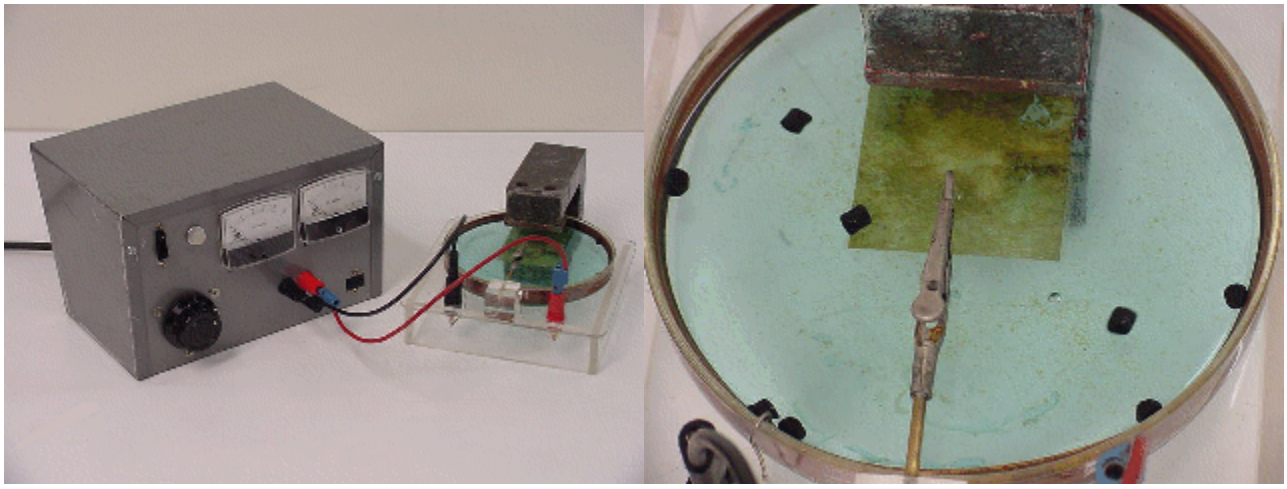
Question #184

The device shown in the photograph at the left below and the close-up at the right consists of a shallow container of water in which copper sulphate has been dissolved, making the water blue. A magnet is positioned at the rear of the container, with its north pole below and its south pole above the water. A power supply can be connected to the contacts at the front of the setup so that when it is activated the positive connection is in the center of the circular water container (attached to the alligator clip in the photograph) and the negative connection is to a metal band that encircles the container and is in the water/copper sulphate bath.



The question this week regards what will happen when the electrical power is turned on. As you can see in the detailed photograph at the right above, there are a number of small black rubber dudes, called boats, floating in the water. If the water were to move, these dudes would indicate the magnitude and direction of the water motion.

When the electricity is turned on,

- (a) the water will rotate clockwise around the circular container.
- (b) the water will rotate counterclockwise around the circular container.
- (c) the water will remain motionless.

Click here for Answer #184 after April 19, 2004.

Question of the Week

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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.