The Low Expectation Guide to Clunker Gun Restoration
(Some Minor Gun Restoration Advice)

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By Randy D. Smith

A few dollars invested in some simple materials and hard work can turn an old clunker into a respectable looking firearm. I like to work with old rifles and shotguns. I enjoy many of them for their unique styling and for some it is just for the curiosity of seeing what it is like to use them. I like to purchase rough old firearms and try to restore them as much as possible. Some of my early attempts were disasters and a few of my later jobs have been successful. Some of these guns I have kept. Most I have sold. I have even turned a nice profit on a couple of them, but mostly minor gun restoration is a labor of love and a pleasant winter hobby. Little more should be expected from it. I want to share a few tips with you that I have learned the hard way.

Beginning with the Right Gun

An alternative title for this section would be, "have low expectations and you won't be too disappointed." I believe that one of the best guns for a beginner to try to restore is a simple, single shot, break action shotgun. There are thousands of them on the used gun market and they have very little monetary or collector value. If you mess up (and you probably will), you have not lost much. Choose a gun that is still sound with a solid action, reliable trigger, properly functioning hammer and a solid stock. Look for a gun that is cosmetically poor but mechanically sound. Do not bite off more than you can chew. A lot of these guns belong in the scrap heap and parts bin anyway.

Better guns that I've enjoyed working with are older .30-30 bolt action Stevens, Springfield and Savage (Model 340) carbines, old .22 rifles, early pump action Mossberg and Remington shotguns, already sporterized WWI and WWII bolt action military rifles and a few old double barrel shotguns. I look for rifles and shotguns with good bores, sound mechanics and perhaps a few missing insignificant parts such as magazines, trigger guards, sights and butt pads. I steer away from any guns that have problems with chambering or shooting rounds, bad bores, Damascus or twist barrels, unknown

calibers, or broken stocks that cannot be easily replaced. If I shoot or sell a restored gun, I want it to be safe.

Most dealers will advise that any old rifle or shotgun should be examined by a competent gunsmith before it is fired. That is excellent advice and it should be followed. It is also advice that is largely ignored. Competent gunsmiths are rare and good ones are usually overworked and behind schedule. However, if you notice anything unusual or suspicious about an older gun's mechanics, back away from it until/unless it can be examined by an expert. Do not send your time and money down a rat hole and, I might add, a dangerous rat hole to boot!

Another critical element of any old military rifle is that you must be absolutely sure of the caliber and proper cartridge for it. Many of these rifles have been converted to other rounds and the new calibration should be plainly marked on the barrel. If it is not, do not shoot it. Any time you suspect or are unsure of the caliber of an old gun, you absolutely MUST have it checked to authenticate the proper cartridge. This is often done by careful measurements and sometimes by slugging the barrel and it takes an expert to properly read a slug or know what a calibration measurement means. It is for this reason that I stick to common calibers with an easy to verify history. I like .22, .30-30, 8X57mm Mauser, .30-06 and a few other common calibers for minor restoration work. I am not a gunsmith; I am a hobbyist. There is a big difference between the two.

Hopefully, you realize that this article is dealing strictly with minor cosmetic restoration and repair. I limit myself to surface work and do not deal with mechanical repair.

Cost Versus Expectations

Before you read on, I have one other proviso for your consideration. Very seldom will you get away with an investment of less than $300 (2008 price) in any restoration project. A recent example of mine: I bought a Remington Model 74 Sportsman .30-06 in rough condition with "see through" scope mounts and a 4x Tasco scope in fair condition for $180. Not a bad price for a mechanically sound clunker. I then spent $14 for a new front sight (with shipping from Brownell's) and $62 with shipping for a Ram Line synthetic replacement stock from Midway USA. I proceeded to use less than $10 worth of chemicals and supplies to restore it. When I was finished, I felt I had a decent project outcome for around $270. I am not happy with the scope and a new, low priced 4-

power scope can be had in several brands for around $45 with shipping. That puts the total project at $301.

A new synthetic stock Mossberg 100ATR in .30-06 can be had for around $335 and with that same scope and steel rings, the whole rig will cost you around $385. You get a new gun with a new guarantee and, I know from experience because I own several, it will deliver excellent hunting accuracy.

The Mossberg won't be very pretty, but then neither is my restored Model 74. They are functional hunting rifles. On the other hand, a new up scale sporter rifle will run at least $600 and probably closer to $700. If you love old guns, as I do, and like tinkering with them, the choice is easy. If you want a showpiece that will last a lifetime, spend the money for the upscale rifle and/or the professional restoration of a family heirloom. *(If you are serious about the latter, contact Rocky Hays, our Gunsmithing Editor--see the banner at the bottom of this page. -Ed.)*

Cold Bluing

Cold bluing is an inexpensive way of dressing up the worn bluing of an older gun. Cold bluing is effective only on guns of normal carbon steel. Professional hot bluing jobs are expensive and generally are not cost effective for a clunker gun. What do I mean by that statement? If I have a three or four hundred dollar used rifle with a bad or neglected finish, I would invest a hundred dollars in a good, professional blue job. If I had a Ruger #1, a collectable Husqvarna, or any rifle with potentially above average value, I would not cold blue it other than for minor spot bluing. No matter how hard you try, you cannot recreate the rich, blue/black color of a professional bluing job.

Cold blues create a thin, metallic look or a dull black finish and it is very difficult to keep the finish even over large surface areas. The real value of cold bluing is to touch up small, worn spots. Alternatively, you can take an older gun of little value and improve its appearance. There is also no reason to spend a hundred dollars bluing a gun that will not bring at least twice that amount, unless it simply has sentimental value.

With that said, I have cold blued old guns and enjoyed satisfactory results. (Remember the low expectations statement I made earlier!) I have turned two hundred dollar guns into three hundred dollar guns with cold blue, but before I had experimented and developed a procedure, I have also turned one hundred dollar guns into one hundred

dollar guns and a bad finish into a poor one. This is why you should experiment with a gun of little value.

You need a few basic supplies before beginning a cold blue job. You need:

- Latex or rubber gloves. After you begin the process, you must not touch any part of the metalwork with bare fingers. The oils in your fingers will affect the bluing.
- A good supply of cotton balls and cue tips. Buy plenty. They are inexpensive and none should ever be used more than once.
- A large bottle of fingernail polish remover (pure acetone is the best). I have a three-year-old bottle, use it liberally, and still have plenty for future projects.
- A box of 000 steel wool.
- Your chemicals – rust and bluing remover, a bottle of cold blue.
- Gun oils – I like a good grade of regular gun oil and I like to use Ballistol oil for certain jobs (more about this later).

Make sure the gun is unloaded and remove the stock. Do not do this with the stock left on. You will be sorry.

There are rust and blue removers. These are harsh chemicals and you need to follow instructions. Once you go down this road, work the metal until as much old bluing is removed as possible. Anywhere you have old bluing spots, they will show up in the reblued finish. I use steel wool and/or fine grit sand paper. I work these areas briskly.

The other route is to remove a much of the rust as possible using Ballistol oil and steel wool without totally stripping off the old blue. I don't know what is in Ballistol oil, but it is the best oil that I have used for this purpose. Allow the oil to work on the rust and repeat the process until you have removed as much surface rust as you feel you can. You will not get all of it and there will be some scarring in places.

Wipe all metalwork with acetone to remove as much oil residue as possible (I wear my rubber gloves from this point on). I use cotton balls and exchange them often.

At this point, you may want to heat the metal. In the summer, I like to set the gun out in the sun for a while. I have also placed guns in an oven set on "warm" for a while. Heat seems to open the pores of the metal and it takes the bluing much better.

If you are just spot bluing, use a swab that is similar in size to the damaged area. I like cue tips or even toothpicks for this. Do not get carried away with removing large areas of blue around minor scratches or dings. Try to keep bluing attempts limited to the size of the damage. Apply the solution as evenly as possible and with only one pass. I wipe the solution on slowly trying to keep the area flooded with chemical. After the tough-up bluing is applied, I immediately work the fresh chemical with steel wool to even it out and prevent a mottling effect in the finish.

I repeat this step of applying bluing and immediately working the chemical with steel wool several times, always using fresh cotton balls and fresh bits of steel wool. I prefer to work for a dark black dull finish on bluing jobs and it takes several coats. The darker it gets the less effect each coat has, but each coat has an effect and you can gain some additional darkening. Normally I put on at least seven coats.

If after several coats of bluing there are spots that just refuse to darken, start over by sanding the area with fine sandpaper of 320 or 400-grit. Sand as small an area as possible.

When I have a level of bluing that I can live with, I apply a good grade of gun oil to the metal and allow it to season for at least twelve hours. I do not use Ballistol oil for this. I've seen it literally remove my bluing. Notice that I do not use water to wash off the chemical. I prefer leaving the oil on without washing off the chemical. During that twelve hour period I will remove the oil with cotton balls at least three times and replace it with fresh oil. I am washing the chemical with oil. Most people do not do this step, but I do and I believe it makes a big difference in the richness of the color.

Stock Work

Most of the time I replace a badly worn stock with a new one. Most of them have length of pulls that are too short for me, anyway. I prefer using synthetic stocks, but good replacement wood stocks are available. How much you sand and finish a stock is completely up to you. I have used Boyd's replacement stocks and been quite satisfied with virtual inlet level stocks for replacement duty. I've also been satisfied with a number of Bell and Carlson Carbelite, Hogue, Ram-Line and Choate stocks on various guns.

The main piece of advice I have to mounting any replacement stock is to remove parts of the inside of the stock as much as possible and the outside of the stock as little as

possible. Sand, file or cut the inside of the stock to achieve the proper fit. With every stock I've used the outside dimensions were accurate and it only took a little interior work to make a proper fit. Any time I enlarged an outside surface opening for a magazine, trigger guard or tang, I regretted it because it was the wrong place. I should have done it internally and I did not have a satisfactory exterior fit when I was finished. Go slowly and carefully. If you do not have the patience to do this, pay to have it fitted by someone who knows what they are doing.

Only Beginner's Level

This is only beginner's level restoration. I am not a craftsman or a gunsmith, I am a hobbyist. However, I have restored several rifles and shotguns and turned a profit on a few of them. The main lessons I want to close with are: choose a gun that is easy to restore and worth restoring; take your time and do not get impatient; expect to make mistakes; work your restoration in stages so that failures are not too costly. If you do and you love old guns, you may enjoy an interesting hobby and produce some decent results.