



Broad Fork Building

The U-bar (or broad fork, as it is sometimes called) has been used in Europe for centuries. Not a common tool in the US, though every gardener wants one. The U-bar is similar to a spading fork, but rather than turning the soil, it aerates down 10" to 20" without mixing the soil strata, maintaining soil health and life force. Producing a deeply aerated planting bed while combing the weed roots intact to the top where they can be raked off. Long handles provide extraordinary leverage, allowing a person of average strength to loosen large areas in a fraction of the time and effort it would take with a conventional fork.



Choosing A U-Bar Digger

The "U-Bar" is a spading fork on steroids. This tool is far superior to the spading fork for loosening up soil in a garden bed. It is not as effective in soils with lots of rocks, but in a loamy or light soil, it is a dream to operate.

Comfort and Technique – The U-bar digger is a standup type of tool. Holding the tool in almost a vertical position, you stand on it while wiggling it back and forth, sinking the tines into the soil. Then you back up a step and pull the handles towards you. Causing it to leverage up the soil. The motion makes for an almost effortless soil loosening. Your back is spared the stress, yet the soil is loosened thoroughly. Pull up the U-bar and move it a few inches ahead and repeat the process. Once you get a rhythm you can loosen a 100 square feet of garden bed in a matter of ten or fifteen minutes all with low stress!

TOOLS:

Welder , Angle grinder, metal Chop saw, pipe bender, tape measure gloves, ear muffs or plugs and eye protection.

MATERIALS:

- 3/4" - 1" iron pipe for handles
- 1" to 2" square stock, pipe or angle iron. for bottom cross bar
- 5/8" to 3/4" solid round or square stock for tines
- flat stock or plate metal 1/8" to 1/4" thick for corner gussets
- 1/2" pipe for bent fulcrum
- Cans of rust proofing spray paint.

Design Considerations:

It can have from 5 to 8 tines from 10 to 20 inches. Using mostly recycled steel pipes and bar stock, you can build a U-bar specifically suited for you.

These plans show variable dimensions. This is because you need to choose what works for best for your body soil.

- Handle height should be as tall or slightly taller than the height of your shoulder.
- Width should be a little wider than your shoulders, to as wide as your garden bed. But remember the wider you go the harder it will be to pull back.
- Tine length should be as deep as you want to aerate your beds, Deeper you go the stronger material you need to use for the tines. 10" tines can be 1/2", 18" tines should be 3/4 round stock or 3/8" x 1" flat stock is even better.
- Tine spacing is important. Heavy clay soil or sod busting should be wider spacing. Sandy loam

soils can be closer together. 4.5" to 5" is a good average width. Too wide and it doesn't comb up the weed roots as well. Too close together and it tends to want to roll the chunk of soil over rather than letting it sift through the tines keeping the soil strata intact while bringing the weeds to the top. If you are causing the soil to roll try taking smaller bites 3-4 inches.

Cut all tines tips to a sharp angle or grind them to a point. Outer most tines need reinforcing with a piece of 1/4" x 5/8" flat stock if you are using round stock as the main tine material. See detail Butt weld them to the cross bar of square stock, pipe or angle iron, at the right spacing.

Cut handles to length and weld onto cross bar with approximately a 15° angle. Tines should go straight into the soil, while the handles should be in front of you. Handle end may be left straight or bent slightly back after they are welded on.

Bend and weld on the rocker fulcrums on the back side of the fork. If you feel that it needs it you can weld on corner gussets to stabilize the handles. Smaller forks may not need it larger ones will.

Grind and paint your new fork for a life long tool that will bring your soil back to life and you garden to its optimal health and vitality!

