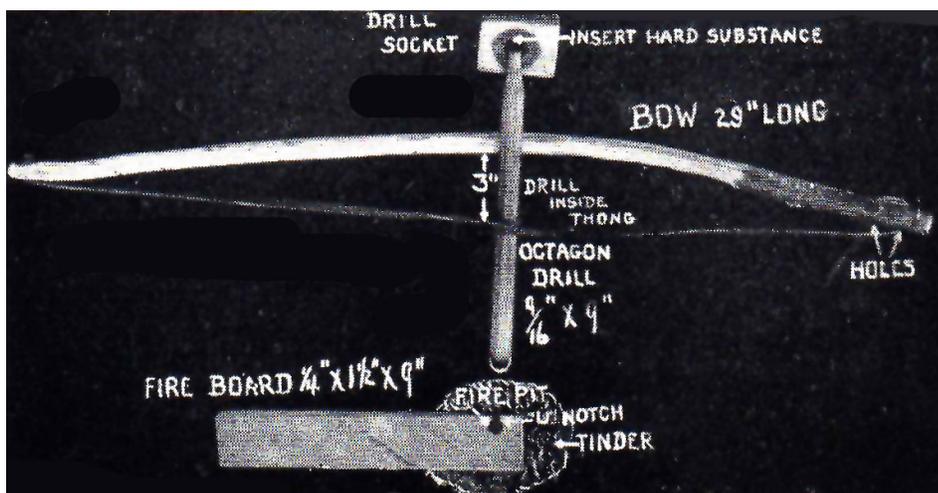


Dudley Winn Smith World Champion Fire Lighter

I have experimented in fire-making for several years and am delighted to do a special scout Good Turn by describing my method, which differs very little from the one described in the Boy Scout *Handbook for Boys*. The author has asked me to tell you how I established the records, so I'll do my best. The illustration below is from an exact duplicate of the rubbing stick set that I used.

A few minutes before the start of the contest in Kansas City, I prepared a fire-pit by rubbing it with a drill just as I would in actually making a fire. Then I laid aside my apparatus, taking care that nothing came in contact with either the charred end of the drill or the fire-pit. Next I worked a small handful of absolutely dry red cedar bark tinder into a thick round pad and placed it directly under the fire pit of my American elm board. When the starter said 'Go' I drew my bow back and forth with long complete strokes. In about three seconds a little pile of smoking black charcoal issued from the pit. Then I stopped rubbing, picked up both the board and the tinder and blew *directly* onto the smoking pile, which immediately



turned into a red ember. In 71/5 seconds after I drew the first stroke the tinder burst into flame. Luckily for me the three timers all agreed. The suggestions below are given in hopes that they will help you make fire rapidly. I worked a long time before I was able to produce a blaze in less than a minute. Do not get discouraged if you fail at first; keep trying and you are sure to succeed.

The Bow. I find a long bow by far the best. Mine is twenty-nine inches long and has a three inch bend. The easiest way to secure the thong so that it can be adjusted quickly is to drill two holes in the end of the bow, as illustrated. When using the bow, hold the board very firmly with your foot, or you will never get a spark. When you stop bowing, do not let the drill fly, but lift it out of the pit.

The Drill-Socket. A very hard substance must be inserted in the drill-socket to prevent excessive friction. I use the glass knob of a coffee percolator top. The pressure on the drill socket must be increased gradually.

The Fire-Pit. When a new fire-hole is made, the pit should be drilled before the notch is cut. The end of the drill should be pointed only for starting a new hole; after that it should always be kept round. While bowing the spindle must be held exactly perpendicular to the board. A 'U' shaped notch is better than a 'V.' A spark can be produced more easily by putting a little sand in the pit.

Woods for Fire by Friction. Of the common woods of the United States I have found American elm decidedly the best for both the board and the drill. Since establishing my record I have discovered that yucca (a wood found on the desert) is even better than elm. I have repeatedly produced an ember with yucca by two complete strokes of the bow. It requires nearly three seconds to do it with elm. These are the only woods I have tried that produce an ember that you can blow into the instant you stop rubbing. Other woods must be allowed to stand a few seconds or must be fanned gently with the hand to produce the spark. I have tried the following woods and have listed them in the order in which I prefer them: yucca, American elm, red elm, balsam fir, red cedar, willow root, cypress, basswood, sycamore, cottonwood, poplar, soft maple, white pine. A thin fire board is superior to a thick one for both speed and ease. I use boards from a quarter to three-eighths of an inch thick and get from six to eight fires out of one hole. A small drill is also better. I use octagonal drills a half to nine-sixteenths of an inch in diameter, and nine inches long.

Tinder. 'I have not found anything superior to red cedar bark for tinder. To prepare it, pound a piece of bark into a fluffy mass with a club; then the tinder remains in a mass and does not fly into your face when you blow it. The following sorts of tinder are listed in the order in which I prefer them: red cedar bark, white cedar bark, inner chestnut bark, cottonwood bark, inner red elm bark, miscellaneous bird and field mice nests, crushed spruce needles, beaten rope fibers. It is not generally known that the quickest way to get flame is to put milkweed silk in the center of a pad of red cedar bark.

