Another way to do a left-hand Ruckstell shifter

by Tom Carnegie

Some of the folks in the Montana 500 have Ruckstell axles in their T's. Since they are not allowed to be shifted during the run, the reason people have them is open for speculation. Generally you'd think that a lighter rearend such as the standard Ford rearend would be preferable to the heavier Ruckstell. The only possible advantage that I can think of is the ball bearing in the Ruckstell. The question is, "Does the ball bearing turn significantly easier than either the bronze or less likely, the roller bearing thrust washer?" Maybe it is for touring purposes after the race. I don't know the answer to this question, but I do know that several people have Ruckstells in their car, and after the run they need to be shifted occasionally. In the original setup, the Ruckstell shifter handle was pretty much right in the center of the floorboards. For those with 1925 or older cars, this presents a distinct inconvenience as the shifter is in the way when you enter the car from the passenger side. To a lesser degree this is true with all years and body styles. To address this problem, left hand shifters have been designed, and are increasingly popular with the model T folks. These left hand shifters generally lay atop the frame and are held in place by two u-bolts, one on each side of the frame.

They are installed by drilling two holes per u-bolt into the top of the frame. The lever then shares the emergency brake hole. Over the years I have developed a strong aversion to drilling extra holes into the frame, or anywhere else on the T for that matter. As such, I have devised a way to mount a bolt-on left hand Ruckstell shifter that doesn't require drilling any extra holes. I will attempt to describe it forthwith.

What I started with was a normal emergency brake handle and cross-shaft. I dug through my pile and found one that was damaged and therefore of little value. Damaged ones or truck ones are easily obtainable either from club members or from swapmeets or T vendors. Truck emergency brake assemblies are the same as passenger car ones, except the neutral cam is taller to accommodate the thicker frame. For our purposes a truck one will work fine. This first step once you've obtained your lever, is to de-rivet and remove the release lever and pull rod. Next, cut off the neutral cam, then drill the rivet and remove the right-hand lever. This will eventually become the lever for actuating the Ruckstell. A pair of support plates must be made for the shifter lever. I made a couple of plates out of 1/4" steel. (See figure 1) These plates are bolted to the inside of the lower frame rail. They are held by the bolts that also hold the emergency brake crossshaft supports. Slightly longer bolts will be needed as they will be going through the plate in addition to the frame and cross-shaft bracket.The center holes between the two mounting holes are for oil.

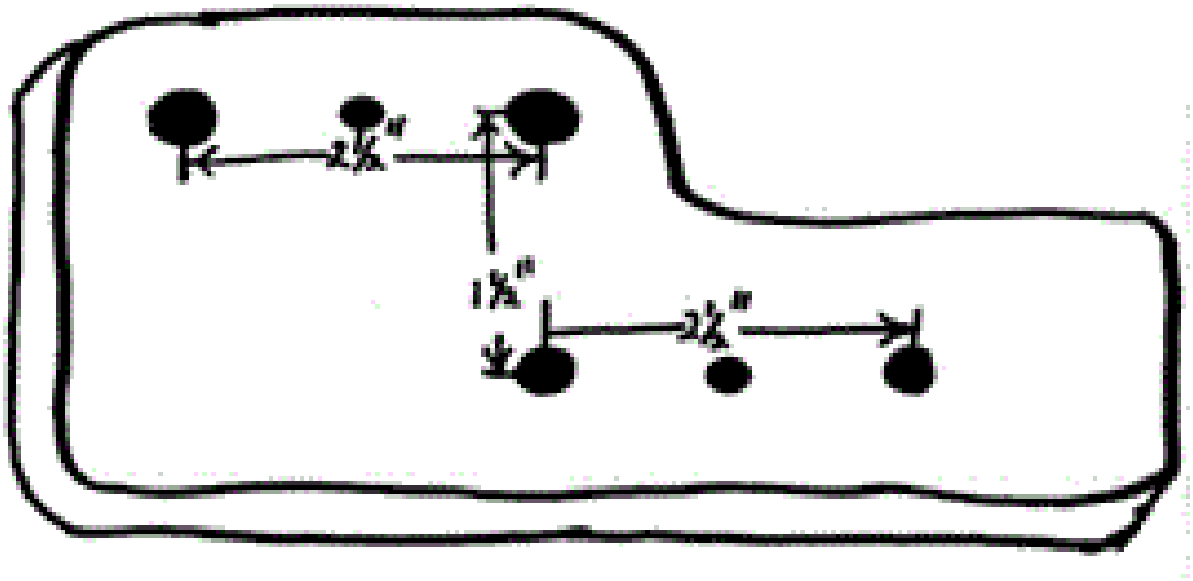


figure 1

picture 1

Right and left motion is restrained by the lever and set collar.

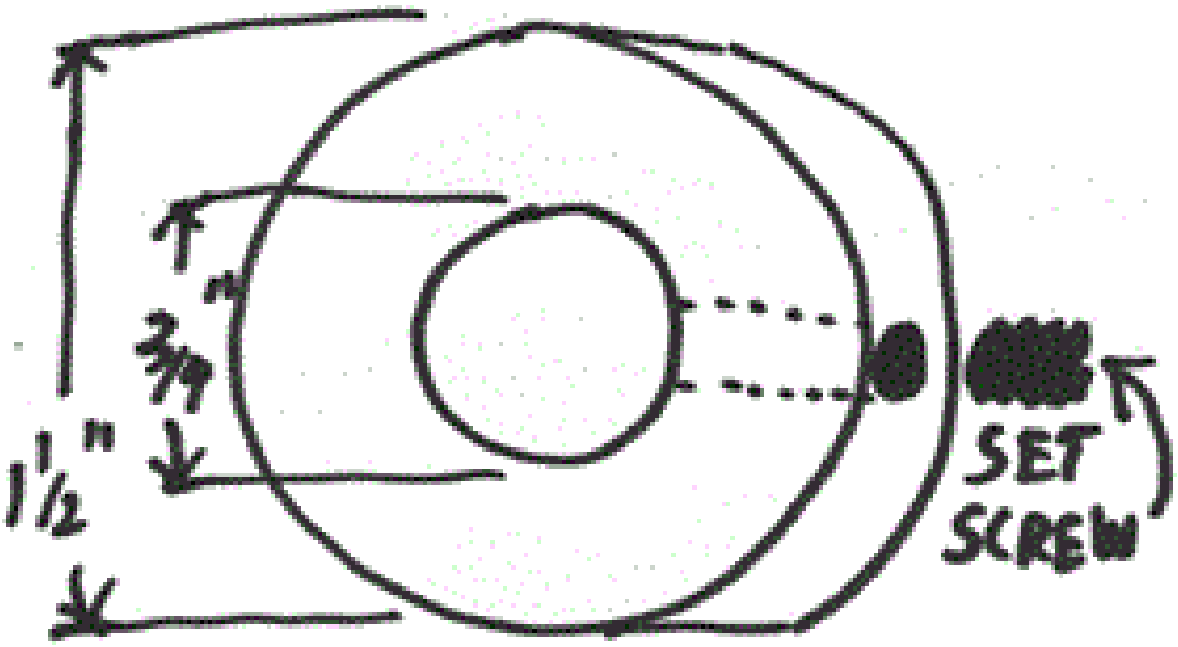
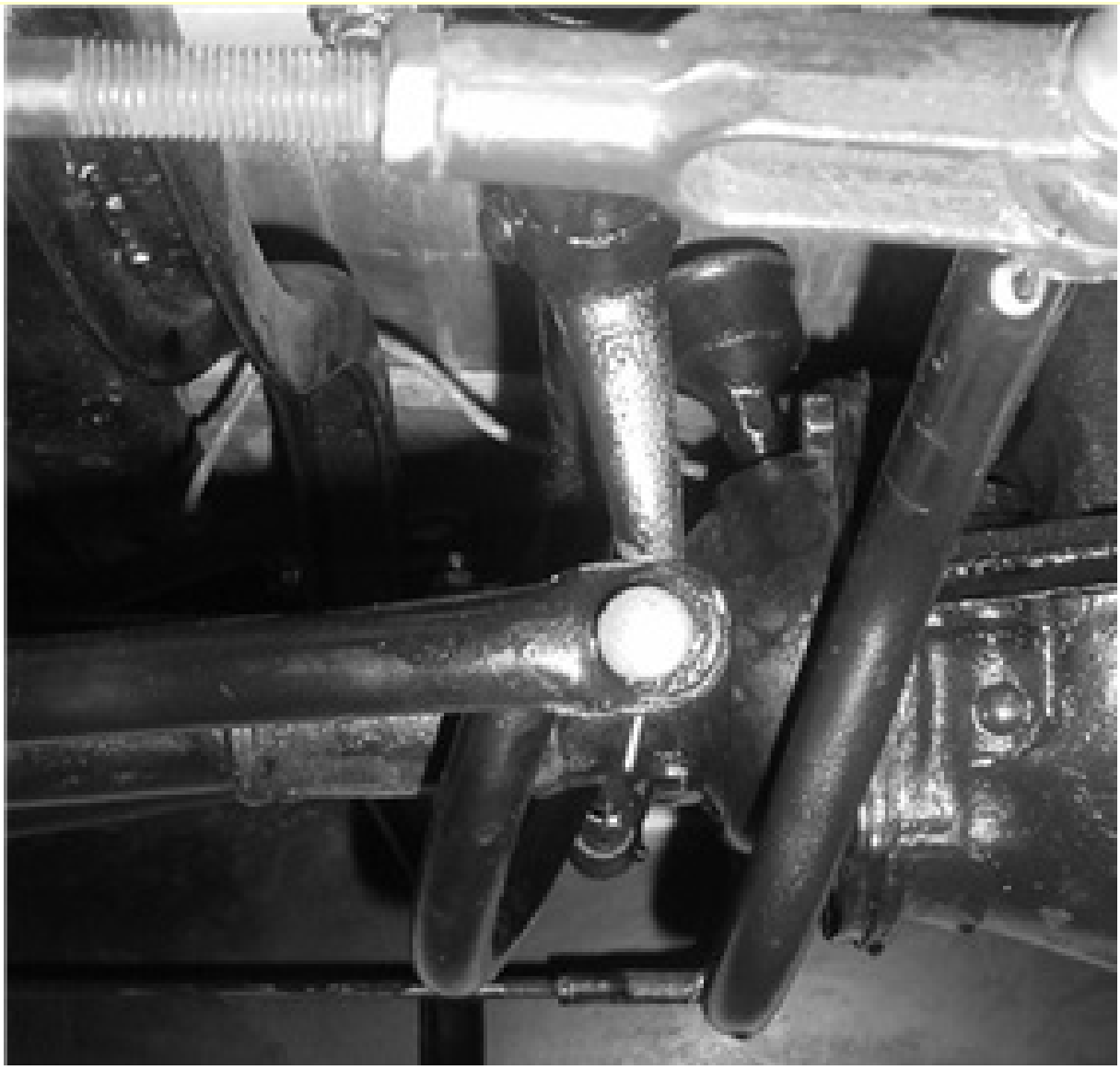
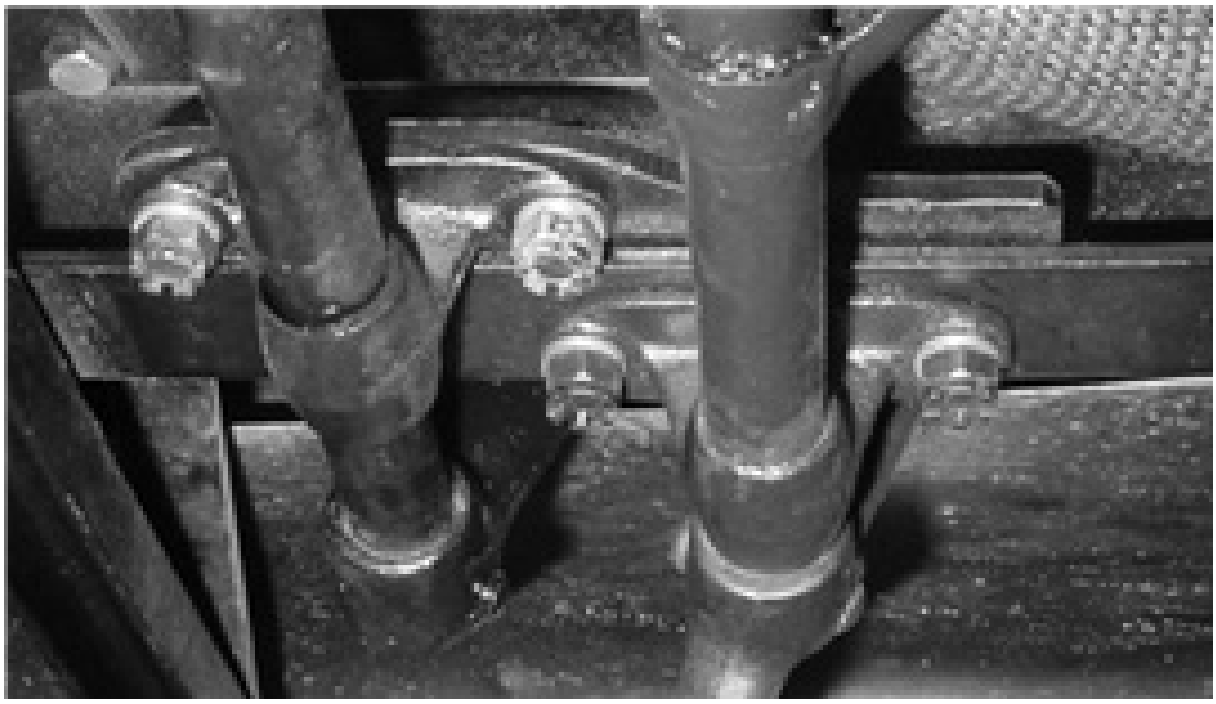


figure 2



picture 2

On the passenger side, the lever that originally actuated the right-hand emergency brake is flipped around and put it back onto the shaft. This will be the new Ruckstell actuating lever. (See picture 1) You will also need to build a set collar (see figure 2) to stop the shaft from traveling side to side. The new Ruckstell actuating lever is riveted onto the shaft in the position shown in picture 2. This picture shows the lever when the Ruckstell is in high.



picture 3

picture 4

This shows the shifter rod heading to the front. The rod is custom made from a piece of conduit. Once inside the car, the lever is bent out of the way of the emergency brake lever.

picture 5

This is the position of the lever when the Ruckstell is in "high"

picture 6

This is the position of the lever when the Ruckstell is in "low"