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PRECISION ARMS WORKSHOP

AND THE AMERICAN GUNSMITH ARCHIVE

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ARCHIVE ISSUE NUMBER

INSIDE THE ARCHIVE

CHECKERING A GUNSTOCK IS EASY

SONS OF GUNS RECEIVES "F" • ANSCHUTZ MODEL 64 B • CUSTOM OPEN SHOTGUN SIGHTS FOR SLUG SHOOTING • WIN...

ORIGINAL METHODS. MODERN ACCESS.

ARCHIVE EDITION 103

DIGITAL ARCHIVE EDITION

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PISTOLS

Sons of Guns Receives “F”

BY AMERICAN GUNSMITH EDITORS JULY 2012

ORIGINAL PP. 2

” The following is an editorial opinion from Alex Hamilton of The American Pistolsmiths Guild, Inc.

In the world of “reality” TV the alligator catchers, snake charmers, hoarders, distraught wives, bare hand fishermen, swamp people, one eyed womanizers and a bazillion others who would feel more at home in a house trailer or welfare apartment and who have been dragged from the greenest of slime to portray themselves as humans, have become an embarrassment and have been held up by our pop culture media as people who are to be envied and admired.

The Louisiana bayou water logged proprietors and gunsmiths who run Red Jacket Firearms are another group of men and woman who have been made into people who would like to be real stars, but in my eyes are doing irreparable damage to you and I and the firearms industry in general. In the Sons of Guns series, guns, weapons, explosives illegal to the general public are built and portrayed as something that anyone can walk into a gunshop, put money down and walk out the door with.

They do not specialize in anything that remotely resembles anything real gunshops and gunsmiths build and handle. Yep, I understand what we do is not good food for over-sensationalized reality television but when someone makes me look bad and distorts what I and my counterparts do, I get pissed and I get pissed to the point I will do something about it.

They send a message out to the general public that dual fifty caliber machineguns mounted on a pickup truck are standard fair and can be purchased by anyone with the right amount of moola. They never say what any of this crap costs but some of the stuff is in the hundreds of thousands of dollars.

Another problem I have with these yo-yo’s is every single swamp Cajun walking into the store needs to have the most complex gun, mounting system, explosive launcher, cannon or whatever else some nut job can dream up at a Friday afternoon happy hour. I could rail on and on with example after example of laws these guys appear to be breaking but that is not necessary.

Every hour these supposedly extraordinary gunsmiths are on the air give you and I a bad name and continuously feed the rabid antigun zealots ammunition with which they are using and will use to take us down. I resent these men and women making legitimate gunsmiths and firearms companies look like a bunch of hayseeds who can dish up contraband in a matter of days without consequence and responsibility.

Oh, I recently heard and verified Red Jacket Firearms and the boys and girls of Sons of Guns have had their FFL revoked! How fitting. Alex B. Hamilton, the 1993 Pistolsmith of the Year, is the owner of Ten- Ring Precision, Inc. (tenring.com), a builder of high-end competition pistols and the Recording Secretary of the The American Pistolsmiths Guild (americanpistol.com).

RIFLES

Anschutz Model 64 B

No matter how poorly you speak German, spell it Anschutz. Here's a profile on Die Meister Macher and how they make a sporting rifle.

BY CHICK BLOOD JULY 2012

ORIGINAL PP. 3-7

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I I let you off the hook. Die, pronounced dee, translates to the. Meister, pronounced myster, no surprise, translates to master. Macher translates to maker. The phrase translates to English as “The Maker of Champions.” In this case, it applies to the producer/designer of the magnificent target rifles that overwhelmed the world of smallbore competition in the 1970s and the translation must be appropriately expanded to include the gunmaker behind them. Anschutz started out in 1856.

Julius Gottfried Anschutz, son of a gunsmith, founded J. G. Anschutz to primarily manufacture Flobert rifles and pocket pistols. Upon the death of Julius in 1901 his sons Fritz and Otto continued their father's life work. Generation after generation the company prospered and grew—until 1945. In that year, so I've been told, the French occupiers of what had been Nazi Germany

expropriated and dismantled the manufacturing facility. Don't be misled by the word expropriated.

It's entirely too diplomatic a term. Dedicated Anschutz Target rifles are the responsibility of Champions Choice in La Vergne, Tennessee. to describe how all Anschutz had accomplished from 1856 until then was erased and shipped out without the permission or cooperation of its rightful owners. Fortunately, only five years passed before the company, renamed J. G. Anschutz Gmb H, reopened for business in Ulm with seven employees and twenty machines. Their initial intent was to manufacture and service air pistols.

Soon there were 250 employees, with some tending to the air gun side of the business, others taking a leap backwards into Flobert rifles and still others addressed their skills into developing and marketing target rifles worthy of world-wide note for precision, workmanship and accuracy. By 1972 the overwhelming success of Anschutz match

rifles begat the slogan Die Meister Macher. It remains reflective of the company's past tradition and serves as the benchmark for its future.

A Different Animal Anschutz evidently doesn't consider the Model 64 Bappearing in this article to be a dedicated target rifle. It is officially classified as “multi-purpose.” Balderdash! Show me another just-off-the line .22LR that will print a 5-shot group from 50 meters tight enough to obliterate the ten-ring and bullseye of a gallery target. How big a bullseye? About the same size as the period ending this sentence. Around has to touch it for the competitor to score an X in the center of the ten ring.

You can't jump into a rifle having that accuracy potential like it was a tin can gun unless you are willing to accept the risk of damaging it. And, though a dare devil you may choose to be, the gentlemen holding down the fort in Ulm have taken steps to assure any risk taking will be strictly on the riskier.

ANSCHUTZ MODEL 64 B CONTINUED

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Case in point. One glance at the contents of trigger housing (Parts 30- 53) reveals a complex assortment of components to contend with. In the first place, none of those individual parts are available outside the factory. In the second, third, fourth, fifth and ad infinitum places do you really have the temperament, time and money to travel to Ulm, there to remain a month or two acquiring the knowledge and working with the specialized tooling it requires to fully understand what makes an Anschutz trigger tick?

And doing it all under the close supervision of a severe Teutonic instructor boasting the skills of a Swiss watchmaker? Neither do I. Take heart. While it remains true that no trigger components are made A The pin can be drifted out in either direction but will release several internal bolt parts unless a pre-

ventive measure is taken. Extraction and ejection problems will result. available, any Anschutz barreled action returned in need of them can be provided with a complete, replacement trigger mechanism.

Despite these justifiable cautions, it is quite easy to adjust the trigger of a Model 64. The drawing employed here to illustrate the necessary steps was copied directly from the user's manual for the Model 64. Screw #1 (A) is the trigger blade clamping screw. Screw #2 (B) is there to adjust sear engagement. Screw #3 (C) is turned clockwise to increase and counter Aclockwise to reduce the weight of the trigger pull.

Dancing With The Trigger Whenever you are working with trigger adjustments keep the breech open as changes are made. Among the

most critical of the adjustments is sear engagement, further defined as the amount of engagement required to release the firing pin. Optimum sear engagement can be roughly achieved by cocking the rifle and turning screw #2 clockwise until the firing pin releases. This must be followed immediately by turning the same screw approximately 1/3rd a turn counter clockwise.

The adjustment for trigger weight with screw #3 is described in the preceding paragraph. D In making trigger adjustments the rifle must be test fired to check The striker (A), guide bolt (B) and cylindrical pin (C) are apparent. Marking the side of the striker aids reassembly alignment of the hole at the rear of the striker and the pin hole in the cocking piece (D).

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It must be recocked to install in the receiver with counter clockwise rotation of the handle. (A) is the indicator pin. They are (1) trigger blade clamping screw, (2) sear engagement adjusting screw and (3) trigger weight adjusting screw. All internal parts are restricted but a complete, factory-installed replacement trigger assembly can be purchased in the event irreparable damage is incurred. for possible malfunctions.

A self discharge is almost assured if the rifle is dropped while sear engagement is too short and/or trigger weight is too low. On the other hand, the rifle may not discharge at all when the trigger is pulled if you have over-adjusted your way to nil sear engagement. The need to adjust, test, readjust and retest as often as necessary to assure safe, reliable function cannot be over-stated with this or any other firearm.

Dismantling The Bolt You'll need a good vise wearing protective jaws, a small blade screwdriver, some cloth tape and a drift punch matching the diameter of the cylindrical pin which is listed on the parts list but not distinctly shown in the schematic. When you remove the bolt from the receiver it will come out of the receiver cocked. It has to be cocked to reinstall it but I'll get to than a little further down the pike. To disassemble it, the bolt has to be uncocked first.

Secure the assembly (1) between the padded vise jaws. Rotate the bolt handle clockwise as shown in the drawing. The same drawing points out the indicator pin, which retreats into the bolt to confirm uncocking has been completed. Unscrew the rear cap (12). Remove the guide bolt (11) and locate the cylindrical pin (13). This pin is drifted out in either direction. When it is out, all parts ahead of it (8,9,6,7,5a and 5b) will be free to depart and, probably, vanish.

A restraining wrap with the cloth tape will prevent this and you can turn your attention to the bolt head (4). There-on are the extractor (2) and cartridge retainer (2a). Both are retained by a spring clamp (3). The clamp has to be spread open slightly with the blade screwdriver in order to remove the extractor and retainer. I stress slightly. Overdoing it on the clamp will only serve to partially or completely wreck its ability to act as a good retaining clamp should.

When the parts it retains are reinstalled the clamp won't be strong enough to hold them firmly in place. That will result in extraction and ejection problems post final reassembly. Speaking of final reassembly, I mentioned the bolt had to be cocked. If it isn't there's no way it will slide back in to the receiver. You're presently working with a fully reassembled bolt—a fully reassem-

bled uncocked bolt. Lock the bolt head between the padded vise jaws. Rotate the rear bolt handle counter clockwise.

When the indicator that disappeared after uncocking the assembly shows up beyond the rear of the bolt consider it to be cocked. Now comes another reassembly tip. After you remove the striker, run a fine point magic marker line along it leading to where it intersects the hole for the cylindrical pin. This will shorten the time you can otherwise have to spend fishing inside the bolt to locate that alignment point. Let me read-dress the schematic. There are assemblies represented that do not exist on the Model 64 MP.

For example, parts 140 through 147 compose a snow cover for the muzzles of Anschutz Biathlon rifles. I can't imagine anyone really needing a snow cover who isn't competing in the Winter Olympics, nor do I believe the buyer of this light-weight smallbore sporter requires a stock with an adjustable cheek piece, however, both items, and many more in the Anschutz catalog, are available if ordered. In this discussion they have been omitted. On the other hand, the 64 MP is a bolt action repeater and employs a magazine.

Therefore, the contents of the magazine release housing (Parts 60 to 68) are about to be included.



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First on the list will be a cylindrical pin (64). Its removal will release a torsional spring (65) and the magazine retainer (63). Need I add take memorable note of how all housing dwellers are united before evicting them from their homestead? I should hope not. The socket head screw (68) is metric and there's no reason to expect the spring washer (67) above it is otherwise. This washer is referred to by factory engineers as a nut and a DIY tool is needed to remove and reinstall it.

You've probably made one like it previously. The washer/ nut has two indents. A small blade screwdriver is ground and filed to form two tangs fitting the indents. After the washer/nut is removed you can evict the guide tongue (66), the magazine guide (62) and cartridge guide (60), aka feed ramp. In conclusion, I must continue my earlier-stated quibble with Die Meister Macher. Any rifle firing a 5-shot group as tight as the one Complete your American Gunsmith collection. Or read up on a special subject!

A LIMITED NUMBER OF THE FOLLOWING



11 Guide Bolt 12 Rear Cap 13 Cylindrical Pin 60
Cartridge Guide 62 Magazine Guide 63 Magazine
Retainer 64 Cylindrical Pin 65 Torsional Spring 66
Guide Tongue 67 Spring Washer 68 Socket Head Screw
1 Bolt Assembly 2 Extractor 2a Cartridge Retainer 3

Spring Clamp 4 Bolt Head 5a Compression Spring 5b
Firing Pin 6 Striker Pin 7 Striker Spring 8 Catch Bolt 9
Bolt w/Handle Anschutz Model 64 B (Speci ications
subject to change without notice)

TOOLS & FIXTURES

Checkering A Gunstock Is Easy

Not quite as difficult as sometimes imagined, with a proper process good checkering can be done by anybody.

BY WENDELL DEANER JULY 2012

ORIGINAL PP. 8-12

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Checkering a wooden gunstock is easy. Whoa, Nellie! What did he say? You read correctly. In my opinion, checkering a gunstock is easy as the proverbial pie. All it takes is a basic knowledge of the process, the right tools and the patience to complete the project.

Notwithstanding the works of art that have been laid down on exquisite grade five walnut by past and present masters of the art, I am not making light of the general reluctance of some in the gunsmithing community to embrace checkering as one of their most basic services. It “looks hard.” OK, of course it does, but let’s delve a little further into the ins and outs of hand checkering to understand why I think any gunsmith can become proficient at it.

Checkering is only one thing: The divergence of straight lines in a measurable manner. If the lines of checkering are straight and spaced correctly, all is well. If not, the checkering is ruined. It is as simple as that. There is no room for error here. A bad line of checkering shows up like the

omission of a picket in a fence. It’s so easy to spot that an amateur can be run out of town on a rail whereas the professional will be elected mayor. No, just kidding, but you get my point.

The first time I put checkering tool to wood I was shaking with trepidation. Let me tell you how to lose the sinking feeling that goes with messing up a finished stock. The first thing I would advise any would-be checkerer is to read the Bible of this endeavor, *Checkering and Carving of Gunstocks* by Monty Kennedy. This book was written in the old days when checkering was part of finishing your work and not just an expensive option and this guy was the master. Emulate him and you’ll be OK.

The first part of the book gives tips on the process and the second part has many great patterns to copy. The book also shows in detail how to set your first lines (the master lines) of checkering. This is very important. The cutter is longer than a regular V-shaped tool and it is useful for straighten-

ing lines that begin to go crooked. You need the right tools. Kennedy’s book gives instructions on how to make them.

I’m glad we don’t have to go to all that trouble but if you have the skill and prefer to “roll your own,” have at it. The author freely admits that he switched to store-bought tools as soon as they were available. You can buy anything you need from Brownells or directly from the manufacturers themselves.

The basic tools are spacers, used to set the distance between the lines of the work, single line cutters to deepen the lines, and an invaluable little gem called a veiner, which is a V-shaped cutter used for just about everything that the others won’t do. You also need a stock-holding cradle, available from Brownells or one made by hand. This tool does not have to be the most expensive but it must hold the stock securely. The one I have is made out of apiece of 2X4 with plastic inserts to clamp and hold the wood.

IT IS QUITE SUIT-

CHECKERING A GUNSTOCK IS EASY CONTINUED

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A veiner or singleline cutter can then deepen these. Start the knife edge in the line and then rock it forward in those tight places. able for someone like me who only checkers occasionally. The stock cradle allows you to hold the stock in different positions and to rotate it as you work. This ability to rotate the stock is extremely important when trying to put a straight line on a curved surface. I clamp mine in a steady vise and it works well. Another item needed is a light.

What works best are those cheap lights you can buy at any big-box home improvement stores such as Lowe's. They have an aluminum collar that directs the glow of an ordinary light bulb and some sort of clamp to

hold them in place. I have a jury-rigged affair made from 2X4s that I simply clamp the light on to put it where I want it. I also use several of these lights for photography and the holder as an aid to sanding and finishing gunstocks.

The light must be positioned directly across the work leaving shadows instead of spotlighting the area. This way the checkering shows up best. Another useful tool is a good scribe for laying out a pattern before actually cutting it with a veiner or single-line cutter. A diamond made of a durable, pliant material that can be obtained at hobby stores is a necessity for laying out the master lines.

One can also be purchased It will finish your job and make it look more professional by taking the checkering right to the edges of the pattern. Some are home made. The bent needle riffler is used to take the "fuzz" out of a job and sharpen the diamonds. from some of the manufacturers of checkering tools. It is a simple affair that is three and one half times as long as its width. This will allow you to lay in master lines that will give 90-degree points in the checkering.

While on this subject, there are two different angles of cutters available: 60 and 90 degree. Gunline recommends using a 60-degree spacer to lay in the initial lines and then to

CHECKERING A GUNSTOCK IS EASY CONTINUED

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They accept Gunline replaceable cutters. These will give 90-degree diamonds. deepen the lines with the 90-degree tools. The shorter-angled tool spaces the same amount of lines per inch but is more forgiving on the first cuts and won't "dig in" as much as the 90-degree cutters. A 60-degree tool leaves a base much smaller than a 90-degree cutter and forms a weaker diamond. This is why it is recommended to finish with the sharper-angled cutter.

Speaking of tools, there are three major producers of checkering tools: Dem-Bart, Gunline, and Brownells. Dem-Bart makes a nice little set called the Master Set that includes a spacing tool, a single-edge cutter, and a bent shaft short cutter called the S-1 that really comes in handy around the edges.

Gunline has a similar tool they call the H-3. Their handles are similar to the Dem-Bart's and they also have replaceable cutting heads.

Brownells used to supply tools they called "full view" which have an open shaft that allows the user to see behind the cutter more easily. They also use the Gunline head that has knife-like teeth instead of the more grinding teeth of the Dem-Bart. Unfortunately, I can't find a listing for them at this time. I also like the ability to turn the cutter and use the back side when the front gets dull or breaks.

I have switched to using mainly the Brownells type, but I may use any of the others, even on the same job, if I feel I need to. You can make one by cutting an appropriate

template three and one half times longer than wide, or seven by two inches. This one also has a three-inch side for 60 degree diamonds and useful guides to measure lines per inch. The lines must be cleaned as you go along so you can see your work. Note the pencil should be "soft" and beveled so as to lie at the very edge of your pattern.

All of them will do a good job in the right hands. The two other mentioned tools are the bent shaft short cutter and the veiner. The short cutter is invaluable when finishing up a line so as to not get overruns. Setting it down at the end of the line and pulling back will really let you go right to the edge and take out the material you need to make an even cut. This

CHECKERING A GUNSTOCK IS EASY CONTINUED

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There is nothing wrong with using the same checkering the major manufacturers use. Sometimes, they fit right into a project. This grip has a Wundhammer swell on the right side. is important since the checkering is done in three steps, each step deepening the line until it is just right. You cannot go to full-depth lines in one pass with hand checkering tools. The other tool is a veiner which is a short plum-handled V-shaped cutter that takes curves like Mario Andretti when laying out patterns.

It also is the last cutter to use when cleaning out the edges of your lines and the ends of your patterns. Look at some of the factory checkering that is being done now. You will see that some of the ends of the pattern are kind of fuzzy and indistinct and the diamonds fail to extend clear to the edge of the

pattern. The veiner will correct this showcasing the hallmark of a good job. It is especially useful for making the “points” of the point pattern sharp.

Two other tools needed are toothbrush and a good, sharp knife. You will have the toothbrush in one hand while checkering to keep the sawdust out of the lines. Under magnification it will look like you’ve fired up your own sawmill after a few minutes work. The knife I use is a Barlow knock off with a curved blade. It is very useful for finishing a line to guide the checkering tool over a curved area as in a grip area.

I lay the blade in the checkered line and rock it forward to the end of the pattern in front of the grip following that cut with the single-line cutter. This way your line will always be straight. Notice how the grain can be seen

through the checkering. The diamonds are fairly straight in their rows, which is what we are aiming for. It is darn near impossible to checker a stock without a cradle. The good news is that one like this is not very expensive.

Kennedy’s book gives instructions on how to build one and I may take him up on it one day. I mentioned magnification. I use a visor available from Brownells or any of the on-line hardware stores such as Grizzly. I can’t checker without one. How the old masters did it I don’t know. There is a picture of Monty Kennedy in his book holding a large magnifying glass while checkering with one hand. I guess they didn’t have such things when he was working. By the way, it’s unusual for me to hold a tool with one hand.

I NEED TWO HANDS ON THE

CHECKERING A GUNSTOCK IS EASY CONTINUED

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checkering tool to be as steady as possible. One word of caution. I have read where it is best to start checkering on an unfinished stock. I recommend against this because of the damage sandpaper and files can do to the diamonds and also the finish itself will gum up in the lines and be the devil to get out. Let the finish harden for at least a week or two, if you can. Begin with a finished stock and you won't go wrong. Spacing tools are commonly available in 16-28 lines-per-inch.

I think the beginner is best off using the 18-20 lines-per-inch to start. When you are ready to move on to the closer cutters you'll know. Also, the quality of wood available these days is such that very few pieces are hard enough to hold such delicate checkering, and the diamonds last much longer if spaced a little larger. To get started I recommend, as does Monty Kennedy, using his number 2 patterns for the grip and forearm.

These are known as simple point patterns and though they may look complicated they are not that difficult to execute. The forearm pattern is started with two straight lines tapering towards each other at the barrel end. The top line is cut parallel to the top of the barrel channel. This is done by measuring the wanted distance at both ends of the line and then holding a straight edge at those two points using a soft pencil to lay it out. I cut out a tracing of these two patterns to help me lay in the pattern lines.

The master lines (where you will begin the checkering) are laid out according to your diamond. By using this tool your points will all be spaced to the front and rear lining up with the lines of the stock and barrel. Take your master lines to the edge of the pattern lines but not all the way to the end. This will leave room for the actual point pattern to emerge as you are checkering. If your lines are straight it will be easy to see where to stop to get the points that give the pattern its name.

The grip is done the same way. Lay in the edges of the pattern and use the diamond to cut the master lines. In laying out the master lines the top of the diamond should parallel the barrel. This will create points that are slightly slanted and give a pleasing effect to the work. Points that end straight up and down look bad and are amateurish. The points of your grip pattern are determined by where the master lines end and how the grip is shaped.

It sounds more difficult than it is, but again, if you are able to keep your lines straight, it will work into place and look professional. I like my grip patterns to curve around the front of the grip with about an inch or so of unchecked space between both sides. Not extending the checkering this far is OK, but I think it looks much more professional even if more difficult to accomplish. Electrical tape can be used to space this area.

Run apiece or two overlapping to get the desired space vertically along the grip and scribe in the lines. Also, the pattern should be spaced approximately 1/8 inch above the bottom of the grip. Again use the tape to space running it around both sides of the grip. Practicing on an old stock before tackling the first important job is mandatory. Each tool has a "feel" that you will understand as soon as you start to use it. Checkering must be done up the stock.

You can't do a good job by trying to checker downhill and must position your work accordingly. Go ahead and try on your practice stock and you will see what I mean. You will be working with the stock upside down and at some weird angles, but that is what your stock-holding cradle is for. When practicing, get used to moving your tool straight without bending your wrist even on the curves. As soon as your wrist twists you have a crooked line.

These can sometimes be fixed with a tool called a jointer, which is simply a longer single-line cutter, but bad lines are best

avoided. When you lay out a pattern on one side of the stock go ahead and lay it out on the other side before starting any spacing. One old wag said about his work, "Hell, after the pattern is laid out and the spacing done, the rest is just checkering." He's right. If you lay down the pattern and master lines and space everything correctly, the easy part is deepening the straight lines.

Finish one side before you start the other. I don't know exactly why this is a good idea but it seems to work best. Also, a right-handed worker should space from right to left and a lefty just the opposite. Kennedy and I agree on this. I like some of the patterns that the major manufacturers use now days. The triangular shape on the Ruger forend can be useful when you have a thin front on your rifle.

I also admire the arrow-like pattern Winchester uses on some of its rifles, even though it requires a border to look right. These are easy to execute and look good if well done. Remember, the purpose of checkering is to allow the hunter a good purchase on his stock. Form follows function, however, and creating a work of art is secondary. Take apiece of typing paper and trace any factory patterns you admire with a lead pencil to make a template.

While I rarely checker the bottom of my forends there is nothing wrong in doing so if that's the way you want it. I shoot a lot off of sandbags and that will wear down the sharp diamonds so patiently crafted. That being said, some beautiful patterns go all the way around and as long as you understand the limitations you can do as you please. After all, that's why we are checkering in the first place, to give the gun our special touch.

Keep your first attempts simple while gaining experience to tackle more complex projects. You may find your inner artist coming to the fore and develop a taste for the "hard" stuff. AG

MEASUREMENT & INSPECTION

Custom Open Shotgun Sights For Slug Shooting

Installation of open sights on a shotgun for use with slugs makes an ideal deer hunting gun. Finding the right sights to fit your particular gun can pose a problem. Two of my recent projects involving Franchi Model 620VS and Rossi Single Shot Youth shotguns will illustrate how to perform this custom work.

BY NORMAN E. JOHNSON JULY 2012

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As more deer hunting areas require shotgun and slugonly more of our customers will seek ways to better adapt their current shotguns to the task. Here are two examples of custom shotgun sight modifications I made for local venison fetchers. Franchi Open Sights A customer brought me a 20 gauge Model 620 VS Franchi shotgun along with a pair of open sights that he had

made an attempt to mount. The open sights attach via a screwon plate that slides between the barrel and rib.

The principle involves two pairs of laterally opposing screws that pass through flanges on the top part of the sight and screw into the base. This system works out well for the rear sight but lack of rib- The attachment hole is drilled down through the dovetail slot used to attach the sight. slots to the front prevent mounting this sight as far forward as desired.

In this installation I suggested removal of the bead front sight and then screw on the upper half of his new front sight, utilizing a larger countersunk screw where the front sight is attached to the separable attachment body. He agreed this was a workable plan to increase the open sight radius and left the gun for completion of the work.

CUSTOM OPEN SHOTGUN SIGHTS FOR SLUG SHOOTING CONTINUED

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Installing The Front Sight Completion of the work included removal of the front shotgun sight bead, and enlarging and tapping the hole for a size 6-48 thread. Following this, the new, slotted sight leaf was removed from the top base, held by a single screw at the front. This exposed the top surface of the sight base for drilling a size 28 screw-hole for the 6-48 flat-head attachment screw.

The screw head was countersunk at surface level, enabling the front sight leaf to be re-installed and locked in place, thus completing the work. Conclusions This front sight re-location was a worthwhile task requiring less

than an hour of work. The sight looked right in place and both sights are readily adjustable, leaving another very satisfied customer. Making A Rossi Rear Sight The second shotgun is a Rossi breakopen, single-shot 20 gauge shotgun factory equipped with front bead sight only.

For deer hunting with rifled slugs, the addition of a rear sight is desirable. Such a sight can be made and installed with common gunsmith tools and a few hours of your time. A young hunter would be using a 20 Gauge Rossi Single Shot Youth The hidden screw must form a flush fit to make room for the

dovetail front sight. The red-glow front sight leaf is held in position by a frontal attachment screw. Shotgun for hunting deer and sighting over the rear of this barrel was quite difficult and ineffective.

A brief discussion involving making and installing a rear sight over the barrel was readily agreed on. My choice of material for making such a rear sight is a formed piece of 0.070 inch thick, cold-rolled, flat steel. To arrive at the proper height of the rear sight notch in the sight leaf, a trial sight was made of plastic

CUSTOM OPEN SHOTGUN SIGHTS FOR SLUG SHOOTING CONTINUED

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Here it is taped in position, and taped to the barrel and a target tested at 50 yards with the slugs the hunter would be using. Making The Rear Sight The rear sight was then formed, making it 1 1/2 inches long by 0.3 inches wide. The rear leaf was bent up at 90 degrees with the 0.075-inch halfmoon notch, 0.35 inches above outside barrel radius and 5 inches from the breech. The bend was notched with a sharp hacksaw blade and a 90-degree cold bend was formed.

I placed the sight in the mill vise and cut a shallow groove in the underside to aid in alignment and to allow better bonding with J-B Weld applied later. Both the barrel and underside of the sight were roughened with a small bit in a Dremel tool. The sight was positioned 19 inches forward of the butt plate, leaving 16 1/2 inches between rear sight aperture and front bead. Barrel length is 22 inches on this youth model shotgun and the length of pull is 12 1/2 inches.

After allowing 24 hours for the J-B Weld to set, a 6-48 countersunk, flat-head screw was drilled and tapped into the barrel at the center of the sight blade to assure perfect, secure mounting. This screw was also bonded in position with J-B Weld. I have never had a sight shoot loose that was bonded to the barrel in this fashion.

CUSTOM OPEN SHOTGUN SIGHTS FOR SLUG SHOOTING CONTINUED

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The center screw is not yet attached here. Though care was taken to make and mount the sight according to the pattern, there is always some anticipation as to whether the gun is going to be sighted in. On testing the gun with Remington Slugger rifled slugs at 50 yards, two slugs were put into a four-inch square, one of which was fired by another hunter who had observed the work I performed.

The recoil of this 4.5 pound gun with slugs was really noticeable but the gun was going to put its shots where the sight is held, so this objective was met. A diagram of the sight picture used was taped to the gun for quick reference by the young shooter. The finished sight just clears the barrel chamber section. The sight-picture, taped to shotgun,

as used for 50-yard point-of-impact with the new rear sight using Remington Slugger rifled slugs.

Conclusions The time used in making and mounting a custom sight on a gun for one of our young future hunters is time well spent. As it turned out, no charge was made for the work. Bet I'll see him again some day. AG

PEOPLE & COMPANIES

Winchester Model 490 Disassembly and Assembly Procedures

How to tear down, clean and assemble a Winchester Model 490 rifle.

BY DAVID W. MANNEY JULY 2012

ORIGINAL PP. 17-19

The Winchester Model 490 was only made from 1974 to 1976 and sold from 1975 to 1980. Approximately 32,000 were made, with all the guns built in Canada at the Cobourg, Ontario plant. Production ceased in order to make the centennial guns for 1976. Guns and Ammo and Shooting Times magazines both published articles on this rifle telling how the 490 came to be. Due to the success of the high quality 9422, Winchester representatives believed that a high end semi-auto of original design would also be a winner.

Unfortunately, this didn't work as well in the market place as initially indicated. The 490 was never well received by the public and production was short lived. Winchester issued a recall on the 490 in 1976, as published in the AFTE Journal, March 1976. The article did not state why outside of a report of a used 490 slam firing. If the recall had been completed there would be an asterisk to the right of the serial number, but that is not the case.

These guns are usually found in either great condition or very well used. 490s with lots of wear worked very well, needing only need minor work to keep them going while examples in good condition mostly jammed or didn't fire consistently. However, a good gunsmith can readily fix these issues and the guns can be made to work reliably. Disassembly Clear the rifle.

With the magazine removed, place the safety in the middle and remove the two screws holding in the stock floor plate.

With this is out, gently remove the stock from the barrel and receiver assembly. If this has never been removed and there is a build up of dirt and grime, rock the barrel up and down to loosen. Next, remove the hexagon barrel bracket stud and the trigger housing screw. The instruction manual reports this as a Phillips screw but I have only seen a standard slotted screw head there. Either way, removing this will release the magazine housing and magazine lock spring. The barrel bracket comes out next.

With this removed the barrel will release and slide out the front of the receiver. Again, dirt and grime can keep the barrel stuck to the receiver. I've had to use penetrating oil and lightly tap on the barrel with a rubber mallet to loosen it enough for removal. Be gentle and do not twist the barrel. Doing so can do damage to the ejector as it is pinned to the barrel and rests in a slot in the bolt. Pull the bolt forward and pull the trigger.

The cocking handle can now be pulled out and the bolt removed through front of the receiver. The firing pin can now slide out of the bolt. There is a cover over the trigger assembly that has a pin through it. This pin is serrated and must be pushed out right to left. Remove the forward and rear trigger guard screws that hold the

trigger guard in place. Remove the two trigger housing screws and lock washers. Trigger Disassembly Look carefully at the two pins holding the trigger group together.

One side will have ridges on it. Push out to that side. I have seen one with serrations on both sides, so check both. With both pins out the cover can be removed. The trigger and the yoke are attached by a roll pin to the trigger housing. Push out the roll pin to finish disassembly of the trigger. Bolt Disassembly To disassemble the bolt, push out the striker rod pin. This is a roll pin and should only be pushed enough to free the striker rod from the bolt.

Hold the end of the striker as it is under a lot of pressure from the two springs on the striker rod. Pull the striker rod off and the striker retainer, striker, inner and outer springs come with it. Push out the extractor pin up through the top off the bolt. This pin is tapered and should be pushed up from the bottom. The extractor and spring can be freed. The bolt is now completely stripped. Cleaning And Polishing Clean all parts and remove any crud buildup.

I like to let everything soak overnight in a gun cleaning solution before cleaning the parts. My preferred soak tank is a plastic window sill flower box available at most home improvement stores. These work great

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Winchester Model 490 (Specifications subject to change without notice) 1 Barrel 2 Barrel Bracket 3 Barrel Bracket Stud 4 Breechbolt 5 Buttplate 6 Buttplate Screws 7 Cocking Handle 8 Ejector 9 Ejector Pin 10 Ejector Spring 11 Extractor 12 Extractor Pin 13 Extractor Spring 14 Firing Pin 15 Magazine Assembly, 5 Shot 16 Magazine Assembly, 10 Shot 17 Magazine Housing 18 Magazine Lock 19 Magazine Lock Pin 20 Magazine Lock Spring 21 Magazine Guide 22 Pistol Grip Cap 23 Pistol Grip Cap Insert 24 Pistol Grip Cap Screw 25 Receiver 26 Safety 27 Safety Spring 28 Safety

Spring Screw 29 Front Sight 30 Front Sight Cover 31 Rear Sight 32 Striker 33 Striker Retainer 34 Striker Rod 35 Striker Rod Pin 36 Striker Spring, Inside 37 Striker Spring, Outside 38 Stock 39 Stock Floorplate 40 Stock Floorplate Screws 41 Trigger Guard 42 Front Trigger Guard Screw 43 Rear Trigger Guard Screw 44 Trigger Housing Assembly 45 Trigger Housing Screw, Front 46 Trigger Housing Screw, Rear 47 Front Trigger Housing/Trigger Guard Screw Washers 48 Rear Trigger Housing/Trigger Guard Screw Washers 49 Trigger Stop Pin

WINCHESTER MODEL 490 DISASSEMBLY AND ASSEMBLY PROCEDURES CONTINUED

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to hold a disassembled gun in the cleaning solution. Tupperware green pickle containers work great for soaking small parts and the strainer allows easy retrieval of the parts. I found two of them at Goodwill for 25 cents each. After an overnight soaking, most of the grime will just wipe away. Brush off the more stubborn dirt with an old tooth brush. The feed ramp needs to be stoned smooth. It is part of the magazine housing and is made of aluminum and is soft.

Take care in stoning this as going too far will cause more problems. Just make it smooth and it will help prevent bullets from jamming against it. The firing pin, yoke, sear and the hinge portion of the trigger need to be polished to 2000 grit. These parts are stamped steel and have a very rough burr on one side, with the other being fairly smooth. The object here is to remove the burr, taking away as little as possible. The firing pin likes to stick in the bolt when fired and give a light strike on the rim.

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Polishing the other parts will help smooth the trigger pull. Reassembly The bolt is reassembled in reverse order that it was taken apart. The trigger can be troublesome in that the trigger and yoke have to be back in the housing before the sear and spring can be assembled. Make sure the spring is not caught by the pin or the spring can very easily bend. The bolt must be into the receiver, before the trigger housing is put back on, as the trigger will prevent the bolt from going all the way back.

When putting the barrel back on use a lightly oiled patch to wipe the barrel end that goes into the receiver. Do not twist barrel into place. If it is hard to put back on check for dings on the barrel and receiver and polish if necessary. Make sure the safety is in mid position when putting the stock back on. Test fire. If a cartridge jams on the ramp or the firing pin gives a light strike, polish that area.

RIFLES

Rifle Zeroing Issues

Rifle Zeroing Issues How many shots does it take to evaluate a rifle's performance?

BY PAUL MAZAN JULY 2012

ORIGINAL PP. 20-21

'mI sure we have all heard the arguments and seen the stories. Most gunwriters these days stick with three shot groups to evaluate a rifle. Others use five and, years ago, ten shot groups were commonly used to demonstrate what a rifle is capable of. I recently read one article by a statistical expert insisting that six shots would tell you everything you needed to analyze a rifle's performance. That was about the only part of the article I understood as I am certainly not a statistical analyst.

Recently, a friend and I spent some time discussing the subject and came to the conclusion that the number of rounds necessary should be more dependent on your need and intended use than any other factor. As it turned out the conclusion we drew was that everyone was right in some circumstances and everyone missed the point in others. I have been a firm believer that one shot won't tell you anything except where that bullet hit.

I had always felt I had to put three bullets on target before it told me where the gun was shooting. My normal procedure is to shoot three, adjust the scope or sights, shoot three more, and continue until I have the group centered in the bull. Now I've pretty well convinced myself I was wrong! Two shots lying next to each other will tell me as much as three and three shots several inches apart don't tell me enough. Consistency is the key and without it you need more data before you can draw a valid conclusion.

That's fine for zeroing a scope but what about analyzing the rifle's capability? This is where we need to know what the rifle's intended use is. Let's look at a few different uses a rifle may be put to and see how they determine how many shots you need to put in a group for it to tell you what you

need to know. Let's call the first use the Hunter/ Police Sniper situation. In both cases, the shooter really needs to know exactly where the first shot from a cold clean barrel will impact.

It really doesn't matter what the rifle will do after a couple of fouling shots with a warm barrel. The shot that matters is coming from that cold, clean barrel, perhaps with a follow up shot. Range time checking such a zero must emphasize the first shot as it means more than any number of others. In such a case, three shot groups are all that is really needed. If the second and third shots land near the first you're in business as long as the scope is zeroed on that first shot.

The second possible use of a rifle is what I call the Dangerous Game situation. This applies to folks hunting something that just might take great personal exception to being shot at. In North America this would include bears, moose, boar, bison, and big cats. Once you leave our sunny shores the species hunted may be hunting cape buffalo, lion, tiger, elephant or some other critter that would love to sleep peacefully on a people skin rug.

These are folks that may one day desperately need to know not only where that first shot hits but also where each additional shot in their magazine will go when fired in rapid succession at diminishing ranges. Add to the stress of becoming dinner, the recoil of a big game rifle and the very slim possibility of reloading, and I would think four or five shot groups, depending on the magazine capacity of the rifle, would be good practice and provide essential information to them.

The next use of a rifle that determines the number of rounds necessary for is the Competition/Varmint situation.

Competition shooters often are required to shoot several shots against the clock. In High Power competition, for example, Rapid fire sitting at 200 yards and rapid fire prone at 300 yards require strings of ten shots in 60 and 70 seconds, respectively.

It doesn't take much imagination to see that ten shot groups are necessary to be sure a rifle doesn't start spraying bullets all over the county as the barrel heats up. If it does, a fix is needed or the shooter better take up a different game. The varmint shooter may shoot several hundred rounds a day. The action can come fast and he really needs to know how his rifle handles long strings of fire and if it holds its zero when the barrel is too hot to touch.

Ten shot groups are probably the minimum for these shooters. Otherwise those shots out in the eight ring or those prairie dogs thumbing their noses at you might never be explained. The last use of a firearm I'll discuss is probably the most common and that is the plinking or recreational shooting situation. Most of the folks that shoot strictly for fun never come closer to shooting at a bullseye than when they take a shot at the bottom of the pop can they just knocked over at 50 feet.

There is nothing wrong with that and I enjoy shooting things that pop, break, klunk or jump as much as anyone. The requirements are simple. Give them a rifle that holds a minute of pop can at 25 to 50 feet and they are happy. Still, they occasionally have a rifle that need sight adjustment and a paper target is still the best thing for telling exactly where a rifle is shooting. I wouldn't even try to suggest to

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22 went high at 12 o'clock and might explain why the shooter always seems to miss that first squirrel but nails all the others he sees. these folks how many shots to use to verify their sight settings. In my experience, once one round lands in the middle of the target all interest in making holes in paper is lost and they start looking for something that will break. Truthfully, if that makes you happy, who am I to criticize? The one common element is practice.

If the goal is to shoot small groups to impress your friends, put one shot into a perp to save a hostage or to keep some critter from mounting your head in its den, nothing helps improvement like practice. You can't become a great offhand shooter by practicing from a bench. The bench is used to zero the rifle and discover what it can do. You now need to find out what you can do with it.

That means that if you're going out to shoot a big nasty while standing in the tall grass you better be able to shoot well standing without support. When I shot High Power competition almost all of my weekly practice sessions was offhand because that was my hardest position. When I shoot handguns I fire half of my shots with my weak hand. I do so because shooting Gunfighter class in Cowboy Action requires it. I carry a gun for work and one day may have to.

I've been told by a champion action pistol shooter that he shoots as much as ten thousand rounds a week! I can't afford to shoot that much and, frankly, I don't want to but I don't expect to be a world champion either. I know cowboy action shooters that never practice but really shoot well and even win their categories because they shoot a match

almost The first shot would be on the left edge of the group. This is why writers like to use three shot groups.

The first three are very pretty but when the barrel heats up, conditions change and fatigue sets in it is much harder to put ten shots in the same hole. every week. Nothing beats rounds put down range in competition to make you good at putting rounds down range in competition. If you do it a lot you get good at it. Now you have my opinion on the subject. No matter how many shots you think you need in a group, you need to know what to expect from your rifle when the chips are down.

Those groups will get better with practice. Shoot from a bench to zero and then practice from the position you will use so you can succeed when you have to. Good luck and good hunting. AG

PEOPLE & COMPANIES

Reader Forum

BY AMERICAN GUNSMITH EDITORS JULY 2012

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Taurus 58 and 38S I have a Taurus 58 .380 ACP and am thinking of buying a Taurus 38S .38 Super. Do you have any information or resources regarding these two pistols? These are both medium frames and the company claims they are similar to their model 92, except for the size. The 58 has a four inch barrel and the 38S has a 4.25 inch barrel. For any general information, such as a product review, contact Taurus to learn where it appeared and ask if they have a reprint or news release on the pistol.

If not, call the publication and ask for a reprint. While you have Taurus on the phone, request an owner's manual covering the pistol(s) you are considering. 1917 Enfield A quick note for those considering modifying the 1917 Enfield. I agree that the rifle should be restored to military configuration if possible, however, if the owner really desires to convert to cock on opening Brownells sells a kit made by Dayton-Traister for the P1914 and M1917 Enfields (Brownells part number 240-150-017).

The description indicates that it must be used with a Dayton-Traister trigger, of which there are several options. The kit is on page 124 of Brownells catalog #62 and the trigger selection is on page 126. One will also notice that in the selection of triggers are also Speedlock kits that include the correct trigger assembly and all the parts needed for cock-onopening conversion. I have installed a couple of these over the years and they seem to work well.

Bolt cocking cam modification is required and instructions are included. Greg Roberts at Dayton-Traister can assist if needed (daytraco.com, Glad both you and your customers agree restoring the '17 Enfield rather than altering it is the best way to preserve its value, however, we reckon the customer is right, but not al-

ways. In this case and for other than the obvious reason unknown to us, the cock-on-opening desire can be safely satisfied. Your additional input is appreciated.

As you can see, we're passing it along to other readers. Remington Model 512 A friend of mine decided to hand over his Remington Model 512 .22 to me as he stated he has no use for it. I just looked it over and it appeared to be in order. I test fired it and it was very good. As I live on a ranch north of our border, I went out in the pasture and began shooting gophers in June. By the end of September I had shot in excessive of 1500 of the critters. John R.

Peifer Silver City, NM I then put it away for the winter after cleaning just the barrel. This spring I decided to strip it down for a cleaning job, however, the sear attached to the trigger was totally worn and the rest of the action was also worn badly. The carrier (512-X) was very much in bad shape as the sear or something else had rubbed against it. I was surprised that it was able to shoot so much with this problem. I tried to locate parts without success.

I also looked around for a replacement trigger assembly but no luck. Is it possible that there is another assembly that would fit in this rifle? If so, what make and in what catalog? The parts in this rifle are worn beyond repair. Wally Bradbrooke We think the course chosen, to replace rather than rebuild, will give the best result. You should check with Remington Customer Service on the substitution aspect.

If you get real lucky, one of their current production .22 rifles will turn out to be the answer and you'll be able to get a complete trigger assembly that has been factory-built. Don Roberts If the call turns out to be less than lucky, you are in for an extensive search of the aftermarket for the original assembly. After you've exhausted the

list of usual suspects, call Brownells and get a free copy of their parts source list for out-of-production guns.

As a last resort, contact the Remington Association, probably the largest of all collectors groups. Remington would have a contact number but we believe Brownells also lists one in their catalog and we know Gun Digest does. Young America Revolver I am working on a Young America double action revolver. The pin that the wheel spins on was frozen together so that the pin was revolving with the wheel. The rear end of the pin is wore so much that it allows the wheel to flop around.

I'd like a book with parts list, ebook or hard copy, and maybe suggestions as to the recommended way to repair it. It is made by H & R Arms company, serial # 121XX, Worcester, Mass. Robert G. Boehler Farmersville IL Volume II of the Jack First Gunshop catalog (jackfirstgun.com, dedicated to out-of production guns, will have parts, a parts list and some form of drawing but no repair tips.

The current evolution of H&R, presently under the Freedom Arms Group umbrella along with Remington, Marlin, Bushmaster and who knows whom else by the time this is published, will be of little to no assistance since they did not manufacture the revolver. Perhaps we can help a little bit though. Totally immerse the revolver sans grip panels in penetrating oil or Kroil. After a couple of days remove it and see if the center pin and cylinder have unstuck themselves.

A light tapping of the pin toward the rear end of the cylinder may encourage the separation. So might mild heating. All residue and/or rust must be cleared from the cylinder pin hole and anew pin installed to eliminate the overly worn area at the existing pin's rear.

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Besides the clean up, a gun this old should have all its internal parts closely examined. It is quite possible there's more than one worn out spring in need of replacement along with the hammer. 24 Savage A customer brought me a Savage 24S-A O/U .22LR/20 gauge combo gun which has the break open lever on the right side of the receiver. The solder joint between the lever and the pivot pin for the locking lug had broken loose.

I disassembled the receiver parts and trigger group and resoldered the parts together with a very good bond. The problem is, now I cannot figure out how to get the trigger group back into the receiver behind the locking lug with the locking lug spring in the right position. It appears to me that I will have to cut off part of the hammer spur to get it up through the receiver. Surely there is a better way but I need help in figuring it out. Any suggestions out there? I'm running out of gray hairs to pull out.

Stu Grell Grell's Gunsmithing We think you have a Model 24 DL and wonder if you're tried the reassembly with the hammer in its fully forward, or fired, position. We also wonder if the solder joint, hopefully a silver soldered one, ended up thick and added to the lateral depth of the hammer, thereby causing the problem. Check with Savage on your model of the gun by serial number. It's possible they have a hammer replacement. If not, there's always the aftermarket.

Hi Standard Double Nine I have a Hi Standard Double Nine .22 revolver with a worn out barrel. This gun has an alloy frame. How do I remove the barrel without damaging the frame? I've removed the retaining pin but the barrel refuses to budge. The alloy frame worries us. So does your non-mention of a good, non-marring barrel vise. The latter is available from

Brownells in several forms. For the frame, they also offer an action wrench and blank inserts you can machine to fit the contours of the revolver's frame.

Do not under any circumstances use a block of wood or metal inserted through the cylinder opening to crank off the frame once the barrel is secured in its vise. While that technique has been known to work with steel framed revolvers and shotguns we're not real sure about the strength of your frame. Bend it and you have a deep fresh water fishing sinker for your tackle box. Once the receiver wrench inserts have been well fit to the revolver you could try a couple of things.

One is the old cold/warm technique, with the receiver being warm and the barrel having undergone an icing near its union with the receiver. Another is to add a cheater bar to the action wrench providing you with more torque. But remember what we mentioned about that fresh water sinker. High Standard M-200 I'm looking for info on the High Standard M-200 12 gauge pump action shotgun, specifically, assembly/disassembly procedure.

Too bad the old High Standard went out of business and the company now making High Standard pistols, Firearms International, did not add shotguns to their production line. Such is the way things are and we can offer you little beyond two contacts. One is Mike Orlen, for many years our primary shotgun contributor and now doing business at michael.orlen@verizon.net. The other is G. W. Elliott, Inc in Hartford, CT a primary source for High Standard parts.

NEF Handi Rifles I have several NEF rifles in the shop with the same problem – a H&R, SBI Al Howard and a standard Handi-Rifle. None of them fire consistently. Sometimes there is ignition and other times there is only a light strike to the

primer. I have torn down the guns to check for burrs on the hammer and in the firing pin slot. One felt like there was some resistance to the firing pin going forward. The transfer bars are all the same thickness, although one does not have the angle top like the other two.

Dry firing the guns has the firing pin protruding 0.050 to 0.056 out of the firing pin hole. I know these rifles use the impact of the transfer bar into the firing pin and it can go father under impact and squeezing the trigger after firing shows an additional 0.010 to stick out. The hammer comes to rest on the back of the receiver with the transfer bar in place.

I would think that it would stop on the transfer bar instead of the receiver, however, I'm worried that the hammer will hit the back of the transfer bar if I file it down. Am I looking at this wrong or is there something else I'm missing? Dave Manney Locke, Stocke, and Barrell A differing transfer bar indicates that particular Handi-Rifle may not have been produced by the recent H&R entity H&R 1871. Lately acquired by Freedom Arms Group (Remington, Marlin, Bushmaster, NEF and who knows who else by now).

Firing pin protrusion on the Handi-Rifle was 0.066 but don't file the hammer until knowing more of the rifle's origins. Normally, one manufacturer will not service or supply parts for a gun made by another and the resistance you felt could be caused by an out-of-spec firing pin slot. Tom G Rossi Feed Problem I have been working on a Rossi copy of the Winchester Mod 1890 for a couple of weeks and cannot figure out what is wrong.

The rifle will fee one round from the magazine perfectly but if a second round is put in the magazine it will jam every time. Looking into

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the action and reveals that the second round (in the magazine) is against the bullet of the first round (in the carrier) preventing the carrier from pivoting up in line with the chamber. It appears that the shell stop in the carrier is not working but no matter what I do it will not catch the second round. I can work the action slowly with nothing in the magazine the carrier will stick in the down position but if I work it sharply it works every time. The rifle is very old and wear is probably the culprit.

Do you have a picture or a drawing of the shell stop's profile or any suggestions? Walter Erspamer You're correct as this firearm is probably in need of several replacement parts after a thorough detail cleaning has been completed. Work the areas in order, cartridge stop and stop pin, magazine tube, magazine spring and follower, carrier lever spring and screw, plus here unspecified others. Next steps, experiment with several differing brands of .22 LR standard velocity ammunition.

They are not all identical in length or rim diameter/thickness. Which ever the rifle likes and functions with best should be used consistently. Do not use .22 shorts as chamber cavitation can result causing hard extraction. Avoid rapid fire. Allow the trigger to fully return before pumping the action to open/recock it. AMT 1911 I recently installed an Ed Brown beavertail on my 1911. In order to do that it was necessary to also install a Commander-style hammer.

While I had the pistol apart I also replaced the sear and the disconnecter as I needed experience fitting the hammer/sear/ disconnecter lock work. Of course, it follows that I just had to replace the grip safety and thumb safety too. I checked all of the sizes and angles of the sear, disconnecter, and trigger. The trigger is a Wilson Combat but the sear and disconnecter are quality noname replacement components. Upon reassembly I found that the trigger wouldn't go back far enough to trip the sear.

In fact, the only way I could get the hammer to drop was to remove the magazine latch. After that the action worked perfectly but, obviously, the magazine wouldn't stay in. I ordered a longer trigger but discovered that the bow isn't longer. Instead, I curved the back surface about 1/8" of the original trigger with my Dremel tool. The trigger now curves nicely around the magazine catch, the action works fine and the gun meets all of the safety checks.

I took it to the range this morning and flawlessly fired 100 rounds of hardball ammunition. Did I screw up by modifying the trigger? Is there another way of solving the problem? One gunsmith told me that I had to modify the sear notch on the hammer. Another gunsmith informed me that any combination of sear-disconnector should work and I was stupid to attempt work like that. The last gunsmith said that my AMT Government 1911 was the problem— it was made by AMT!

I responded by telling him that I had it for 6 years and I put about 3000 rounds through it per year. It has never failed me in any way whatsoever. In fact, I was so impressed with AMT that I also bought an AMT Hardballer. It, too, has never failed me. David Kraykovic We feel we must begin our response with a question. If your AMT was working well—3000 rounds/year—what prompted you to want a beaver tail on it other than a cosmetic yen?

Such niceties may help avoid the dreaded slicing of the skin between your thumb and index finger but so will lowering the position of the hand on the grip and beavertails do not mechanically enhance accuracy. It's possible the AMT frame was not manufactured to Colt specifications and M1911 parts meeting those specs may not fit. For example, we know Ed Brown manufactures his M1911 components to Colt specifications and not to those of AMT.

It might not have been the mag catch that was causing the problem but the frame itself being too high and preventing the trigger from being fully cocked by blocking it. At any rate, application of the Dremel, in your case, appears to have resolved things. Jerry Kuhnhausen's Shop Manuals on the Model 1911 would help you. AG

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