

# Seaspriter's Laws & Guiding Principles of Antique Enfield Restoration

## The One Immutable Law of Restoration:

**Make Bubba an Alien Creature in your mind, in your hands, and in your tools.**

### The Seven Guiding Principles:

Note: A "Principle" is not a "Law" but part of a holistic set of guiding directions that must be balanced against each other; thus no one principle always overrides the others.

#### 1. Listen to the Experts:

Do your homework, read a lot. Carefully consider the advice of people who know what they are talking about. The Milsurps Experts are the best on the internet.

- Corollary: Bubba lurks everywhere and is constantly giving bedeviling advice. Know how Bubba thinks so you can defeat him. Bubba often comes disguised wearing a friendly face or innocent demeanor – the proverbial "wolf in sheep's clothing." Don't be bewitched by Bubba's false knowledge.

#### 2. Least is Best:

Before restoring a gun:

- live with it a while;
- consider all the restoration options;
- learn its history from conception to the time it falls into your hands. Let it "speak to you."
- Realize you are just an "heirloom custodian" who has been entrusted with a cultural artifact. Only then consider doing something.

The best advice: : doing less is usually better than doing too much; doing too much to a gun can ruin its heritage and its value. You can never "unring the bell."

- Caveat: don't scrimp on safety if you intend to shoot the gun. This is where the Armourer's advice overrides the Restorer's advice. If an expert Armourer (such as Captain Laidler) says something, do not second guess him, do not think you know more than him (that's the Bubba in you!) If the Armourer says DP means Drill Purpose Only (in other words: "Defective Parts") follow their advice; they will save you (or someone in a future generation) from a multitude of hurts.
- Caveat: If Bubba or the Parts Stripper got to the gun ahead of you, you may have a big task ahead to restore the gun. Just don't overdo it; you shouldn't over-restore the gun, trying to make it into something it was never intended to be.

#### 3. Know Your Antique:

This is a historic relic you now possess for the time being. It is not just for your use, (remember, you are the heirloom custodian) but for the use of future generations as well. Know how and why the gun was designed. Know its limits, deficiencies, and capabilities. Know how it will age over the course of the next century. Shoot it if it's safe; just clean it well after each use.

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- Corollary: Have a plan for your restoration, including current objective, next generation's possession, shootability, hardware & woodwork restoration, accessories (ie. Slings, bayonets, etc). Be sure to ask the question: "What will preserve this gun's value for the person who owns this weapon a century from now?"
- Corollary: Know the period back to which you want to restore the gun. For example, I have a 1944 No.4 Mk1\* Long Branch Enfield was then sporterized in the 1950's with 1 ½" of the muzzle nose (bayonet lugs) removed and the fore-end denuded. Before replacing the front-end furniture, there are two options for the barrel:
  - 1) put a used complete barrel on it, or
  - 2) keep as much of the fabric of the gun original and retain the old snub-nosed barrel.

It's a dilemma with no right or wrong answer.

I decided to keep the old barrel, threading the remaining snub nose, attaching a short muzzle compensator (giving the gun the "look" of having a full nose while making the change fully functional) and replacing the furniture with used but good condition matching wood. The gun is now restored to "almost" FTR condition, but the muzzle tells the story of its once inglorious sporterized history.

- Corollary: Every gun has a "story," which is embodied in its design, stampings, stenciling, and finish. Keep as much of the "story" intact. Preserve all the markings, even the ones you don't like (such as the gaudy import markings or "DP" striping). Leave a provenance history for the future. For all my Enfields I write a history of everything I can discern about the gun and everything I've done to it, print out the provenance, roll up the paper tightly, and insert it into the stock bolt hole so someone a hundred years from now will know how the gun evolved. (see Figure 1 (How many guns have we all purchased that have had a magical history that's been totally lost to us and future generations.) Lastly, consider keeping the old parts with the gun; these are part of the history.



Figure 1: Gun's Story in the Butt Stock

- Here's what can happen if you don't do this: A friend has a 1893 Mauser that, at some time in its history was refitted for another sized cartridge. No one marked what the change was (either by engraving on the barrel or leaving a record on the butt or behind the butt plate. Now, over a hundred years later, no one knows what kind of ammo to feed it, and no standard sizes work.

#### 4. Understand the difference between "Refinishing" versus "Restoring"

Note: There is a difference between "Restoring" and "Refinishing." Restoration is done to historic guns with the intention of repairing/replacing damaged parts and preserving the historic fabric of the weapon. Refinishing is done to modern civilian weapons with the intent of removing the old finish)(which may have been damaged), then sanding the wood to remove imperfections, then applying a finish to make the gun look new, out of the box again.

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Figure 2 is a picture of a gun that was improperly “Refinished.” It is the figment of an ignorant collector who believed a wartime rifle would be finished like a civilian 22. The “refinisher” meant well, but the finish bears little resemblance to what was originally done to the rifle when it came from the manufacturing arsenal, such as in Figure 3.

5. **Never “Fake” a gun:**

Bubba promotes fakes. A fake is nothing more than a swindle, cheating someone in the future. Fakes defile the essence of our role as heirloom custodians.

- Caveat: There are dilemmas that you will face that run on the edge of this issue. For example, if sometimes a gun came out of the plant with a nice Mk1 sight, but yours has a plebian flip up Mk2 sight, it’s probably okay to “upgrade” the gun with better equipment. But if you are making a Sniper (T) gun out of a normal

Enfield, don’t try to fake it, just make it clear it is a modernized version – stamp the current year into the new stuff to give integrity to the upgrade. Then write up the provenance and put it in the stock bolt hole. For pieces that are missing, try to be as authentic as possible, without faking. For example, I have a really nice 100% authentic No.5 Jungle Carbine, which was missing its original magazine. I bought a never-issued magazine that had no serial numbers on it for a replacement. The faker would have punched matching serial numbers into the mag and passed it off as original.



Figure 2: A Refinished Gun that bears little resemblance to the original



Figure 3: Original Out-of-the-Box Savage Enfield with original color & finish

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- Caveat: If the gun is a reproduction, you can do anything you want. “Upgrade” it to your heart’s content, just don’t make it a fake. For example, my great great grandfather fought at Gettysburg. Another family member has his 1859 Sharps carbine in original battlefield condition. I always wanted a Sharps Carbine as a shooter, so I bought an NIB Italian 45-70 reproduction. The hardware was “case hardened” and I just don’t like that look; the gun seemed lack-luster, and it was also to be used as a wall hanger in my office. Soon the hardware was off the gun, and with my nickel plating gear, the gun now has a soft nickel finish. To my eyes it now looks “sharp” (pun intended). But it is a reproduction, so I have free rein. I’d never think of such a thing if I owned an original.

### 6. Should I “Play the Blues on My Barrel?”

Guns have been “blued,” “blackened,” or “browned” for centuries. (My Revolutionary War era muskets still have their original browning, 250 years later) Bubba immediately advises us to steel wool the gun down to its bare metal to make it shiny. Ugh! God forbid it. Bignorant tells us to re-blue anything because the more bluing that remains, the more valuable the gun, therefore pull out the bluing solution and get to work. Whoa! Slow down!

First, on a historic gun, this is just another version of fakery, and second, the loss of bluing is just a sign of the gun’s aging process. It now has “patina” which should be preserved. Metal likes gun oil; just rub it down and enjoy the finish of an aged weapon. Be sure to retard any rust. In some cases I have waxed the surface of metal with clear Briwax to retard surface rust on barrels and butt plates. If the rust is inside the receiver or barrel, it’s certainly okay to use naval jelly, solvents, or fine wire barrel –cleaning brush to make the surfaces safe and functional, then apply oil.

- Caveat: If it’s a junk gun or one that Bubba has butchered or Bignorant has bastardized beyond belief, go ahead and re-blue, put a glossy coat of varnish on the furniture, add a scope, and accessorize with all the bells and whistles you can think of – your predecessor has already committed the mortal sins; you should not be burdened with the guilt of his transgressions. If you have a modern gun, like my 1974 Marlin 336 30-30 that was once someone’s truck gun, go ahead and re-blue it and varnish it to prevent deterioration.
- Caveat: I’ve found it very difficult to remove old corroded screws and retaining pins without marring the head or surrounding surface a little, no matter how careful I am and how many tricks I know to unfreeze corroded screws. To my dismay, now and then I end up with a shiny bare-metal dot or chip from my overly zealous and unsympathetic screw driver. With a Q-tip I put a dot of cold bluing on the mishap, covering it with a little “make-up” so it doesn’t stand out against a nice Suncorite/Parkerized finish. (Others may disagree about doing this, but I’ve not wanted to become to “anal” with these guidelines.)

### 7. Restore the Furniture (wood) like an Old Painting:

I can’t count the number of Bubbas who give bad advice on wood restoration. I have restored antiques all my life as a hobby (including several National Register houses, innumerable pieces of furniture, boats, and cars.)

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- First, start with this important piece of advice:
  - Sandpaper is a Woodworkers tool,
  - Steel Wool is a Restorer's tool, and
  - Wire Brush is a metal-working tool.

Recently I cringed as I watched a You-Tube Bubba demonstrate the removal of Cosmoline with soap and water and a wire brush scrubbing against the grain! (Nothing will ruin wood faster than a wire brush (except perhaps using a torch, crowbar, or hammer).

Never use sandpaper on an old finish (its sole purpose should only be for removing wood, such as splicing in a wood patch to repair a chipped stock). Sandpaper gouges the wood, like a million small chisels, cutting grooves in the wood, making it rough (even the finer grades). NEVER use sandpaper, no matter how fine -- it gouges the wood and harms the patina layer (which may be finer than the width of a hair.) Sanding will also begin to obliterate any cartouches or regimental stamps, and take off any of the original stain that may remain on the wood.

Instead use steel wool; fine steel wool scrapes the wood with a microscopic edge, thus removing a microscopic amount of surface junk, without removing the patina of the wood -- it's the patina you must preserve! The patina is the history of the gun's use in battle and aging. (it's okay to steam out a dent, but don't sacrifice the patina to remove a scratch). Use steel wool with a solvent such as linseed oil or mineral spirits. If you are removing varnish, you will need a stripper for solvent and a courser grade steel wool to remove the gunk.

If you are unfamiliar with using steel wool, start first with the fine grades -0000 or 000, and work to medium grades as you come to understand how the wood and any removers and solvents are responding. Steel wool scrapes the wood with a microscopic edge

- Second, no matter how bad the surface finish, you have to think about what's under the finish – just as a restorer of a Rembrandt would think about the years of dirt and old varnish layered over the masterpiece below. Your job is to remove just enough of the crud from the wood without destroying the wood's patina. Remove only enough to get the dirt and junk off the wood, don't take the wood down to its raw wood state. Use the finer grades of steel wool the closer you get to the patina layer.
- Third, you will often be faced with a muddy old linseed oil finish that should be removed to give the wood a great look. Here are a couple of tips I've learned about taking off the years

*You-Tube is the network for the Good, the Expert, the Bad, the Ugly, and the MisGuided – take everything you see and get several other opinions. Realize there are many Bubbas and Bignorants on You-Tube who think they are smart and their egos can't wait to see themselves on display.*

*The best place to find good answers is the "league of master experts" you will find on [www.Milsurps.com](http://www.Milsurps.com)*

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of dirty/grimy/overloaded linseed oil that has that ancient "muddy" look (often obscuring important stampings on the stock, including the infamous DP stamps!).

### REMOVING LAYERS OF DIRTY LINSEED OIL

Use a paint/varnish remover (like Citristrip or you'll find that Rubbing Alcohol works just as fast and is dirt cheap). Just apply, and remove the gunk with an old rag. Then apply again, this time removing any residual junk with very fine steel wool. Just don't scrub off the wood's delicate patina.

### Walnut Stock: BEFORE AND AFTER REMOVING LINSEED OIL

Below is a picture of the stock of an M-1 that had been coated with linseed oil at the time of the Korean War. Notice how muddy the finish looks.



Figure 4: Walnut Stock treated with Raw Linseed Oil 60 years ago

The next picture is the same stock after using Rubbing Alcohol and very fine steel wool, with a light coat of 50/50 BLO/Turpentine. The grain of the wood is now visible, and the old patina of the wood has been retained.



Figure 5: Walnut Stock with Old RLO removed and diluted BLO applied

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The original British Arsenal specs called for successive coats of linseed oil to be applied, which gave the gun a satin gloss. Because using linseed oil for this built up oil look will just create a muddy finish two generations from now, try using Tung Oil instead. Figure 6 shows the stock with just enough Tung Oil applied to create a light gloss, but not to build up the



Figure 6: Same Walnut Stock with several thin coats of Tung Oil.

finish to look “thick” like varnish -- notice how the open grain of the walnut is still visible. In this case, the gloss was just a little too shiny, so I rubbed the finish with very fine steel wool and Briwax, which gave the wood a “satin” finish.

### REMOVING COSMOLINE

Cosmoline is a Vaseline-like grease used to preserve just about any military surplus from motorcycles and Jeeps to Enfields and Garands. The best way to remove it is to use a rag to wipe off all superficial cosmoline, then disassemble the gun and clean the metal with mineral spirits, a toothbrush, and rags. For removing cosmoline from wood, use the same materials, but recognize the wood has absorbed a lot of the gunk. Let the wood soak overnight in a bath of mineral spirits (cover it to keep it from evaporating. Some people apparently use denatured alcohol). The next day, remove the wood, wipe it as clean as possible, then wrap in rags, place in a black plastic trash bag and leave the sun (on your car dashboard if it's cold outside). The bag acts as a bake oven to help move the cosmoline from a gel state to a liquid state, which can be absorbed by the rags. (I've also used cat litter or an automotive oil absorber for garage floors.) Do this as many times as needed until there is no more cosmoline in the wood. Then coat with BLO (see above) then Tung Oil or Wax.

- Fourth, old wood loves oil and wax, which repel water, retard fungus/bacteria, and feed the molecular structure.
  - Raw Linseed Oil (RLO) has been the standard for centuries. But RLO oil creates some dilemmas. Raw Linseed Oil, which was used in wartime conditions, has two drawbacks:
    - it darkens with age, and

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- if applied in heavy layers on the surface can become gummy and sticky in heat and humidity.
- A better alternative is Boiled Linseed Oil (BLO) which will harden better than raw linseed oil. Apply a 50/50 solution of turpentine/BLO for the first coat to get the BLO (you could use RLO at this point, if it makes you feel authentic) deep into the pores of the wood. Use either a small brush or a nylon stocking (neither will leave lint on the stock). Once fully absorbed, spot apply to places that are absorbing a lot (these will be dull in appearance). Then apply a coat of 100% BLO and let it sit for a while, and then spread BLO that is on the surface into the areas that are still absorbing the BLO (you could soak in a vat of BLO for a while as an alternative).

Then rub everything off with a lint-free (usually synthetic such as an old stocking) cloth, using pressure to create heat that will polymerize (harden) the surface so it won't have a build up of semi-sticky finish. (If you are going to apply stain, just wipe off the excess, so the stain will have an even surface for application). If you opt for raw linseed oil, dilute it with 25-50% mineral spirits or turpentine, rub off all surface oil, and reapply in areas that are absorbing fast to get an even base coat. If staining, see below. If not staining, then, with a clean terry cloth towel, rub the wood fast and hard to burnish it (this heats the oil to stabilize it, which is called a "hand rubbed finish.") Then a day or two later, burnish again, then apply Briwax (which is known as "museum wax" and available in the UK and US at Ace Hardware.) The wax will not darken.

- Fifth, the question of staining will need to be addressed during the final refinishing stages. (The Enfield was not varnished when it was manufactured.) If you have a wide variety of woods (walnut, beech, birch, maple) like most Enfields, you might want to consider applying an oil-based stain if appropriate at this stage to create some visual harmony. (I've used a variety of stains from Venetian Red with Burnt Sienna to Red Mahogany to get the right color -- try to match the colour of what still remains on the stock.) You can try using different colors of MinWax stains as well, but start cautiously until you get the colors right. The colour should resemble the gun in this thread [Savage No.4Mkl\\*](#) Don't overstain -- yours is an old gun, not a new one. Let the wood's patina show through. [Note: this staining applies to the No.4 Mkl Enfields, I'm not sure about the WWI and Lithgow Enfields. From my experience the MKII Enfields and the post-war FTR Enfields used Beech; there was never a stain applied, thus a much lighter appearance.]
- After staining (let it dry a day or two), you could either:
  - 1) apply a light coat of BLO and rub down to polymerize the surface,
  - 2) apply Briwax, which is used by the finest museums in the world to treat their treasures (it breathes and doesn't "seal" the wood", or
  - 3) apply a light coat of Tung Oil (which breathes and doesn't seal the wood as long as you don't overdo it with 8 coats, leaving a gloss that is just squeals).

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- WWII Enfields may have any mixture of four woods: walnut (dark) or beech, birch, or maple (all very similar lighter-color woods). Over the years, different field replacement parts can add to the mixture of woods.
  - To get a common look, apparently the English Arsenal specification was to apply an oil-based Venetian Red or Red Mahogany stain. Because each of the four woods absorb at slightly different rates, it's important to apply thinned BLO judiciously to the different woods in advance of the staining to ensure a similar absorption rate for the stain coat – otherwise the stain will settle in with too much intensity in one location and not at all at another location on the same gun, resulting in a mongrel look.
  - Apply stain with a brush or synthetic lint-free cloth, let sit for a few minutes, then rub off and check the results. This is always a trial and error process to get an even look across the entire gun. You may have to apply different color intensities and thicknesses and let sit for different times depending on the location/type of wood.
  - Use these principles:
    - “Less is Best” for staining. You still want to reveal the wood grain (remember, you aren't painting the gun);
    - You are not trying to create a new gun (unless you are restoring a sporterized version and using all new wood),
    - You want to give the wood the look and feel of an old, cared for heirloom that retains its former glory without making the old girl look like she had a total makeover.
    - Once the stain has set for a several days or a week to stabilize, then apply a wax or tung oil.
  - Notes on Staining:
    - A) if you had to splice in new wood to repair a chip or hole, you will need to dye this new wood to match the old wood. This is an art that requires practice and patience. I personally try to find the right color from a mixture of 7 wood dye colours available from Constantine's (see [www.constantines.com/constantineswatersolubledyes.aspx](http://www.constantines.com/constantineswatersolubledyes.aspx))

*Remember, there's a difference between a gun you will use primarily for hunting, for shooting, or for preservation. If your Enfield is a "hunter" I'd suggest using a sporterized version, it's already been butchered. Coat it with plenty of linseed oil and don't worry about how it looks.*

*If your Enfield is an occasional shooter, but primarily a historic arm that you are preserving for future generations (like mine which are babied on the range) then you only need enough BLO to protect the wood from deterioration -- a little is just fine, you don't need to build up layers -- if the gun isn't out in the rain, the extra layers don't do any good. (Think of how ridiculous it is to wear a heavy overcoat inside your warm house -- when just a shirt is enough.)*

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- B) The post-WWII No.4 Enfields (MkII and FTR'd Mk 1/2 & Mk 1/3) from what I've seen, use Beech for furniture and have no stain applied. (My Mk1/3 1956 FTR has simply been oiled and waxed.)
- C) My No.5 Jungle Carbines (1944-47) did have a light application of the Venetian Red stain.

With practice and patience, you will have preserved our history for posterity, given the gun a provenance, made Bubba an Alien Creature, and have a work of art you will be proud to own and tell stories about.

*When restoring a gun, we are preserving it not just for our use, but for people hundreds of years from now. Always remember, you are not really doing this work for yourself alone. You are an "heirloom custodian" preserving your Enfield for future generations. You should be thinking about everything you do to the gun with the future owner in mind.*

*I document everything I learn from the league of masters on the Milsurps website (these guys are great and so informed -- the best on the internet!).*

*All important data about the gun is printed on a piece of paper, which I roll up tightly and insert in the hole in the butt-stock.*

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NOTES:

## **The Raw versus Boiled Linseed Oil Dilemma**

First, Raw Linseed Oil (RLO) comes from the pressing of the Flax Seed (in Colonial times, the flax stalk was used to make Linen). RLO does bond with the pores of the wood, keeping fungus, dirt, and bugs out. Wood is very amenable to linseed oil. RLO will repel water, to a limited extent, but if wood treated with RLO is immersed in water, the water will penetrate the oil.

RLO will also breakdown in sunlight, oxidizing and then drying out unless heavily mixed with pigments. For this reason, wooden boat restorers don't use RLO on their teak or mahogany.

While RLO was called for by the British Armourers in wartime, they were emphatic about rubbing it all off after 3 hours because RLO does not harden (without Japan driers) ( see Figure 3) . In high humidity it becomes very gummy and sticky. For example, I have a 1944 Maltby Enfield that a well meaning owner coated with either RLO or BLO, and even in low humidity it is always sticky to touch and the finish is yellowing. Had the owner wiped off all the oil, then rubbed the finish hard with a terrycloth towel (creating heat on the surface), the burnishing would have stabilized the surface layer.

Here's what the British Arsenal Directed:

Preservation of woodwork of Rifles

### **A.C.I. Number 1148**

**Approval is hereby given for the treatment with raw linseed oil , of the furniture of rifles in use in all stations at home or abroad, irrespective of climate.**

**The oil will be applied by the soldier once a month to the outside of the fore-end, butt and handguards of the rifle in the following manner :-**

- 1) Remove all dust and dirt by wiping well with a dry rag**
- 2) Apply a small quantity of raw linseed oil to the woodwork and rub it well into the wood, care being taken to keep the oil away from the metal parts.**
- 3) Allow the rifle to stand for approximately three hours and then wipe off all surplus oil with a clean dry rag.**

**Raw linseed oil will be demanded by the units at the scale of ten pints annually for every 100 rifles.**

**A.C.I. 80 of 1940 is hereby cancelled**

**57/S.A./654 (S.D. 10)**

**Figure 7: British Specifications for application of Raw Linseed Oil to Enfields**

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Boiled Linseed Oil (BLO) starts as RLO, but is subjected to high temperatures (boiling) during the refining process which enables the molecules to "polymerize," which means they link together in longer chains. Consequently BLO is more stable, and less prone to being sticky. Often BLO has chemical dryers added which ensures a hard final finish.

The biggest problem from a restorer's perspective is understanding what happens to both RLO and BLO over a 100 year period -- first it yellows, then it turns brown, then chocolate. Figures 8, 9 & 10 are pictures of a Pilgrim period 1680 chest which has never been refinished. It has the original finish and hardware. The front still has some remnants of the old red paint in a linseed oil base, which has darkened with oxidation. The top of the chest is dark chocolate brown – the paint wore off to top and it was treated with raw linseed oil over the last 350 years. However, the wood inside is still golden; testimony to the way wood ages without sun, water, or oil.



Figure 8: 1680 Chest interior of top showing the lighter color wood which has not been subjected to air, sun, and oxidizing oil



Figure 10 1680 Chest with original linseed oil based Venetian Red paint (similar to Enfield Red Stain). Paint has turned brown as the linseed oil oxidized.



Figure 9: 1680 Chest Top -- Red paint has worn off. Treated with linseed oil for hundreds of years. Top has turned deep brown, even after the layers of linseed oil have been removed

I'd been told for years: "Oil everything that moves." This is clearly not the case, as the other thread began to identify. Where to use specific lubricants and protective coatings is vital issue for both the use/firing and the preservation of our guns for future generations. Here are some key issues that I found on the "to grease or not to grease" issue. From the M-1 Garand website (How To Clean Your Guns) "The conventional wisdom is: If it rotates, oil it. If it slides, grease it." "Generally speaking, "oil" is lighter weight, less viscous and free-flowing at room temperature, while "grease" is thicker and not a liquid at room temperature. There is no specific threshold for just what is an oil versus what is a grease, but Rem Oil definitely is a light-weight non-viscous oil. A light-weight oil like Rem Oil will very effectively penetrate between tightly fitting parts, including around pins." There are several choices for viscous grease. "Shooter's Choice" is popular; its thin nozzle [& hypodermic needle style thumb piston] lets you control where you apply it, making it easier to lubricate slide rails. "Hoppe's Gun Grease" is the other popular alternative." Brownells has a good video:

<http://www.brownells.com/.aspx/lid=16381/GunTechdetail/Brownells-Firearm-Maintenance-M1A-Lubrication-Part-3-4>

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## The Wood/Metal Interface

 Originally Posted by Captain Peter Laidler  

As someone who's learned 'in theatre' the importance of grease between the wood and steel and the effects of not having it does, I look on eyes agog when people spend ages getting rid of it. It's there for a good reason. Not just a GOOD reason but a xxxxxxg good reason I say!

The Enfield Armour's Manual from 1931 called for a mixture of "mineral jelly and beeswax" to be applied to the wood/metal interface.

I think the reason why is explained here (from the M-1 Garand/Carbine Civilian Marksmanship website -- Wood Cleaning Article | Civilian Marksmanship Program):

"The almost black color along the metal/wood lines of firearms would indicate..... over time, gun oil dissolves the resins in wood and makes it mushy. For example, the compression effect of Garand receivers/trigger guards crushing the wood is in part caused by oil damage to the wood."

I checked British versus American English definitions of "mineral jelly:"

Noun 1. mineral jelly - a semisolid mixture of hydrocarbons obtained from petroleum; used in medicinal ointments and for lubrication petrolatum, petroleum jelly; Vaseline - a trademarked brand of petroleum jelly.

Based on the Enfield & Garand instructions, I bought a block of beeswax at Michaels (in the candle making section). Pure beeswax at room temperature is very hard and solid, like candle wax.

Then melt 50/50 Beeswax with Vaseline (petroleum jelly) in an old shoe polish can. ( I put a small piece of red candle in the mix to give it a slightly reddish color so it is bit more visible.) Once cooled, it is the consistency of wax shoe polish, somewhat like putty -- pliable but not gooey.

Next take apart your Enfield and clean every area where metal came in contact with wood, especially where gun oil was deteriorating the wood, as Capt. Laidler recommended. After scraping out as much gunk as possible with a screwdriver blade -- there was a lot of crud, grease, oil, dirt, grit, etc. -- I used turpentine with a brush to clean out the remainder of the gunk on the forend; especially in the area under the receiver and around the magazine. Dried it all out and applied the beeswax/mineral jelly mix it to every wood area that had been exposed to gun oil and wherever wood/metal contact. Used the flat side of a screwdriver like a spatula to get in small areas.

Be sure to treat every screw (butt plate & rear swivel, etc) that screws into wood with the beeswax/mineral jelly compound.

This beeswax/mineral jelly combination repels oil while preserving the wood.