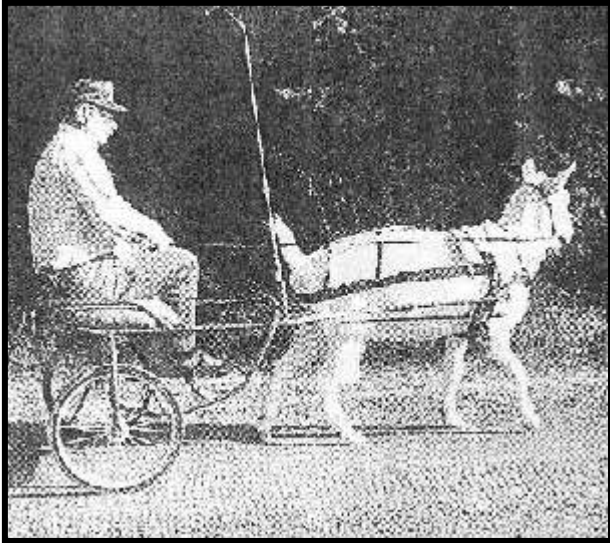


## "Building A Lightweight Goat Cart"

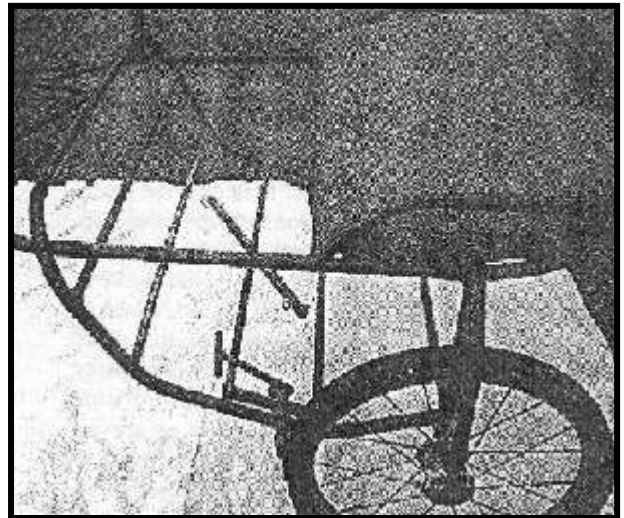


To make this cart you need some wheels (I used 20-inch bicycle wheels but any will work as long as you adjust to fit the dimensions), 1/2 - and 3/4 - inch electrical conduit, bender for each and either an oxy-acetylene torch or wire feed welder.

Bend a "U" as in Fig. 1 out of 3/4 - inch conduit. (Hint: Start in middle of length for bends). After cutting the legs to length, flatten the ends of the legs 2 inches, center punch and drill a 7/16 hole in each leg. Cut, flatten and drill two more pieces of 3/4 - inch conduit, trim the unflattened end so that all holes will line up if you insert a rod through them. This will keep your wheels straight. Cut a piece of 1/2 - inch conduit to go between the two legs to act as a stiffener and weld everything up making sure your wheels will fit between the two outside pieces.

Next make two shafts by sliding a piece of 1/2-inch conduit inside a piece of 3/4-inch and bend into a "Z" shape (double strength needed for shafts). Lay shafts on floor and weld the piece that looks like Fig. 1 perpendicular to the shafts.

Weld a piece of 3/4-inch on the shafts 8 inches away from the Fig. 1 piece. Now bend another 3/4-inch piece into a "U" and weld it onto the opposite side - this will make your seat. Turn the whole thing back over and bend a 3/4 "U" to fit over the shafts about 2 feet in front of your axles (Fig. 2). Now bend the legs of this U back so that it looks like Fig. 3 and weld to point B on Fig. 1. Cut some 1/2-inch to fit between the pieces you just made to act as a floor and dash or use a piece of sheet metal (Fig. 3). If you want, bend a U to make a rail to go around the back of your seat. Weld some 1/2-inch conduit braces to the shafts, Fig. 2. Mount a singletree made from 3/4-inch conduit on the bottom second or third horizontal piece of your dash. Cut two pieces of 1/2-inch rebar or round bar about 2 feet long and drive down each shaft as far as it will go...keeps shafts from bending. Drill a hole in your shafts to install a 1/4-inch eye bolt to attach your breaching to. Cut the ends off the shafts to fit your goat and put cane or rubber tips on the shaft ends.



Next are the two *most* important things: Mount the wheels to your cart and weld a piece of 1/2-inch conduit right in front of the wheels and make sure it sticks out just to the outside edge of the wheels. Weld a piece of 1/4 x 2 flat bar onto a bar to make a scrub brake. Bend another piece of round bar into an "L" and weld it on the back of the flat bar to make a brake peddle. (A runaway cart ride into a tree or fence makes brakes a must.) The second most important thing is to weld a piece of 1-inch conduit 8 inches long onto one of the shafts of your dash to hold your buggy whip. The whip is for the neighborhood dogs not your goats.

## Step-by-Step Instructions

1. Bend 3/4" conduit into "U" 3' 8" between legs 1' 4" high.
2. Cut 2, 3/4" conduit pieces 1' 4" long.
3. Flatten "U" piece ends and one end of each straight piece 2".
4. Drill holes for axles in flattened ends.
5. Trim and fit straight pieces to align axles.
6. Weld straight pieces to "U" allowing for wheel hub width.
7. Cut a piece of 1/2" conduit to fit between 2 step pieces.
8. Weld 4" up from end, Point B.
9. Insert 1/2" conduit into 3/4" conduit to make 2 shafts.
10. Bend shafts allowing 2' 4" minimum for goat and attach at step 2 junction with "U".
11. Weld shafts to U assembly.
12. Weld a 3/4" conduit piece between shafts 8" forward of "U" assembly.
13. Bend and weld 8" seat rear back piece behind "U" assembly.
14. Bend 3/4" conduit piece to fit over shafts 2" in front of axles.
15. Add bends to step 14 piece to allow attaching at step 8 position.
16. Weld at shafts and step 8 position.
17. Cut 5, 1/2" conduit pieces to fit between step 15 pieces.
18. Weld in place to provide foot support and dash.
19. Bend 3/4" conduit to make back seat.
20. Weld step 19 piece in place.
21. Cut and weld 1/2" conduit shaft braces. Fig. 2.
22. Cut 3/4" conduit for singletree. Mount singletree 18-24" off ground, singletree in photo is mounted too low--it has been changed but new photo unavailable.
23. Drill and bolt to appropriate step 18 piece.
24. Cut 2, 1/2" rebar two feet long.
25. Drive into shaft ends for stiffeners.
26. Drill and install 1/4" eye bolt in shafts for breaching attachment approximately 2' ahead of step 14 piece.
27. Cut shafts to fit goat; cover raw ends.
28. Mount wheels.
29. Weld 1/2" conduit on step 14 piece, fit to just inside of wheel.
30. Slide 1/2" bar through conduit, extend to outside of wheel.
31. Weld flat 1/4" x 2" flat bar to step 30.
32. Bend "L" in round bar and weld to back of step 31 flat.
33. Weld 8" piece of conduit on right shaft to hold whip.

