This is the instruction on how to install the SKS side rail mount onto a Mauser rifle written by Jamie Mangrum. This exceptional guy is a brilliant specialist in rifle modifications. Below is a shorter version of his article.

Putting a Modern Spin on Things

Recently I was reading our message forum and came upon a post that caught my interest. The post showed a picture of a simple scope mount that attached to the left side of the receiver ring of a Mauser. It is a drill and tap style mount that requires permanent modification to the firearm. The kicker is that the mount allows for the attachment of a side mounted Russian military POSP style scope. POSP scopes come in many configurations and from what I have read and seen offer clear and very bright optics at a bargain price. They come typically in either fixed or variable magnification and have battery powered (lit) reticules. All these features are bundled into a very military non-commercial looking package. Using the POSP style scope and base combination you can easily remove the scope for transit and reinstall on the rifle with minimal sight-in, if any. I went ahead and ordered the mount.

figure 2

djm

A week later the mount arrived in the mail and after examining it I concluded that it is a very basic and sturdy piece of hardware. To install the mount does require some basic gunsmithing skills. You will need to disassemble the rifle and then drill and tap three holes on the left side of the receiver ring. Also, if your Mauser has some sort of venting hole in the location where the mount is supposed to be attached then using this mount is not a good or safe idea.

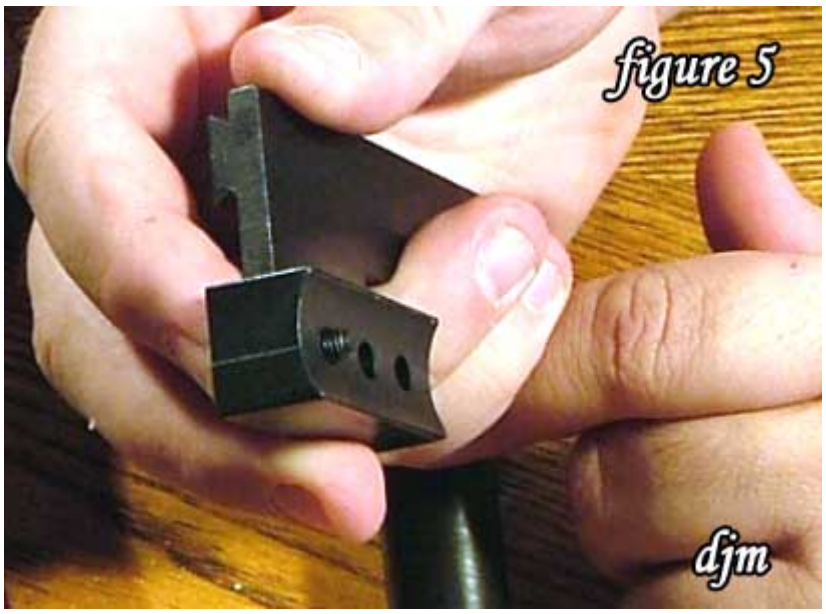
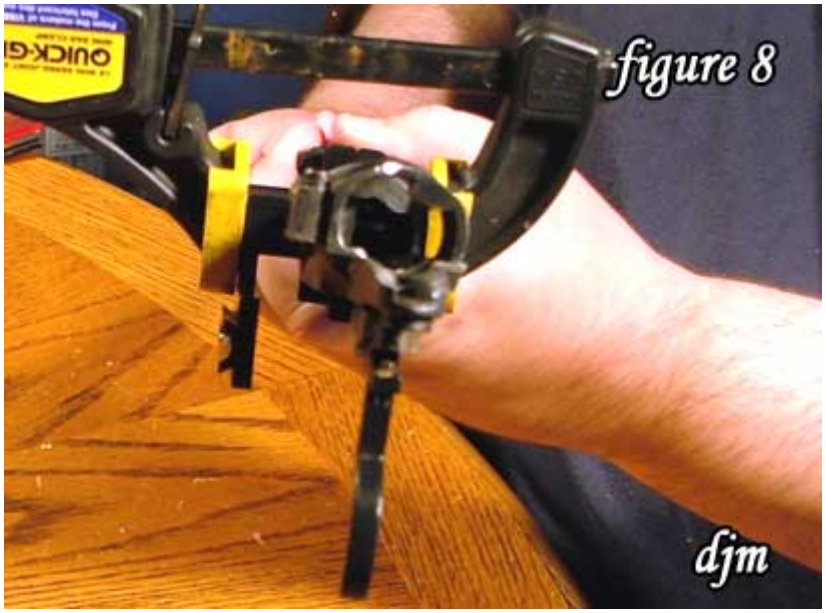


Figure 5 shows that the supplied screws only extend a short distance so it is not necessary to drill very deep holes in the receiver.

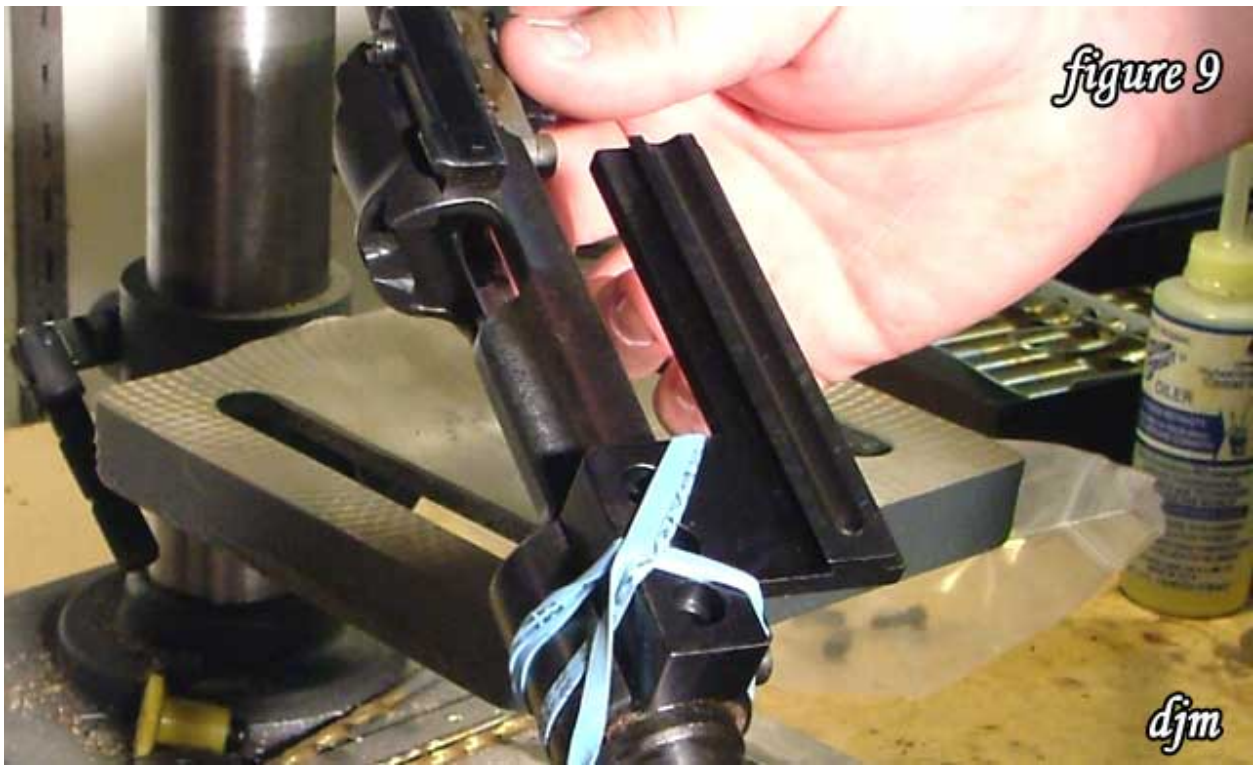
Aligning the mount.

After disassembling I placed the mount against the ring to make initial alignments. I is very important to make certain you do not position any of the screw holes to be over the chamber of the rifle. If you position the mount as pictured where it is centered on the ring then you should be all right.

Before proceeding I cleaned both the back of the mount as well as the area of the receiver I was going to install the mount.



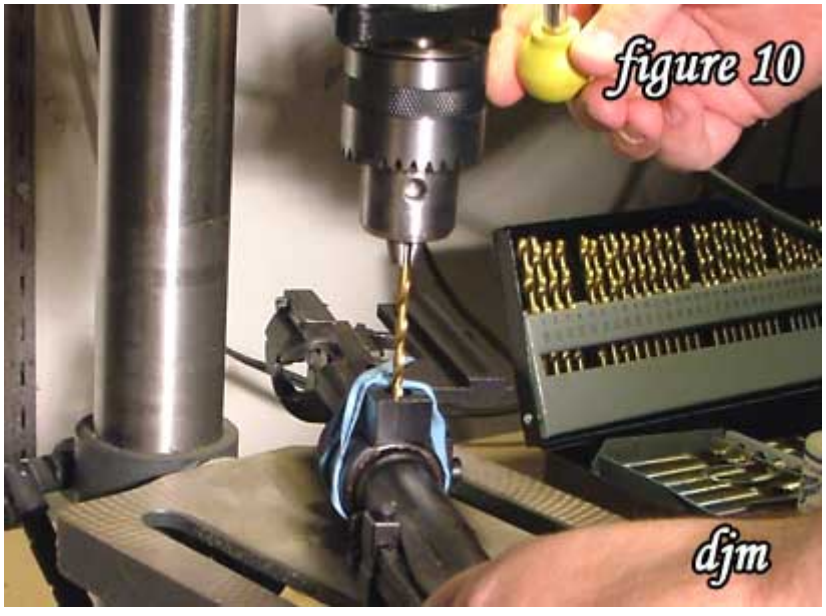
In figure 8 I have the mount held in position by a quick clamp to illustrate the position and alignment of the mount with the receiver. The base of the mount will sit outside the rifle stock running parallel to the stock's side.



Prepping to drill.

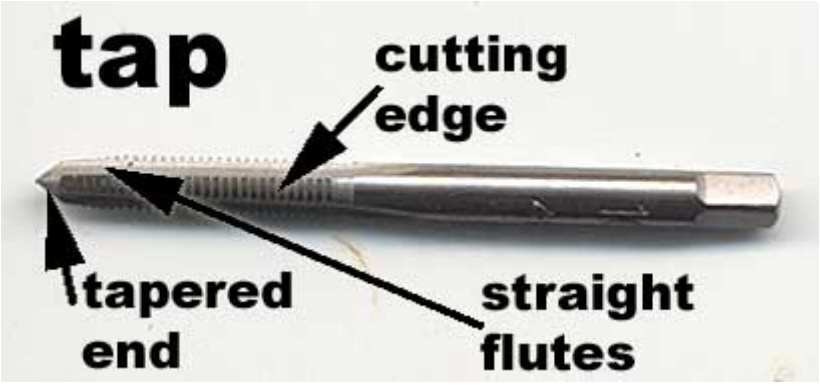
I was unable to leave the quick clamped mount in place while I drilled in my press so I tried wrapping large rubber bands and found the mount still moved around quite a bit. I ended up placing several drops of Super Glue on the area where the back of the mount touched the receiver. Once I let this set up, the mount was temporarily secured enough for me to complete my drilling. It came loose again as I was drilling the last hole.

CAUTION: Before proceeding chamber clearance must be checked. Drilling into the chamber area (incorrect mount positioning) may result in injury or death.



I slowly drilled each hole with a Number 16 drill bit (.177) to a shallow depth that was somewhat deeper than the length of the extended screw at the back of the mount.

The MIT machinist reference describes tapping as:



A tap has cutting edges to cut the threads and straight flutes to allow chips to be expelled. The end of the
tap is tapered slightly to help the tap get started. Taps are hard and brittle so you should be careful working
with them (try not to drop them or force them into a hole when stuck). Be sure that the hole you drilled is the
correct size for the tap you're using or it may break inside.

Put the tap in place and apply moderate pressure as you turn the tap. It's good practice to back the tap up a
bit for every quarter turn of thread you cut.

Tapping!

I used a 12/24 tap because it mates with Number 16 drill bit and it was the closest thing I had that looked like it matched the threads of the screws. Next I placed a small amount of machine oil into each of the three holes. This helps the tap turn more easily in the hole while making threads. Halfway through the tapping process of each hole you will want to apply more oil. If the tap hangs do not force it and back out the tap some and oil before

proceeding. Otherwise you will potentially break off the tap in the hole and you will have a nightmare of a time attempting to remove it. Once you are finished tapping, clean the area around the holes and remove burrs and filings from the tapped holes.

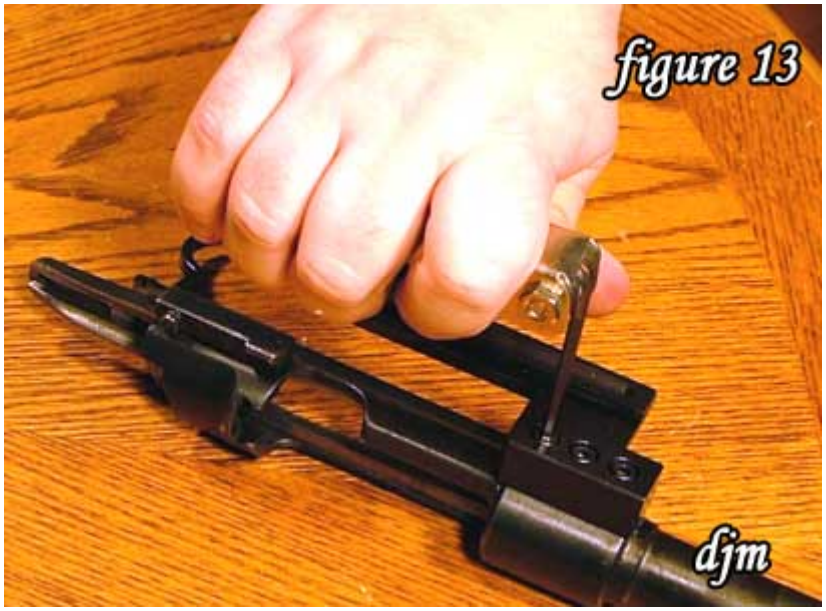
Warning!
It is possible that the screws you receive with your mount may be a different size than what I encountered in my project. Please do not just drill and tap to my specifications because you may find that your screws do not fit properly. My suggestion is to measure your screws and if you are still uncertain then take them to the hardware store and ask for help. A reader reminded me of an old saying: Measure twice, drill once.

I applied a permanent thread locking compound (Loctite) to hold the screws in place.

Loctite Threadlockers

Invented by Henkel Loctite as a revolutionary method to lock and seal threaded fasteners, Loctite® Liquid Threadlockers have found wide acceptance in a range of applications -

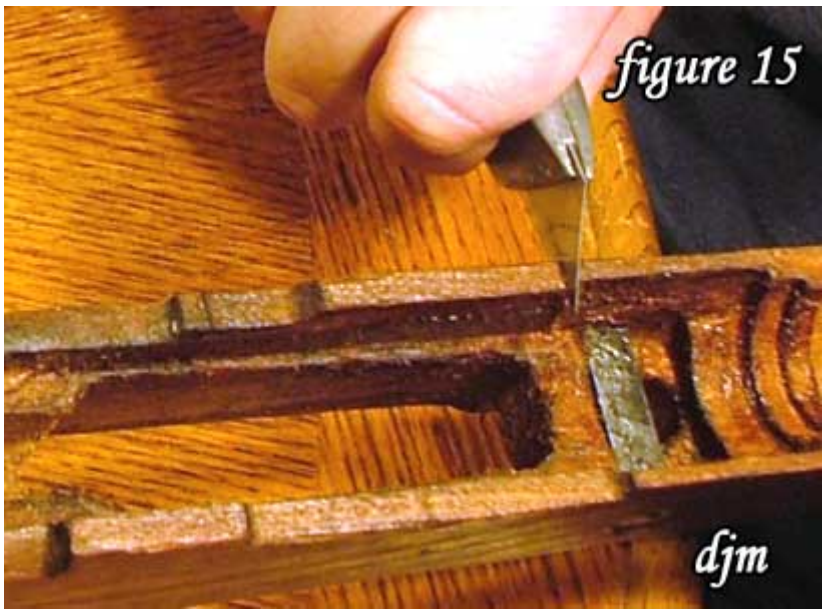
from delicate electronic components to heavy construction equipment. Loctite® Threadlockers are available in varying viscosities and strengths for virtually any application, including exposure to extreme environments



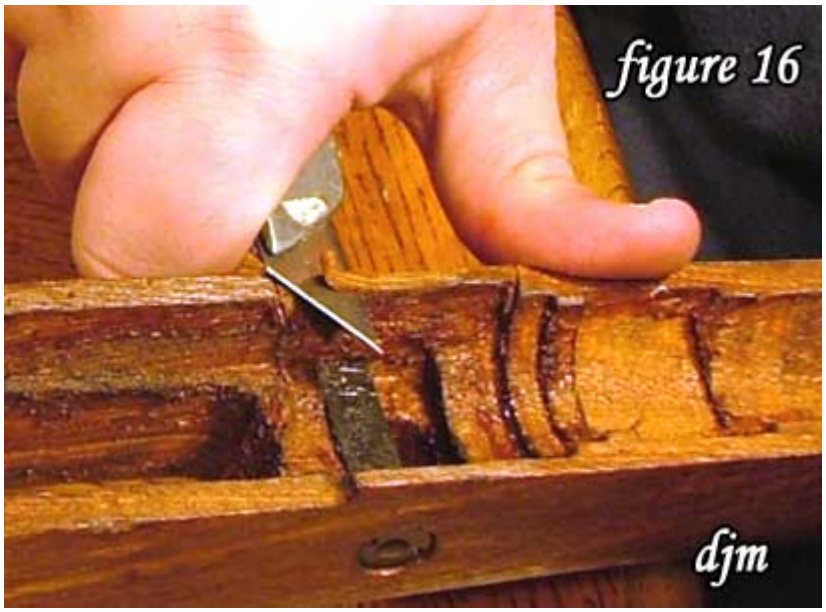
I screwed in each of the screws. It was a very tight fit, but I am certain it will hold.

Prepping the stock

Once the mount was installed I found I had to make two minor modifications to the stock. The small section of the mount that attaches to the receiver will require you to inlet a small section on the left side of the forearm of the stock. I took a utility blade and marked on both sides of the block.



Next I cut down into the stock about 3/8's where I had made my marks.



Then taking the same blade I carved out a little bit at a time while constantly checking for fit so I did not have to remove too much.

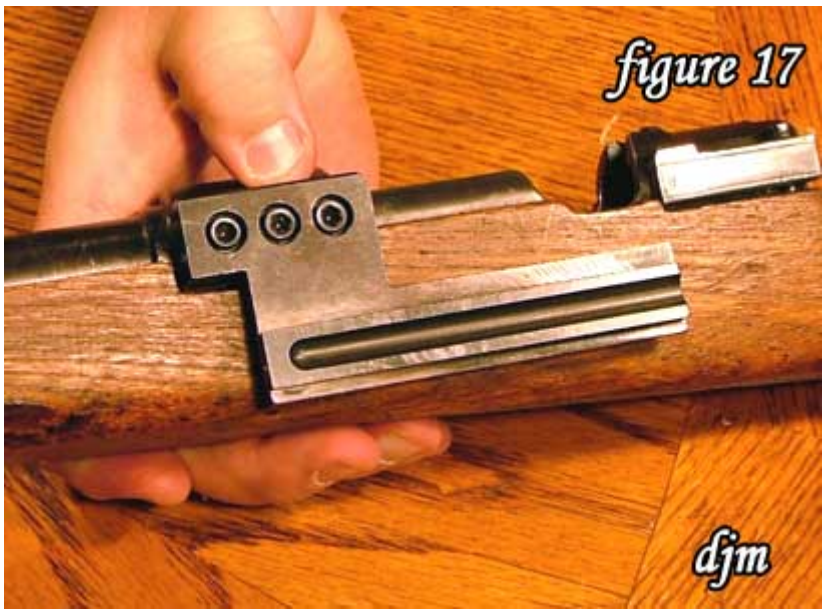
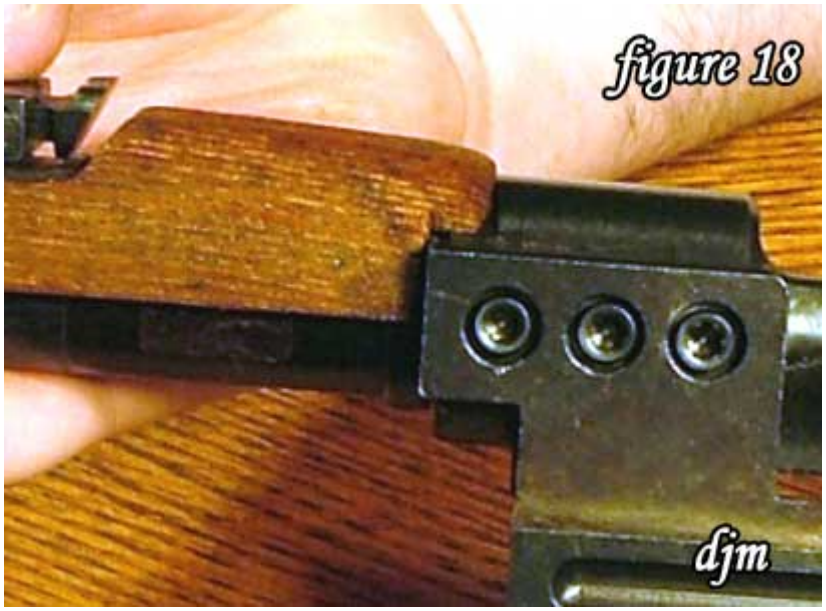


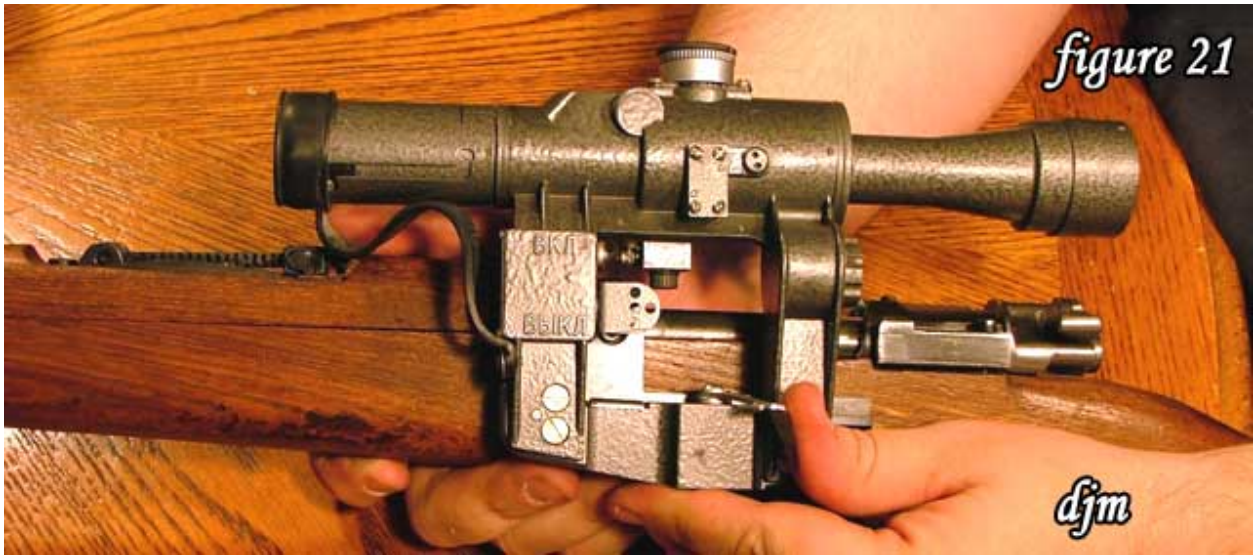
Figure 17 shows the completed modification and the stock in place.



With a Mauser that has a hand guard that extends behind the rear sight you will also need to cut out a very small amount of wood as shown in figure 18.

Figure 19 shows the completed mount installation.

I lined up the scope with the rear of the rails and slid it all the way forward.



Once I locked the scope in place I found it is a very stable platform indeed. Figure 21shows what the mount looks like installed, from the left hand vantage point.

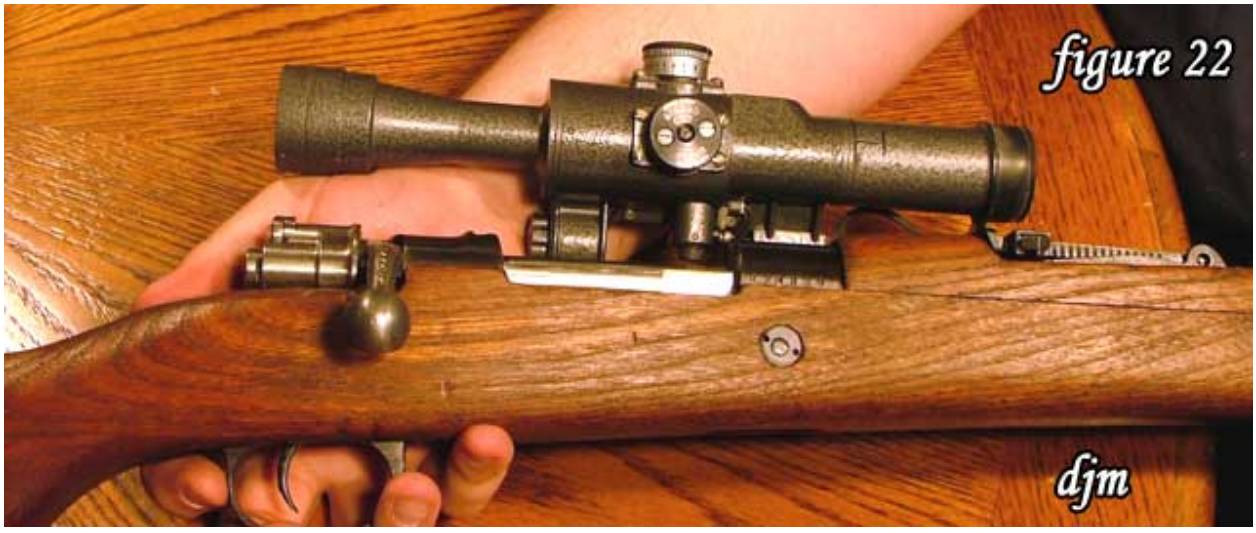
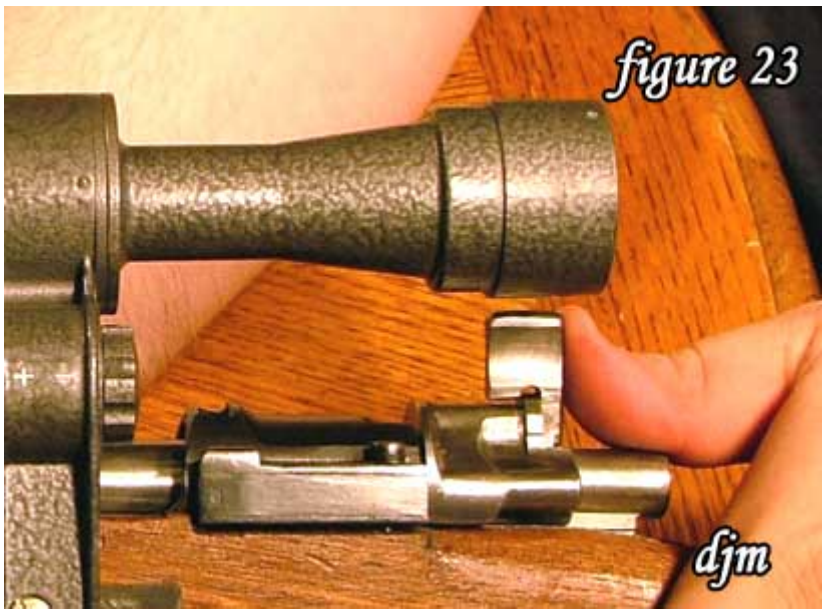


Figure 22 shows what the mount looks like installed, from the right hand vantage point.



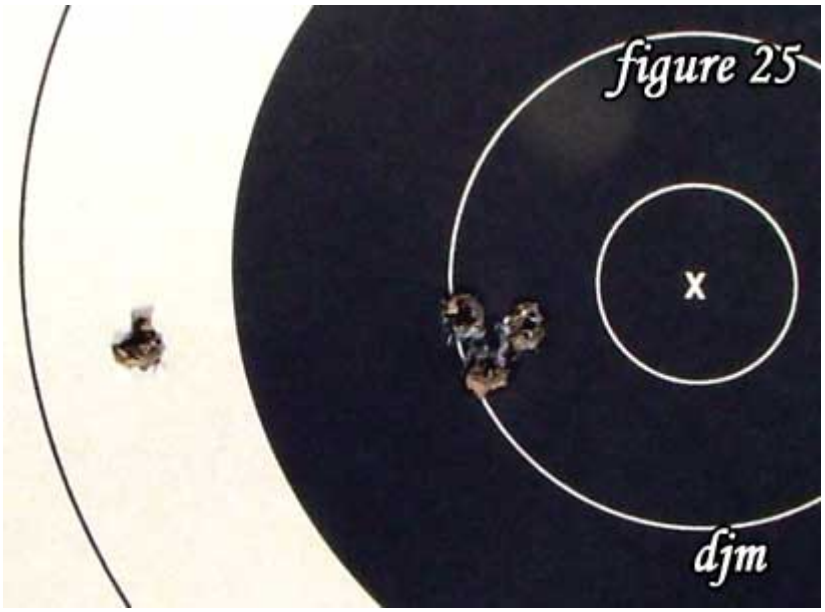
Safety clears the scope.

A couple of great features you will find with a side mounted scope installed on a Mauser is that you can work the Mauser safety easily so no modification is necessary and the bolt handle clears the scope easily and does not need to be modified.

View from behind. Note that you can still use the open sights.

Finally I was off to the range. I was worried about sighting in the scope because I could not use my handy bore sighting tool (that I have become very dependent upon) because the scope is not directly inline with the bore. I could bore sight it. The lazy side of me decided to shoot the rifle to see how far off I was. I fired off my first two shots and was extremely happy to find out that I was all ready on the paper.

Heck, I was more than on the paper! Figure 25 shows my first 5 shots at a distance of 50 yards. Granted most anyone can shoot well at 50 yards, but this is the distance I start out at when initially configuring a scope. The first two rounds went almost through the same hole and then after I adjusted windage a little it still patterned three holes as tight as can be. Here is the real surprise - I had forgotten to pick up some good commercial ammo the day before and only had surplus 8mm ammo of which I expected very poor accuracy.



First 5 shots at 50 yards

Figure 26 shows my completed project at the range sitting on the bench with my bandoleer of ammo and spotting scope. Once I got the scope dialed in the rifle performed flawlessly.

I was walking towards my bench and almost screamed like a little girl because I saw my rifle roll off the bench onto the ground. Luckily it landed upright, landing on the rubber, slip-on butt pad I had installed to protect my shoulder. I was still horrified and expected the worse.

5 shot target at 100 yards

I truly expected that I had ruined the setup or at the very least would be completely off target. My worst fears were not realized at all. I shot my next 5 rounds and only had to make a very minor adjustment to the windage. All in all everything performed well above expectations.