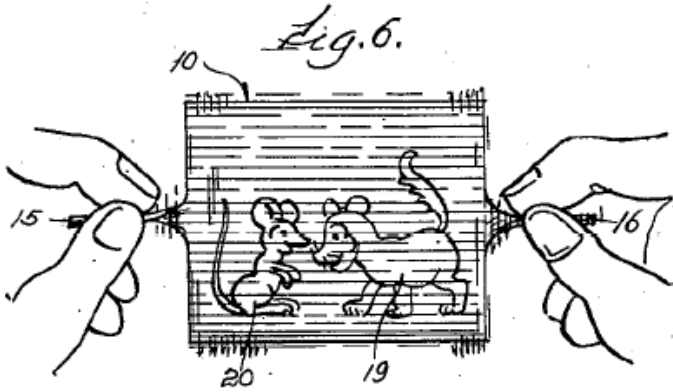


# Make Your Own Animated Film Flipbook

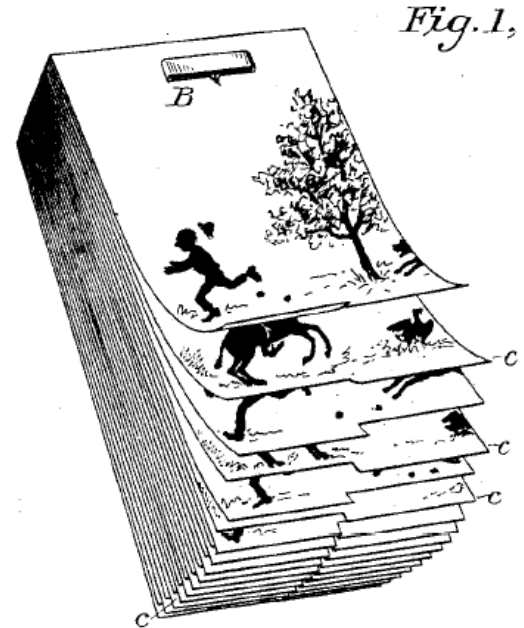
Phenakistoscope and Thaumotrope and Zeotropes, Oh my!

The history of animation and specifically flip books is well documented and can be explored by looking at the various **patents** related to flip book inventions. Recently, flip books have renewed their popularity due to photo programs and applications that turn videos into motion pictures. However, the idea for flip books has been around since the late 1800's when Henry Van Hoebenbergh **patented** the optical toy.

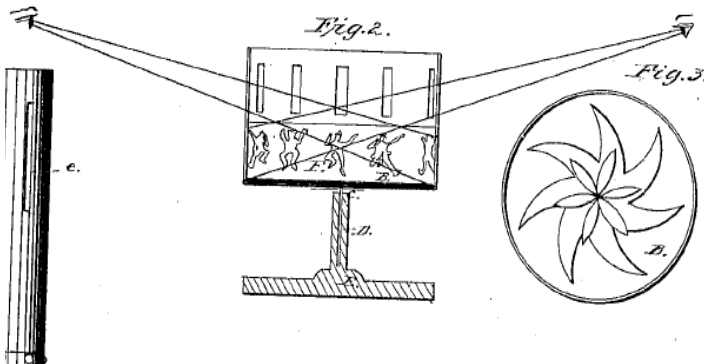
Around the same time, others were experimenting with different methods for creating animation from optical illusions.



U.S. Patent #2,516,367 Thaumatrope



Most depended on the principle idea that the image communicated to the eye by an object, remains upon the retina for a short time, after that object has passed. This allows a series of pictures to be passed by the eye in rapid succession to convey the impression of a single object in motion.



U.S. Patent #64,117 Zeotrope

The early animation techniques rely on the principle that an image communicated to the eye by an object, remains upon the retina for a short time, after that object has passed. This allows a series of pictures to be passed by the eye in rapid succession to convey the impression of a single object in motion.

## To make your flipbook:

1. Think of a story. The best stories for flipbooks are simple motions like: a wheel rolling across the page, a frown turning into a smile, a person doing jumping jacks, or a flower growing.
2. Write the title of the film and your name on the cover of your book.
3. Starting at the back of the book, draw your first picture. Keep your images simple, remember you are going to have to draw 24 of them!
4. Flip the next page on top of the one you just drew, copy exactly everything that is not moving. Redraw the part that will move, changing it just a little in the direction of movement.
5. Repeat this step on the next page, and the next, until you reach the front cover. Try to time your changes so that your action is stretched across all 24 pages of the book.
6. Hold the flipbook in your right hand. Flip all the pages up with your left hand then let them go one by one to watch the action. Enjoy!

### Why 24 pages?

In the animation world, one second of action consists of 24 frames. Think of all the work you are putting into your book for a single second of motion. Now consider your favorite animated film and estimate how many individual images had to be created!