

THE THAUMATROPE

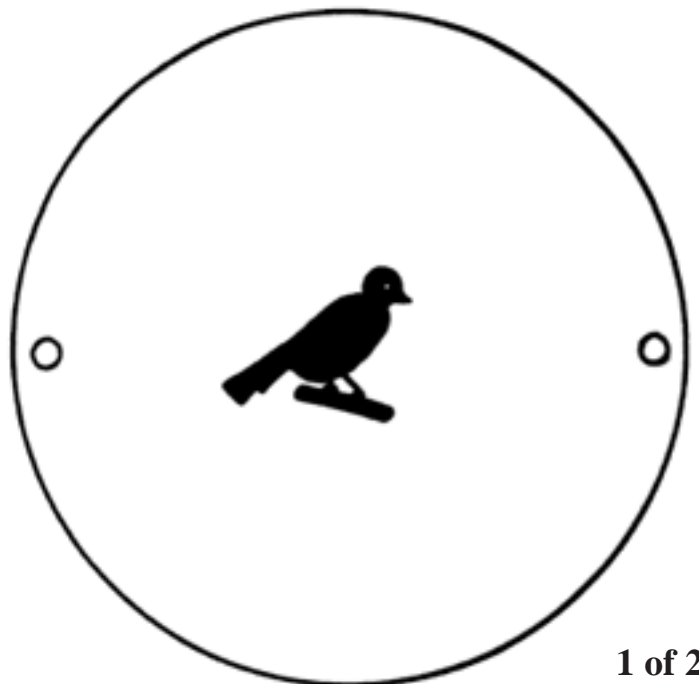
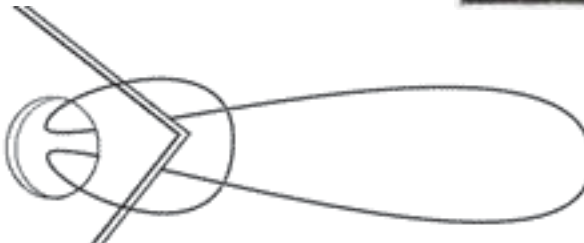
The thaumatrope (THAW-ma-trope) was invented in the 1820s. This device doesn't show motion. However, it will help you to understand a little bit about how motion pictures work. It was the first toy that proved the phenomena of persistence of vision. Without getting too complicated in explaining that term, it basically means that whenever separate but similar images are moving rapidly, the images become blurred and appear to be a continuous image. You've seen this yourself if you've ever looked at a spinning bicycle wheel. At first you see the individual spokes as they go around, but as the wheel gains speed, the spokes begin to blur.

The word 'thaumatrope' has Greek roots. 'Thauma' means magic in Greek and 'trope' refers to something that turns. The thaumatrope is somewhat magical because it creates an illusion that uses the magic of persistence of vision.

If you spin the thaumatrope very quickly, this illusion is very strong. If you spin the thaumatrope more slowly, you may perceive a simple movement instead of one single image. You might also notice as the thaumatrope spins that the illusion is the strongest near its center line, or axis, where the pictures are most continuously visible.

MAKING YOUR OWN THAUMATROPE

1. Cut out the two thaumatrope patterns below.
2. Carefully glue the two halves together matching the two holes near the edge.
(Rubber cement works great).
3. Punch a hole in each of the two small circles on the thaumascope.
4. Attach a rubber band in each hole as shown below.
5. Your thaumatrope is complete! Hold the strings between your fingers and twist them to wind up the toy. Let it unwind quickly and watch the two pictures merge into one.
6. Make your own design.
It does not have to be round.
Try a square.



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