pin (#41). The bent end of the paper clip goes in that hole. Move the hammer to its forward (fired) position. Before you lift out the mainspring assembly (#41, 42, and 43) study how it fits into the grip frame.

The front latch (B) is key to the positive lockup of a Taurus. The spring and pin might pop loose right about now. If they don't, fish them out and make sure you'll be able to find them when you get around to reassembly. The hand (#45) is attached to the rear of the trigger assembly (#33, 34, and 35). Swing it back through its frame slot and lift out the assembly. Take sometime now to examine the sear (#29) and hammer (#24) engagement with the hammer at rest. Do the same with the hammer cocked.

Don't give up the examination until you've burned a picture of those relationships into your brain (or taken a photo with your digital camera). After that, pull the trigger just enough to gain some "play" with the hammer so you can lift it off its frame stud. Leave the sear assembly (#29, 30, and 31) on the hammer. Doing trigger work on a Taurus is every bit as demanding as it is with an S&W.

You don't mess with the sear/trigger engagement without a precise road map and a few years of experience doing it successfully. For those of you interested in acquiring such a road map, it appears in Jerry Kuhnhausen's Shop Manuals for Smith & Wesson Revolvers (available from Brownells). Fortunately, adjustments that can safely be made on Smiths are similar enough to apply to Taurus revolvers, so Jerry's instructions can be applied to either.

Now pull the trigger until you can see the hole in the end of the triggerspring center pin (#37). Put a 1/4-inch long 90-degree bend in the other end of the paper clip, and insert it into that hole. With long-nose pliers (preferably with the jaws padded with duct tape), pull the trigger-spring swivel (#39) from the frame. See what you've gone and done? You have a paper clip with a mainspring assembly trapped B A

The revolver in this article is identical except for its 6-1/2-inch barrel. on one end and a trigger-spring assembly captured on the other. Leave it as is to prevent loss of the parts. The trigger assembly (#35) can be prepped for removal from its frame pivot with some wiggling. Once the assembly's out of the way, push the cylinder stop (#44) down and out of its lower frame slot. Turn the frame over. Remove the thumb-piece screw (#18) and the thumbpiece (#17).

Usually, the cylinder bolt (#22) and its spring (#23) will drop out now, but if they don't, turn the frame over once more and help them on their way. Above where the bolt used to be is the firing-pin retaining pin (#21). Gently drift it left to right until you can pinch it between the tips of your long-nose pliers and pull it clear. This will give you access to the firing pin (#19) and its spring (#20). Let's go back to the cylinder/yoke group.

The cylinderstop plunger and spring (#12) should Ruger "The Judge" .410/.45 LC Revolver (Specifications subject to change without notice) 1 Extractor 2 Cylinder Retaining Bushing 3 Center Pin 4 Center Pin Spring 5 Extractor Spring 6 Extractor Rod Collar 7 Extractor Rod Spring 8 Cylinder (includes #1, 2) 9 Yoke 10 Front Latch 11 Front Latch Spring 12 Cylinder Stop Plunger w/Spring 13 Front Latch Pin 14 Extractor Rod 15 Barrel 16 Frame 17 Thumb Piece 18 Thumb Piece Screw 19 Firing Pin 20 Firing Pin Spring 21 Firing Pin Retaining Pin 22 Bolt 23 Bolt Spring 24 Hammer Assembly (#24 thru 31) 25 Key Lock 26 Key Lock Spring 27 Key Lock Ball 28 Key Lock Pin 29 Sear 30 Sear Spring 31 Sear Pin 32 Transfer Bar 33 Hand Spring 34 Hand Pin 35 Trigger Assembly (#33, 34) 36 Trigger Spring Assembly (#37, 38, 39) 37 Trigger Spring Center Pin 38 Trigger Spring 39 Trigger Spring Swivel 40 Main Spring Assembly (#41, 42, 43) 41 Main Spring Center Pin 42 Main Spring 43 Main Spring Plate 44 Cylinder Stop 45 Hand 46 Sideplate 47 Yoke Screw (includes #48, 49) 48 Yoke Retaining Pin Spring 49 Yoke Retaining Pin 50 Side Plate Screw (2) 51 Rubber Grip 52 Grip Screw 53 Rear Sight Assembly (#53, 54, 55, if present) 54 Rear Sight Spring 55 Rear Sight Pin 56 Front Sight 57 Front Sight Pin 58 Stock Pin (if present) 60 Firing Pin Bushing 61 Center Pin Bushing 63 Rear Sight Screw 69 Cylinder Distance Bushing

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be pulled from the lower yoke barrel. Fingertips will do. On the upper surface of the yoke (where the extractor rod enters), you'll note a protrusion. This is a vital contributor to the positive lockup of a Taurus revolver. The front latch (#10) is tensioned by its spring (#11) and retained by its pin (#13). If part replacement is needed for any reason, remember that part #13 is a roll pin, and requires the use of a roll-pin punch to drift it out. The two remaining plate screws (B) are next.

Like all sideplates, this one has edges as sharp as a straight razor. Secure the cylinder in a padded vise with the extractor rod extending to the right. Add a couple layers of padding to the jaws of a pair of pliers and trap the extractor rod between them. Turn the rod clockwise until you can back it out all the way with your fingers. The extractor star (#1) will be freed up by this and can be pulled from the cylinder.

You can separate the yoke from the cylinder without much trouble'but with some The S&W employs a rebound design that rides on the frame aft of the trigger. degree of caution. Tap the end of the lower yoke barrel with a wooden dowel or tool handle to start it away from the front of the cylinder. Once you've completely cleared the yoke from the cylinder, remove the extractor spring (#5) and its collar (#6) from the upper yoke barrel.

Oh, I almost forgot: When you pulled the extractor star, the center pin (#3) and its spring (#4) may have stayed at home. In that case, carefully tap them to the front and out of the cylinder. The rod of the extractor star in The Judge has no groove. That tells you the retaining bushing (#2) is a press fit. It stays in the cylinder. If there were a groove, the bushing could be drifted out to the rear. Since The Judge is not a target gun, it has no adjustable rear sight.

That doesn't mean there won't someday be a Judge equipped with an adjustable sight for paper busting or for silhouettes. But thus far, there isn't. If and when there is, it will probably remove like all Taurus factory adjustable sights: Turn in the elevation screw (continued on page 21)

until you can turn it no more, drift the sight-retaining pin right to left with a 1/16-inch punch, back out the elevation screw, and remove the sight and its spring. Reassembly Tips/Conclusions Pick up the magic paper clip with its assorted parts attached. Pull the trigger to the rear a little, insert the center pin into it and the trigger-spring swivel into its left side frame hole. When you pull the trigger back farther, you can detach the paper clip and release the trigger forward under spring pressure.

Set the paper clip aside but close at hand. You're not through with it yet. Close the cylinder. Center the hammer over its frame stud and wiggle it down into place. Reach for the magic clip. After seating the mainspring plate (#43) into its grip-frame slot, steer the center pin into its recess in the rear of the hammer. Draw the hammer to the rear, pull the pin, and ease the hammer forward.

Use your fingers to hold the hammer and trigger in place while you cycle the revolver a few times to confirm everything is working smoothly. It's better to discover a goof now than after the sideplate has been screwed back on. Ah yes, the sideplate. The upper edge of it nearest the hammer has a small flange. This flange has to be the first part of the plate to be fitted back into the frame before the plate is lowered over all three of its rear screw holes and tapped down flush.

Introduce the flange to the frame at an angle. If you do it properly, you'll meet no resistance when the plate is lowered. Do it improperly and use force, and I guarantee you'll damage the plate. Though this Judge is all stainless steel, it is destined to be replaced by a model with a titanium cylinder and aluminum-alloy frame. My advice to you is: Never attempt or accept the job of removing a barrel from a Taurus with a barrel insert. The insert is steel; what it's attached to isn't. You'll end up with wreckage.

Also, be careful if you ever take in more than one Taurus wheelgun of the same caliber simultaneously. They'll each have a numbered frame, sideplate, and yoke. Get these numbered parts of same caliber guns mixed up in your shop and you'll never get the guns back together. Finally, while there are no dedicated numbers on the extractor star and cylinder, they have been happily married at the factory and cannot be parted. If it's necessary to replace either, you'll have to replace both with another happy couple. I

HISTORY

Problem Solving with Aluminum Frame 1911-Type Pistols

Some aftermarket parts and special techniques can help to keep an aluminum-frame pistol from succumbing to wear or to repair one that's already surrendered.

BY ROBERT K. CAMPBELL DECEMBER 2007 ORIGINAL PP. 7-9

The development of the different materials used in firearm manufacturing is an interesting study. The move from iron to steel in the last century changed the face of the industry. Then aluminum became the wonder metal of the late 1940s. In the 1960s, it was stainless steel. And then came titanium and the synthetic polymers.

World War II brought great advances in aircraft material, and by the end of the war heavy fighters were manufactured from special "aircraftstrength aluminum." This technology quickly spread to firearms. The Colt Commander, with a lightweight aluminum-alloy receiver, was introduced in 1948. Shortly thereafter, Smith & Wesson introduced the Model 39, basically an Americanized Walther P38. The advantage of the aluminumframe pistol, of course, lies in its lighter weight.

The Government Model 1911 with an aluminum receiver weighs 9 ounces less than a steelframe .45, while the lightweight Commander weighs 12 ounces less than the steel-frame Government Model. While the lighter pistol is somewhat more difficult to control, it's treasured by those with a serious interest in personal defense. Aluminum alloys are strong, though not as strong as steel. Aluminum is more easily gouged and more difficult to work than steel.

Put simply, aluminum will not stand up to the abuse that steel will happily endure. I've worked with aluminumframe pistols for over 30 years. It's been a love-hate relationship, but within their limitations, aluminumframe pistols are perfectly safe and acceptable. During the 1960s, several well-known writers performed tests on Commander .45s hoping to prove them unsafe and unreliable. One well-publicized test involved 5,000 rounds of Winchester ball ammunition fired successfully in a pair of Colt Commanders.

The pistols held up well, and would probably pass a similar test today. But the problems I've seen don't come from the use of full-metal-jacket roundnose ammunition. With aluminum receivers, the primary issues I've dealt with are feed-ramp issues. The problems began when gunsmiths began to throat Commander feed ramps. Remember, they'd been told that aluminum was just as strong as steel.

And this was before the SIG came along. (SIG uses a steel insert in the aluminum frame to prevent the slide from battering the aluminum frame.) There was simply no warning beforehand that trouble might arise. Throating is simply a polishing of the feed ramp and a breaking up of sharp edges. Often, magazines were tweaked as well. When done well, the This photograph was taken just after an extensive test session.

The standard ramp on the right is fine for a steel-frame pistol, but for a hard-working 1911, a ramped barrel is a good choice.

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An aluminum frame demands more careful machining and more careful handling. In this example, the cuts are fine and clear. result was a smoother pathway identical to that on a highly polished Government-Model ramp. But when the frame anodizing was removed, sharpnosed bullets often dug into the softer aluminum feed ramp. Rather than "bouncing" along, as is the case with a steel ramp, the bullet can actually dig in and gouge the ramp. Early jacketed hollowpoint designs were the worst offenders here.

Even if the feed-ramp polish is perfectly done, this gouging can occur with semi-wadcutters and jacketed hollowpoints. I am not saying an aluminum feed ramp can't be properly polished, but knowing what I know now, if anyone brought me a lightweight-frame Colt Commander for a feed-ramp polish I would turn the job down. Today, we have good-quality personal-defense ammunition that will feed perfectly in these pistols. The Winchester SXT is one, and the latest-generation Silvertip is another.

The insert is supplied slightly oversize, so care must be taken in blending it into the frame. The installation requires some straightforward machine work. Special attention should be paid to handling the plunger tube in an aluminum-frame pistol during disassembly and reassembly. These should not impact the feedramp with any chance of gouging, even on the original Colt Commander pistols.

A second cause of feedramp damage is the proverbial "loose follower." We've all seen good-quality factory magazines of the previous generation that would allow the follower to slip forward after the last round has fed. These followers will gouge the feed ramp. The results are exacerbated by a feed-ramp polish that has broken the anodizin the Wilson Combat magazine that not only etic follower, it routes the bullet more into the chamber than into the feed ramp.

In my opinion, the original Commander should be used only with Wilson Combat magazines. It simply makes sense to use a magazine that helps to avoid damage. But how do we address the pistol to which the damage has already been done? One choice is to replace the frame. Of course, the new frame is treated as a pistol, and requisite paperwork must be filed. I once owned a Command de from Essex Arms replaced long before l. There

This is the standard steel M1911 frame from Caspian. had been frame issues, and this was when I first became aware that Essex made Commander-length frames. Replacing the original with a steel frame is one option, and I am pretty certain it would be difficult to find anew Commander lightweight frame. There are procedures for repairing the feed ramp; but before considering a feed-ramp repair, I would thoroughly inspect the frame to determine if there is any other damage.

The damage from the magazine follower is one place to check, as it often comes lower than damage caused by blunt-nose bullets. The plunger tube is another area of interest. The pegs that attach the plunger tube to the frame are steel and the frame is aluminum. The plunger-tube holes can become wallowed out. This occurs when the slide stop is forcibly snapped into position, driving the plunger tube to wobble in its pin holes.

When reassembling an aluminum frame pistol, be careful to depress the stud on the plunger tube and slide the slide stop into place rather than forcing the slide stop over the stud. Another problem can occur when an aluminum-frame pistol is detail stripped. Prying out the safety or exerting unnecessary force on the frame can result in a warped frame. If the feed ramp is the only problem, then installing a ramped barrel will cure the problem.

This is less expensive than replacing the frame; and if a quality barrel such as the Wilson Combat barrel is fitted, accuracy and reliability should be improved as well. To the best of my knowledge, all of the lightweightframe 1911 pistols now produced, such as the Springfield Loaded Model Lightweight Government, feature ramped barrels. Secure case-head support and less wear and tear on the frame are all advantages.

When it comes to permanently curing the problem of a washed out frame without re ution Gun Works has given us an opti steel insert for the frame. While the instructions provided with the insert are good, the installation requires the gunsmith to make some subjective judgments depending on the actual damage.

The steel insert is of high quality and is supplied with most of the important angles in place, but some work is needed to properly fit the insert into the frame. The insert and the frame are lightly polished in very cautious steps as the frame insert is worked into place. The real trick is tapping the frame for a setscrew that's driven from the left to right. This set screw is placed under the slide stop so it is flush and hidden from view as well.

The set-screw hole is drilled .425 down from the slide rail and .140 back from the wall. While the instructions are clear and the installation is straightforward, there is no margin for error here. After first fitting the ramp, it can be removed for refinishing of the affected aluminum frame area. Then, the ramp insert is installed again with Loc Tite, and screwed into place.

You then polish the feed ramp just as you would with a steel frame during the course of a throat job' lightly and carefully, being certain that the ramp ends about .420 from the top of the slide rail. The bottom of the insert is then blended to the frame. By the time a customer arrives with an aluminum-frame pistol that has a wallowed-out ramp or plunger tube, it's probably too late to advise him of the special cautions he needs to follow.

Fortunately, there are several options for addressing these problems, and the final result will be a better handgun than the one that originally left the factory. I

MAINTENANCE & REPAIR

Maintenance and Troubleshooting of AR-15-Type Rifles

Whether built by Colt, another quality gunmaker, or assembled on the owner's kitchen table from parts, some simple procedures and helpful aftermarket parts can keep the AR firing smoothly.

BY DENNIS A. WOOD DECEMBER 2007 ORIGINAL PP. 10-15

When first introduced to our troops as the M16, the AR- 15 was scorned as a combatrifle replacement for the M14. It's taken four decades, along with changes in bullet weight and barrel twist, but the AR-15 has come to earn respect from military units, hunters, law-enforcement agencies, and highpower-rifle competitors. The civilian version of the M16, as produced by Colt and various other manufacturers, is the semi-auto AR- 15 available in .223 Remington (5.56mm NATO) caliber.

Since "AR- 15" is a registered trademark of Colt Firearms, I'll use the term "AR-15type rifle" to refer to the Colt as well as the other clones and variations from numerous makers. Because of the "assault-rifle" legislation enacted in 1994, restrictions were placed on some of the features of this rifle such as muzzle attachments, bayonet lugs, and magazines with a capacity exceeding 10 rounds. These restrictions never made sense to me or to owners of such firearms.

If you had a pre-ban AR-15-type rifle in your possession, you were free to keep it and replace parts as necessary. To stay within legal limits, manufacturers that produced civilian versions of the "black rifle," "mouse gun," or any of the other names given to the AR-15 clones, needed to produce a civilianlegal style that complied with the regulations.

In 2005, the federal ban on those specific attachments expired, although a few states chose to continue the ban on such features for citizens residing in those states. Today, the AR-15-style rifle is more popular than ever, with a large number of manufacturers producing complete rifles as well as upper units in calibers from .22 rimfire to the .50-caliber Beowulf. When you add in the mind-boggling array of accessories to complement this style of rifle, the AR- 15 becomes almost an industry all by itself.

In the last (November 07) issue, Chick Blood discussed the assembly and reassembly of the Sabre XR-Series'a high-end variant of the AR-15 type. In this issue, I'll cover the takedown of AR-15 types briefly in a more "generic" way, concentrating on the maintenance routines and basic troubleshooting. If you run into any nomenclature problems, you can refer

If they're lined up, gas could blow them. to the schematic on page 5 in last month's issue. Field Stripping Once understood, the takedown procedure for an AR-15-type rifle is pretty simple and straightforward. The rifle depicted here is the Bushmaster XM15 V Match'one of the better examples of what's currently available. The first step, as always, is to remove the magazine and pull the charging handle backward to clear the chamber.

Peer into the action and chamber to visually verify that you're dealing with an empty firearm. Because we'll be dealing with detent pins retained by springs and drifting out spring roll-pins, safety glasses should be worn. For me, it works best to begin by clamping the barrel between protected jaws in my vise, with the butt end of the rifle pointing to the right and upward at around a 20-degree angle from the bench top.

Cock the hammer back by pulling on the charging handle and place the safety in the "on" position. Push the rear takedown pin in from the left side of the lower unit until the lower unit pivots downward. With a tight assembly of the upper to the lower, you may need to push this pin out with a Nylon or Delrin pin-pushing tool. Don't attempt to drive the rear takedown pin completely out of the lower unit.

This pin is maintained in the lower by a detent pin and spring, so if you try to drive it completely out of place in the lower unit, you'll break a very thin wall for the detent pin and spring channel along the right side of the lower unit. Next, to separate the upper from the lower unit, the front pivot pin is pushed forward until the pin is captured by the detent pin in the right side of the lower unit.

Disassembly of the Receiver AR-15 receivers are typically made of 7075-T6 forged aluminum alloy, with the principle alloying element being zinc for corrosion resistance and a small amount of magnesium to increase strength. The T6 designation denotes that the receiver has been heat-treated, meaning that the material is artificially aged at around 300 degrees Fto increase hardness and tensile strength. The strength of these receivers is truly amazing, as I had the opportunity to discover a short time ago.

A customer arrived with his AR-style rifle and a very bleak story. He'd put together some hand-loaded ammunition with new Winchester .223 Remington cases and 75-grain bullets. The first round he fired ruined the receiver completely; the escaping gas vented out the primer pocket of the cartridge case, blowing off the bottom of the bolt carrier and destroying the magazine. Fortunately, he wasn't hurt. I was curious to know if he still had any of the ammunition that he loaded.

After pulling a bullet and examining the powder charge, I found that instead of using 24 grains of a proper rifle powder, several 24-grain charges of pistol powder had been left in the bottom of his powder measure from a previous loading session. The pistol powder was thrown before he got to the rifle powder he poured in on top of the pistol powder. I was even more surprised then that he wasn't injured, and that the lower unit survived the little bomb that went off in the rifle's chamber.

A costly lesson such as this is a hard way to learn to verify that the powder measure is empty before beginning another loading session. Getting back to the disassembly, pull the charging handle back a short way, and then pull the bolt carrier and bolt out of the receiver. The charging handle will then drop down slightly and can then be pulled from the receiver. On the left rear side of the bolt carrier, you'll find the looped end of the firing-pin retaining pin.

This pin can be pulled straight out of the carrier with a small flat-blade screwdriver tip. Once the retaining pin is removed, the firing pin will drop out of the rear end of the bolt. You'll see that the two legs of the firing-pin retaining pin are flared slightly outward. They're designed to be this way, so don't pinch the legs together or bend them outward any further. Pushing the bolt head rearward will rotate the cam pin toward the left side of the carrier key.

Rotate the cam pin so that its longer length runs parallel with the bolt carrier and then lift it up and out of place. The bolt should now slide out the front end of the bolt carrier. You should be able to feel some drag as the bolt is pulled forward from the bolt carrier. This is a good thing and means that the three gas rings in the bolt are doing the job

they were intended to do. If the bolt slides out of the carrier with no resistance whatsoever, it's time to replace the gas rings. To remove the extractor, push out the pin holding it in place with a 3/32inch punch. The extractor has a short spring and a tiny rubber insert, usually blue or black in color, that fits inside the spring.

If the rifle develops sluggish extraction, it will help to install a D-Fen MG Industries, Inc. over the extractor sp elp to give more positive extraction, which can sometimes be a weakness with these rifles. Inspect the three gas rings at the back end of the bolt for any damage. Soak these in a good solvent and then give them a scrubbing with an old toothbrush or an M16-style brush to remove any carbon buildup.

Give the ejector a couple of pushes with a punch to see that there is no hesitation with this component's action. If the ejector movement feels gritty, you'll need to drift out the pin holding it in place and clean its receptacle with solvent and insert a few drops of lube. Yes, I know that the military manuals say that this pin can be removed with the firing-pin tip, but save that procedure for emergency situations. My advice is to use the punch instead to avoid any unnecessary damage to the firing-pin tip.

Clean the bolt face with a carbon-removing solvent and then wipe the entire bolt down with Break-Free CLP. Before reinstalling the bolt into the carrier, make sure the three gas rings are rotated such that none of the gaps in the rings line up with another gap. If the gaps in these rings are rotated to around 120 degrees from one another, there will be no problem with gas blow-by and the bolt will function correctly.

Some folks say that it doesn't matter how the gas rings are oriented, but it certainly does no harm to stagger the gaps. Check the carrier key for any looseness. If found to be loose, tighten the two screws that hold the carrier key to the carrier. These screws can be held in place with a thread-locker, but they must also be staked in place with a center punch to prevent any rotation of the screws caused by vibration from the firing sequence.

Now insert the bolt back into the carrier, making sure that the extractor is to the right side of the carrier and the cam-pin hole in the bolt is aligned with the cam-pin hole in the carrier. Insert the cam pin and push it down and then rotate it so that the longer length runs perpendicular to the carrier. Pulling the bolt forward will rotate the cam pin up and underneath the carrier key.

Insert the firing pin and then the firing-pin retaining pin with the loop positioned up/down in relation to the carrier, making sure that the flared legs of the retaining pin go behind the shoulder of the firing pin in front of the rear head of the firing pin. There are four raised rails along the carrier that will need some lube before being reinstalled into the receiver. I prefer to smear a light coat of Gunslick or Lubriplate grease here, but whatever lube you prefer will probably do just as well.

The important thing is you don't want to run the bolt carrier dry in these areas. This rifle has a flat-top receiver designed for mounting a scope, but the charging handle will usually need to be adapted for easy access under the ey pe. Badger Ordnance offers a tactical chargi that gives much easier access once a scope is mounted. To change to the tactical latch, simply drive out the retaining pin, insert the original latch spring, the new latch handle, and then reinsert the retaining pin.

Most of these rifles have a chrome lining in the barrel, which will just about double the life span. Even though the barrel is treated with this tough plating, a chamber guide of some sort will protect the throat/leade area when running a cleaning rod down the bore. Lower Assembly Maintenance The lower unit contains the trigger assembly and the buffer system, which absorbs recoil energy and returns the bolt carrier into battery. On this particular rifle, the trigger is of the single-

stage type and is a very simple, efficient system. A dab of lubricating grease on all the pivoting points as well as the hammerand sear-engagement notches is sufficient to keep these areas working smoothly. When you purchase a complete rifle assembly, you'll usually find that the lower-to-upper-unit fit is quite tight. But a slight wobble is often found between the upper and lower assemblies when a different upper is attached to the lower assembly.

To help tighten the fit and eliminate any slight looseness between these units, you might want to consider the installation of an Am Buffer Technologies This small piece of has an angular top section that will tighten up the fit of the upper to lower unit.

If after installing the ACCU-Wedge you find that it's difficult to get the rear takedown pin through the upper and lower units, you can remove a bit of material from the bottom of the ACCU- Wedge and keep trying the fit of the two units until the takedown pin goes through and the looseness is gone. At the inside back face of the receiver, you'll see where the front face of the recoil-spring buffer sits.

The recoil buffer and spring are captured inside an aluminum tube that resides inside the buttstock of these rifles. During the firing sequence, the steel recoil spring is compressed inside this tube and creates a scraping sound that is annoying to some folks. The remedy to eliminate the scraping sound is quite simple.

First, remove the buffer assembly and action spring, and rotate the buffer assembly so that one of the three flats on the outside diameter of the buffer is behind the detent pin in the bottom of the threads in the rear of the receiver. Depress the detent with a small flat-blade screwdriver tip, and allow the buffer assembly to ease forward until you have the assembly and action spring completely out of the receiver extension tube.

Once the buffer assembly is out, it's a good idea to examine the nylon insert attached at the rear end of the buffer for any damage. Replace it if necessary. Remove the action spring from the buffer and rub some Lubriplate grease along the outside diameter of the spring. This will help eliminate the hollow, scraping sound that's heard when the spring retracts and goes forward during the firing sequence.

A note of caution here: If an AR-15type rifle contains just one M16 part, the rifle is considered a "machine gun" by the BATF, and you and the owner can get in some very hot water if this is ever discovered. If you find M16 parts inside the receiver or trigger group, remove them and install the correct parts to avoid any legal issues.

Conclusions As military small arms evolve and become more sophisticated and incorporate things like mortar tubes and rocket launchers, we may well find that the AR-15-type is the last civilian version of a military rifle that's available to the public.

As things stand now, anyone who can legally purchase any rifle can buy an AR-15 or one of the numerous clones, and anyone can purchase all the parts for an AR-15-type clone, except one't he lower receiver. (This part is serial numbered and considered to be a firearm by the BATF, and all the legal ramifications involved with the purchase of any firearm apply.) The result of all this is that gunsmiths are likely to see all manner of basket-case ARs and amateur-assembled rifles come through the door.

Troubleshooting and assembling these "rifles" can provide lots of work for anyone familiar with the type. I

PEOPLE & COMPANIES

Micro-Lapping the Remington Model 700 Recoil Lug

The symmetry of the recoil-lug surfaces plays a vital part in the accuracy chain, and should not be overlooked when preparing a rifle for extreme accuracy.

BY NORMAN E. JOHNSON DECEMBER 2007 ORIGINAL PP. 16-17

Depending on your customer's needs and budget, the full blueprinting and accurizing process is not always required'or warranted'with many of today's modern rifles. Fortunately, however, it's possible to show a significant improvement in accuracy as a result of some very simple and inexpensive techniques. In preparing Remington Model 700 and 40X rifles for superior accuracy, for example, I direct special attention to recoil-lug precision.

Hav- Top When properly applied and used, the two micro-abrasives shown here do an excellent job of lapping the contact surfaces of the barrel shoulder, receiver face, and both sides of the recoil lug. Bottom J-B Bore Paste is used as a lapping medium.

This material is a very effective bore cleaner, but also serves as a mild abrasive for lapping when properly used. ing removed a number of the factory barrels, I've seen less than perfect contact between the barrel shoulder and the recoil lug'as well as an imperfect fit between the receiver face and the recoil lug. Thus, we have a total of four contact surfaces that may lack what I call "micro-precision."

This, however, is a condition that can be easily remedied with only the most simple of tools.

A basic, contact-surface test can be performed by applying a machinist's blue like Dykem to all surfaces, and screwing the barrel on until contact is made. Then, while under a light axial preload, turn the barrel to the receiver back and forth under moderate pressure. A few turns like this will allow a close inspection of each surface. While performing this test, be sure the recoil lug is in the downward position as it would be in the stock. Any other position would not permit a

proper inspection. After a few rotary contacts, carefully inspect the parts for any evidence of uneven contact. There will probably be some. This test will reveal the areas that lack uniformity in surface pressure. While performing this test, always be sure the recoil lug is in the same position front-to-back. It is best to place a small mark on one side. Lapping the Contact Surfaces At this point, we'll be lapping all four surfaces't he receiver face, barrel, shoulder, and both recoil-lug surfaces.

This is accomplished by coating both surfaces of the recoil lug with a mild abrasive. For this job, I use J-B Bore Paste (from Brownells), which does an excellent job of micro-lapping. I've also used an ultra-mild abrasive that was given to me by Fred Barker, a metallurgist and columnist for Precision Shooting magazine, and gotten equally good results. With the lapping material applied, slip the recoil lug onto the barrel and screw the barrel onto the receiver.

Keep the recoil lug in the downward position on the receiver. I would place the barrel in a padded vise for extra control. With a light contact between the parts and the recoil lug in its normal downward position, rotate the recoil lug about 15 to 20 degrees in each direction from its downward position. I use an adjustable wrench to grasp and move the recoil lug while lapping. Be sure there is a snug fit where the wrench holds the recoil lug.

During the lapping process, the application of controlled torque to the receiver allows a bit more axial pressure between parts. You actually will feel the lapping as a mild abrasive action between parts. Increasing I An adjustable wrench is used to hold and rock the recoil lug while lapping. or decreasing the torque on the receiver allows full control of the lapping. After a few back and forth rotary movements of the recoil lug, it's time for an inspection. Note carefully how the lapping has affected the parts.

In some cases, this may be all the lapping that is required. On some of the better target rifles on which I've worked, a marked difference in bullet point of impact was noted after lapping, along with an equal improvement in accuracy. Even the tiniest fraction of an inch discrepancy at the barrel or receiver contact can represent a full minute-of-angle variance on target impact. Conclusion This simple micro-lapping method can be used on both new barrel installations or on assembled rifles.

It requires little time, and the cost is essentially nothing. Thus far, in using this technique for recoil-lug lapping, I've seen accuracy improved significantly in most instances, and in no instance has this process caused a reduction in accuracy.

MILLING

Working the Parker Top-Lever Model Double Shotgun

When a customer brings you a Parker shotgun, the chances are good that it's been a member of the family for a long time, and it deserves to be treated like the heirloom it is.

BY DAVID R. CHICOINE DECEMBER 2007 ORIGINAL PP. 18-22

Considered by many people to be the "Cadillac" of American shotguns, the Parker holds a special place in the hearts and minds of many shooters and gun collectors. Formerly in the coffee-mill business, the Parker Brothers produced highquality shotguns from the 1860s up until 1942. The majority of Parker shotguns were manufactured at their own factory in Meriden, Connecticut.

In 1934, the Parker Brothers' company was acquired by Remington, who continued to make shotguns at Parker's Meriden plant until 1938, when production was moved to Remington's Ilion, New York, facility. Incidentally, the son of the last Parker employee still lives in Ilion and is still repairing Parker shotguns. The 10-bore outside-hammer shotgun pictured here is known as the Top-Lever Model. It was offered in both 10 and 12 gauges, featured laminated-steel (twist) barrels, and came in many different grades.

The Top- Lever Model was sold from the mid-1870s up through the early part of the 20th century. The gun shown here is an "R-Grade," believed to have been manufactured until 1899. Basic Disassembly 1. Before you begin any disassembly procedure, check first to be sure the weapon is empty.

Holding the shotgun around the forend (#25) and barrels (#2), and being careful to keep your fingers away from the triggers (#16L & #16R), use your other hand to push the Parker's top-lever (#34) to the right in order to open the barrels. Upon opening, the barrels will tilt down toward the floor, thus exposing the chambers. If there are any shells in the chambers, lift them out. And to be even safer, I prefer to remove any live ammunition to a separate location. 2.

Begin the disassembly by removing the forearm and barrel set from the gun. First, close the barrels. Turn the shotgun upside down so the forearm is facing up, and pull on the opening lever (#30). This will unlock and free Top of page: The quality of Parker Brothers shotguns is legendary. The gun shown here is a doublehammer Top-Lever Model in 10 bore, made in the late 1870s. Author photos.

The front of each lock has a machined lip that fits in a mortise cut into the frame. the forearm assembly so it can be pulled away from the barrels by the front and removed from the barrels. Turning the gun right-side-up again, operate the top lever once again; except this time, when the barrels open, push them slightly to the rear and then lift them up and out of the frame (#1). 3. Removing the Parker's locks and trigger guard begins with backing out the lock-plate screw (#13) and gently tapping its head.

This will cause the right-hand lock assembly (#3R) to be moved away from the frame and stock at the rear end. You should now be able to pull the right lock slightly to the rear and off of the frame. Use along punch to reach through an opening in the right side of the stock and tap the rear of the left lockplate (#3L) lightly until it can be removed from the frame'exactly as you did with the right lock plate. Unscrew and remove the trigger-guard screw (#17).

Now, tap the rear of the trigger guard (#15) lightly with a plastic mallet to break it free from the wood. Pull the rear of the guard tang out slightly, moving it out and away This is not always easy with an old, rusty gun. from its seat in the inletting of the buttstock. Next, rotate the trigger guard itself several turns in a counter-clockwise direction to unscrew the guard from the trigger plate (#14). 4.

To remove the action from the stock, unscrew and remove the front (#19) and the rear (#20) trigger-plate screws. While holding the top lever to the right, unscrew the main action screw (#35) from the top, then gently tap the head of the screw downward. This will cause the trigger plate to loosen from its inletted fit in the buttstock. Lift the trigger plate (#14) away from the buttstock (#43), and then carefully separate the buttstock from the frame (#1). For correct reas-

1 Frame 2 Barrel Set 3 Lock Plate 4 Hammer 5 Tumbler 6 Bridle 7 Mainspring 8 Sear 9 Sear Spring 10 Bridle Screws 11 Sear Spring Screw sembly later, be sure to make careful note of the positions of the top-lever stop (#23) and the top-lever stop spring (#24), which are now loose. 5. For disassembling the locks, use a machinist's clamp or mainspring vise to carefully compress the mainspring (#7), and then disengage it from the stirrup (not illustrated) on the tumbler.

You can now lift the compressed mainspring off the lock plate (#3.) Unscrew and remove the three bridle screws (#10), enabling you to lift off the bridle (#6).

Loosen the hammer screw (#12), and then while holding the lock in your hand, gently tap the head of the hammer screw in order to 12 Hammer Screw 13 Lock Plate Screw 14 Trigger Plate 15 Trigger Guard 16 Trigger 17 Trigger Guard Screw 18 Trigger Screw 19 Trigger Plate Screw, Front 20 Trigger Plate Screw, Rear 21 Trigger Spring 22 Trigger Spring Screw break the hammer (#4) loose from the tumbler (#5).

When the hammer is loose, remove the hammer screw, lift off the hammer, and then lift out the tumbler from the inside of the lockplate. Unscrew the sear-spring screw (#9) and you can lift off the sear spring (#9). The sear (#8) can also be lifted off its pin on the lock plate. 6. To disassemble the frame, use a small machinist's clamp to carefully compress the top-lever spring (#36), and pull it out from the bottom of the frame. Unscrew the top-lever lock screw. This part is not shown in the parts photo.

It's on the inside of the left side of the frame, just under the Parker Top-Lever Model 23 Top Lever Stop 24 Top Lever Stop Spring 25 Forend Wood 26 Forend Iron Screw, Front 27 Forend Iron Screw, Middle 28 Forend Iron Screw, Rear 29 Opening Lever Frame 30 Opening Lever 31 Forend Iron 32 Forend Lock 33 Firing Pin Double Shotgun 34 Top Lever 35 Receiver Main Screw 36 Top Lever Spring 37 Top Lever Screw 38 Top Lever Link 39 Bolt 40 Firing Pin Retaining Screw 41 Extractor (not shown) 42 Extractor Screw (not shown) 43 Buttstock (not shown) 44 Buttplate (not shown) top-lever.

Unscrew the two screws from the top-lever link and you can lift the top lever (#34) out from the top of the frame and the link (#38) out the rear of the frame. The bolt (#39) can now be pulled out the rear of the frame. The firing pins are removed by first unscrewing the firing-pin screws (#40) then pulling the firing pins (#33) out to the rear along with their coil springs (not shown). Further disassembly of the frame is normally not required. 7.

Disassembly of the trigger plate (#14) begins with unscrewing and removing the trigger-spring screw

The right lock is simply its twin, exactly reversed. (#22). Once the screw is out, you can lift out the trigger spring (#21), making sure to note how the spring engages the triggers. Remove the trigger screw (#18) and remove the left trigger (#16L) first, followed by the right trigger (#16R). The triggers come out through the holes in the bottom of the trigger plate. 8. To disassemble the forearm, unscrew the front forend-iron screw (#26) and the middle forend-iron screw (#27).

Next, gently tap the heads of each screw, alternating blows between the two screws to evenly push the opening-lever frame (#29) out the bottom of the forearm wood (#25). Unscrew and remove the rear forendiron screw (#28) and gently slide the forend iron to the rear and out of the wood. Further disassembly is not normally required. That's basically all there is to disassembling the Parker Top-Lever Model double shotgun. To reassemble the shotgun, you simply reverse the procedure above. extractor.

Unscrew and remove the extractor screw (#42) located at the bottom of the barrels near the rear, and then withdraw the extractor (#41) out the rear of the barrel set. I 9. The final step is the removal of the

READER FORUM

Reader Forum

BY AMERICAN GUNSMITH EDITORS DECEMBER 2007 ORIGINAL PP. 23-24

Also as I was searching my back issues I remembered the "Gun Clinics." I miss those articles, and always looked forward to them while I was on deployment in the Army. Rob Mueller Phoenix, Arizona Unfortunately, since we work three months in advance, there's no way we can include anything "in the next issue." But we'll try to help if we can. Do you know whether your 760 is an old or new design? You may have to call Remington with the serial number to answer that question.

There were design changes in the 760 since the original field-service manual was written in 1952. Our manual doesn't include instructions from the '52 manual, and only addresses the changes. The good news is that takedown instructions for the earlier design appears in the NRA Guide to Assembly for Shoulder Arms. If your rifle is a newer model, get back to us and we can fill you in on the changes made in the newer version. Reassembling the Original P85 I've been a subscriber for more than 15 years.

A recent article about smoothing the action on the Ruger P85 intrigued me enough to try it. Unfortunately, I'm unable to get the gun back together. I tried Gun Digest's book on assembly/disassembly of automatic pistols (2nd edition), but they cover the second rendition of the P-85 and newer. I have an "original" P-85, and there is no "hollow pivot" in the sear, only the pin that goes from frame to frame, and everything falls apart when that pin is removed.

My difficulty lies in trying to replace everything, specifically the connection to the "disconnector" that enables the slide and barrel to be removed from the frame. Do you have an instruction book that would help me on this, or a DVD that will show me how to replace it? Do I need any special tools? Or can you reference an article in American Gunsmith that I can look at?

The springs are strong enough that my thumbs are complaining, and I seem to need a third hand in there (smaller than mine) to manipulate the connection to the disconnector. Otherwise, I've been successful with everything else. Thanks for your assistance. In the early history of the P85, a single accidental discharge on a firing line occurred. Being the responsible manufacturer that he was, William B. Ruger recalled all the pistols.

Extensive testing and attempts to duplicate the existing conditions never produced another accidental discharge, but the pistol was redesigned, reworked, and reintroduced to the market as the P85 Mark II. In that pistol, there was a sear-pivot bearing and the "hollow pivot" to which you refer, through which the sear pin is inserted. Unfortunately, the original P85 wasn't around long enough to get into any of the usual reference books on the subject.

If it had, the individual taking down the pistol would have been instructed to push out the sear pin with a drift, leave the drift in place, then push out the drift with a slave pin that would maintain the sear assembly as a unit while still allowing its removal from the frame. According to the schematics of the P85 and P85 Mark II we have on file, there is no "disconnector" per se listed.

We assume, then, you are referring to the slide stop, which enables field stripping of the pistol when pulled away (but not detached) from the frame. Later on in J. B. Wood's instructions, you're told how to remove the slide stop from the frame by lifting the slide-stop spring free of its groove in the stop stem. As for special tools, there are none. The pistol can be completely disassembled and reassembled with commonly available drift punches and a very small flat-blade screwdriver.

The screwdriver is used for lifting the slidestop spring off the stop during takedown and for moving the spring out of the way temporarily during reinstallation of the slide stop. Unless AGI has added a video on the P85 that we're not aware of, we suggest you study the photo of the fully assembled sear unit in the Gun Digest book, fabricate a solid slave pin to span it, and reassemble the back end of the frame per the photo. Hopefully, this will solve your problem.

Abused S&W I have a 10-year-old Smith & Wesson Model 629 4-inch that's had some abuse. I've corrected the bent center pin, replaced the stripped treaded parts of the extractor and center pin, and I've straightened the yoke barrel. I also installed two .002 yoke-barrel spacers to get the correct barrel-to-cylinder spacing and regain the proper headspacing. With the cylinder out of the frame, the action works perfectly.

But with the cylinder installed, the hand either won't pass the top edge of the extractor ratchet (on any chamber) or something is binding. The cylinder stop works correctly. The problem occurs in both SA and DA. The hammer will not go though the full arc to come to full cock and engage the sear. What am I not seeing? Any advice or help will be appreciated. Don E. Stradley Farmington, Maine "Some abuse" is a gross understatement. First thing, swing out the cylin-

(continued from previous page) der and spin it rapidly with two fingers. If it wobbles, it probably means the center pin or yoke is still bent. Second thing, the hand may be too long or you could be cursed with high ratchets. You can file and stone the hand shorter'in very small increments'-constantly checking your progress with reinstallation of the part and cycling of the revolver. High ratchets are another matter. For them you need an action tool that reforms them.

One is available from Gutridge Custom and the article on how it works appeared in our September 02 issue. We'd also recommend you purchase Jerry Kuhnhausen's shop manuals on S&W revolvers from Brownells. Stevens Favorite Parts I am having considerable difficulty finding a schematic of the original Stevens Favorite (not the more recent Model 71/72). I believe that there was an article on it in American Gunsmith some time back. I have many years of past issues, but have no idea when it might have been published.

Can you help? I'm looking for parts for an incomplete Favorite in 22 caliber. My receiver is an early model, and I understand that the changes in the Model 1915 were in the main spring and extractor. The barrel that I have has a space for an extractor at center bottom (not the type on the original Model 17) and I suspect that it is from a Model 1915 but am not sure what the extractor design was like on the 1915. The barrel is not marked as "Favorite," but I understand that's not unusual. It fits perfectly.

Is there any chance it's from another Stevens Model and just happens to fit? I know that the breech block is specific to the caliber, but do you think a Model 1915 .22 breech block and extractor (if I can find one) will fit in the earlier receiver? Any help you can provide will be very much appreciated.

The article to which you refer concerned the Savage Arms resurrection of the Favorite and appeared in the January 01 issue. (It's no longer available as a back issue.) An excellent sectional drawing of the original with callouts for parts identification along with a full chapter on the rifle appears in Single Shot Rifles and Actions by Frank de Haas. The book, we understand, is still available directly from de Haas Books in Orange City, Iowa. We have no phone for the publisher, but dialing 411 might turn one up.

If not, Brownells might know. They offered the book in their catalog for many years. After receiving the book and reading the aforementioned chapter, it's possible you may still need parts and/ or further advice on breech block/ extractor interchangeability. If so, contact D. Wayne Stiles, Editor, Single Shot Rifle Journal (313 S. Main, Berrien Springs, MI 49103). Malfunctioning Hi-Standard Derringer I have a .22 Magnum Hi-Standard Derringer (manufactured in Hartford, Connecticut; serial number 829290) that only fires on the bottom chamber. Looking at the position of the striker with the barrel group opened, I noticed that in the upper section it does not come all the way forward. It's canted at an upward angle instead of striking forward like the bottom does.

Could the assembly inside be out of alignment? I assume the hammer or striker serves both breeches. Thanks. We believe you have a Model D-101, which is a .22 Magnum version of the D-100. The striker you mention is integrated with hammer assembly. This entire assembly can be removed by following the takedown instructions appearing in the hardbound combination handgun/shoulder arm edition of the NRA Guide to Firearm Assembly.

We suspect a broken or badly damaged component of the hammer assembly could be the cause of your problem. These assemblies are not normally dismantled except for part replacement; and due to the age of the Derringer (circa 1960s), such parts are likely to be hard to find. If you strike out with Gun Parts Corporation and Jack First, try G. W. Elliott, Inc.

SEARCHABLE ISSUE RECORD

Archive index

American Gunsmith

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

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