

# CONSTRUCTION OF “FALSE SHAFTS”

by Doug (Doc) Hammill D.V.M.

As demonstrated in my videos, “Teaching Horses to Drive” - A 10 Step Method”, hitching and driving horses in “False Shafts” is, for me, an important intermediate training step between having a horse drag objects on the ground and hitching to a vehicle.

This concept came to me many years ago from a great friend and teacher, Doris Ganton, author of the book and video, “Breaking and Training the Driving Horse”.



Photo from Western Horseman. Used with permission.

**Caution:** Before hitching or driving a horse or other equine in “False Shafts” they must be properly and thoroughly prepared for this step in their training. Please do not attempt to put a horse in false shafts until AFTER studying the videos, “Teaching Horses to Drive” - A 10 Step Method”

False Shafts can be quickly, inexpensively, and easily constructed from two poles, a cross piece, and readily available hardware.

The first order of business is to determine the dimensions for your false shafts so that they will be of a size that will fit the horses, ponies, mules, or donkeys you plan to use them with. You can choose appropriate dimensions for your animal(s) from the following chart, or use it to extrapolate as necessary:

	<b>12 Hand Pony</b>	<b>Average Light Horses</b>	<b>Large Light Horses/Most Drafts</b>
<b>Length of Poles</b>	9 feet	10 to 12 feet	12 to 13 feet
<b>Length of Cross Piece</b>	36 inches	46 inches	48 inches
<b>Distance between poles</b>			
<b>Front tips of poles</b>	24 inches	26 to 28 inches	28 to 30 inches
<b>At cross piece</b>	32 inches	38 to 40 inches	40 to 42 inches
<b>Front Tips to Cross Piece</b>	6 feet	6 feet	8 to 8 1/2 feet
<b>Tips to Hold Back Loop</b>	Harness Dictates	Harness Dictates	Harness Dictates

### **Materials:**

- 2 Poles - It is imperative that the poles be strong enough that they will not be broken if the horse steps on, kicks, or lies down on them

- Wood (smooth, green poles - not dry, brittle poles as they may break with sharp, dangerous ends), or Metal pipe, or Heavy walled (schedule 40) PVC pipe

- Diameter - The front ends must easily slide into the shaft loops, but their diameter should be as large as possible for strength. (1 ½" PVC or larger if possible)

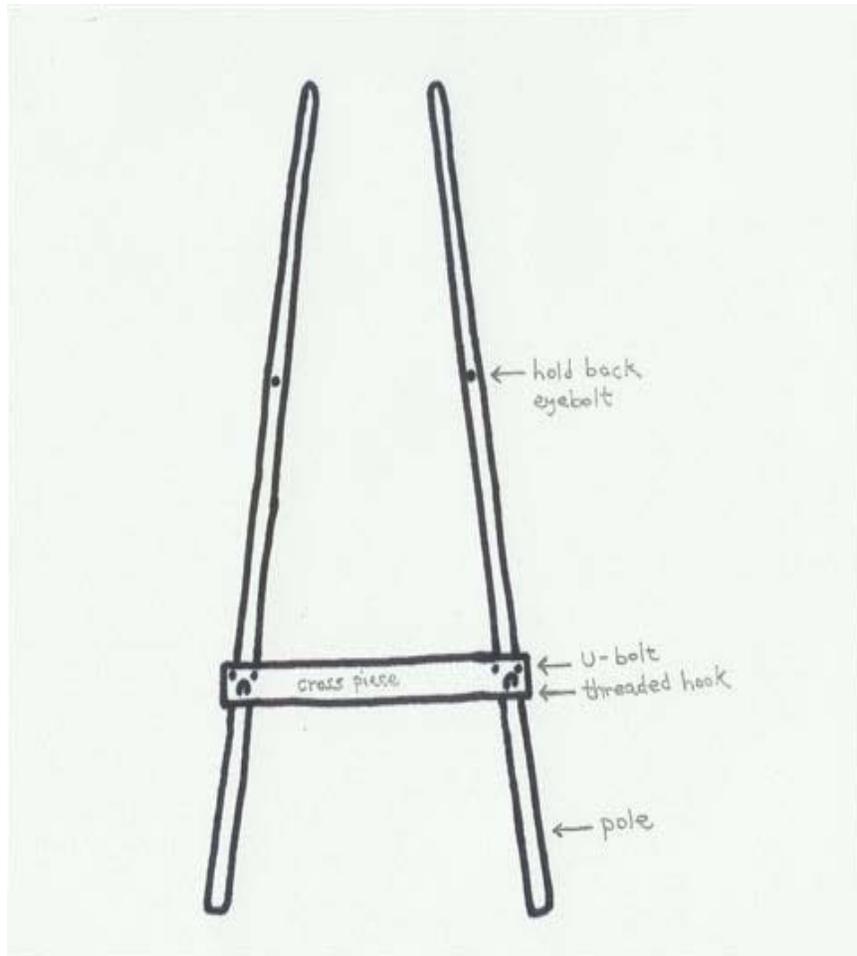
- 1 Cross piece - 2"x 6" or 2"x 8" board

- 2 U-bolts, with flat washers, lock washers, and nuts – ¼ inch diameter, arc size depends upon the diameter of the poles where they will be placed.

- 2 Threaded hooks, with flat washers, lock washers, and nuts – 3/8 inch diameter, length depends upon the diameter of the poles where they will be placed (alternative - eyebolts with heavy snaps attached to hook into traces)

- 2 Eyebolts, with flat washers, lock washers, and nuts - 5/16 inch diameter, length depends upon diameter of the poles where they will be placed

- 2 Hold back straps (if not on harness)



**Construction:**

1. Cut the poles to length and smooth up all rough or sharp places, and round the tips.
2. Cut the cross piece to length, round the front edges well and smooth up all rough or sharp places.
3. Lay the poles out with the appropriate taper and distances between them.
4. Place the cross piece on top of the poles in the appropriate position, and drill two holes in each end of the cross piece (near the front) to accept the U bolts.
5. Place the U bolts around the poles and up through the holes in the cross piece; add the U bolt plates, lock washers, and nuts; and hand tighten.
6. Re-check the taper and measurements between the poles, then drill holes for the threaded hooks through each end of the cross piece (near the rear) and through the poles.

7. Thread a nut all the way to the end of the threads on each threaded hook, follow the nuts with flat washers and place the hooks in the holes with the hooks up and tips pointing back. Add flat washers, lock washers, and nuts and hand tighten.

8. Re-check the taper and measurements between the poles and then fully tighten the U bolts and threaded hooks.

9. Drill a hole at the appropriate location in each pole for the hold back eyebolts, insert the eyebolts from the bottom of the poles, and secure them with flat washers, lock washers, and nuts. The location of the eyebolts will depend upon the length of the holdback straps on the harness used, and must allow for adjustments of the holdback straps for proper, safe hitching.

10. For safety, cut off and smooth up the ends of all bolts.

