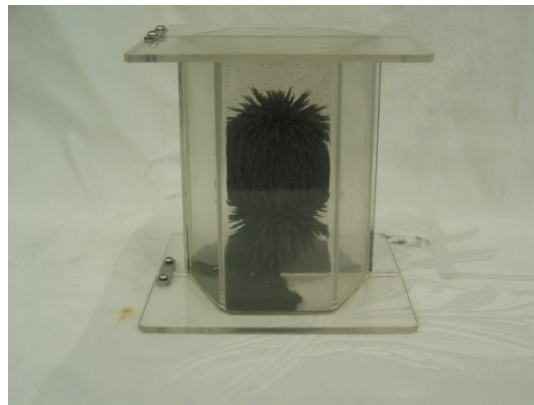
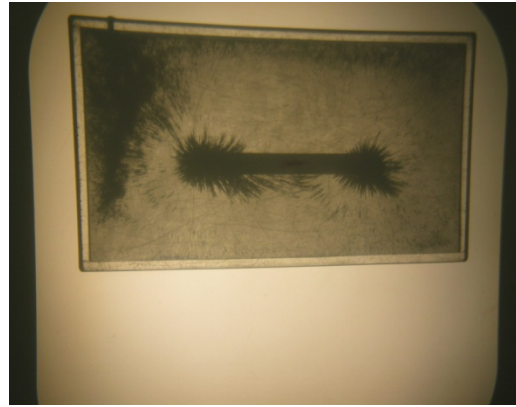
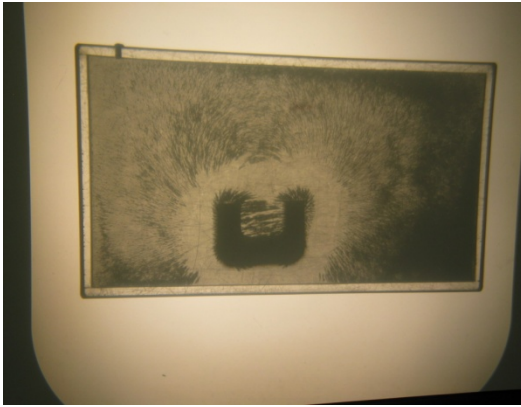


## Visualizing Magnetic Fields



**Purpose:** To demonstrate that permanent magnets produce magnetic fields and to visualize what they look like

**Location:** Room 146; shelf M4

The top pictures were made by placing a magnetic field visualizer (a sealed case with iron filings floating in oil) on an overhead projector. First, shake the visualizer to get a fairly uniform distribution of filings, then, place any permanent magnet on top. Lightly tap the visualizer in order to coax the iron filings to form the magnetic field lines. The bottom picture is of a 3D magnetic field visualizer with a cylindrical permanent magnet at the center of the plastic casing. When this viewer is shaken the iron filings inside the case align with the magnetic field lines making them visible. (It can be opened for inspection.)