

May 2024

## Smartpuller instruction manual

### **Introduction:**

Thank you for your purchase, the Smartpuller is a plant extractor designed especially for buckthorn. The tool is incomplete when received. It is meant to be used with a piece of construction lumber between the handle and the base, this piece of lumber is best known as a 2 by 4.

### **Safety:**

The most common occurrence is the breakage of the plant when the operator pulls hard on the handle. When this happens the handle is suddenly released and the operator might lose his balance causing a fall on the ground. In order to prevent this mishap it is a good practice to keep a foot behind oneself when there is such an occurrence.

### **Parts supplied and to buy:**

There are four pieces in the package: The base, the handle and two protective plates for the 2 by 4, one that goes between the 2 by 4 and the base and the other one that goes opposite to the base at the bottom.

The buyer must buy the following parts:

- one length of 2 by 4 (real dimension de 3 1/2" X 1 1/2") cut square at each end. I recommend as high as the height of the shoulders of the operator.
- 2 bolts 3/8" X 5 1/2" long with nuts and washers.
- 2 bolts 5/16" X 5 1/4" long with nuts and washers.

(I use threaded rods for the bolts)

### **Tools needed:**

Hand drill with 3/8" and 5/16" metal drill bits about 5 inch long, a 6 inch "C" clamp, wrenches 3/8" and 5/16" a measuring tape, hammer, etc.

### **Building the Smartpuller: (refer to drawing)**

The parts are pre-drilled and the handle is used as a template for the handle itself, but also for the base for drilling through the 2 by 4.

#### **Base:**

- Center the handle at the end of the 2 by 4 and hold it there using the "C" clamp. Drill with the 5/16" drill bit through the handle holes to reach the mid-

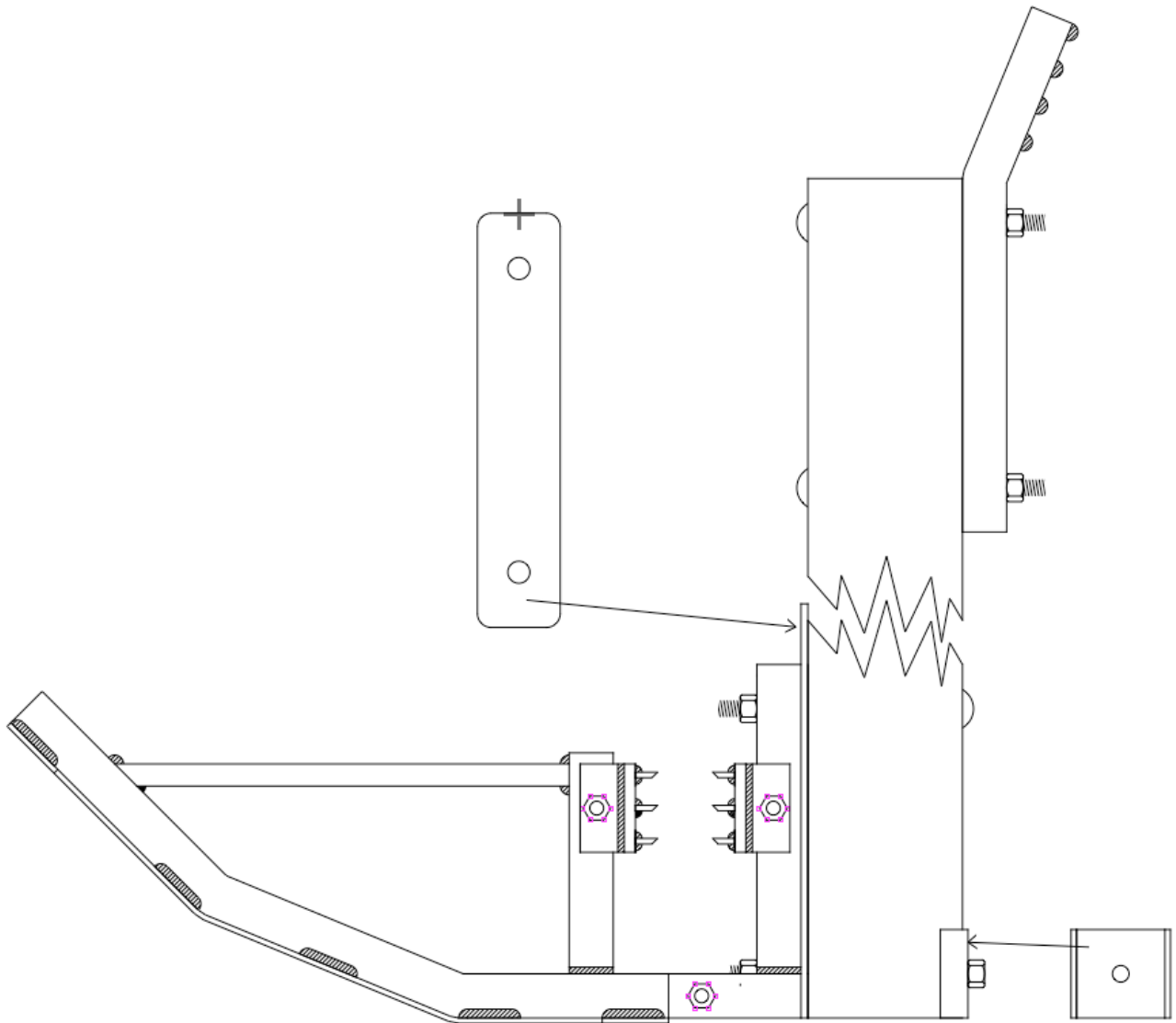
dle of the 2 by 4. Do the same operation but on the other side of the 2 by 4. Once this is done drill all the way through the 2 by 4 using the same holes.

- When these holes are drilled through, enlarge the holes with the 3/8" drill bit. install the base, the interior (1.5" X 9") and exterior (1.5" X 1.5") plates along with the 3/8" bolts washers and nuts.

Handle:

- Now use the clamp to position the handle centered on the 2 by 4 just like the drawing shows.
- While using the handle as a template, drill the 2 by 4 about halfway with the 5/16" drill bit, transfer the handle on the other side of the 2 by 4 and do the same operation, once this is done drill all the way through the 2 by 4.
- Install the handle with the 5/16" bolts with washers and nuts.

Parts making up the Smartpuller



**The operation:**

The handle must be passed around the tree in most cases keeping the base as close to the ground as possible. Pull toward you until the roots come out. It may be necessary to do the same operation in the opposite direction in order to achieve a complete pull of the roots. This tool is sold with two types of jaws. For small saplings the removable jaws (not shown on the drawing) are used as not to break the stem of the plant. It is easy to remove these jaws by unscrewing the 1/4" bolts on each side of the jaws.

**Warranty:**

The Smartpuller has a warranty for 1 year against any breakage, contact Pierre Ménard at [vispieux@gmail.com](mailto:vispieux@gmail.com). for a full reimbursment. The tool must not be returned.

**Disclaimer:**

The manufacturer of the Smartpuller (Vispieux enr.) can not be accountable for any accident what so ever regarding the use of this tool. If for any reason, the buyer is not in agreement with this disclaimer, contact Pierre Ménard à [vispieux@gmail.com](mailto:vispieux@gmail.com) for a full reimbursement.

Maintenance for this tool consist of lubricating the articulations with a good type of oil and keeping it under cover.