

## Hand Tools for Trail Work

### PULASKI



**Usage:** grubbing, chopping

The Pulaski is a wonderfully versatile tool. It was originally designed by a forest fire-fighter named Ed Pulaski. At the time, forest fire fighters typically carried two tools, a grub hoe and an axe. Pulaski was tired of having both hands occupied by these two tools as he hiked to fight wildfires, so he combined the two tools into one. The Puklaski has an adze for grubbing on one side and an axe blade on the other. Pulaskis are great for building and re-treading trails. You can dig and move dirt with the adze, and when you encounter a root, clean the dirt and rock away and the flip the head over and chop it out.

**SAFETY TIP:** Make sure you bend your knees, stand with your legs apart and bend over when working with a Pulaski. It will not only save your back it will save your feet and shins. If you're standing straight up while chopping with a Pulaski, a missed swing could hit you in the foot or leg.

### SHOVEL



**Usage:** scraping, digging

If you haven't done any trail maintenance before then the shovel may be one of the few tools you're already pretty familiar with. The Forest Service style shovels that we use are a little different however. They have a rounded point and the head is angled. This makes them great for scraping loose organic matter and dirt off the trail, but they're still good for digging. Our shovels also have sharpened edges so they're good for brushing. A quick hard swing with one of these shovels can remove a large swath of brush.

**SAFETY TIP:** Mind your back. When using a shovel bend your knees and rest the handle on one leg and use it has a lever to lift dirt. This will help prevent back strain.

### GRUB HOE



**Usage:** grubbing, pounding

The types of hoes we use are called grub hoes. They're different from the hoe you may have used in your garden. They have a thicker and much heavier steel head and are great for digging in hard soil. We use them for re-building trail and clearing out drainage structures. They're also useful for prying out large rocks because the head and handles are very sturdy.

**SAFETY TIP:** Bend your knees and stand with your feet apart when swinging a grub hoe. There is never a reason to lift a grub hoe much higher than your waist. If you do, you're swinging it too hard. The head of the grub hoe is heavy so let it do the work.

## **MCLEOD**



**Usage:** raking, scraping, grubbing, tamping

The McLeod is one of our most versatile tools. Originally designed to be used by forest fire fighters, it has a long handle with a large flat metal head. One side of the head has a long sharp edge that's good for cutting back into hill-sides, chopping small roots and scraping. The other side has a row of 5 to 6 large teeth like a heavy-duty rake. Use this side to pull leaves, sticks and loose organic soil of the trail.

**SAFETY TIP:** When you set a McLeod aside to pick up another tool, make sure you place it off the trail and with the teeth facing downward. It would be very easy for someone to trip on a McLeod handle and land on the teeth.

## **BOW SAW**



**Usage:** Trail clearing, construction

Most everybody has had some experience with using a hand saw. The type of saw we use is called a bow saw. It has a D shaped metal frame with a thin strong blade held taught between the two ends. We use bow saws to clear limbs and small trees from the trail.

**SAFETY TIP:** When cutting a branch far away from the trunk of a tree, you'll want to hold the branch with one hand to steady the branch while you saw with the other hand. This is the hard way to do it and the saw may jump and cut your hand. It's better to cut a branch as close to the tree's trunk as possible. The final result is aesthetically more pleasing and you don't have to steady the branch with your free hand so there's less chance of injury.

## **LOPPERS**



**Usage:** Topping

Loppers are like big gardening shears with lots of leverage. We use them to cut small woody stemmed plants and small branches. You shouldn't try to use them to cut anything much larger than 3/4" in diameter. They can also be useful for cutting roots out of the trail.

**SAFETY TIP:** Don't try to cut branches that are too large. If you do you'll have to apply so much force that when the blades finally break through the branch the two handles will slam together smashing your knuckles. Believe us. We know this.

## **DRAWKNIFE**



The drawknife is a long, flat blade with two handles on either side. It's used to peel bark off logs. Logs should always be peeled before being used for any construction project. The trick to using a drawknife is to start at just the right angle and draw it toward you while maintaining the angle. If you're good at it you can peel off pieces of bark that run the entire length of the log. If you're bad at it your log will look like it was attacked by a neurotic beaver.

**Usage:** construction