



Mosin-Nagant Front Sight Modification

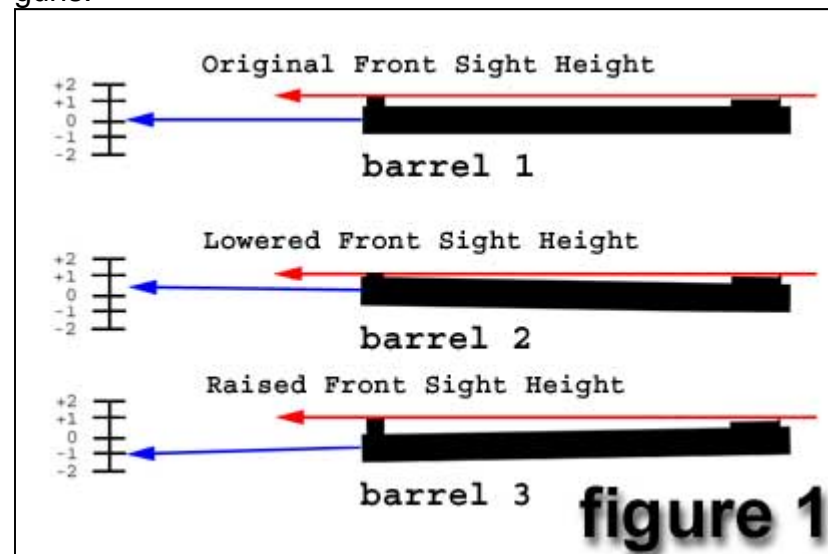
by Dale and Thomma Grindstaff

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I have been a collector of mil-surp guns for some time and do quite a bit of gunsmithing in my home shop on both modern and mil-surp firearms. I've recently come up with a way to eliminate one of the common and frustrating problems with the [Mosin-Nagant 1891/30](#), [M44](#), [M38](#), and [1891/59](#) rifles. This modification does not apply to [Finnish](#) rifles.

As we all know, Mosin-Nagant Rifles and Carbines generally shoot high - as much as five to eight inches high at one hundred yards. Most of us enjoy shooting these rifles in their original military configuration without making a lot of alterations that take away from the history of the guns.



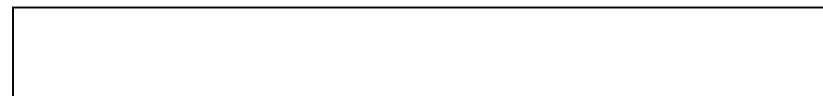
The method we have come up with for solving the high-shooting problem involves no permanent alterations to the gun (*at least, nothing that cannot be easily and inexpensively replaced*) and is almost un-noticeable (*except, of course, for how much better the gun will shoot*).

To lower your point of aim you need to increase the height of the front sight post (*Note **figure 1** for explanation*). The method involves replacing the front sight post with what you might call an infinitely adjustable post. By making this modification to the front sight, or to a spare sight you may have, you'll be able to easily and quickly adjust elevation point of impact for various loads and ranges.

Most people should be able to make this modification at home if they are accustomed to doing a little work on their guns. If not, find a friend who **is** so accustomed; or a gunsmith probably wouldn't charge very much to do this, as it is a quick and simple operation requiring only the drilling of two holes and the tapping of one. The entire operation will take less than thirty minutes.

You will be removing the old front sight post, drilling a hole completely through the base of the sight in the position of the old post, drilling another hole that is perpendicular (*at a right angle*) to the first hole so that the two holes meet, and tapping the latter hole (*the one that was drilled to be perpendicular to the first*) with a 6-48 tap for a set screw to hold the new front sight post in place.

TOOLS NEEDED:
<i>1. A small brass or other non-marring drift</i>
<i>2. A small hammer</i>
<i>3. Needle nose pliers</i>
<i>4. Possibly a small half-round file</i>
<i>5. 1/32 bit (approximate size, can be slightly larger)</i>
<i>6. A center punch</i>
<i>7. A small slotted screwdriver or appropriate hex wrench</i>
<i>8. A drill press (preferred) or an electric hand drill</i>
<i>9. A #31 drill bit</i>
<i>10. A 6-48 tap (taper, bottom or plug) and a tap handle</i>

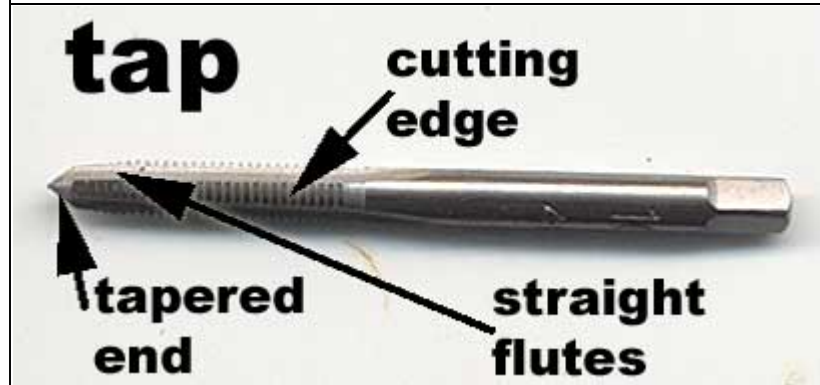




NOTE:
The #31 drill bit and the 6-48 tap can be inexpensively purchased from a supplier such as Brownell's. Don't even think about looking for these at your local hardware store.

- MATERIALS NEEDED:**
1. A length of suitable rod to fashion new sight posts
 2. A 6-48 scope base filler plug screw (slotted or hex).

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

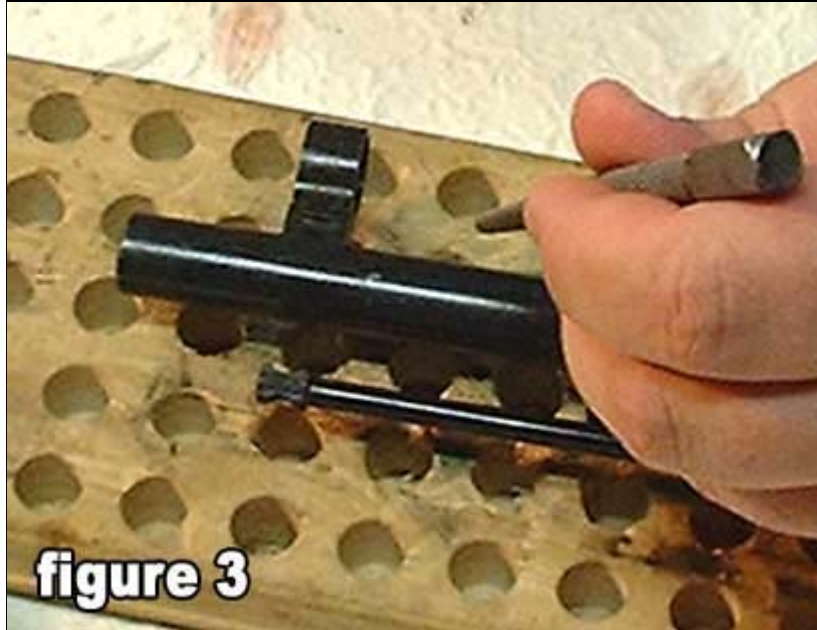
size for the tap you're using or it may break inside.

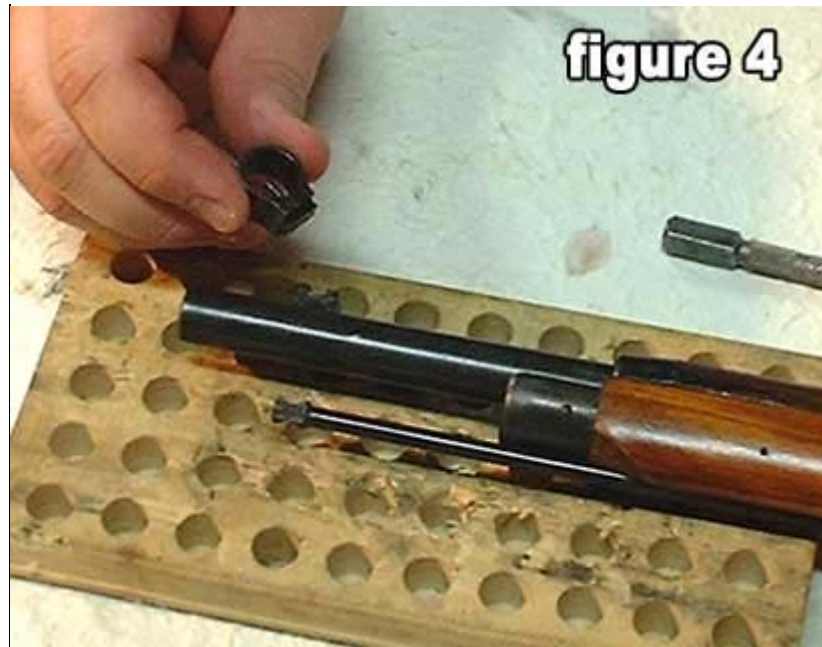
Put the tap in place and apply moderate pressure as you turn the tap. It's good practice to back the tap up a bit for every quarter turn of thread you cut.

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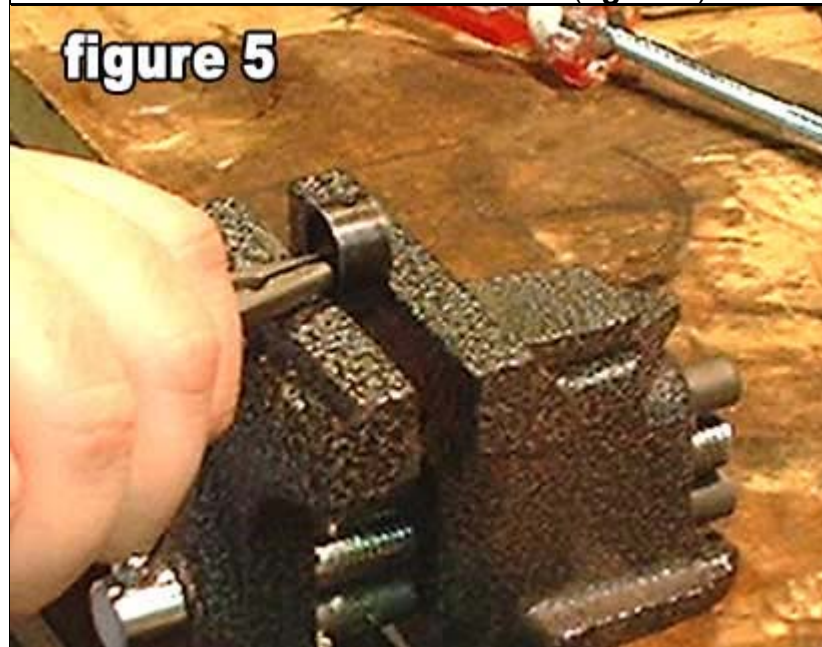
STEP-BY-STEP INSTRUCTIONS

1) Using a drift and a hammer, remove the front sight from the barrel (**figures 3 & 4**).





2) Using a pair of needle nose pliers, gently work the old sight post back and forth (**figure 5**) until it breaks off at its base. You may be able to drive out the old sight post from the top. If the post does not break off flush from its base, use a small half-round file to file it flush (**figure 6**).



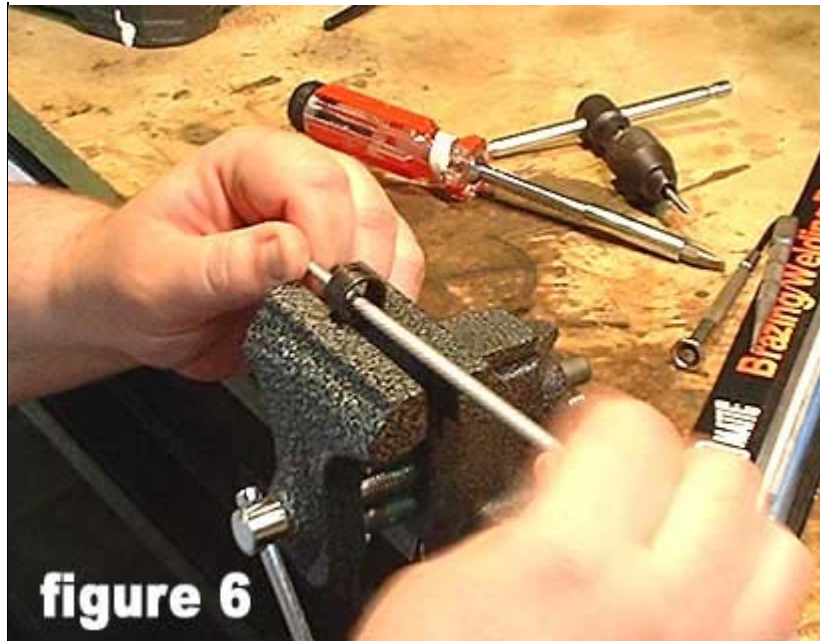


figure 6

3) To drill the first hole (**figure 7**): working from the top of the hood and using a 1/32 bit (approximate, but not much larger; you may want to slightly enlarge the hole later), drill all the way through the base of the sight in the position of the old post. This operation is most easily accomplished with a drill press, but it may be done with an electric hand drill if you are careful to drill as straight as possible. Remember to use a little light oil or cutting oil as you drill.

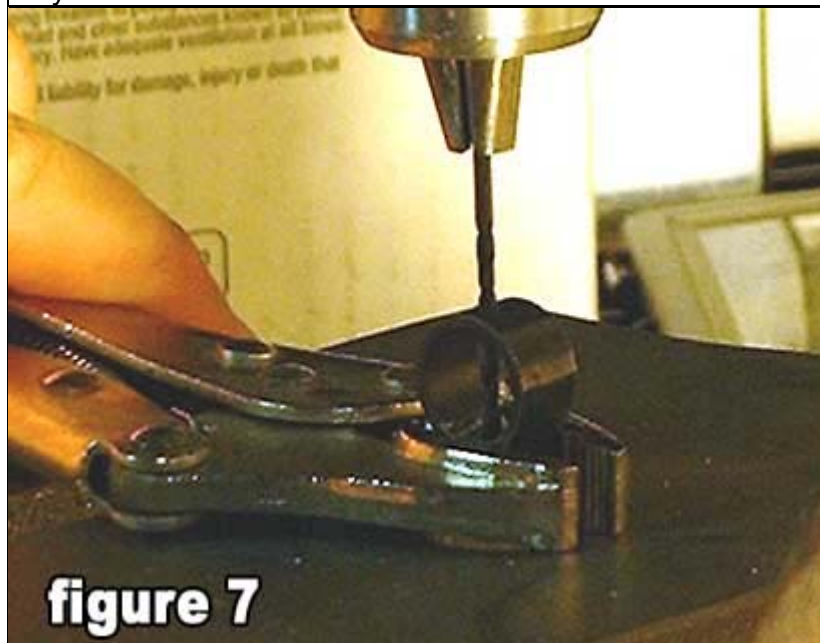


figure 7

4) For the second hole (**figure 8**): working from the front or rear of the sight, center punch the position of the second hole exactly in the center of the area between the bottom of the hood and the base of the sight. Using a #31 drill drill this hole in the position made by the center

punch down into - but not through - the hole you drilled in step 3 above. These two holes, from Steps 3 and 4, will now be perpendicular (*at right angles*).

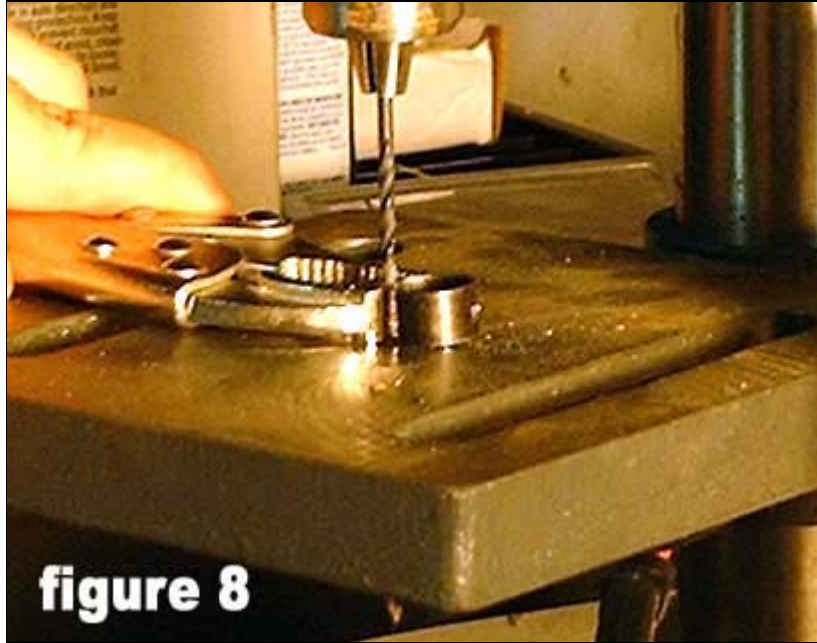


figure 8

IMPORTANT NOTES:

1) *Do not use a drill larger than #31. This is the correct drill size for 6-48.*

2) *Be very careful to position your center punch mark ***exactly centered*** in the area described above because this area is quite narrow, and drilling just a bit too high or too low will cause the drill to break through the edge of the sight; and although it might "technically" still work to hold the set screw, it makes for a very unsightly job. Remember that once this hole is drilled, it will need to be tapped, which will also slightly enlarge the diameter of the hole.*



figure 9

5) Now, you will proceed to tap the hole you just drilled (*in Step 4*) with a 6-48 tap. The 6-48 tap allows you to use a very common scope base plug screw as your set screw, and I believe most of us will probably have some of these. However if you have a short 6-48 hex-type set screw it would be even better but the more common slotted one will work (*figure 10*).

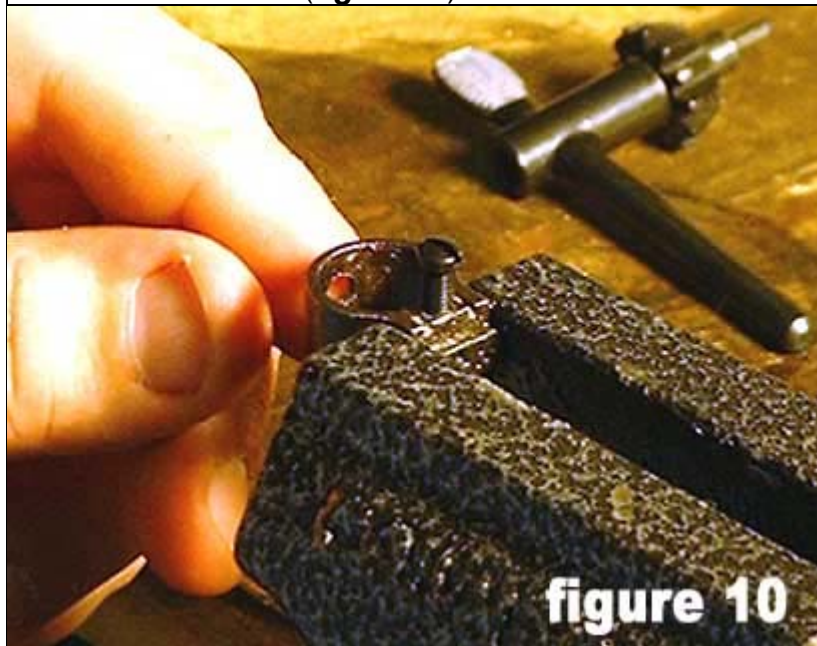


figure 10

6) Install and tighten the set screw firmly (*figure 11*).



figure 11

7) To make your new sight post: the post on my 91/30 measured .080 in diameter. I prefer a slightly wider post, so I used a piece of .095 welding rod. Measure a length of the rod to be from the base of the sight to about 3/4 height (**figure 11**) of the sight hood and then cut the post to length (**figure 12**).

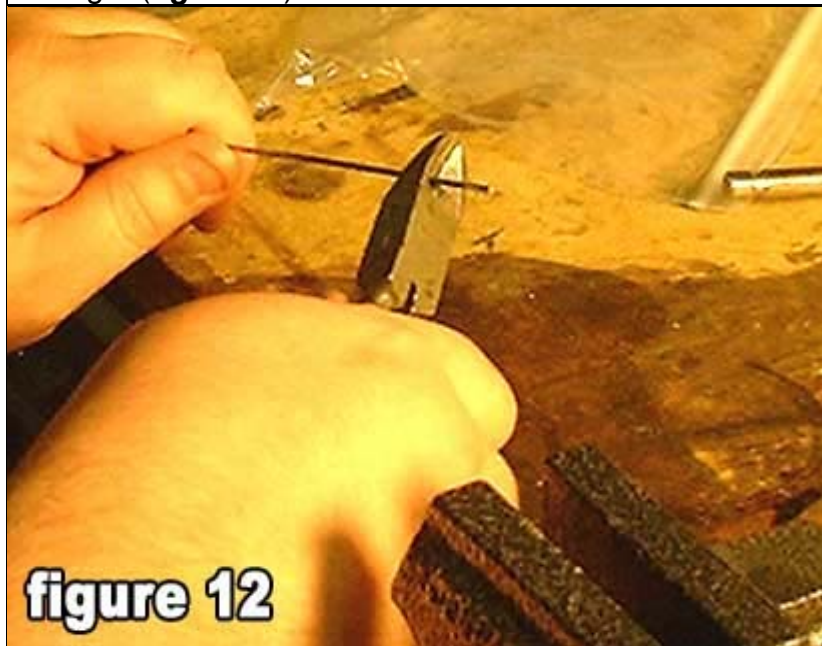
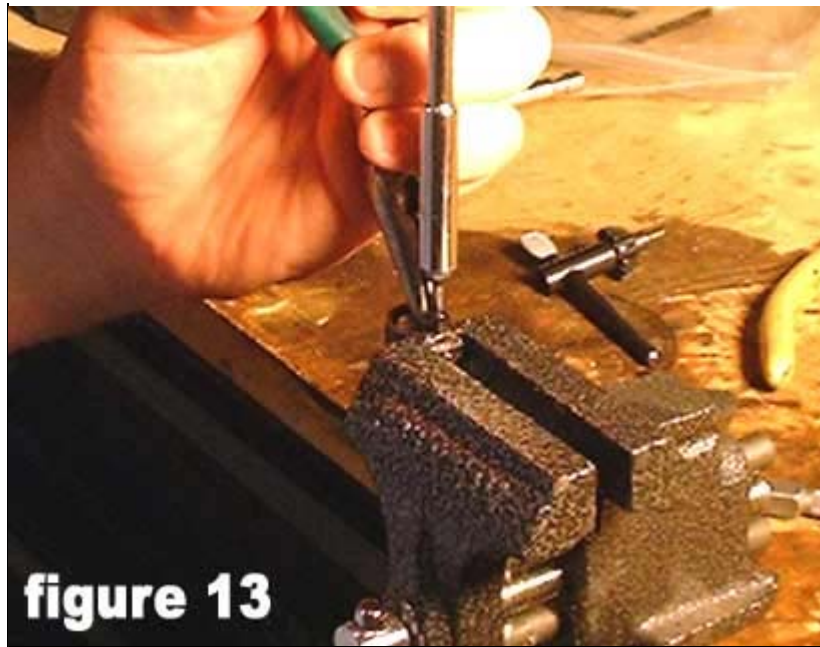


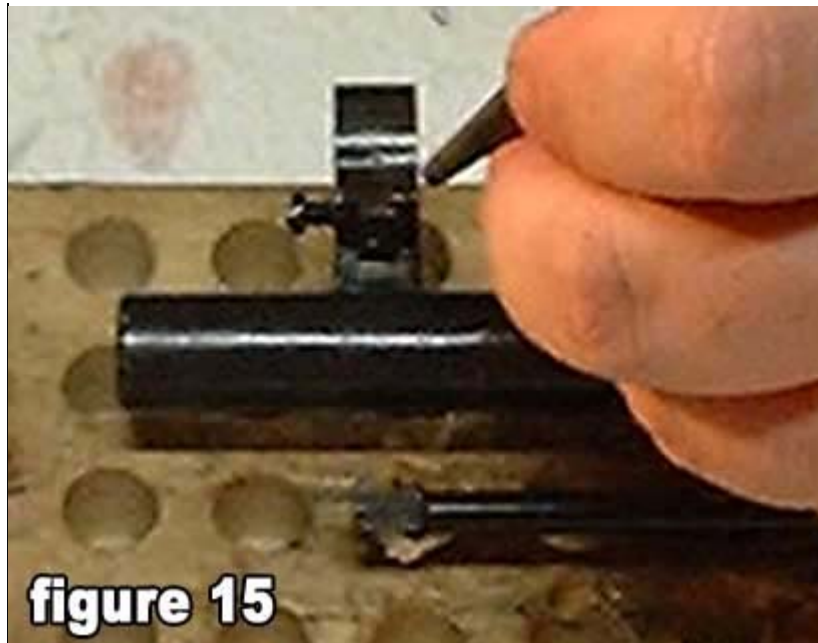
figure 12



8) Insert the new post at a position slightly higher than half the inside diameter of the hood (**figure 13**) and tighten the set screw.



Figure 14 shows the new post installed next to the old post. Note that I used a length of screw that I had available when working on this project. I will add a shorter and less visible screw later.



9) Using the drift and hammer reinstall the front sight into its dovetail on the barrel.

Voila! You now have an infinitely adjustable front sight post on a Mosin-Nagant. By making posts of different lengths, you will easily be able to adjust point of elevation impact for various loads and ranges. You can also use the set screw to move the post up and down slightly for fine adjustment. You can change the post in less than ten seconds. In fact, the whole operation I described above, of making your new adjustable front sight, takes much less time than it took us to write this "how-to" article.

Reader Submitted Suggestion

This is a quick fix I use for the front sight of the Mosin-Nagant 91/30 and all models of this rifles that you can use to solve the high elevation shooting problem these rifles have.

Basically you take a small piece of plastic tubing and slip it over the front post. It will need to be a tight fit so you can slip it up and down to adjust elevation

I used tubing that I acquired for making fishing lures. It comes in different colors and I used red. The size I used was OD =.106 and ID =.070. Cut a piece equal to the height of the front sight post. Use a hair dryer and heat the tubing then slip it over the front post. You can adjust it for zero by sliding the tubing up on the sight post. You need to raise the front sight to lower the elevation.

You can also use insulation from electric wire. You need the solid copper wire. Cut the insulation and slide it off the wire. You will have to use an ID smaller than the diameter of the front sight post so you will have a very tight fit. This insulation also comes in many different colors.

I have four 91/30 Mosin-Nagant that shot 8" to 9" high at 50 yds. and have used this method to adjust them to zero and also many of my shooting buddies rifles.

Keep your powder dry:

William L. Arnold (redneck)

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