Week 6 Report

Standing Gardener

Completed Work

This week for the standing gardener all I did was file down any sharp edges or any edge which had burrs sticking off of it. This included the tray holder. This part was particularly difficult to deburr because the slot is 5/16 in width so I had to use very small files.

Also the holes for the top of the standing gardener have been layed out and punched and the legs have been bolted to them. Other than that this week was mainly a multi-terrain wheelchair week for me.

Future Work

For the future we will work on laying out the holes for the bottom plate of the wheelchair. To do this we will need to use a level to make sure the legs will telescope properly. Also the caster wheels which will go on the bottom of the gardener will need to be layed out, drilled, and attached to the bottom. As the casters are being attached measurements for pads will also be made for the standing gardener.
Multi-Terrain Wheelchair

Completed Work

For the multi-terrain wheelchair many modifications have been made. The front wheels have been finished. To do this a plate was made for the top of the wheels, shown in figure 1 below. This plate had 4 holes for bolts to be placed and connected to the wheelchair. Next a bar was cut which will allow the wheels to be moved away from the standing gardener. The reason for this is because if the wheels are too close they are able to hit each other when they turn. Next a rod was made to fit in the front of the wheelchair, shown in figure 2 below. This rod was notched on one end and the bar had a hole in it to increase the strength of the weld. Once the piece finished cooling from the welding it was attached and everything fit perfectly.

To make the plates for the front wheel the hydraulic shearer was used. Each plate is 5 1/4" by 5 1/4" and the holes are drilled in each corner in 1 1/8" from each side of the plate. The bar was cut using the vertical band saw its dimensions are 6"x2"x1/2". A hole was drilled in it for a bolt to go through and another hole was drilled for the final piece to be welded to. The bar was welded with the end of it directly at the center of the plate. The final piece was a rod which had to be 1.06" in diameter for it to fit in the wheelchair. The only stock available at the machine shop was 2" in diameter and was lathed down to the correct diameter. One end of the rod was lathed down even further to 3/4" to fit into the steel bar for a stronger weld.

Future Work
Now that the adapters for the front wheels are finished the rear wheel will need to made. The reason the front wheels were done first is because the height of the back wheels depended on the height of the front wheels.

Hours: 12

Figure 1: Plate for top of wheels.

Figure 2: Rods to fit in wheelchair.