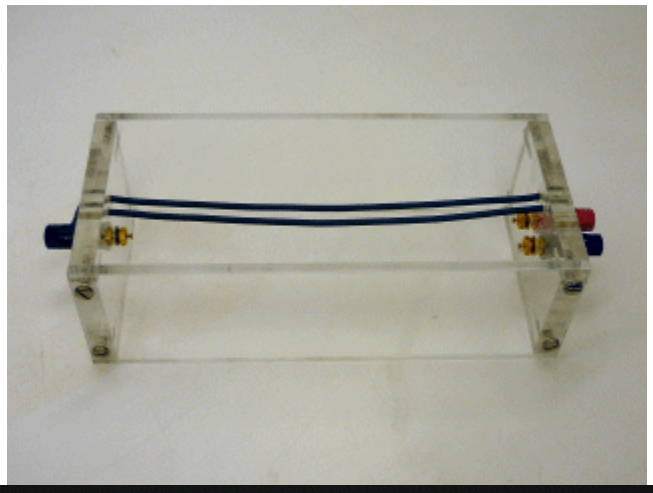
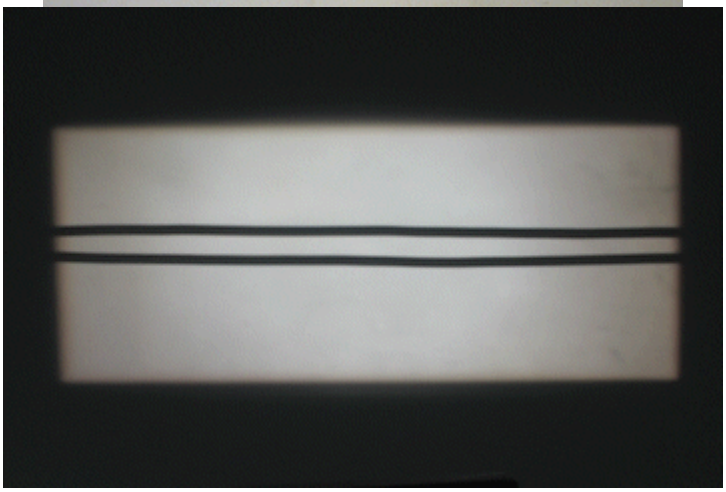
Question #295

The photograph at the left below shows two sets of parallel wires suspended between two wooden holders, mounted on an overhead projector so that the wires can be seen by a large class. At the right is the projection of the two wires with no current flowing in them.





The question this week involves what the wires will do when a current is passed through them, with the two currents moving in the same direction (parallel) or in the opposite direction (antiparallel).

Part I:

When parallel currents are produced in the two wires, the two wires will:

- (a) move together.
- (b) move apart.
- (c) not move, because the net charge in the wires will not create a large enough force to cause motion.

Part II:

When antiparallel currents are produced in the two wires, the two wires will:

- (a) move together.
- (b) move apart.
- (c) not move, because the net charge in the wires will not create a large enough force to cause motion.

Click here for Answer #295 after November 5, 2007.

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.