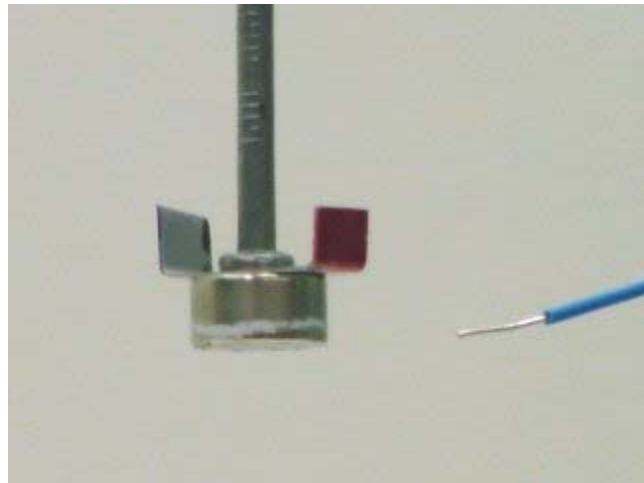
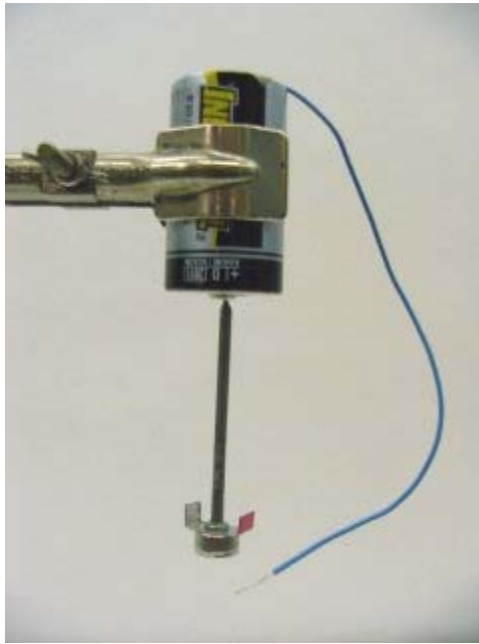


Question #284

Referring to the photograph below, a magnet is stuck onto the head of a nail and the nail then hung off the positive terminal of a standard D-cell battery. Between the nail head and the magnet is a small aluminum "flag." The North end of the magnet is pointed up (and South down). A wire is soldered to the negative end of the battery as seen in the photograph.

A close-up view of the bottom end of the hanging nail is shown in the photograph at the right.



Now suppose that you touch the free end of the wire to the magnet. This will result in a flow of electrical current around the loop consisting of the battery, the nail, the magnet, and the loop of wire.

What, if anything, will happen?

- (a) The nail will rotate CW as viewed from above.
- (b) The nail will rotate CCW as viewed from above.
- (c) The nail will fall off the battery.
- (d) Nothing will happen.

Click here for [Answer #284](#) after April 30, 2007.

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For questions and comments regarding the *Question of the Week* contact [Dr. Richard E. Berg](#) by e-mail or using phone number or regular mail address given on the [Lecture-Demonstration Home Page](#).