

## Old-Fashioned "Buzz Saw"

Here's an early American toy you can have fun making—and playing with, too. This toy can be made using either hand tools or power tools.

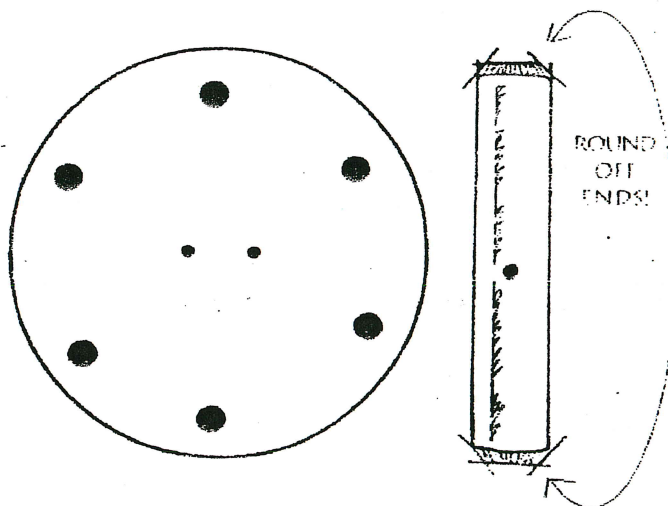
**What you'll need:** \*\*A piece of thin wood (pine or plywood) about 3/8 inch thick, for a 3" circle

\*\*A 1/2 inch dowel (6 inches long)

\*\*Some sturdy (nylon) string (about 3 feet long).

**Tools:** \* pencil, \* coping, jig/saber saw, \* awl (or nail & hammer), \* drill with 1/8 & 1/4 inch bit

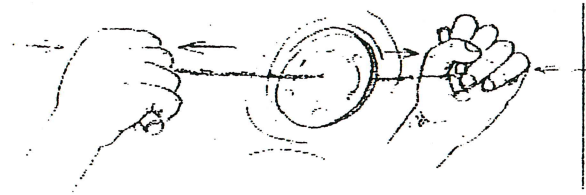
**How to Make It:** Begin by cutting out the pattern here for a 3 inch buzz saw (you may vary the size). Trace the pattern onto a 3/8 inch thick piece of wood. Use your nail or awl, poke a hole through the pattern in the center of each black circle; make sure you press hard enough to leave a little mark on the wood.



- Put the small drill bit (1/8-inch) in your drill. With your piece of wood held securely in a vise (or against a workbench), drill the two small holes near the center of the circle. Then put the larger bit in your drill and make the six larger holes, using your nail marks as the center point for drilling.
- Use your coping saw (or power saw) to cut out the circle along the pattern line you've drawn.
- Next put your 6-inch dowel in a vise and, with a pencil, mark an X at a point 1 1/2 inches in from each end. Use your nail or awl to make a little dent in the center of each X. Put the small drill bit back in your drill and bore a hole completely through the dowel at each X.
- Use a saw to cut the dowel in half. Sand the rough edges and bevel (round off) the ends (see diagram) of your two 3-inch dowels. Sand the sides of your wooden circle and smooth all around the curved edge - but not hard enough to create any flat spots!
- If you want to paint or decorate Your buzz saw, now's the time. A spiral design might be cute - especially when you get your toy going fast; but a colorful sticker or bright color might be all you need to dress it up.
- When all the pieces are sanded, painted, and dry, cut a piece of string 3 feet long. Thread one end of the string through one 3-inch dowel, through one hole near the center of your buzz Saw, through the other 3-inch dowel, back through the other center hole of the circle, and back to the first dowel. Tie the two ends of the string into a knot.

### How to make it work

Holding one 3-inch dowel in each hand, twirl Your buzz saw several times (to twist the strands of string). Pull the dowels out and in, and your buzz Saw Should Unwind in one direction and then the other. For fun, see how long you can keep Your buzz saw going without stopping. Try handing the rotating buzz saw off to a friend, while keeping it going. Have the friend hand it off to someone else until it gets back to you--still rotating!



After you've mastered the use of your buzz saw, make one for a friend and see whose toy makes the loudest whirrr or has the most colorful design when rotating!

### WHIRLIGIGS

These are made by fastening a button-mould on a peg, or large pin, and spinning them round on the table, or on the floor. The peg or pin should be fastened firmly through the centre of the mould, come out a little at one end, and be left half an inch long, or more, at the other. If a number of little girls prepare them of different sizes and colours, they look very prettily when they are all in rapid motion.

(From *The Girls Own Book*, by Lydia Maria Child, originally published in 1834)

*(Instead of a "button-mould" use a circular piece of wood--like the one for your "buzz saw" above--or even a piece of heavy cardboard, but drill only one hole through the center, big enough for a pencil or a pointed dowel. Spin your whirlgig "prettily" like you would a hand top!)*

