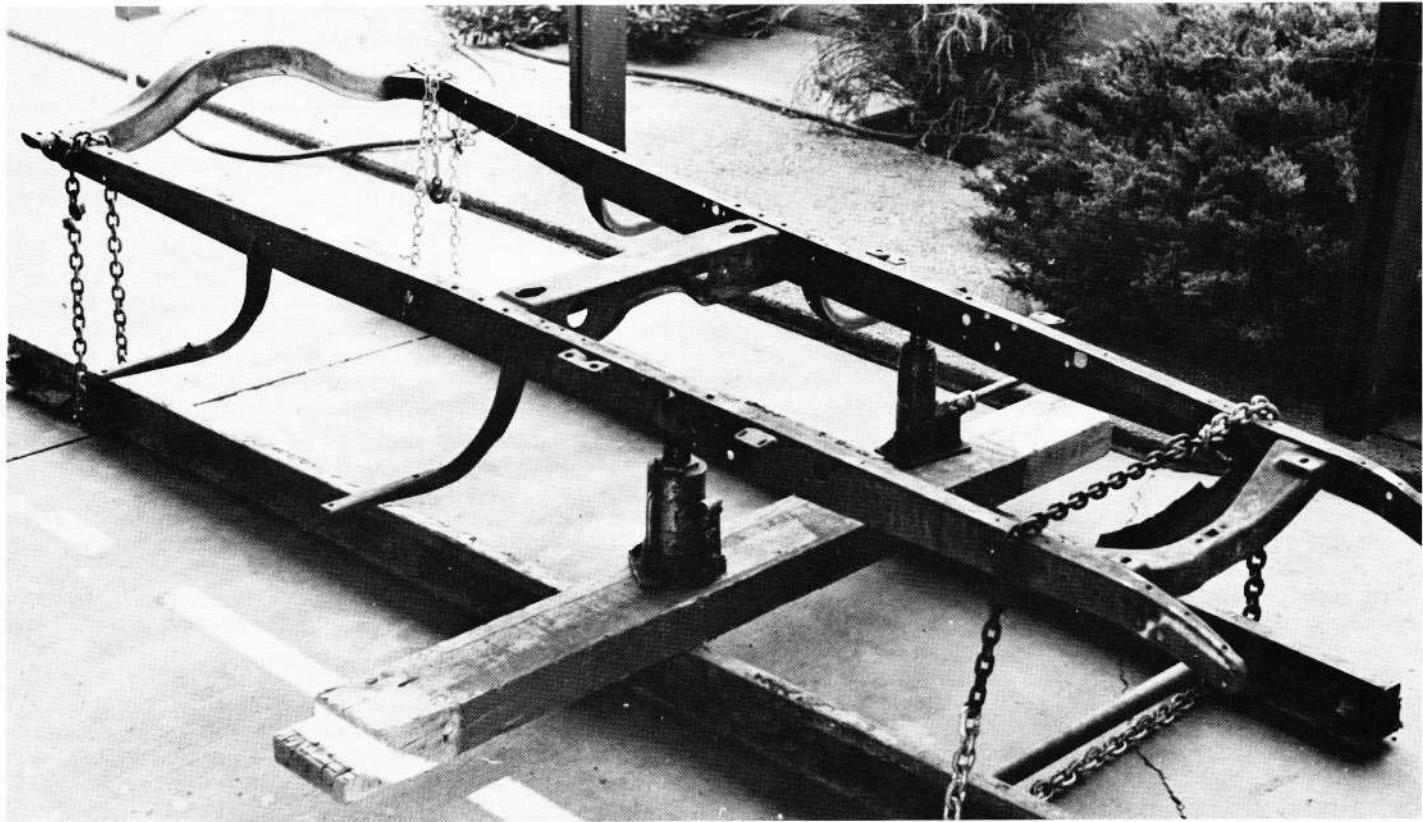


Frame Straightening

—THE SHADE TREE WAY—

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With the high cost of shop labor today—here's one way to straighten a Model A frame yourself.

During the approximately forty-five years of Model A existence, the frames of these cars have undergone varying degrees of torturous stress. In the early days the rutted roads were certainly much rougher than present day interstate freeways and paved highways. Also, these cars were put to use in so many different ways that it makes one wonder how so many have survived this long.

One of the important steps during the early phases of restoration is checking the straightness of the side rails of all frames prior to proceeding to either sandblasting or otherwise cleaning the dirt, grease, and rust that has accumulated over the years. This is a very simple procedure and can be accomplished in at least two ways. The quickest, of course, is eyeballing each side rail very closely to try to detect any sag in the center portion or load-bearing area of the frame.

A more accurate method is to stretch a strong cord along the length of the side rail making sure that it is tight enough to eliminate any sag in the cord itself. If it makes contact with the frame throughout the entire length you can be assured the frame is straight enough to continue with the restoration process. However, if there is any noticeable sag between the cord and the frame, it should be straightened to simplify the alignment of the hood and doors. The greater the sag, the more shimming will be necessary to provide a good fit in the hood and doors. This straightening procedure can be accomplished very easily by the method disclosed in the accompanying photo.

In this particular procedure, two ten foot lengths of railroad rails were used. However, it is not absolutely necessary to use railroad rails. Any other method of tying down the frame ends will suffice.

The method I chose was to simply use chains to tie down both the front and rear portions of the frame. Separate chains were used in the rear, but only one was used in the front, requiring a bar to separate the two railroad rails. Separate chains used here would have eliminated the need of this separating bar.

With the ends tied down, all that is necessary are the two jacks to jack up the low area. It would be possible to use only one jack here if a strong enough support is used that will extend across the width of the two frame side rails. Then, simply raise the jack possibly one-half inch beyond the straight line extending from the front cross member to the rear cross member. This one-half inch should exceed the elastic limit and provide the straightness you're looking for. If not, then obviously the jack must be raised higher until the straight line is obtained. If you have gone too far, simply turning the frame over and following the same procedure should provide the straight frame required for a good restoration.

The photo shows how I was able to accomplish this straightening in a matter of minutes.

The location of the jacks should be centered on the lowest area of the frame so that the pressure is equalized under the lowest part, and when raised, the pressure again will equalize the straightening of the side rails.

Obviously, everyone does not have access to a couple of railroad rails, but with a little thought anyone can innovate some other method of accomplishing the same results. The only important factor to bear in mind is that the amount of bending must be controlled to attain the desired end result—a straight frame.