

Early Film Devices - the Thaumatrope

The thaumatrope (THAW-ma-trope) was invented in the 1820s.

This device doesn't show motion, but it will help you to understand a little bit about how motion pictures work. Without getting too complicated, it basically means that whenever when 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.

When you spin a thaumatrope, the two images on either side seem to blend together and become one picture. If you spin the thaumatrope very quickly, this illusion is very strong.

Making Your Own Thaumatrope

Materials Needed:

2 blank 3x5 index cards
a hole puncher
two rubber bands
pen/pencil OR scissors, glue, magazine

Directions:

1. Put both notecards together.
2. Punch a hole in the middle of the right end of the cards. Punch a hole in the middle of the left end of the cards. Do your best to make sure these holes are even and across from each other.
3. Now take the two cards apart.
4. Draw a picture in the middle of the first card. If you don't want to draw your own picture, cut out the picture of the cage on the reverse side of this paper and glue it to the center of the card.
5. Take the other notecard and put it on top of the first one so that the holes are lined up with each other. If you can't see through the second card to the drawing on the first, hold both up to the light or against the window. Draw your second picture the way you want it to fit with the first picture in the finished thaumatrope.

[If you don't want to draw, cut out the picture of the bird on the reverse side of this paper and glue it to the center of the second card, making sure that the bird will fit in the cage when you are finished.]



6. When you've finished your drawing, turn the second card upside down and place it back to back with the first one. The side holes should match up. The top of the first drawing show now be back to back with the bottom of the second drawing and vice versa.

7. To make the handles, take a rubber band and thread it halfway through the holes on one end of the thaumatrope so that the loops extend on either side. Take one loop and thread it through the other, pulling it to create a half-hitch knot securely against the cards. Repeat this step using a second rubber band for the handle on the other side of the thaumatrope. (See the drawing below.)



6. You can make changes by removing the rubber bands and adding more to the drawings or coloring them. You can also go over your pencil lines with pen/marker to make them bolder.

How to Operate the Thaumatrope:

Spin your thaumatrope by rubbing or twirling the elastic bands between your thumbs and forefingers. (See the picture above for a basic idea of how to hold it.)

An Option For Those Who Don't Want to Draw...

If you don't want to make your own drawing, you can cut out these pictures and glue them onto your 3x5 card. The caged bird was the image which appeared on some of the earliest Thaumatropes.

