Tower Seminar!

by Tom Endy

A couple years ago a transmission tower restoration seminar was organized for the Santa Anita A's of Arcadia, California. I had done this seminar years before for another club and thought it a worthwhile project.

The mid-1929 to end of production version of a Model A transmission tower:

To prepare for the seminar I had accumulated about 20 or so transmission towers over a period of time. I took them all apart and degreased, bead blasted, and painted the housings. I also bead blasted all the salvaged shifting forks. I asked a club member who was an experienced welder to weld up the worn areas in the fork slots. I then asked another club member who has a mill if he would mill out the welded areas of the forks. He agreed and we located a fork that had little or no wear so he could set up his mill correctly. I also bead blasted all of Henry's killer springs and retainers I had removed from the towers.

When all the work was finished the seminar was scheduled. The idea was for club members to bring their towers to the seminar. We would exchange their tower housing, the two forks, and the killer spring for a set that had been refurbished. Prior to the seminar each participant had to determine what he wanted to do about other tower hardware that may be worn. They could purchase new reproduction shift rails along with the two bullets and the small spring, or they could go with what they found in their tower when it was disassemble, or they could root through the box of hardware I had collected from the towers I had taken apart. We had salvaged all the fork locking pins and along with my own accumulation we were able to straighten and grind the ends enough for suitable reuse.

On the day of the seminar club members showed up either driving their Model A or with a tower or two in hand. We set up several work stations as an assembly line for disassembly and assembly.

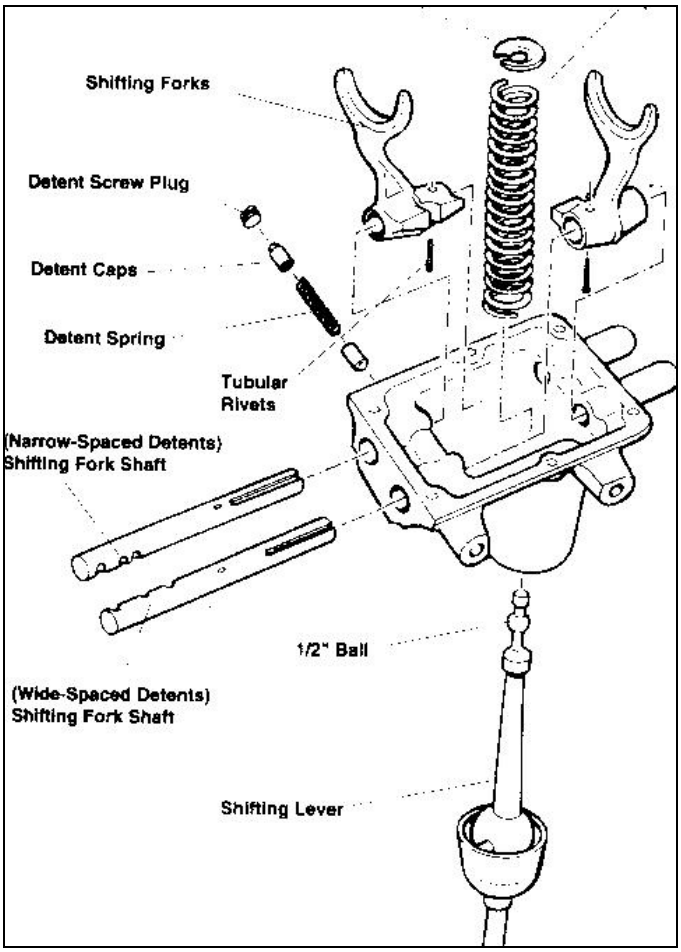
I had enough assorted towers that we were able accommodate the exchange needs for both the early and late tower styles.

Club member Bryan Thompson fabricated a couple of useful tools to speed up the process. One was a quick and easy killer spring removal and installation tool. The other was a bench grinder jig for grinding down the ball on the end of shifting levers we welded up at the seminar.

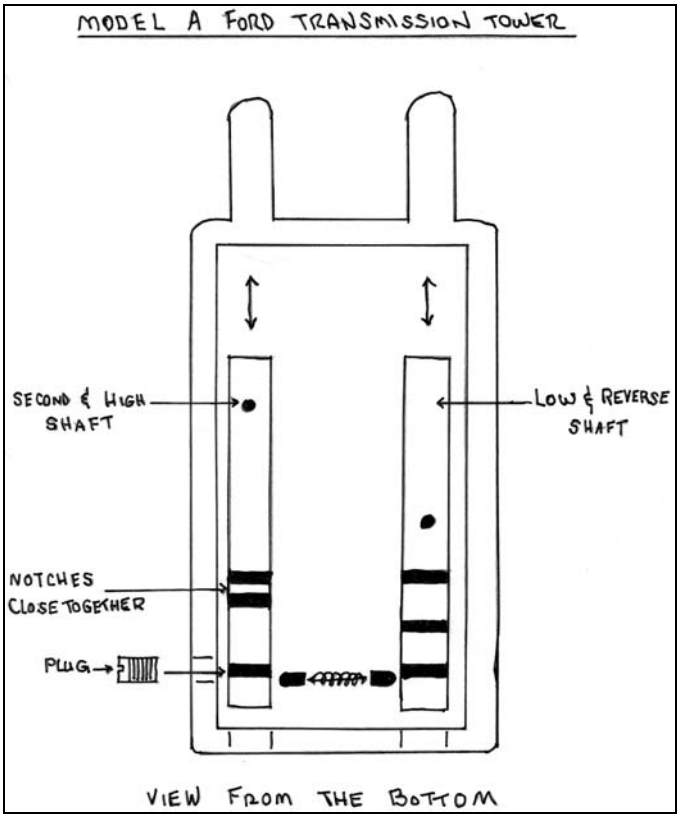
Bryan also brought along a welding machine and set up a station for welding up the worn ball on the end of the shift lever once they were removed from club member's transmission towers.

At the end of the seminar we had restored about 15 towers. It was a very worthwhile seminar. It was interesting how severely worn many of the tower parts were when we got them apart.

Worn shifting fork slot that requires welding and milling to restore the proper dimensions:



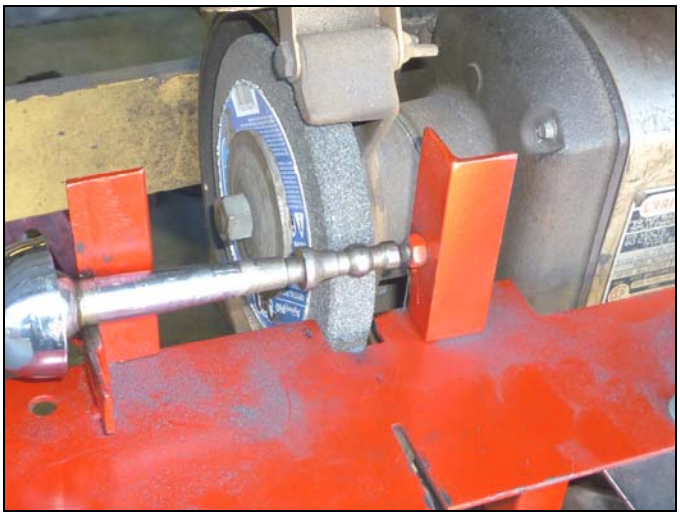
The transmission tower layout:



The correct shift rail locations:

The ball on the end of the shift lever has to be welded up and ground down to restore the original 1\2" diameter:

Quick and easy killer spring removal and installation tool:



A bench grinder jig for grinding down the welded ball on the end of shifting levers: