



NOV 2023

DIGITAL ARCHIVE
EDITION

PRECISION ARMS WORKSHOP

AND THE AMERICAN GUNSMITH ARCHIVE

A TECHNICAL JOURNAL OF CRAFT, REPAIR & RESTORATION

11

ARCHIVE ISSUE NUMBER

INSIDE THE ARCHIVE

WORKING THE S&W 61 ESCORT

WALK THE TALK AMERICA • ADJUSTABLE SHOTGUN COMB OPTIONS • WORKSHOP IMPROVEMENTS • MODERN CUSTOM ...

ORIGINAL METHODS. MODERN ACCESS.

ARCHIVE EDITION 239

DIGITAL ARCHIVE EDITION

Preserved for the bench.

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

ABOUT THIS EDITION

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

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

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



AMERICAN GUNSMITH

DIGITAL ARCHIVE EDITION • NOVEMBER 2023

ISSUE RECORD

ORIGINAL DATE	November 2023
VOLUME	Archive volume not stated
ISSUE NUMBER	11
SOURCE ID	ag-a20a55f63affa3436b9a97d3

DIGITAL EDITION

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

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

IN THIS ISSUE

Contents

A complete guide to the searchable editorial work preserved from November 2023.

2 Walk The Talk America
AMERICAN GUNSMITH EDITORS • ORIGINAL PAGES 2

3 Working the S&W 61 Escort
BRIAN R. SMITH • ORIGINAL PAGES 3-9

10 Adjustable Shotgun Comb Options
SERGEY LYALKO • ORIGINAL PAGES 10-11

12 Workshop Improvements
KENNETH FINLEY • ORIGINAL PAGES 12-16

17 Modern Custom Revolver
ROBERT K. CAMPBELL • ORIGINAL PAGES 17-20

21 Radical Refinishing
JON P. LEWIS • ORIGINAL PAGES 21-22

23 Reader Forum
AMERICAN GUNSMITH EDITORS • ORIGINAL PAGES 23-24

FROM THE ARCHIVE

Walk The Talk America

BY AMERICAN GUNSMITH EDITORS NOVEMBER 2023

ORIGINAL PP. 2

Common hysteria to the contrary, two-thirds of deaths where a firearm is used are suicides, which is doubly sad as no gun control “solution” even pretends to address this.

Proposition Paper 72 by Mental Health America, the longest-running mental health organization in the country, plainly states they don’t take an issue with firearm ownership. “MHA does not take a position on policy measures such as gun control because it is not part of MHA’s core mission.” Only 5% of people that battle with mental health are actually violent. Worse, the stigma placed on mental health is just as bad as the one put on the firearm industry.

One example of this stigma is the statistic that 22 veterans take their own lives every day (one suicide every 65 minutes). The Military Veteran Project started their 22 A Day awareness campaign to prevent military suicide through treatment and research not accessible or available by the Department of Defense or Veterans Affairs, adding in the stigma of being viewed as “weak” for seeking needed help.

In July 2018, Walk The Talk America (WTTA) was founded to reduce firearm suicides and other negative incidents associated with firearm ownership in an effective manner without wrongly blaming it on guns.

Created by Michael Sodini, a firearms industry veteran that worked for and eventually became president of Eagle Imports Inc., this was started as a movement within the firearms industry to bridge the gap between mental health professionals and the firearm industry and gun owners to reduce suicide by firearm and gun violence.

Through educational programs, podcasts, and training programs, WTTA is paving the way for educating mental health professionals about gun culture and breaking down the negative stigmas around mental health for gun owners.

Through its various programs and offerings, such as instructional flyers and slides for firearms instructors, classes in Cultural Competence, and Introductory Courses in The Intersection of Guns and Mental Health, WTTA is leading the conversation and opening doors throughout the firearms industry and mental health industry. Many are battling something internally and mental health is something that affects us all.

Many people we may know or are close to are one degree away from it, possibly including family, friends, partners, or colleagues. For more information on how to become involved, visit WalkTheTalkAmerica.org. There you can take and direct others to the WTTA Mental Health Screening Test. Following the screening, you will be provided with information, resources, and tools to help you understand and improve your mental health.

In addition to online screening resources, WTTA provides information sheets/brochures and instructor materials for free download. The Cultural Competence Classes, offered online as introductory and intermediate versions, help educate medical and mental health professionals about the reality of gun owners (not false media hype) and to give gun owners a better understanding how those professionals do their jobs. John M. Buol Jr. AmeriGunsmith.info

RIFLES

Working the S&W 61 Escort

A diminutive Smith & Wesson Model 61 Escort found a new, young caretaker who brought it in for once-over.

BY BRIAN R. SMITH NOVEMBER 2023

ORIGINAL PP. 3-9



Above right: The tiny 5+1 shot Model 61 Escort is the smallest pistol made by Smith & Wesson. Short-lived, it was chambered in 22LR and introduced in 1970 and marketed into 1973 with a reported total of 64,938 units produced. Below right: The inspiration for the Model 61 Escort was the 1908 Pieper Bayard; the resemblance is remarkable, down to the configuration of the extractor and ejection port.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Above right: The tiny 5+1 shot Model 61 Escort is the smallest pistol made by Smith & Wesson. Short-lived, it was chambered in 22LR and introduced in 1970 and marketed into 1973 with a reported total of 64,938 units produced. Below right: The inspiration for the Model 61 Escort was the 1908 Pieper Bayard; the resemblance is remarkable, down to the configuration of the extractor and ejection port.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED

Ve I observed that we are seeing long-term collections being liquidated apace as aging firearm enthusiasts fire their final shot. A young collector who has been regularly adding to his growing stable of firearms recently showed up with his latest acquisition, a Smith & Wesson Model 61 Escort in 22 Long Rifle. Anew caretaker of a given firearm has become a sort of recurring theme for me.

I checked through American Gunsmith back issues and did not see a previous Model 61 article so it made sense to take some photos and do a write-up. The Model 61 only seems to be of interest to serious S&W collectors if it is unfired at best, pristine at worst, and accompanied by the box, papers, and cleaning kit. This only if a given Escort is of a certain production range and left the factory with a royal blue zippered vinyl pouch with “Smith & Wesson” stamped thereon.

Run-of-display case Model 61s exhibiting wear, scratches to the grip panels, and missing the box and factory papers are seemingly not of much interest beyond be-

ing “shooters.” I have an FFL friend of some 30 years now that frequently says, “First, second, and third generation S&W semiautomatic pistols are the best semis that nobody wants to buy.” Well, the little Model 61 is even more of an outcast if at all used and showing it.

In fact, if any S&W handgun has the reputation of a poor red-headed stepchild, it’s the 61 Escort. Back to the customer. The story young James told me was that his late grandfather had a blued / black Short-lived, it was chambered in 22LR and introduced in 1970 and marketed into 1973 with a reported total of 64,938 units produced. anodized Model 61 Escort with the mottled brown tortoise shell plastic grip panels that was the first handgun he had ever fired at the tender age of eight.

The events of the day made a most favorable impression on the boy, even though he can’t recall hitting anything with the little rimfire—no, the big deal was that he was firing his grandfather’s little pistol! He had a close relationship with the father of his mother, and when he saw the pistol in a

display case at a gun shop he knew he was taking it home. This is how it started for many of us when we were past 21 and had some earning and buying power.

There were particular guns with which we were familiar, and taught with by people who were important to us, not just relatives but maybe also friends of family members or neighbors. Some collectors were fortunate to be gifted firearms that had special meanings; others may have the guns but no longer have the people with whom they had close relationships who helped foster cherished memories of their youth. So it was with James’ new-tohim 61 Escort.

It didn’t come with a box or papers but was tucked inside a minty royal blue vinyl pouch. The pistol itself looked to be NIB with no blemishes to the finish and minor scratches on the tortoise shell grips. Inside, it looked darned near unfired. Looks can be deceiving and that’s why James brought it in; he was taking heed of the admonition to “have the firearm inspected by a gunsmith prior to firing.”

WORKING THE S&W 61 ESCORT CONTINUED

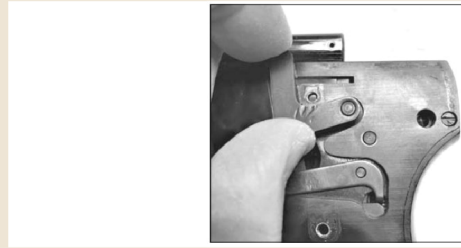
ORIGINAL PAGE 4



Above left: Pencil indicates the Ejector Screw which together with the left grip plate screw holds the ejector in place, the business end of which is on the other side of the slot in the frame sideplate.

Above right: Following removal of the ejector, the L-shaped disconnecter can be lifted straight out. The disconnecter pin is serrated at the left end and is a press fit in the stamped disconnecter. In most cases the two form one piece, but in some Escorts the pin is loose in the disconnecter.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Above left: Pencil indicates the Ejector Screw which together with the left grip plate screw holds the ejector in place, the business end of which is on the other side of the slot in the frame sideplate.

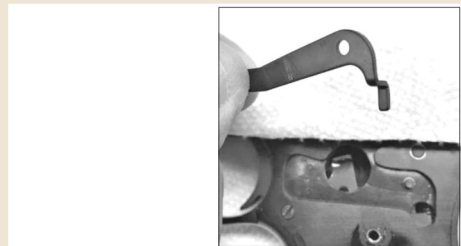
Above right: Following removal of the ejector, the L-shaped disconnecter can be lifted straight out. The disconnecter pin is serrated at the left end and is a press fit in the stamped disconnecter. In most cases the two form one piece, but in some Escorts the pin is loose in the disconnecter.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Below left: The manual safety pivots on the sear pin, and its S-shaped "tail" projects through the round opening in the sideplate shown at the bottom right corner of the photo. When removing or installing the manual safety, it helps to tilt the top of the safety lever away from the frame so that the end of the "tail" readily withdraws from or inserts into the sideplate. Below right: Three identical screws, one of which is still partially installed and indicated by the No. 2, retain the sideplate to left side of the frame. They are identical, so there's no need to keep account of them by a given hole.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Below left: The manual safety pivots on the sear pin, and its S-shaped "tail" projects through the round opening in the sideplate shown at the bottom right corner of the photo. When removing or installing the manual safety, it helps to tilt the top of the safety lever away from the frame so that the end of the "tail" readily withdraws from or inserts into the sideplate. Below right: Three identical screws, one of which is still partially installed and indicated by the No. 2, retain the sideplate to left side of the frame. They are identical, so there's no need to keep account of them by a given hole.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED

The disconnecter pin is serrated at the left end and is a press fit in the stamped disconnecter. In most cases the two form one piece, but in some Escorts the pin is loose in the disconnecter. Stepping back to 1970, the S&W 61 Escort was introduced to the market as a BUG (back up gun) primarily intended for law enforcement personnel and as a purse gun for women.

It was only cataloged three short years from 1970 to 1973 with a total production of 64,938 units in four engineering variants: Models 61, 61-1, When removing or installing the manual safety, it helps to tilt the top of the safety lever away from the frame so that the end of the "tail" readily withdraws from or inserts into the sideplate. 2, retain the sideplate to left side of the frame. They are identical, so there's no need to keep account of them by a given hole. 61-2, and 61-3.

About 10% of the total were nickel plated; the majority were blued. More correctly, the slides were blued and the aluminum frames

were anodized with a glossy, almost black finish similar to that of the S&W Models 39 and 59 of the same vintage. The Model 61 was for all intents and purposes a direct copy of the 1908 Pieper Bayard handgun made by the Belgian Anciens Etablissements Pieper located in Liege, famous for the 9mm Bergmann-Bayard handgun.

When both the Escort and the 1908 Bayard pistols are stripped and set side by side, there's no denying the Escort's inspiration. The 1908 Pieper Bayard and the Model 61 Escort are both notable in that their recoil spring arrangement is above the barrel instead of co-linear with the barrel or below the barrel as with most pistols.

S&W would revisit this concept with their family of pistols and variants ("Working S&W .22 Pistols", September 2019) issued as their "first generation" inexpensive 22LR semiautomatic handguns as alternatives to the pricey but accurate S&W 41 target pistol. The Model 61 "No Dash" was what gave the Escort its dodgy reputation. Shootability

problems were spotty but just too frequent; some of these Escorts run fine while others failed to feed, eject, cycle, etc.—essentially jam-o-matics.

I was in high school at the time of the Escort's introduction and recall a few men at the local gun club bought Escorts which had functionality problems that they attributed to ammunition. It's common knowledge that no 22LR cartridges are created alike, and some semiautomatic 22LR pistols and rifles just flat out prefer a diet of a certain make/model of cartridge.

As I recall, the one gent who let me fire two magazines full from "his wife's" Escort told me it ran best on CCI Mini-Mags, and that's what I fired, pulling the cartridges from his 100-round amber plastic box of that vintage. Not a surprise; Mini-Mags have been my own goto 22LR cartridges for decades when troubleshooting. Back to the 61 "No Dash". It's been written by gun writers one and two generations ago and re-

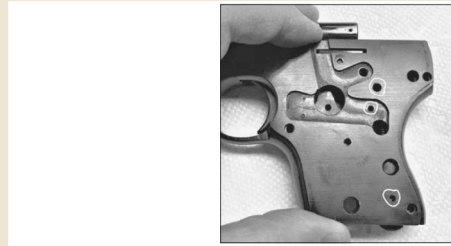
WORKING THE S&W 61 ESCORT CONTINUED

ORIGINAL PAGE 5



Above left: Before removing the sideplate, partially drive the three white circled pins (Hammer, Sear, and Magazine Release pins) halfway through to the right side of the frame, to both loosen the sideplate and still retain the internal parts in place and alignment. Then lift off the sideplate as shown. Above right: The trigger pin is shown removed from the frame. It is stepped on each end and thus retained by the sideplate on the left and the frame on the right and cannot be driven through either side. The trigger and trigger bar are readily lifted off the trigger pin while the pin is still in the frame.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



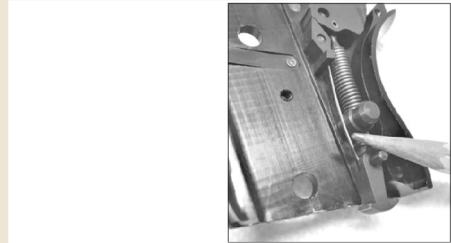
Above left: Before removing the sideplate, partially drive the three white circled pins (Hammer, Sear, and Magazine Release pins) halfway through to the right side of the frame, to both loosen the sideplate and still retain the internal parts in place and alignment. Then lift off the sideplate as shown. Above right: The trigger pin is shown removed from the frame. It is stepped on each end and thus retained by the sideplate on the left and the frame on the right and cannot be driven through either side. The trigger and trigger bar are readily lifted off the trigger pin while the pin is still in the frame.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Below left: The trigger, trigger bar, and trigger reset spring are shown in relative “exploded” positions removed from the frame. The trigger bar is rotated counterclockwise to the trigger to gain clearance for all three parts to be lifted out of the frame. The sheet metal trigger block is riveted to the frame and is shown in position horizontally in a shallow recess across the inside right wall of the magazine well. Below right: The combination sear and magazine catch wire spring is shown installed, with No. 2 pointing to where the spring fills a vertical slot in the mainspring retainer. Be sure the sear spring engages this slot during reinstallation because it ensures proper alignment of the spring.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Below left: The trigger, trigger bar, and trigger reset spring are shown in relative “exploded” positions removed from the frame. The trigger bar is rotated counterclockwise to the trigger to gain clearance for all three parts to be lifted out of the frame. The sheet metal trigger block is riveted to the frame and is shown in position horizontally in a shallow recess across the inside right wall of the magazine well. Below right: The combination sear and magazine catch wire spring is shown installed, with No. 2 pointing to where the spring fills a vertical slot in the mainspring retainer. Be sure the sear spring engages this slot during reinstallation because it ensures proper alignment of the spring.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED

Then lift off the sideplate as shown. It is stepped on each end and thus retained by the sideplate on the left and the frame on the right and cannot be driven through either side.

The trigger and trigger bar are readily lifted off the trigger pin while the pin is still in the frame. peated that when people returned their Escorts to the factory in Springfield, Massachusetts the S&W repair technicians would often take new guns off the line and The trigger bar is rotated counterclockwise to the trigger to gain clearance for all three parts to be lifted out of the frame.

The sheet metal trigger block is riveted to the frame and is shown in position horizontally in a shallow recess across the inside right wall of the magazine well. 2 pointing to where the spring fills a vertical slot in the mainspring retainer. Be sure the sear spring engages this slot during reinstallation because it ensures proper alignment of the spring, and then carrying out the repairs.

It makes for a good story, and I don't doubt that owners got new guns or major parts thereof, whether or not S&W duplicated serial numbers and destroyed the original guns or frames. Regardless, production of the 61 "No Dash" was 6,800, with serial numbers ranging from B1001 through B7800. The Model 61-1 was the first engineering change and it was a simple one. In May 1970 the factory incorporated a magazine safety that blocks the hammer when the magazine is removed.

Serial numbers of production Model 61-1 pistols range from B7801 through B9850. Total production of the Model 61-1, excluding any retrofitted pistols returned by customers for free installation of the mag safety was 2,550. Thus, the 61-1 is the scarcest, most collectible of the Escort pistol variants. hand stamp the serial number of the returned Escorts on the new ones.

As the story goes, it would have took too much time to sort out the problems by first defining them The Model 61-2 was intro-

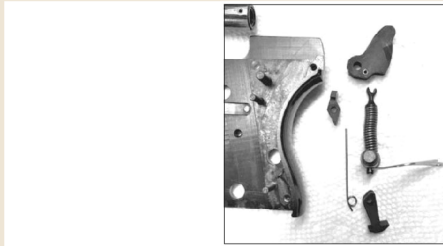
duced in September 1970 and featured a threaded barrel nut at the forward end of the barrel to robustly fix it in position in the frame. In contrast, the barrels in the Models 61 and 61-1 were pressed into the frame and could not be removed without difficulty, and some apparently worked loose from the cast aluminum frames with use.

Serial numbers of the 61-2 have been reported to range from B9851 to B40000, with an apparent total production of 30,150 of that variant being manufactured. The final engineering change, 61-3, was introduced in July of 1971 and featured a forged aluminum alloy frame as the principal modification. There were concerns with strength and longevity (wear resistance) of the cast alloy frames, and the stronger forged alloy frame was incorporated to address the perceived issue.

The disconnecter was also improved from a two piece design to a one-piece design of riveted construction and headspace was

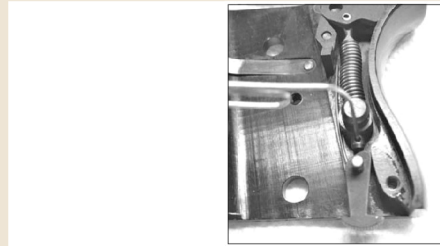
WORKING THE S&W 61 ESCORT CONTINUED

ORIGINAL PAGE 6



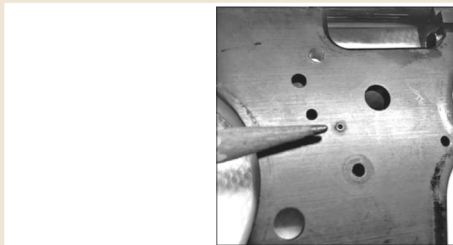
Above left: With the hammer cocked, a wire, brad, or Universal Gunsmith Tool (shown) can be inserted into the lower end of the hammer stirrup to keep the hammer spring (mainspring) compressed and remove force from the mainspring retainer and the hammer axis pin for easy removal. Note the correct position of the magazine catch, with the short side of the tail toward the magazine, and the long side to the back. Above right: The hammer, mainspring, and magazine catch component are shown in relative orientation outside the frame. The hammer strut fork engages a hardened roll pin in the hammer, which is not usually removed. The sear and magazine catch are shown in relative correct position, and a paper clip holds the mainspring compressed between the flange on the hammer strut and the mainspring retainer.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Above left: With the hammer cocked, a wire, brad, or Universal Gunsmith Tool (shown) can be inserted into the lower end of the hammer stirrup to keep the hammer spring (mainspring) compressed and remove force from the mainspring retainer and the hammer axis pin for easy removal. Note the correct position of the magazine catch, with the short side of the tail toward the magazine, and the long side to the back. Above right: The hammer, mainspring, and magazine catch component are shown in relative orientation outside the frame. The hammer strut fork engages a hardened roll pin in the hammer, which is not usually removed. The sear and magazine catch are shown in relative correct position, and a paper clip holds the mainspring compressed between the flange on the hammer strut and the mainspring retainer.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Below left: Pencil indicates the front end of the recoil spring guide tube, which is flanged at the front and supported by the boss cast (Model 61-2 and prior) or forged (Model 61-3) into the frame. The rear end of the small

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Below left: Pencil indicates the front end of the recoil spring guide tube, which is flanged at the front and supported by the boss cast (Model 61-2 and prior) or forged (Model 61-3) into the frame. The rear end of the small

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED

The hammer strut fork engages a hardened roll pin in the hammer, which is not usually removed. The sear and magazine catch are shown in relative correct position, and a paper clip holds the mainspring compressed between the flange on the hammer strut and the mainspring retainer. slightly reduced for improved ignition. Sources state that Model 61-3 serial numbers ran from B40001 to B65439, with a total production for the final Escort variant of 25,438.

Production ended in March of 1973, but guns continued to be assembled from existing parts until March of 1974. Despite the improvements, the damage was done. The Escort was not accurate, did not point naturally, most people could only get one and a half fingers on the grip, and the magazine only held five rounds. The look and ergonomics of the Escort were not appealing to most shooters, and it was a resounding commercial failure.

Through the end of 1972 and into 1973 Smith & Wesson pretty much couldn't give Escorts away. Disassembly To disassemble, first remove the magazine and remove any remaining. The rear end of the small ing cartridges. Rack the slide to verify that the chamber is empty as viewed through the ejection port. Press in the front of the recoil spring guide rod above the muzzle, and lift out the front sight.

Then remove force from the end of the guide rod and while controlling it, withdraw the guide rod and recoil spring from the front of the slide. Pull the slide to the rear and lift it up and off the recoil spring guide tube. For detailed disassembly, first remove the right side grip plate screw, and lift off the grip plate. A knife blade or thin plastic wedge (a sharpened credit card) may be needed to pry grip plates off the frame since the inside of the grip plates are not accessible from the magazine well.

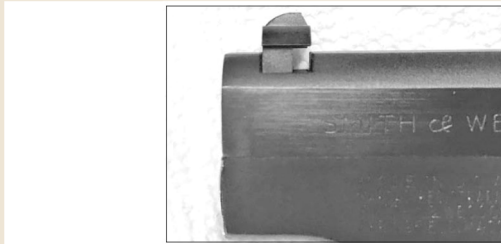
Next remove the left grip screw. Before removing the left grip plate locate the cocked hammer indicator pin at the top rear of the left grip plate. Note well: This pin is cammed out of the grip by the hammer, and is returned inside the grip by a tiny coil spring that bears against the inside surface of the left grip plate, which retains the indicator pin and its spring.

When removing the left grip plate, pay attention to the indicator pin as it may be adhered to the grip plate, and without care it may be lost. diameter guide tube is crossspinned with the larger diameter recoil spring retainer sleeve, which holds the guide tube in place. The recoil spring retainer sleeve doubles as a support and guide for the slide, as the scuff marks on the retainer sleeve surface attest. 2.

The trigger block is not removed unless damaged, requiring locating or making a suitable rivet for reattachment.

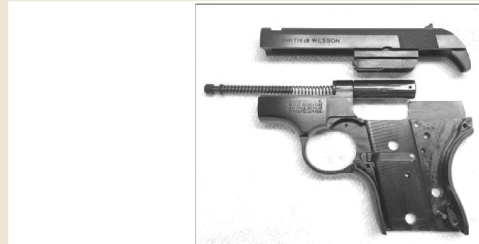
WORKING THE S&W 61 ESCORT CONTINUED

ORIGINAL PAGE 7



Above left: A semi-exploded view of the major parts of the Model 61 Escort, minus the internal bits. This photo illustrates how the boss projecting from the slide normally rides on the rear-projecting recoil spring retainer sleeve mounted to the top of the frame. There are rabbets in the bottom edges of both sides of the slide that act as guides for the slide alignment. Above right: Just as with the 1908 Pieper Bayard inspiration for the Model 61, the front sight is the "key" that unlocks the Escort for disassembly. It can only be inserted one way, and the front sight direction is the clue.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Left: The tiny five-round Escort magazine is of common design with a floorplate held in place by a nub on a spring plate engaging a hole in the floorplate. Factory S&W magazines have "S&W" stamped into the floorplate but are virtually unobtainium. Triple K offers newly manufactured replacements that are unmarked, and may require some tuning for functionality.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Left: The tiny five-round Escort magazine is of common design with a floorplate held in place by a nub on a spring plate engaging a hole in the floorplate. Factory S&W magazines have "S&W" stamped into the floorplate but are virtually unobtainium. Triple K offers newly manufactured replacements that are unmarked, and may require some tuning for functionality.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED



Left: The tiny five-round Escort magazine is of common design with a floorplate held in place by a nub on a spring plate engaging a hole in the floorplate. Factory S&W magazines have "S&W" stamped into the floorplate but are virtually unobtainium. Triple K offers newly manufactured replacements that are unmarked, and may require some tuning for functionality.

ORIGINAL ARCHIVE IMAGE • PERMISSION CONFIRMED

This photo illustrates how the boss projecting from the slide normally rides on the rear-projecting recoil spring retainer sleeve mounted to the top of the frame. There are rabbets in the bottom edges of both sides of the slide that act as guides for the slide alignment. It can only be inserted one way, and the front sight direction is the clue. With the left grip plate and cocking indicator removed, next unscrew the ejector screw and lift out the ejector.

The ejector is the nearly vertical T-shaped flat stamping whose upper forward end is the hammer. The hammer would fall when the trigger was pulled on every Model 61 whose slide was not fully forward when function checked by the author, possibly resulting in an out-of-

battery fire condition. Chambering around by "lowering" the slide forward invites this condition; "slingshotting" the slide sends it fully into battery and avoids trouble. The actual ejector component and protrudes into the sideplate.

The L-shaped stamped lever beneath the ejector is the disconnecter and it is retained by a cross pin that's serrated on its left end, the one that is in the hole in the disconnecter stamping. The disconnecter and pin are lifted directly up and out of the left sideplate as a unit. It is recommended to use an assist from forceps or small needle-nose pliers. Next lift the safety lever off the sear pin.

Rotate the top of the safety lever away from the sideplate as if it was hinged across its lower length, then lift the safety up and away

from the sideplate. Rotating it about its bottom edge serves to lift the safety up from its pivot pin and unhook the tab at the rear end of the safety from the sear. With the ejector and levers out of the way, select a proper-fitting slotted screwdriver tip and remove the three identical flat-headed screws that attach the sideplate to the frame.

These are interchangeable so there's no need to keep track of which screw came from which hole. Locate the cross pin just forward and slightly above the magazine. Factory S&W magazines have "S&W" stamped into the floorplate but are virtually unobtainium. Triple K offers newly manufactured replacements that are unmarked, and may require some tuning for functionality.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2640-P08-F01. Know the rights holder? Please ask them to contact us.
AG-436B9A97D3-A2640-P08-F01

S&W 61 Escort (Specifications subject to change without notice) 6701 Disconnecter 6702 Ejector 6703 Extractor 6704 Extractor Pin 6705 Extractor Spring 6706 Firing Pin 6709 Firing Pin Retaining Pin 6710 Firing Pin Spring 6711 Frame 6712 Hammer 6713 Hammer Pin 6714 Indicator 6715 Indicator Spring zine catch and push it partially out from left to right, so that the left end of the pin is just inside the magazine catch. It helps to use your bench block. Do the same for the trigger axis pin and sear pins.

Partially pushing the pins to the right makes removal of the sideplate far 6716 Mainspring 6717 Magazine Butt Plate 6718 Magazine Catch 6719 Magazine Catch Pin 6720 Magazine Follower 6721 Magazine Pin 6723 Magazine Spring Plate 6724 Magazine Tube 6725 Magazine Spring 6726 Mainspring Retainer 6727 Manual Safety 6728 Rear Sight 6729 Front Sight 6745 Stock, Right 6746 Stock Screw 6747 Trigger 6748 Trigger Pin 6749 Trigger Bar Spring 6750 Trigger Bar 6751 Trigger Bar Pin 6152 Stirrup Pin 6754 Recoil Spring Stop Pin 6755 Ejector Screw 6756 Trigger Block 6126 Trigger Block Rivet 6730 Sideplate 6731 Recoil Spring Guide 6732 Recoil Spring Tube 6734 Recoil Spring Retainer

6735 Sear 6736 Sear Spring 6737 Spring, Magazine Catch and Sear 6738 Spring, Recoil 6739 Sideplate Screw 6740 Slide 6743 Stirrup 6744 Stock, Left easier.

Do not attempt to drive out the trigger axis pin; it is stepped on both ends and can only be removed with the sideplate off. Grasping the sideplate at top and bottom, lift straight off. You may have to wiggle it, and you have the option of striking the frame with a soft faced hammer to loosen the sideplate in the manner of S&W revolvers. Note that striking the frame may cause the partially removed pins to fall out of the assembly.

With the sideplate off, lift the trigger arm away from the frame slightly and rotate it upward with spring force, then lift the trigger, trigger arm, and trigger reset spring assembly off the trigger pin and out of the frame. If the trigger pin comes with the trigger, so be it. Again, note that the trigger pin is stepped on both ends and larger in diameter in the center which makes use of the frame on the right side and the sideplate on the left side to capture and retain the trigger pin.

It bears repeating: Do not try to drive the trigger pin out of the frame or sideplate! Next, locate the wire form magazine catch/sear spring and note that it rests in a groove in the front end of the lower hammer spring seat. Unhook the upper end of the wire form spring from behind the sear lever and rotate it forward. At this point all forces are removed from the magazine catch, and its cross pin can be withdrawn from the right side.

Note that the groove for the magazine catch/sear spring is at the front of the symmetrical appearing magazine catch, and the catch is thus re-installed with the groove forward facing the magazine well. If the hammer is cocked at this point, insert the end of a Universal Gunsmith Tool (bent paper clip) in the hole in the lower end of the hammer strut to keep the hammer spring compressed, then restrain the hammer and trip the sear by pushing the lower end to the rear.

The unloaded hammer/hammer spring assembly can be lifted from the frame by dislodging the right side trunnion of the mainspring retainer and lifting the hammer up and off of the hammer axis pin. The frame is now fully disassembled.

WORKING THE S&W 61 ESCORT CONTINUED

ORIGINAL PAGE 9

Turning attention to the slide, the firing pin and its spring are retained by a pin in the conventional manner as with dozens of other pistol models; tap out the pin from left to right. The stamped sheet steel extractor is retained in its slot by a vertical pin that is larger in diameter at both ends and smaller in diameter in the middle. This pin is in turn retained by the spring steel extractor, which occupies the narrow diameter section of the extractor pin.

The extractor pin resides in a blind hole that is open at the bottom of the slide. To remove the extractor pin and the extractor, take a small diameter punch and push in on the extractor just behind the extractor pin and in the general area of the extractor spring.

The extractor must be pushed in sufficiently for the semi-circular bend in the extractor to clear the stepped extractor pin, which then can be pushed out toward the bottom by means of a very small punch, nail, or paper clip tip applied to the pin at the bottom of the extractor slot. When the extractor is pushed away from the extractor pin sufficiently, the extractor pin readily falls from the underside of the slide; a few taps of the slide on a bench block might also work.

Remove the extractor only if required, particularly to clean behind it or for replacement. The extractor, pin, and spring are the same as that used in the S&W model 22LR pistols. When reassembling a Model variant, take care to ensure that the right trunnion of the mainspring retainer is fully seated in its hole in the frame, lest it be launched when the Universal Gunsmithing Tool is removed from the hammer strut.

Before installing the sideplate, it helps to have all of the axis pins pushed about halfway out the right side of the frame, except for the stepped trigger axis pin which will project from the left side and act as a locator and align-

ment pin for the sideplate. Once the sideplate is on and in place flush, install the three sideplate screws and then tap the projecting pins into the frame from the right side. All of those pins are retained by the grip plates.

A final reminder to reinstall the cocked hammer indicator with its tiny coil spring toward the outside before attaching the left grip plate. The slide is reassembled to the frame in the reverse of disassembly; the slide is reinstalled on the round recoil spring guide tube and pushed forward into battery. The recoil spring and guide rod assembly are installed into the hole in the front of the slide spring-first.

Push the button end of the guide rod into the slide and insert the front sight into the notch in the guide rod. Rack the slide to check for function. A point of interest: The problems with the Model 61 “No Dash” were spotty, unpredictable, and partly rooted in the cast frame and lack of a robust barrel retention system that one is cautioned against taking on a Model 62 “No Dash” as a project to repair to improve reliability.

You may find yourself going down a time-suck rabbit hole on a pistol that spent its life in a drawer or gun cabinet and should have been returned to the factory like so many “No Dash” Escorts were early on. Smith & Wesson no longer supports the Model 61 and any gunsmith tackling a “No Dash” issues does so at his or her own risk. Just sayin’.

Dodgy history aside, like so many firearms that re-enter the secondary market as collections are liquidated, the Model 61 Escort has just enough nostalgia appeal for anew generation of young firearms collectors that one might find one walking through your door accompanying its new owner as one did for me. AG

FINISHING

Adjustable Shotgun Comb Options

Another device for an adjustable comb on competition shotguns. Here's an easier way to install an adjustable comb on stocks with empty space inside without blocking access to the stock bolt.

BY SERGEY LYALKO NOVEMBER 2023

ORIGINAL PP. 10-11

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2641-P10-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2641-P10-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2641-P10-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2641-P10-F02

'Ve I been gunsmithing for 40 years and one popular job I still receive often at my shop (Rustblue Gunsmithing, RustBluing.com) is installing adjustable combs on stocks. I've covered this before, such as in my "Shotgun Adjustable Comb Installation Tricks" article (December 2017). One important concern is the problem with installation of an adjustable comb on stocks with large hollow spaces around the stock bolt.

Here is a brief reminder: To fabricate an adjustable comb the top portion of the stock has to be cut for installation of the hardware, which allows for this piece to be adjustable in four directions—updown and left-right. Often this cut opens a bolt tunnel that allows needed movement of the adjustable comb but doesn't provide anything to attach the base to because of the hollow space underneath it.

Installation of any popular Graco Corporation (Graco-Corp.com), or Stock Positioning Systems (Stock Positioning.com), hardware for 25" is milled for the installation of an adjustable comb allowing up-down and leftright adjustment, such as the SPS base. However, now there is nothing to attach the base to because of

the hollow space underneath it. 25" thick. adjustable comb requires permanent attachment of the base above the stock bolt.

There are ways of installing these bases in the empty space such as by side gluing or other fixes. However, the deepening of this space by 0.25" down to allow movement often interferes with the stock bolt and creates an obstacle for manipulating it for gun disassembly or even tightening a loose action.

My usual fix (described in the article mentioned above) uses a much thinner base and provides more space for bolt manipulation, however, this base also has to be permanently attached to the tunnel area and solves the problem only partially. The permanent installation of a base into certain stocks creates a major problem for accessing a stock bolt. Tired of this problem, I have decided to change from the traditional approach.

Instead of using a permanent attachment of the bases to the tunnel area, create a base which is designed to be removable and can be easily taken out for manipulating the bolt and then easily put back. This new approach completely takes away the concerns about the major problems with installation of the base in an empty space and leaving an obstacle for the stock bolt.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2641-P11-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2641-P11-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2641-P11-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2641-P11-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2641-P11-F03. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2641-P11-F03

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2641-P11-F04. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2641-P11-F04

Aluminum Square Tube 6063-T52-Extruded serves well. The stock comb hardware attaches to the square base, which in turn is secured by screws from the side of the stock. After some search I have chosen a square aluminum profile with a specific size: 1" x 0.125" Aluminum Square Tube 6063-T52-Extruded. The square tube is sold by various metal providers and a size of 1x1" is convenient for installation into the stock after milling the tunnel with a 1" mill-cutter to the depth of an inch.

The idea is to fabricate a base-part which, as usual, enables four ways of comb adjustment but also is easily removable from and then put back into the stock. Milling a stock for

the ready part is an easy, one-step operation with a 1" cutter to 1" depth. The length of the tunnel can be chosen according to the length of the stock and is not critical. The posts and bushings for the comb adjustment can be used as provided from the Graco or SPS kits, but I normally make my own.

The comb hardware is attached to the aluminum square and the square modified to secure the comb. Screws secure the bottom attachment inside the tunnel of the stock. This is a preferable way to do it as completely hides these screws. However, if this bottom attachment is not what you want, as an alternative the part can be attached with side screws through the stock's side instead.

Conclusion This provides another option for mounting an adjustable comb base designed to be removable and can be easily taken out of the stock and easily installed back as needed using a square internal base secured to the stock tunnel's bottom or through the side of the stock. This way the problem of interference between the stock bolt and permanently installed base is totally eliminated as parts can be taken out of the way as needed.

This is quite convenient as the base is just a modified square tube that is readily available. In some cases, the stock bolt can be reached through the tube without removal. AG

FROM THE ARCHIVE

Workshop Improvements

The magic of turning your workshop outside-in!

BY KENNETH FINLEY NOVEMBER 2023

ORIGINAL PP. 12-16

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P12-F01. Know the rights holder? Please ask them to contact us.
AG-436B9A97D3-A2642-P12-F01

I came up with this project leading up to the Christmas holidays and have this Dickens-ish voice in my head as I write. To slightly misquote George C. Scott's rendition of Ebenezer Scrooge, "Kenneth Finley's cabinet making skills are dead as a doornail. Of this you must be certain or nothing wonderful can come of this story." I'm speaking of a bit of magic— not Christmas magic—but magic all the same. If you look in your shop, do you find yourself wanting more space?

I'd be surprised if you weren't as each piece of shop equipment takes up space. Of equal importance, each item you use the equipment for requires space about your tooling and I'm certain you have found space cramped on occasion. Inside corners often become liabilities, but what if I could show you how to turn outside corners into an asset? I found the idea for building a free-standing multi-function workstation in a kit plane builder's planning guide for freeing up shop space.

They assumed most kit builders would start building their plane in a garage where space would be a premium. I considered it because I had more shop tools than workbench or spaces to build more. I also had some scrap materials that I believed would lend themselves to the project, keeping the costs down. The project took shape on an old yellow notepad. I had a couple of doors from a set of school lockers I had scavenged a few years ago. I still had one set of lockers made of stapled-together particle board.

They are flimsy but were perfect for storing gunpowder which local fire marshal codes require to be stored in wooden, but not drawn to scale, not sturdy, containers. My daughter had one of those platform beds with drawers under it that she outgrew. The platform bed was constructed of cheap particle board that had disintegrated but I still had the drawers. I also had some 3/4-inch plywood decking that I had salvaged from an old store.

I threw all that into my "plan." Assuming a roughly square structure, the height and width of the locker doors set the basic di-

mensions. The doors were 14 inches wide by 37 inches tall. Allowing some depth for the thickness of the walls and a lip around the base, I settled on a 32x32" base dimension. This was close to what was recommended in the kit plane book. I also expected to build the top a couple of inches larger all around to keep from stubbing my toes while working.

Again, these dimensions are arbitrary and based on the materials I had to work with. Material choices were also arbitrary as I used what I had with the consideration that I wanted a mobile structure that would be rock solid but still not break the budget. With the rough design established, I began to think what operations could most easily share workspace back-to-back. I was certain the lathe was not a good choice, nor was my welding rig as I do not like sparks or open flame around a wood structure.

I planned to route electrical and compressed air up through the center of the column, so including a power distribution strip seemed easy enough. As a preliminary choice, I elected the

WORKSHOP IMPROVEMENTS CONTINUED

ORIGINAL PAGE 13

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P13-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P13-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P13-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P13-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P13-F03. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P13-F03

It is always a good idea to countersink screws for a smooth finish. Far The sides and dividing wall in an "H" pattern were fastened to the base using wood screws and white carpenters' glue. The lines drawn on the base told me where to drill for the screws. band saw, belt sander, drill press, and grinder. You may decide a different set would be more useful. Base and Structure As a first step, I constructed the 32x32" base plate.

It is composed of two layers of 3/4" plywood glued and screwed together with all screws countersunk to avoid snags. Using a carpenter's pencil, I drew the outline of the workstation on the base. I then drew corner-to-corner diagonals to locate the center feed where I would run electrical wiring and an air hose up the center of the structure. I took a 3" hole saw and drilled through the center for power and air. I had a spare set of heavy-duty castors laying around and I fastened those to the base as well.

My locker doors set the height of the column. I measured the two sides to be an inch taller than the doors for some swing room. As a re-

sult, the sides are 31x38". I also created a center dividing panel to join the sides in an "H" pattern. I offset the dividing panel to allow more depth on the drawer side. This also allowed clear passage for cords and hoses coming up from the center of the base. The primary H-frame was secured to the base using the usual glue and screw method.

Since all of the plywood was salvaged, there was some warp encountered during the construction. I pulled it as straight as I could during assembly. As a final step, I added 2x4 stringers across the open sides to hold the correct dimensions across the top. The left-over space is handy for storing odd lengths of materials like gunstocks when working on actions. My drawers were not as wide as the width of the workstation. I added a second vertical partition to support the drawer runners at the proper distance.

Scrap 2x4 set the proper spacing top and bottom, leaving along, narrow space on the side for storing awkward long pieces of material. I also used the glue and screw method to secure the new partition to the cross partition

of the basic "H" framework. Scrap pieces of wood as horizontal stringers on each side of the panels support the drawers when slid into place. Again, I am no cabinet maker and this was intended to be a functional shop utility built on a budget.

Work Surface The one place I spent money building the cabinet was the top. Up to this point, it was open. I wanted the workstation/bench work surface to be sturdy and easily repaired if needed. I purchased new 2x6 boards to build a solid bench top fastened to the 2x4s I used to true up the top of the base frame. I used countersunk wood screws so the top would be reasonably smooth. The 2x4 framing underneath allows for a very robust mounting and allowing some overhang, my actual worktop surface is 36x36".

It is solid and takes the weight of the shop machine tools easily. The top could have been completed with

WORKSHOP IMPROVEMENTS CONTINUED

ORIGINAL PAGE 14

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P14-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P14-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P14-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P14-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P14-F03. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P14-F03

The 2x6 construction is solid and vibration resistant. Note the overhang on the edges making it easier to stand close to the work surface. A piece of kitchen countertop and worked just as well but at the time of the build, the 2x6 boards were easier to obtain. Once the top was installed, I drilled out the very center to allow passage of power cords and an air hose. With this arrangement, all power cords are inside the cabinet, protected and out of the way.

A simple heavy-duty power strip mounted under the worktop provides power for all the tools. After some thought, I arranged for the power cords to fall down between the back of the drawers and center partition. That left the cabinet space on the other side completely free. I now had a sturdy “island” multi-function workstation I could move around. This was a spare time project and one surprise was once the worktop was in place, even though incomplete, the workstation was immediately useful.

The first tools moved in were a sander, drill press, and grinder, with all three easily sharing space on top of the cabinet island. The handiness of having these three available in closer proximity made itself immediately apparent.

I had to fabricate a couple of small metal parts for a shotgun I was working on, and being able to move quickly among these three reduced my work. Salvaging them from a defunct bed frame gave them a new lease on life and generous storage for small accessories supporting the tools mounted to the workstation. Time. The band saw soon followed when I cut out some small wood pieces for pistol and revolver grips that needed shaping and mounting holes drilled. As an aside, I host an annual pinewood derby workshop.

This setup has provided facilities for car design and execution, allowing three families working at once on various stages of car building. If you get the chance, it is a very re-

warding way to spend a day. Drawers and Doors My next opportunity was installing drawers. They had been collecting dust for years but were still serviceable.

The drawers give me a place to store bench tool accessories—bits for the drill press, special clamps, a V-brace for drilling round objects, and a three-way milling fixture to use in the drill press for small milling projects. That is just the first drawer. The drawers do not take up the entire vertical space available. I had originally intended to mount them close the top and leave an open space below to store odd-shaped objects.

On reflection, I installed them from the bottom up, leaving the space at the top to make it easier to access the power strip mounted on the underside of the worktop. I am planning to add a pull-out flat

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P15-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P15-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P15-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P15-F02

The space behind can be configured to the builder's specific need. work surface to extend the possibilities of the workstation when the materials are available. To hang the doors, I needed some hinges. I scrounged a couple of pairs from an old cabinet upgrade project. They had fancy bends that I straightened using my arbor press, working slowly so metal wouldn't break. As I said earlier in the design phase, the island height was set by taking the locker door height and adding an inch.

A small piece of shim wood placed just under the doors when hanging them provided just enough height to open and close freely. For now, the cabinet space behind the doors is open. Once I decide how I want to use that space, I will install a shelving system. Tool Arrangements My rough sketch included a piggyback tool arrangement. This came about because I have one heavy duty grinder with coarse and fine shaping wheels complimented with a smaller Edison outfitted with wire and polishing wheels.

One risk using power to polish metal is being too aggressive can overheat and "burn" the surface. The Edison's motor is low torque and low speed, great for rust removal, deburring, and polishing without risk of overheating metal. This is especially critical for small or thin parts and also a factor for making and sharpening knives. I often move between the larger grinder and the Edison during metal shaping and polishing operations and decided to piggyback the two on the benchtop.

Placing the Edison on bottom turned out to be the better arrangement, a fact learned after a couple of impromptu projects. For the framework, I shifted from 3/4" plywood to 1/2". Again, all the wood I used was from my scrap bin; even the screws were left over from another project. The frame is still very solid with long screws fastening the frame to the benchtop. Placing the mounting The heavy piggyback frame does not vibrate when using the grinders and provides a stable platform.

The platform also provides a sturdy mount for the vertical post supporting an air hose and the Foredom tool. screws on the outside of the framework makes it easy to remove the frame if sections of bench top ever need replacing. There is sufficient room to move the Edison to the front for easier access with awkwardly shaped parts. While designing the piggyback for the grinders, I decided to add a good place to mount a Foredom drill motor.

I decided to mount a vertical post (a left-over piece of wooden clothes rod) to the back of the piggyback platform. I drilled it to fasten it to the platform side and drilled the center to insert an arm constructed from a file folder hanger salvaged from a defunct set of file cabinets. While shaping the hanger, I decided this would also be a good place to hang the air hose from my compressor out of my way.

With the Foredom suspended near the center of the workstation, its functions are available anywhere I need them. Having had several generations of Dremel tools

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2642-P16-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2642-P16-F01

There is plenty of room for more. The necessary space required for routing cables is shared at the rear of each device, leaving the front and sides unobstructed. Over the decades, I have plenty of bits for the Freedom. I took advantage of the solid core construction of the repurposed locker doors to provide storage for over 100 bits.

I have room for plenty more, and all are easy to reach at need as I laid out various bit spacings on the door and finally decided my big fingers needed more space between bits, deciding on one-inch spacing for each. I used a drill frame jig to drill an open grid of 45-degree holes, allowing grouping bits by type. Spare collets, polishing compound, sanding drums, and cut-off wheels are stored in one of the workstation drawers. With this arrangement, I can expand the storage if needed.

It is always handy to have compressed air around the workstation—for cleanup, if nothing else. I decided to use a scrap piece of air hose and fittings to feed air up through the center of the workstation. This allows me to feed compressed air along with electrical power. I only have to deal

with one air hose and one power cord to supply the workstation. Once I routed the hose to the worktop, a coil hose gives me flexibility. Conclusion The fully operational workstation has multiple shop tools sharing their space.

By careful planning, I combined six shop station functions onto a surface measuring one square yard. While my original drawing had my tools placed on the corners, after some use, I shifted to the sides. On the corners, there was some equipment overhang—acceptable for a graceful individual. As I have now passed 70, I am not so graceful and using the sides provides me a margin of safety. My multi-function workstation build was a seat-of-the-pants, learn-as-you-go journey. The design evolved as I built.

If you are space challenged, you will be amazed at how much this opens up your options in small workplaces. Hopefully, what I learned will save you some grief during your own project design and build. Some of the ideas I incorporated may inspire unique innovations for your build. For example, before I settled on the pullout shelf space, I considered using an old piano

hinge to have a spare work surface hinged on one of the smooth sides that could be unfolded from the side at need. Mine is a rawwedged utility space.

A friend of mine is wonderfully skilled at woodworking and builds all his shop accessories using beautiful birch plywood. If he were to build one of these, I'm sure it would be furniture quality—a work of art. I've received feedback that my station is too high for some. I could have shortened the locker doors and built something less elevated. When I was working on model railroads, I got used to benchwork at eye level. For me, having a tall workstation is less fatiguing and easier on the eyes.

On the other hand, I didn't anticipate how high the castors would lift the whole platform. I may at some time remove those, though I have been using a little stepstool and that seems to work really well. You do what is right for you. The workstation gives you four outside corners to work around sharing the waste space typical behind large machine tools. The outside-in aspect of the extra four corners works a satisfying spaceutility magic. AG

HISTORY

Modern Custom Revolver

BY ROBERT K. CAMPBELL NOVEMBER 2023

ORIGINAL PP. 17-20

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P17-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P17-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P17-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P17-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P17-F03. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P17-F03

When it comes to revolver fit, the tolerance and accuracy found in modern guns are the best ever. I won't argue that some classic revolvers are examples of the gunmakers' art to be admired. Just the same, for hard use there are modern revolvers that need not take a second place to anything that leaves Smith & Wesson's doors. Stainless steel construction, improved grips in both material and design, target grade flat sided barrels, seven shot cylinders in the L Frame, and superb actions are among the advantages.

There are also drawbacks. We addressed issues with the Smith & Wesson action key lock sometimes called the "Hillary Hole" previously. Removing this lock is deemed prudent for those using heavy loads and intending to engage in pursuits leading to a high round count. Not that a great many of these locks fail—in fact, the number is very small—but you and I don't wish to be the fellow who drowns in a creek of average three feet depth.

Statistics are fine and give confidence the gun will not fail but possibilities are endless. I like to remove known possibilities of failure even if they're unlikely. In this custom build I have removed two trouble-prone concerns. Another drawback that has existed for many years is the relative fragility of adjustable sights on revolvers. I say relative as there are examples Far just the same, there is room for improvement.

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P18-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P18-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P18-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P18-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P18-F03. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P18-F03

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P18-F04. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P18-F04

in use that have not given a problem since 1937. They offer the shooter the ability to properly sight the revolver in for the given load, be it a 148 grain 38 Special wadcutter at 700 feet per second, a 125 grain Magnum at 1400 fps, or a 180 grain cast flat point at 1200 fps. That is a wide range of bullet weight and velocity and this means a widely diverging point of impact. These micro click sights take a lot of use but not so much abuse.

I have lost count of the number of police revolvers I have seen with the rear sight cleaned neatly away. Sometimes the assembly is ruined, sometimes just the blade. Since these revolvers were worn on the point of hip on a uniform belt they often meet door jambs in buildings and door posts in vehicles. This is why fixed sight revolvers were preferred for police use. While the sight picture isn't as good and there is little room for adjustment, the fixed sight revolver is a more rugged design.

For this custom build I began with an L Frame Smith & Wesson revolver. The 686 Plus is a formidable piece in most ways. The unfluted cylinder has seven chambers and the revolver features a flat sided target grade barrel. The rear sights are fully adjustable with the front sight semi dovetailed and adjustable as well as replaceable. The action is as smooth as any modern handgun. The checkered grips are nicely done. I wished to end up with a rugged go-anywhere, do-anything revolver.

I have replaced, retired, or traded several "outdoors revolvers" in 38 Special, 45 Colt and 357 Magnum. I prefer a revolver on the hip when hiking and traveling in territory that may harbor dangerous animals, although I suspect they look upon us with the same suspicion we do a burglar or trespasser. Just the same, I think I am on moral ground in preventing them taking a bite of myself or my grandchildren. Feral dogs and dangerous, mistreated domestic dogs are a troubling concern.

The 357 Magnum is a good answer for these threats. The revolver would also be suitable for daily carry and home defense. This means a medium size revolver with a modest barrel length. It is not a hunting revolver but it is a very accurate handgun. Since defense use is part of the profile the revolver had to be double action. The Smith & Wesson Pro series features a cylinder cut for moon clips.

The seven-shot clips, available from TK Custom (TKcustom.com), makes for very fast speed reloads that are easily carried but the pistol also functions fine without the moon clips and can also be reloaded with conventional speed loaders. Once the revolver was obtained it was test fired with a variety of ammunition. As expected the custom shop gun functioned well.

As previously outlined in these pages in modifying a Smith & Wesson 625, I removed the action lock and replaced it with a titanium Lock Delete from Original Precision (OriginalPrecision.com). Perhaps a stainless steel version would have

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P19-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P19-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P19-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P19-F02

been better but I like the look and the install went smoothly. On to the sights. While the sight picture was fine and the easy adjustment good as-is, I didn't wish to press a 357 Magnum revolver into hard use with target sights. I began a search for sturdy fixed sights and found them at D&L Sports (DLsports.com, D&L Sports is well known for 1911 and revolver work as well as other firearms. They offers two sizes of S&W revolver fixed sights for J, K, L, and N Frame revolvers.

These sights are snag free and melded to avoid snags as well as offering an excellent sight picture. They also offer pin-on front sights for those S&W revolvers supplied with this system. The revolver illustrated is an L Frame from the S&W Custom Shop and these modern guns make the addition of high It is removable and doing so makes the revolver more reliable. visibility fixed sights much easier.

Under the adjustable sight body of these handguns are three holes already drilled in the frame or upper receiver commonly referred to as the topstrap using common 6-

48 taps. While the Torx screws supplied by D&L Sports were perfect for my revolver, they warn that topstrap thickness differs between revolvers and that you may have to shorten the supplied screws. No problem there for most applications. First order of the day is removing the S&W adjustable rear sight on the top strap using a 30-2 screwdriver bit.

The sight will easily press out. Most shooters do not realize there is a track in the topstrap the rear of the sight slides into. A square bottom secures the sight and the adjustment/elevation screw rides in this base. If it isn't properly lined up when you push this sight into its track, move the sight adjustment screw until it is square with the track. Don't pull up but press the sight to the rear for removal. The sight is held by a single screw.

The D&L sight is carefully slid into place and should be a snug fit in the tang track. The stabilizing lug on the bottom of the D&L sight should slide into the semi circle recess at the rear of the top strap. If it doesn't slide in easily enough, carefully sta-

bilize the sight with your thumb and lightly tap the sight into place with a rubber hammer until it is seated. Lightly oil the recess before this procedure.

D&L tells us that if the dimensions do not mesh then the sight may be slightly oversize and is easily dressed down. I hope all installments go as smoothly as the one illustrated. I locked the sights down with the supplied screws, tightening each in turn until they were locked in rather than tightening just one completely first. It always seems things seat better this way. The proper bit is the 3-32 used in my Real Avid kit.

Check the revolver topstrap and be certain the screws are flush rather than protruding; the cylinder can be scratched with overly long screws. D&L offers tips on how to shorten the screws but I did not experience this difficulty. D&L recommends blue Loctite be applied to the screws holding the sight when installation and adjustments are complete.



ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2643-P20-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2643-P20-F01

It is possible to adjust the rear sight with machine work and the front sight may be moved as well. Elevation adjustment may be done on the rear sight and you may use standard adjustment procedure with these sights. I did not order a D&L front sight but may well make the leap and order one in the near future as it isn't difficult to change it.

D&L also notes that the S&W Carry Comp Model 19 has an undersized tang groove at least in some models, stating 0.001 is required to be removed from the sight tang to square things up. This would be simple enough but I have no first hand experience with this as my sight installation was trouble free.

After removing the lock and replacing it with the Lock Delete insert and then fitting fixed sights, I felt that the revolver was well suited to hard Far use. The action was left as issued. I am not going to touch a stone or file to metal injection molded parts and neither should you. This is a rugged hard use revolver.

Two parts, the action lock and the adjustable rear sight, have been removed in order to increase the revolver's viability for hard use in the wild and also for defense use. The fixed sight design is also far less likely to snag during a presentation from concealed carry. I find the revolver as modified a cut above the factory-issued version. AG

FROM THE ARCHIVE

Radical Refinishing

Two refinishing jobs, one involving a corrosive situation and the other a potentially dangerous job rendering safe and restoring a still-loaded revolver that had rusted shut.

BY JON P. LEWIS NOVEMBER 2023

ORIGINAL PP. 21-22

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2644-P21-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2644-P21-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2644-P21-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2644-P21-F02

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2644-P21-F03. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2644-P21-F03

Having served in the Army for 26 years, one of my many job tasks was as the Unit Armorer. I also served for 17 years in Army Civil Service as— you guessed it—the unit armorer. Technically, I was the supervisor for the arms room, but not having an assigned unit armorer made me it. I was around when the Army “force fielded” (the process of taking away old equipment and replacing it with the latest and greatest of what the Army had to offer) the Beretta M9 9mm semi auto pistol.

I was there for the force fielding of the M9 to replace the M1911, the M16A2 to replace the M16A1, the M249 to replace the M60, the M4 to replace the M16A2, and the M17 to replace the M9. As for the M9, I found the Beretta factory bluing on the barrels does not hold up well to moisture and readily rusts. Over the years I have attempted several different methods of rust mitigation on barrels and have handled countless thousands over the years.

One of the reoccurring maintenance issues was rust forming on the barrels of the M9 and the similar civilian Model 92FS. One of the better methods I used was to scrub the rust off using a green scouring pad and then to use a cold blue. Afterward I would liberally coat the offending part with molybdenum disulfide grease and bake it for an hour at 275 degrees. This method proved to be better than others but rust would eventually return to haunt me.

I used the baked moly grease method for several years until I tried Parkerizing the barrels. This has proven to be a far superior method. The Parkerizing holds oil and prevents rust while also lending itself to visual aesthetics. If you find yourself with a firearm that has a reoccurring rust problem, consider Parkerizing it. While it takes longer to bring the solution up to temperature than it does to apply the finish, the process is easy and takes less than 15 minutes.

Here’s a summary of the procedure as I do it for M9 barrels. Place the barrel assembly on a soft surface. With a 1/16-inch punch, lightly

tap out locking block plunger spring pin. Remove the locking block plunger from the rear of barrel, then remove the locking block by sliding the locking block out of either side of the retaining notch. Reassembly when finished is simply reversing this procedure. Prepare your Parkerizing solution.

Kits are available from Brownells, Lauer Custom Weaponry Duracoat Firearm Finishes (DuracoatFirearmFinishes.com), Allegheny Arsenal (MG34.com), Amazon, and other places. Follow their instructions. Using either rubber stoppers or corks, plug both ends of the barrel and apply some silicone grease to the feed ramp. This will help to prevent the finish from forming on the feed ramp from the Parkerizing solution.

If any finish does form, use a rotary tool with a felt spindle and some fine diamond paste to polish the finish from the feed ramp. Parkerizing is a favorite finishing method and I think you’ll like it as well.

RADICAL REFINISHING CONTINUED

ORIGINAL PAGE 22

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2644-P22-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2644-P22-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2644-P22-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2644-P22-F02

Dangerous Restoration A few months ago, a friend brought in a Ruger New Model Blackhawk Revolver chambered in 45 Colt (popularly referred to as the 45 Long Colt) that a friend of his had found in one of his fields. Based on the serial number, the revolver was made circa 1974, however, my attempt to raise the serial number using a strong acid solution failed to reveal the last two digits as they were obliterated by rust.

I estimate that it had been laying in that field for at least 40 years as it was completely rusted and the wood grips had disintegrated. To add to the excitement, the revolver was still loaded and was rusted to the point of being inoperable, making the standard unloading procedures impossible. His friend had taken the revolver to three different gun shops to be rendered safe and all three refused to allow it into their shops.

The goal was to turn this into a decorative wall hanger so my friend brought it to me because he knew I love a good challenge. I am no stranger to dangerous situations having spent 26 years in the Army. A small rubber hammer was used to remove the cylinder. A brass punch was used to drive out the cartridges, including time as an ar-

more and conducting demolitions with explosives. After a thorough examination, I decided the first course of action was to remove some of the rust in a safe manner.

I accomplished this by submerging the revolver in a bath of salt and 9% vinegar and using my car battery charger to accelerate the chemical reaction. I attached the positive terminal to a steel welding coupon to act as the cathode and the negative to the revolver so it was the anode and applied 40 amps. After about an hour, I removed the revolver, rinsed it under running tap water, then allowed it to air dry.

Once dry I applied a penetrating oil to the base pin and the base pin retainer button, allowing this to work over night. The next day I used a brass punch and hammer to apply a fair amount of “percussive persuasion” to compress the button and break the bond formed by the rust. Then I removed the screw and was able to remove the retainer button. Next, I used a small piece of scrap leather and a pair of pliers to grab the base pin and aggressively tapped the base pin out.

Again, using a smaller brass punch I tapped open the loading gate. The cylinder was still being retained by the rust. With the

application of a rubber hammer and some considerable force I was able to remove the cylinder. The cartridges were also corroded in place. The process of rendering the cartridges safe was to take the cylinder to my drill press and drill a small hole in each projectile.

I used my black powder revolver loading press as a holding jig tightened in my drill press vice and a 1/8" bit to drill the holes. I wrapped the cylinder in another piece of scrap leather, put it in my bench vice, and used a one-pound dent puller to extract the projectiles. I could have used a needle oiler and penetrating oil to deaden the powder and primers, but curiosity had the best of me. I dumped the powder out and took it outside to see if it would burn, which it did.

Again secured in the vice, I used a brass punch to remove the cartridges. I then removed the primers from the cartridges and then seated them in some new, unused brass so I could fire them. Of the six primers, one was dead, three fizzled and two fired normally. I tossed the six cartridges into my case tumble for cleaning.

MAINTENANCE & REPAIR

Reader Forum

BY AMERICAN GUNSMITH EDITORS NOVEMBER 2023

ORIGINAL PP. 23-24

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2645-P23-F01. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2645-P23-F01

ARCHIVE IMAGE WITHHELD

The original image is not displayed while permission is being confirmed. If you are the author, photographer, or rights holder, contact editor@gunsmithmag.com and reference AG-436B9A97D3-A2645-P23-F02. Know the rights holder? Please ask them to contact us.

AG-436B9A97D3-A2645-P23-F02

Broomhandle Mauser Repair I am embarrassed to have to report an error in my article, “Broomhandle Mauser Repair” (July 2023). I stated that Gavrilo Princip used one to assassinate Arch Duke Ferdinand and his wife Sophia in 1914, something I know I read at one point in my past. However, I discovered that this was mistaken. He used an FN model of 1910 chambered in 380. Apologies to the Readership.

I am not a gunsmith but work on my own guns and a bit on customer’s guns at Sportsman’s Warehouse in Vancouver, Washington. [I’d say that makes you a gunsmith! - Ed.] The knowledge gained by reading American Gunsmith as well as other things has helped greatly with my customer service. Often it is “Go talk to Dan” and I get great job satisfaction from being able to help customers with many things.

I still reprint “Microdon Gun Juice: Snake Oil For Guns or a Modern Miracle?” by Chick Blood (March 2000) and pass it along and have used it since first reading it, and not just for barrels. I have a stainless Kimber Compact that had and baked it at

275 degrees for an hour to dry. When dried, I put the polished dummy cartridges back into the cylinder and reassembled it.

As a final touch, I installed new white a little bit of rust appear in heavy rain conditions kept under a coat while prospecting years ago in southern Oregon. I cleaned it with alcohol, heated it with a hair dryer three times, and treated the exterior. It was smoother and with no rust ever. The same worked with a Benchmade AFO auto opener knife, the blade on which would start to rust in a few hours.

After treatment, I had lost it in the snow while shooting prone and a friend found it three months later after the snow had melted. Not a bit of rust on the blade. I wouldn’t have been aware of that product without your magazine. Kevin H. Baxter I really liked “Broomhandle Mauser Repair” by Kevin Baxter (July 2023). As always, the article is very informative—except for one small thing.

Consider this article from the WWI Museum and Memorial Collection (The World War. plastic grips on the revolver

that the owner had requested and called my friend to pick it up. Working on this still-loaded, badly rusted revolver was harrowing enough that three other gunsmiths refused the work. This turned out to be in interesting project and nice wall hanger. AG [org/learn/about-wwi/spotlight-belgian-automatic-pistol](https://www.gunsmithmag.com/learn/about-wwi/spotlight-belgian-automatic-pistol)). The one they have is 32 ACP, not the 380 as Princip used.

He was goaded on by the Serbian Black Hand organization, a Nationalist group, something not mentioned in this article. That article also states that Gavrilo Princip shot Archduke Ferdinand with an FN Model 1910, S/N 19075, not a C- 96 Mauser. A friend of mine had five C-96 pistols and I did a lot of digging for him. Two are 30 Mauser, two 9mm Parabellum, and the last one a Shansei Arsenal in 45 ACP manufactured in the ‘80s or ‘90s.

It shoots well but I wouldn’t want to fire a centuryold Chinese-manufactured firearm. Mauser never made one in .45 caliber but the Warlords loved the C-96 and the 45 ACP and they had them made in China in the 1920s. Ian from Forgotten Weapons can tell you far more than I can. See

READER FORUM CONTINUED

ORIGINAL PAGE 24

ForgottenWeapons.com/vintage-saturday-assassination and HistoryDefined.net/black-hand-of-serbia. Dan Newhouse Portland, Oregon Rimfire Rifle Aperture Sights I just finished the June issue of the magazine, and I wanted to commend Glen Calvert on "Rimfire Rifle Aperture Sights". That was a good article and I appreciated his take on using commercial rimfire aperture sights as well as the shopmade option.

AR-15 Barrel Extension Fitting I read with great interest Joe Carlos's "AR-15 Barrel Extension Fitting" (March 2023). I noticed the "slop" in M16/AR-15 barrels when I competed with the Florida National Guard and later as a civilian in High Power matches. I appreciate the analysis done to confirm the effectiveness of the modifications Joe proposes. As an FFL manufacturer who builds AR-15 and AK-47 type rifles, I will incorporate his modification when building rifles in the future. I do have a question.

I have used thin shim stock (0.001) to take the slop out of the barrel. I have not found my shims migrating; therefore, I am wondering if Joe feels Loctite is a critical component of this improvement? Or is its purpose just to keep the shim from migrating? R. M. Layng Robert P. Harrison III Joe Carlos responds. The evolution of my attempts to fix the slop in the fit of the extension to the receiver began with the use of just Green Loctite #620.

When I later tried to improve the tightness of fit I just kept the Loctite and added the shim stock as Loctite was just ingrained in my psyche. Loctite is "slimy" and likely that contributes to the migration problem with

the shims. If you are just using shims without Loctite it stands to reason that the migration problem might not be as severe. When you have done hundreds of these using shims as I have you notice that the tightness of fit varies some.

I like it when I can push the receiver 1/3 or 1/2 way on and it gets so tight that you have to hold the barrel in one hand while tapping the back of the receiver with a wooden mallet to force it forward. I will concede that when you get the fit that tight the Loctite may not add much improvement. On the ones where you don't get the shim quite large enough to get a really tight fit I suspect the Loctite may help some, so I have just continued to use the Loctite all the time.

I will confess that I have never conducted a scientific study of building guns with just the shims and no Loctite. In order to do so I would have to assemble a gun without Loctite and shoot groups with it, then tear it down and reassemble using the same shim with Loctite, shoot groups, and compare them. As a statistician I would want to repeat this for at least a total of ten trials but have not seen fit to go to all that work. I don't have a firm answer for you based on solid scientific methodology.

As stated above, I suspect that guns having a really tight fit with just a shim would probably be okay without the Loctite. Guns where the shims weren't cut as fat allowing the receiver to be slid onto the extension might do better with the addition of Loctite. AG

SEARCHABLE ISSUE RECORD

Archive index

Walk The Talk America American Gunsmith Editors	2	Modern Custom Revolver Robert K. Campbell	17-20
Working the S&W 61 Escort Brian R. Smith	3-9	Radical Refinishing Jon P. Lewis	21-22
Adjustable Shotgun Comb Options Sergey Lyalko	10-11	Reader Forum American Gunsmith Editors	23-24
Workshop Improvements Kenneth Finley	12-16		

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



American Gunsmith

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

GUNSMITHMAG.COM • EDITOR@GUNSMITHMAG.COM