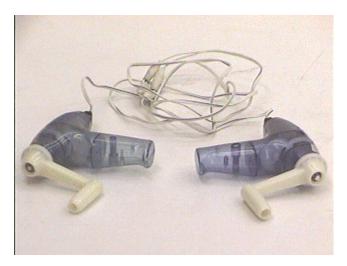
## **Question #36**

A small hand-cranked generator known as a "Genecon"\* has the interesting property (as do all motors and generators) of acting like a motor when provided a source of current. This can be seen on an mpeg video, where one generator drives another, by clicking your mouse on the photograph below. Notice that reversing the direction that you crank the "generator" reverses the direction of the "motor."



Now suppose that the generator is connected to a capacitor rather than to another identical unit, as shown in the photograph below.



Cranking the "generator" charges the capacitor, which will then discharge back into the "motor" when the cranking is stopped and the handle released. What will the genecon do after the capacitor is charged a bit and the crank is released?

After the handle is released the handle will:

- (a) rotate in the same direction.
- (b) rotate in the opposite direction.
- (c) remain at rest.

\*"Genecon" is a trademarked product distributed by Nakamura Scientific Company, Limited.

Click here for <u>Answer #36</u> after October 30, 2000.

## Question of the Week

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For questions and comments regarding the *Question of the Week* contact <u>Dr. Richard E. Berg</u> by e-mail or using phone number or regular mail address given on the <u>Lecture-Demonstration Home Page</u>.