



Huber SMLE Enfield Family Replacement Trigger By R. Ted Jeo

Okay, so there are those of us mil-surp shooters who do not mind a military two stage trigger, and there are those who do. To each his own I would say to that. I, of course, do not mind a two stage trigger, somewhat because that is the original rifle configuration and somewhat because I always shot my service rifle matches with a two stage trigger. But I am always open to improvement (*as long as I do not have to drastically modify my mil-surps*).

What IS a two stage trigger?

Well, to put it bluntly, the trigger is activated in two distinct stages. The first stage is essentially used to take up the slack on the trigger, like creep and pulls back very easily.. Then, just before you hit the release point of the trigger on the sear, there is a "stopping" point of resistance. You could hold the trigger, right on the brink of release for as long as you want, but give a bit more pressure and you "break" the resistance and the trigger causes the rifle to fire. It is used in military rifles as a safety device, allowing soldiers better control in stressful situations.

Recently, I was afforded the chance to try out a Huber SMLE (*Enfield*) replacement trigger for my No.4 Mk 1. The trigger provided to me was a newer version that has two screws for adjustment of release and creep. John Huber did (does) offer a single screw adjustable trigger for the Enfield, and I did try that trigger first, but the second "improved" two screw model I have found works better. The installation of this new two screw variant did require me to file out a little bit of stock wood inside and behind the trigger, however, you cannot see what I modified from the outside of the rifle.

The trigger itself looks just like a regular No. 4 trigger, except it uses an embedded ball bearing to minimize the friction normal seen on metal to metal surfaces. The ball bearing sits in a recessed hole and is held in pretty much

by industrial grease. There is a small adjustment screw on the back side of the hole that uses an included allen wrench for adjustment.



Figure 1. Left is the original Enfield trigger out of my No4. Mk1. Left is the Huber trigger. Note the ball bearing and shape difference.

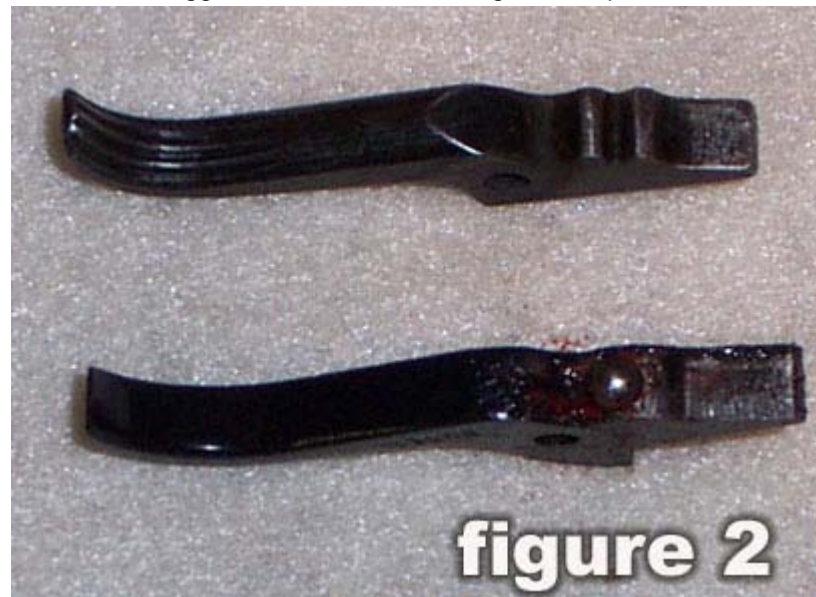


Figure 2. Top view. Top trigger is the original Enfield trigger. Bottom is the Huber trigger. Again, note the ball bearing installed inside the trigger.

I found that, prior to installing the new trigger, (*making FIRST sure the chamber is clear*), cock and fire the rifle. Leave the bolt AS IS, in its fired position, and then installing the new trigger will be much easier.

To install this trigger, all I had to do was remove two screws that hold the trigger guard in place and pop the whole assembly out. The trigger is pinned to the guard on my particular Enfield model. After removing the assembly,

I just drifted out the trigger pin enough to remove the old trigger and then pinned the new trigger in place. That was it.



Figure 3. Removal of the front screw holding the trigger guard in. Make sure that you do not lose the split spring ring under the screw.

As I mentioned, I had to remove a bit of the wood to the rear of the trigger in order to make sure the trigger cleared. I did have to remove the stock from the action to get at the area that needed to be removed. I accomplished that with a small square file. Installing the trigger itself was not all that difficult; the hardest problem was making sure the ball bearing went under the trigger release lever (*sear*). After several tries of dipping and angling the entire assembly and only managing to pop out the ball bearing, I figured that an easier way was to use a small flat tip screwdriver to push and hold the sear forward (*toward the muzzle*). This allowed the new trigger to literally drop right in. An added benefit was that the screwdriver also pressed against the ball bearing and kept it in place as the assembly was put together. Very fast, very easy. After that, it was just a matter of installing the two screws to hold the trigger guard in place.

What I found was the adjustment of the new trigger was more trial and error. Prior to installing the trigger, I backed the creep screw (*the rear adjustment screw on the trigger*) all the way in (*counter clockwise*) so that it had no bearing on the trigger feel. Then I installed the trigger and tried the feel of the left off. Right off the bat, the release was much smoother, no grit. However, the trigger had a lot of creep and take up before it released. Now, IF I am going to remove the original two stage trigger, I WANT to replace it with as sharp and light of trigger safely possible. For me, those are the only two choices.

So, I removed the trigger, adjusted the ball bearing out (*clockwise*) so that more of the rounded surface bore on the sear. That definitely removed a lot of take up. I went back and forth until I got as smooth and short a release as was safe. By the way, when I mean safe, I mean that I checked how stable the trigger was after adjustment by literally (*liberally*) dropping the butt on the ground to see if the trigger broke. A couple of times I had indeed set the ball bearing out too far and the trigger released simply by me popping the butt stock on the ground.

With that adjustment completed, I went to the second screw. At first I screwed it all the way out (*clockwise*) to see what would happen. What happened is that the trigger did not work at all. Gradually, I backed that screw off until I got the trigger to work, it was safe and I was happy with the feel. Unfortunately, I do not own a trigger scale, so all I can say in describing the pull is that it is crisp and single stage.



Figure 4. Removing the rear screw of the trigger guard.



Figure 5. One pin to drift out. You do not even have to drift it out completely. Use a brass punch to protect the metal.

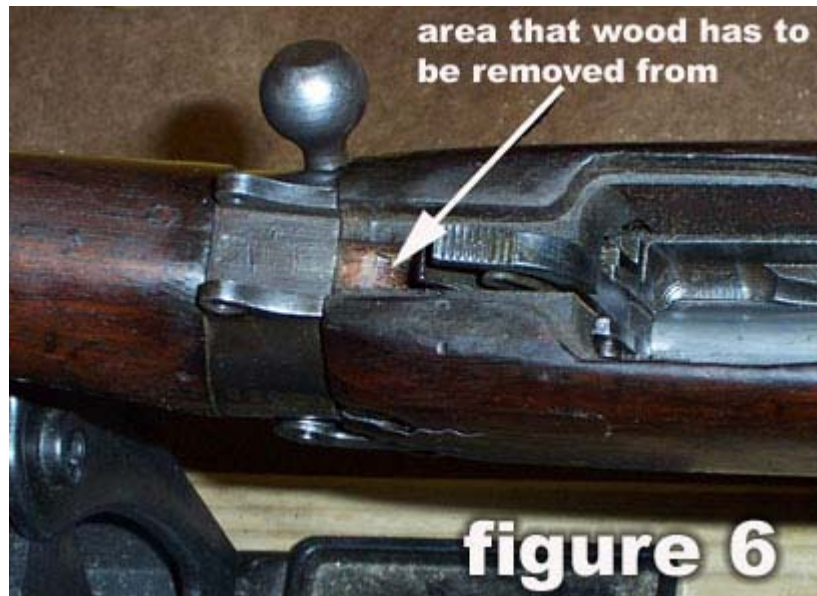


Figure 6. A small amount of wood needed to be filed away in order for the new trigger to fit. Notice sear immediately in front of wood removal area.



Figure7. A small screwdriver helped immensely when re installing the trigger/trigger guard. Push sear forward and then slip ball bearing under sear, seating rear of trigger guard first, then the front. Photo is without guard in place.

Now, I am partial to two stage triggers, I believe that they give me more control over the trigger, however, I was never happy with the original trigger on my No4. Even after cleaning, it was gritty and tended to stick a little at times. The Huber replacement trigger is SMOOTH. You know "that" commercial....smooth over everything. You could apply it to this trigger.

So I loaded up some ammo and headed out to the range. It was a "chilly" 5 F (*wind chill of -5F*) and, golly gee... I was the only at the range. Imagine that. Donning nearly every cold weather item in my inventory, I did managed to shoot 50 rounds to test out the trigger. It was very controllable, very crisp and quite a pleasure to shoot. The trigger behaved consistently, releasing at the same pressure at each shot. I fired first at 50 yards to get a feel for where the reloads were going, and then went out to 100 yards for 3 shot groups. The worst group was about $3\frac{1}{4}$ inches, the best was $\frac{3}{4}$ inch. Average was about 2 inches or so. I do not attribute grouping issues to the trigger, but more to my eye sight. When it gets that cold and there is ANY hint of wind, my shooting eye dries out within a few seconds and causes blurring of the target (*excuses, excuses...*). All these shots were taken from bench rest.

BUT, the real test and the real TREAT of the trigger was when I switched to unsupported offhand. Here, the new trigger really made a difference. From this stance, I was able to easily put shots down range that all fell within the

8 inch black circle of the target. I had tried this before with the original trigger and the results were dismal to say the least. The new trigger allowed much greater control and feeling.

The biggest problem I had actually had to do with the stock design and the distance to the trigger. I was wearing fingerless shooting mittens. This did not allow me to truly "grip" the stock with a nice finger weld. Also, just the design of the stock with it's odd angle makes me have to stretch my hand and trigger finger out in an un-natural position. Not much can be done about that, except perhaps bending the trigger itself back without changing the angles on the internal surfaces.

I like the fact that the trigger did not look all that much different from the original trigger, maybe only darker in color. He did say that he is working with a firm specializing in metal coatings, but I hope that the final result will still match the basic coloring of the original rifle.

Right now, Huber has the following triggers available:

*Mauser 1891-98k, Swedish, BRNO and M48
Enfield P14 and M1917
SMLE family
Mosin Nagant 91/30, M38, M39, M44, Type 53
Springfield 1903 family
Arisaka Type 38 and 99*

He goes on to state the following triggers are in current development or he is considering:

| Development: | Consideration: |
|-----------------------|---------------------------------------|
| <i>Krag Jorgenson</i> | <i>AR-15 family</i> |
| <i>30 Remington</i> | <i>Remington 700</i> |
| <i>M77 Ruger</i> | <i>Savage 110 & 112 family</i> |
| <i>SKS</i> | <i>M-1 and M1A Springfield family</i> |

Who is John Huber?

A certified Wisconsin Hunter Safety instructor dedicated to the safe use of firearms, John Huber is also former Marine, a former US Army Reservist and former Wisconsin Air National Guard sergeant. Huber was experience working with CAD/CAM and milling machines on an industrial scale. Ten years ago he modified the trigger pull of a 98k Mauser by creating an all NEW trigger out of raw steel, and began to experiment with the use of a steel ball as the bearing surface of the trigger. It

worked and he developed the design and manufacturing process to market his own line of triggers. His website is at www.huberconcepts.com. Send him an email and ask him what he has developed recently or what you think he should work on next.

Huber Concepts Contact Information



Huber Concepts
514 Thorp St
Fond du Lac, Wisconsin
54935
PH# 920-921-9641

Email Addresses:
johnf@huberconcepts.com

Web Site Address:
<http://www.huberconcepts.com/>

In all, I think that the Huber trigger replacement for the SMLE is a good investment for those of you that want to change to a lighter, crisper trigger without having to change the original configuration of your SMLE Enfield family rifle.

Copyright 2003, 2004, 2005 © Jamie Mangrum