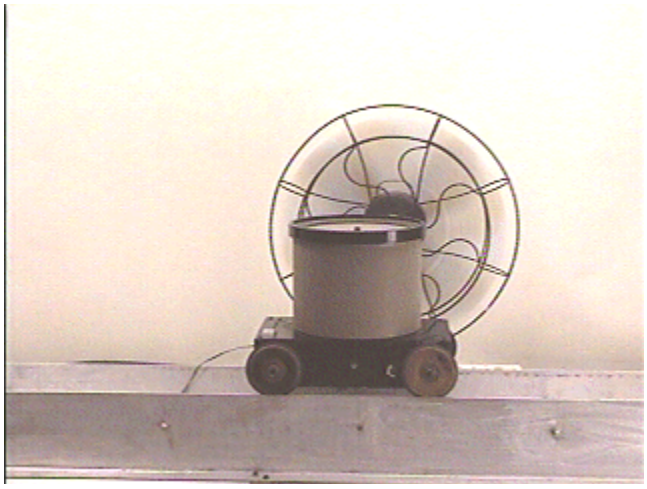
Question #220

A rotating cylinder is mounted on a cart that can roll to the left or the right along a track as seen in the photograph below.



Initially the cylinder is set into motion counterclockwise as seen from above, as can be viewed in a short video by clicking here in mpeg or movie format. After the rotor is spinning at full rotational speed, the fan is turned on, blowing air out past the rotor toward the viewer.

The question this week involves what will happen to the rotor cart after the fan commences blowing air. four possibilities are listed below.

When the fan blows air past the rapidly rotating rotator:

- (a) the cart will move toward the right.
- (b) the cart will move toward the left.
- (c) the cart will remain at rest.
- (d) the cart will tip and fall off the track.

Click here for Answer #220 after May 9, 2005.

Question of the Week

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For questions and comments regarding the *Question of the Week* contact
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given on the Lecture-Demonstration Home Page.