

Three-Point PTO Wire Winder

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Bill of Materials

2 pieces 3 x 2 rectangular tubing 48"
1 piece 3 x 2 rectangular tubing 26"
2 pieces 3 x 2 rectangular tubing 24"
1 piece 3 x 2 rectangular tubing 22"
2 pieces 3 x 2 rectangular tubing 12"
2 pieces 3 x 2 rectangular tubing 4"
1 piece 4 x 2 rectangular tubing 4"
1/2" rod 11-1/2'
5/8" pipe 1'
1-1/2" flat iron 12'
1/2" steel plate 3" x 12"
1 car axle
2 Wheels
PTO shaft — 6"
PTO shield

1.) The first step in constructing the wire winder is to build a frame to mount the car axle and 3-point hitch. The frame is made out of 14 ga. 3"x 2" rectangular tubing. Cut all of the pieces for the frame so that there are no open joints. Cut two pieces 48" long to make the bottom of the frame. Cut a 45° angle on each end.

Two pieces 12" long are used to support the car axle. On one end cut a 45° angle and the other end a half circle for the axle to fit in. The end with the 45° angle is welded to the bottom piece of the frame.

Cut two pieces 24" long and one piece 26" long to form a 3-point hitch. Cut a 45° angle on each end and weld the three pieces together. The 2-24" pieces are welded to the bottom pieces of the frame.

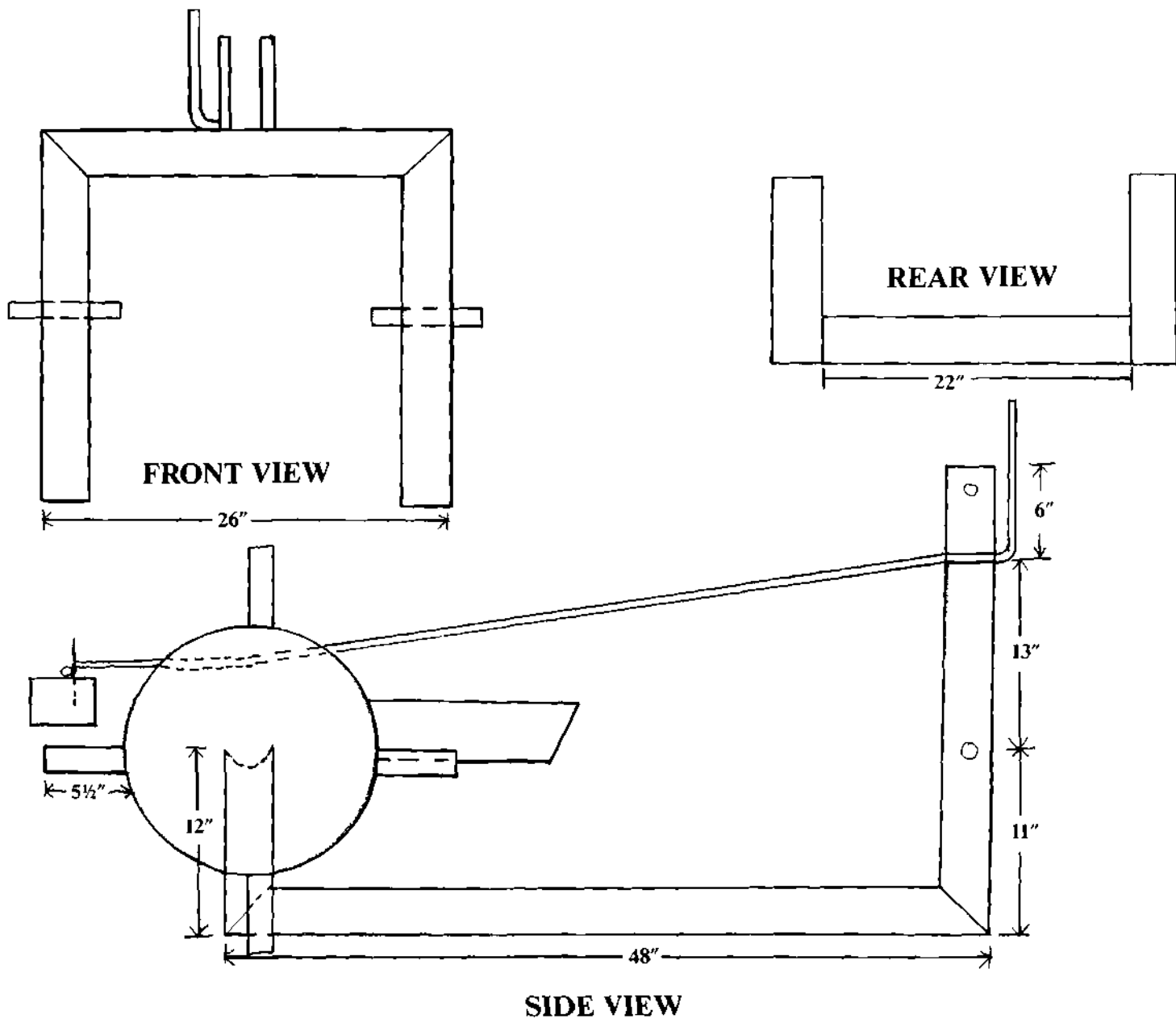


Cut one piece 22" long and weld it between the bottom pieces of the frame at the place that the axle supports are welded.

2.) Weld two pieces of 1/2"x 3"x 6" steel plate to the top piece of the 3-point hitch on the frame. Place the two pieces 2-1/4" apart. Drill a 7/8" hole through them for the pin to fasten the centerlink. The two pins for the 3-point hitch were turned out on a metal lathe.

3.) Obtain an axle from a junked car. Use a cutting torch to cut off the braces, brackets, brake lines, and cables from the axle.

Clean the axle, center it on the frame, and weld.



4.) Fasten a 6" PTO stub shaft to the axle. In a 4" x 2" rectangular tubing drill a hole big enough for the PTO shaft. Weld the shaft to both walls of the tubing. Bolt the tubing to the U-joint on the axle. Place washers between the tubing and U-joint to make the shaft run straight. Bolt a PTO shield to the axle housing so it will cover the shaft. This shield will prevent accidents caused by PTO's.

5.) A brake on each wheel will allow winding on one wheel at a time. Locking one wheel out will keep the wire from unrolling if the wheel is full. To construct the brake, weld a small piece of flat iron to the axle and bolt another piece to it so it can pivot. Weld two pieces to the brake drum. Cut the sides back at an angle so that the piece that pivots will fit in easier. Weld eight 5-1/2" pieces of flat iron to each wheel (4 to a side) to allow more wire to be fed on the wheel.

6.) A wire guide is used to keep the wire feeding straight. A piece of 3" x 2" rectangular tubing is used for the wire to feed through. Cut each corner back 3/4" and bend each side out. Weld the corners shut. Bending these sides out allows barbed wire to feed through without catching.

The guide which the wire feeds through is welded to a piece of 1/2" rod, 33" long. The rod for each wheel pivots at the back by the axle and the rod slides back and forth through a 4" piece of 5/8" pipe. The pipe is supported by a 13" piece of flat iron welded to the axle. The guide is controlled by a 6' piece of 1/2" rod which runs to the front of the frame. The control rod pivots through a small piece of 5/8" pipe. By moving the control rod back and forth, both wire guides move and both wheels can be fed at once.

7.) After the wire winder is finished, paint with red enamel. Paint the wheels with black enamel.