Proud SAW Member

Digital Patterns

Designed by
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Home of Scroll Saw Pattern Printer

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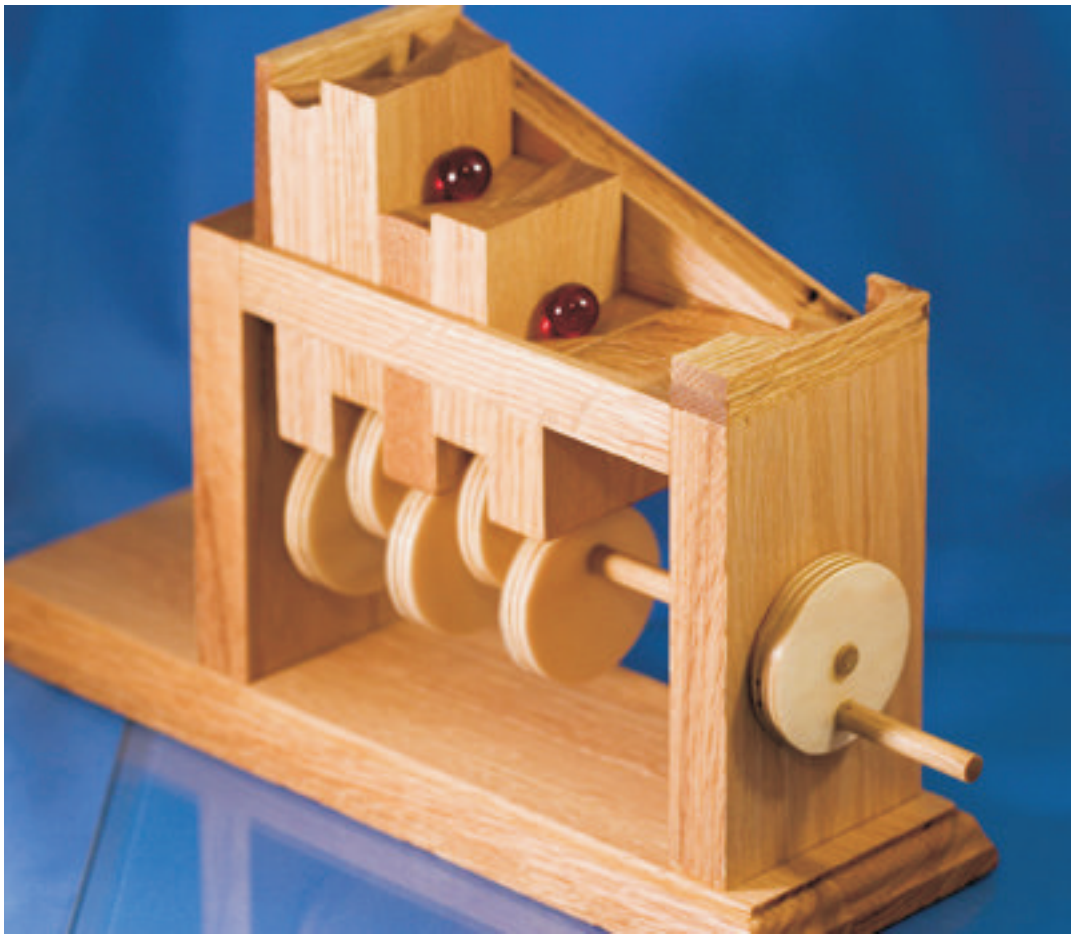
Marble Climber Automata



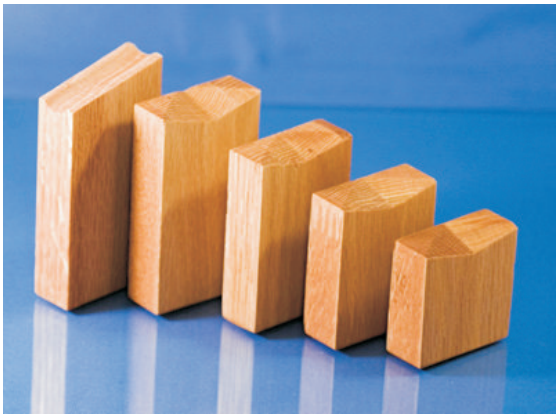
There are several complex steps to this project. I have produced a video that highlights construction tips that will make the assembly and tuning easier.

Watch the video at
http://www.youtube.com/user/sdgood

2”x2”

2”x2.5”

2”x3”

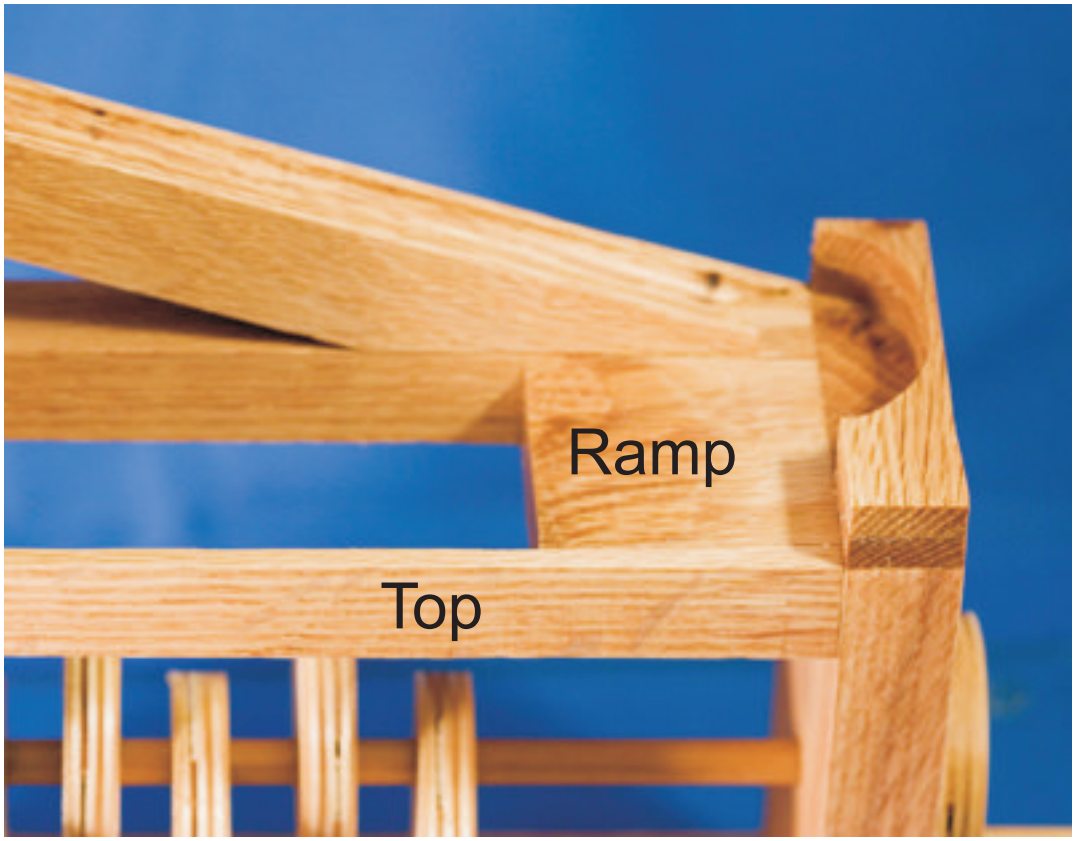


The top of each piston must have a channel to direct the marble to the next piston to it’s left. Watch the accompanying video for details.

2”x3.5”

Pistons 3/4” Thick

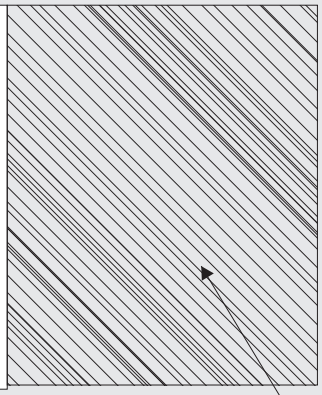
2”x4”



Top 6” x 3” x 3/4”

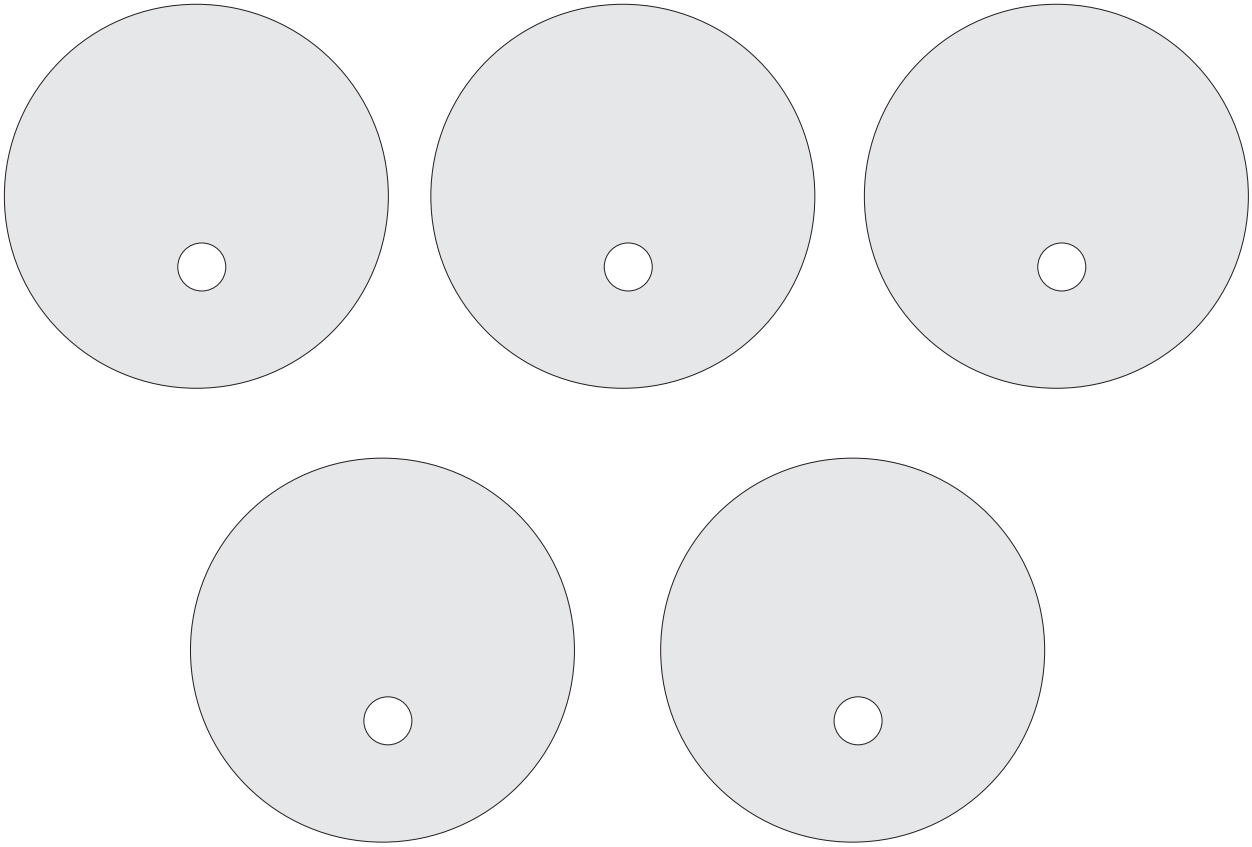
Cut out for pistons

Make sure the pistons fit loose enough to move freely up and down but not too loose.

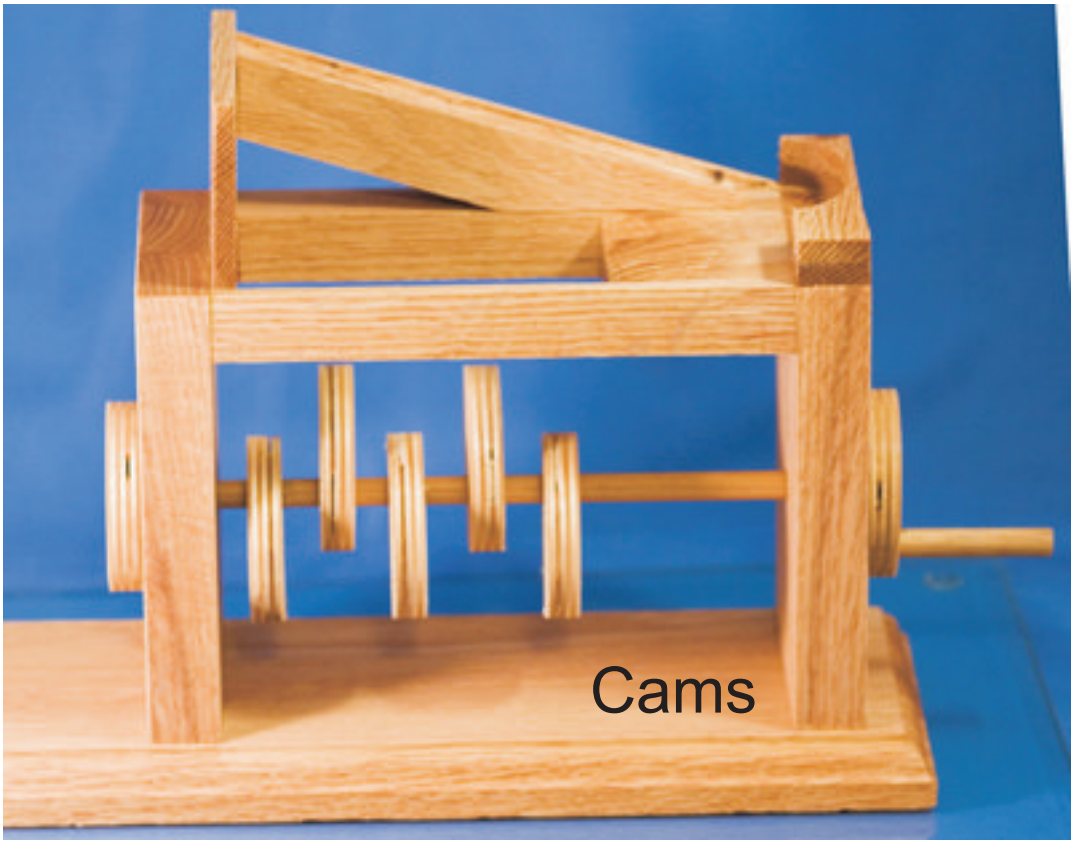


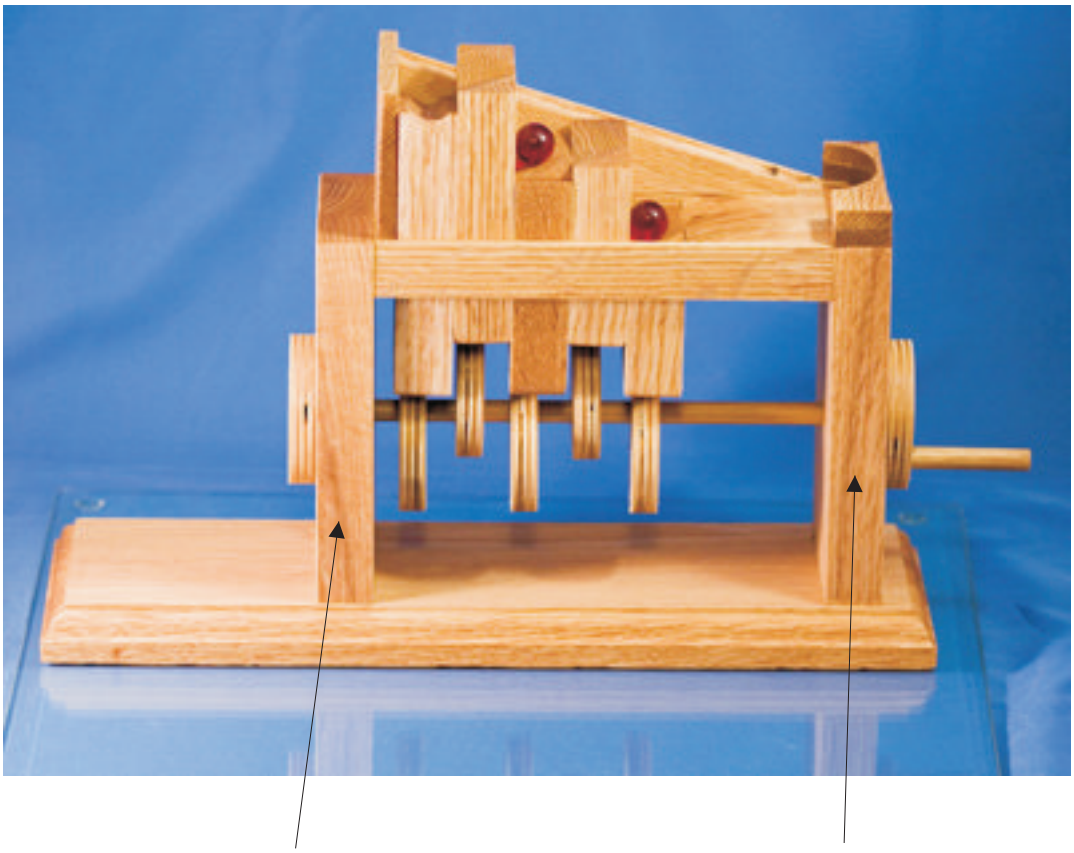
Use a rasp to make a ramp that moves the marble toward the first piston.

Piston Cams
3/8” Baltic Birch Ply



Holes in the cams will be drilled to the size of the shaft.





Left Side 3/4” Thick

3” x 5”

The hole should be drilled through both pieces at the same time. This makes sure they are center with each other.

Hole for shaft. Note that it is not drilled on center. Make sure to assemble in this orientation.

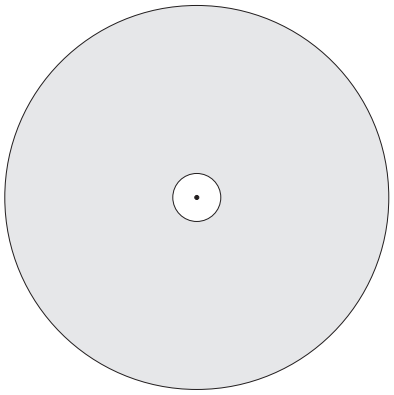
Right Side 3/4” Thick

3” x 5”

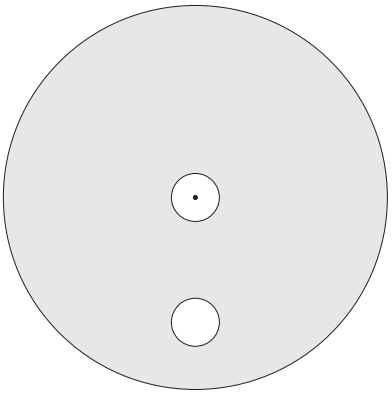
The hole should be drilled through both pieces at the same time. This makes sure they are center with each other.

Hole for shaft. Note that it is not drilled on center. Make sure to assemble in this orientation.

Retainer Cam

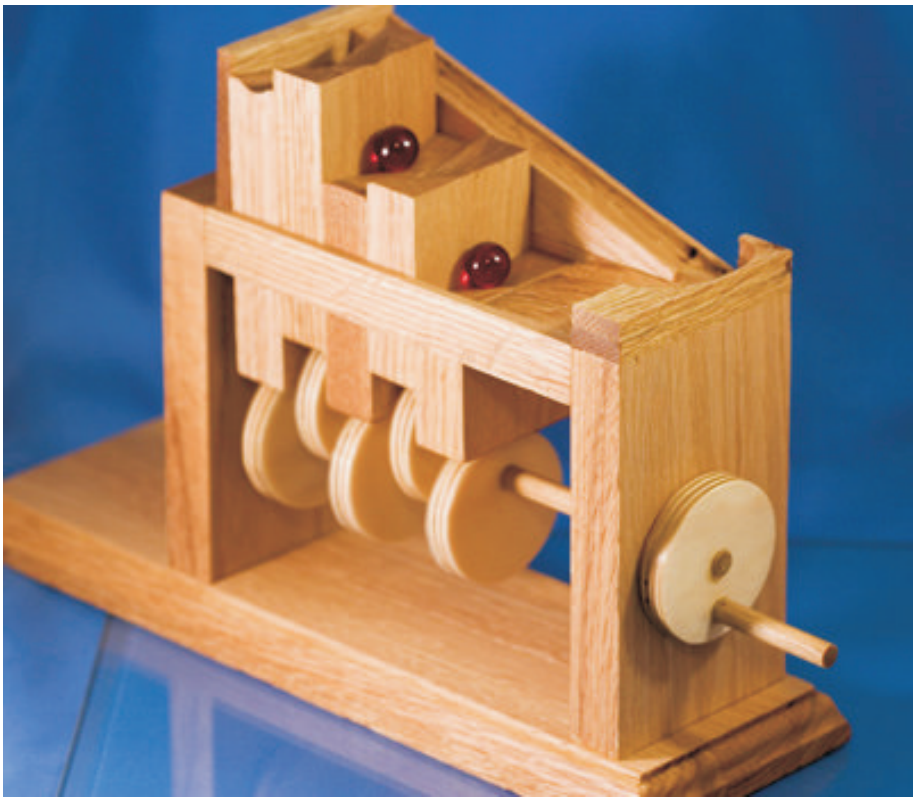


Crank Cam

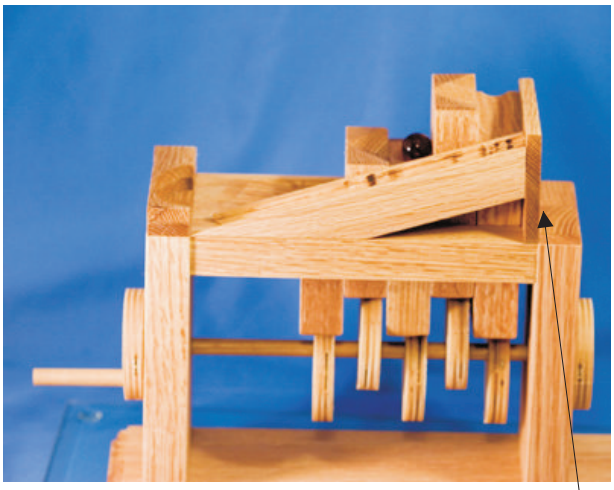


Holes drilled to the size of the shaft.

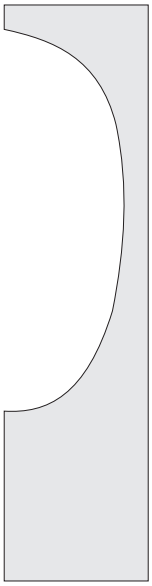
Crank dowel 2” long.



Crank Cam

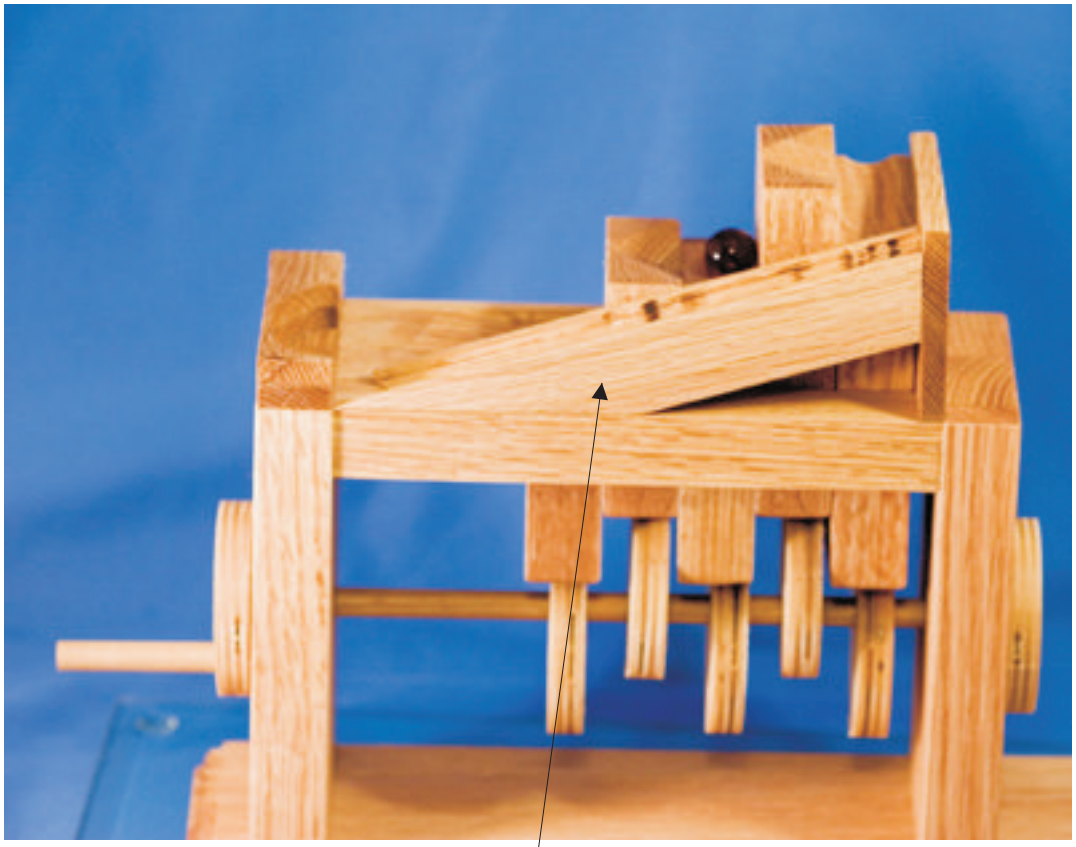


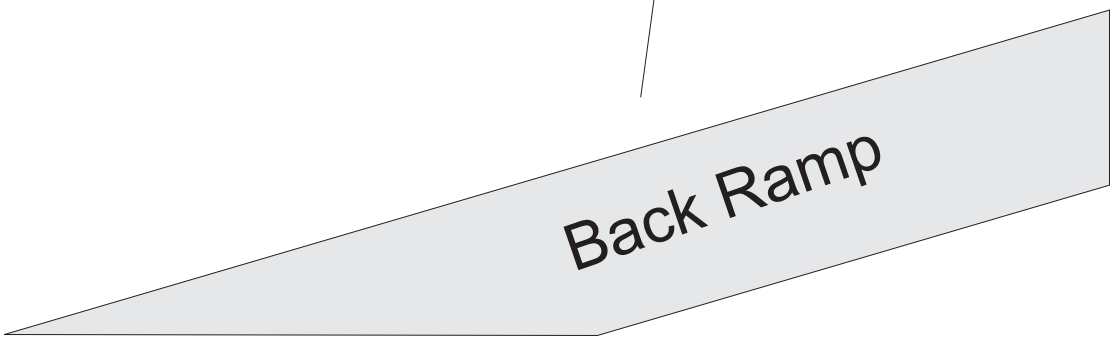
Turn around
3/4” x 3”
½” Thick



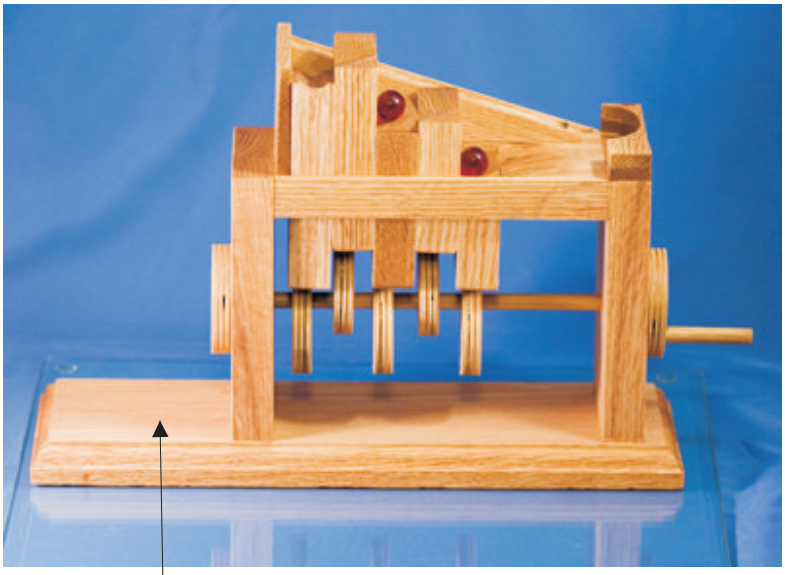
Left Backstop.
2 3/4” x 2”

1/4” Thick





Cut a piece 6” long 7/8” tall and 3/4” Thick. Glue this pattern piece to the blank and cut the angles. The top of this ramp will be grooved for the marble to ride in. See picture



Base not drawn to scale.

Cut the base 12” x 4” fro 3/4” thick stock.

Dowel Shaft not to scale.

8 ½” long