## THE INCREDIBLE ROPE MACHINE

 Assembly \& Use

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## PARTS

1X handle
1X crank
3X crank arms
6X O-rings
1X separator


FIGURE 1: ROPE MACHINE PARTS

Schacht Spindle Company, Inc., hereby gives notice to the buyer or user of The Incredible Rope Machine that ropes made with this product are intended ONLY for decorative purposes. Schacht Spindle Company, Inc., and its dealers are not liable for any injuries occasioned by use of rope made with this machine.

## ASSEMBLING THE ROPE MACHINE

1. Unpack the box and remove all protective wrapping from the parts.
2. Identify each part, as shown in Figure 1. The separator comes pre-assembled; you'll put together the Rope Machine from the remaining parts.

- The front of the handle has the Schacht logo.
- Crank arms have a hook end and a flat end. Each end has a groove to hold an O-ring.
- The flat side of the crank faces the back of the handle.

3. Slide the hook end of each crank arm through a hole in the handle, from the back of the handle.
4. Slide an O-ring over the hook end of each crank arm, pushing until the O-ring slips into the groove.
5. Line up the crank's holes with the flat ends of the crank arms. Slide the crank arms through the holes.
6. Slide an O-ring over the flat end of each crank arm, pushing until the O-ring slips into the groove.

## USING THE ROPE MACHINE

The Incredible Rope Machine winds a 3-ply rope from yarn or string. As the plies twist around each other, they create a thicker rope. The rope will also shorten as these plies wind around each other-this is called take-up. To make a rope, choose some yarn and decide on a length for the finished rope. It's easiest to make rope with two people.

1. Set up your work space: Clamp the separator to a work surface. Add about $30 \%$ to the length you want to your rope, to allow for take-up. (Example: you want a 36 -inch rope, so add about 10 inches. There is no hard-and-fast formula for adding take-up, except that thicker ropes will have more take-up. You may have to experiment.) Measure this distance from the separator and set the Rope Machine down on this spot, with a clear path between them. If you want to make several ropes of equal length, mark an X on the floor with masking tape; stand here when you start to add twist in step 3.
2. Set up the yarn: Tie your yarn to one hook of the Rope Machine, as shown in Figure 2. Loop the yarn around peg A of the separator and carry it back to the Rope Machine. Loop the yarn around the middle hook and carry it back to the separator. Loop the yarn around peg B and carry it back to the Rope Machine. Loop the yarn around the last hook and carry it back to the separator. Finally, loop the yarn around both pegs and carry it back to the first hook of the Rope Machine. Tie the yarn to this hook and cut it. (For a thicker rope, repeat this step as many times as you want.) You should see 2 "lines" of yarn coming from each hook.

3. Add twist: Hold the yarn taut and turn the crank to the right (clockwise). As you crank, the 2 lines of yarn connected to each hook will twist around each other, forming the rope's plies-see Figure 3. To tighten the twist, turn the crank more times; there will be more take-up and you may have to move closer to the separator. Crank until the twist is as tight as you want: when you let the yarn slacken, each ply should kink back on itself. To make matching ropes, count the turns and use the same number for each one.

4. Make the rope: Set down the Rope Machine and stand behind the separator. Slowly pull the plies away from the pegs. As you pull, twist the plies to the left (counterclockwise), as shown in Figure 4A. If you've got a helper, one person can hold the Rope Machine while the other person stands at the separator.
5. Continue pulling the plies away from the pegs as you twist them to the left; the Rope Machine will move closer to the separator. Guide and smooth the plies to form a smooth, even rope. The plies will naturally twist together, as shown in Figure 4B. If they do not, turn the crank to the right (clockwise) to add more twist.


FIGURE 4: MAKE ROPE
6. When the Rope Machine reaches the separator, slip the yarn off the hooks. Tie this end of the rope in an overhand knot to keep it from unraveling.

