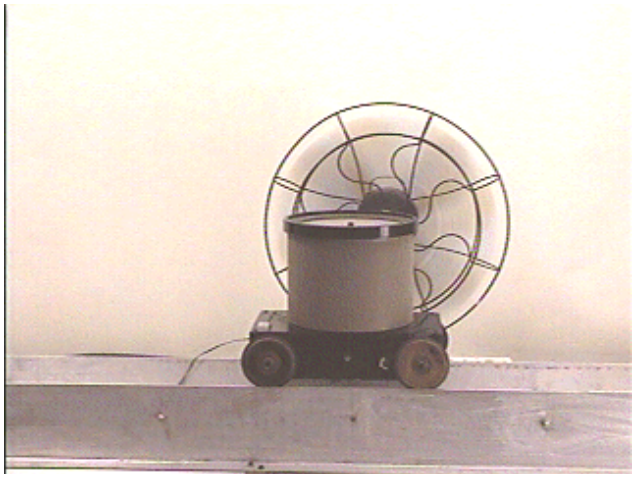
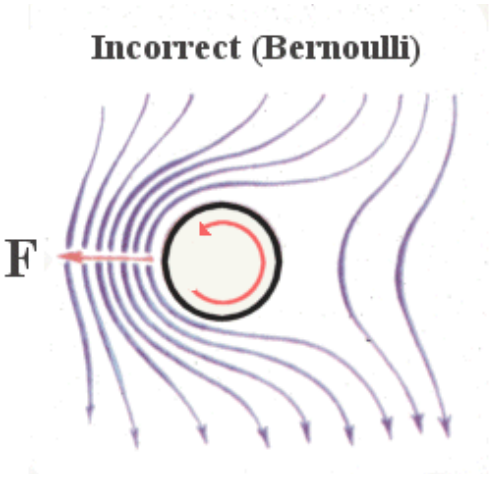
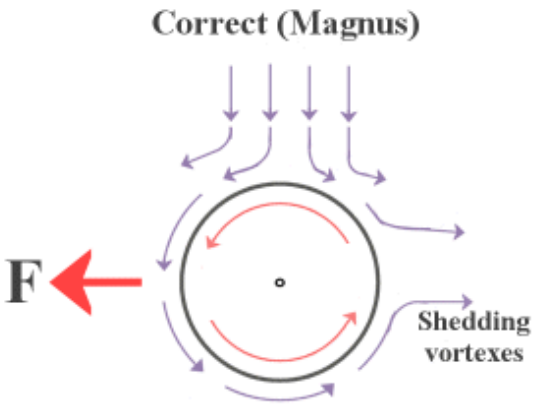
Answer #220

The answer is (b): the cart will move to the left, as seen in a short video by using your mouse to select the mpeg or movie format.

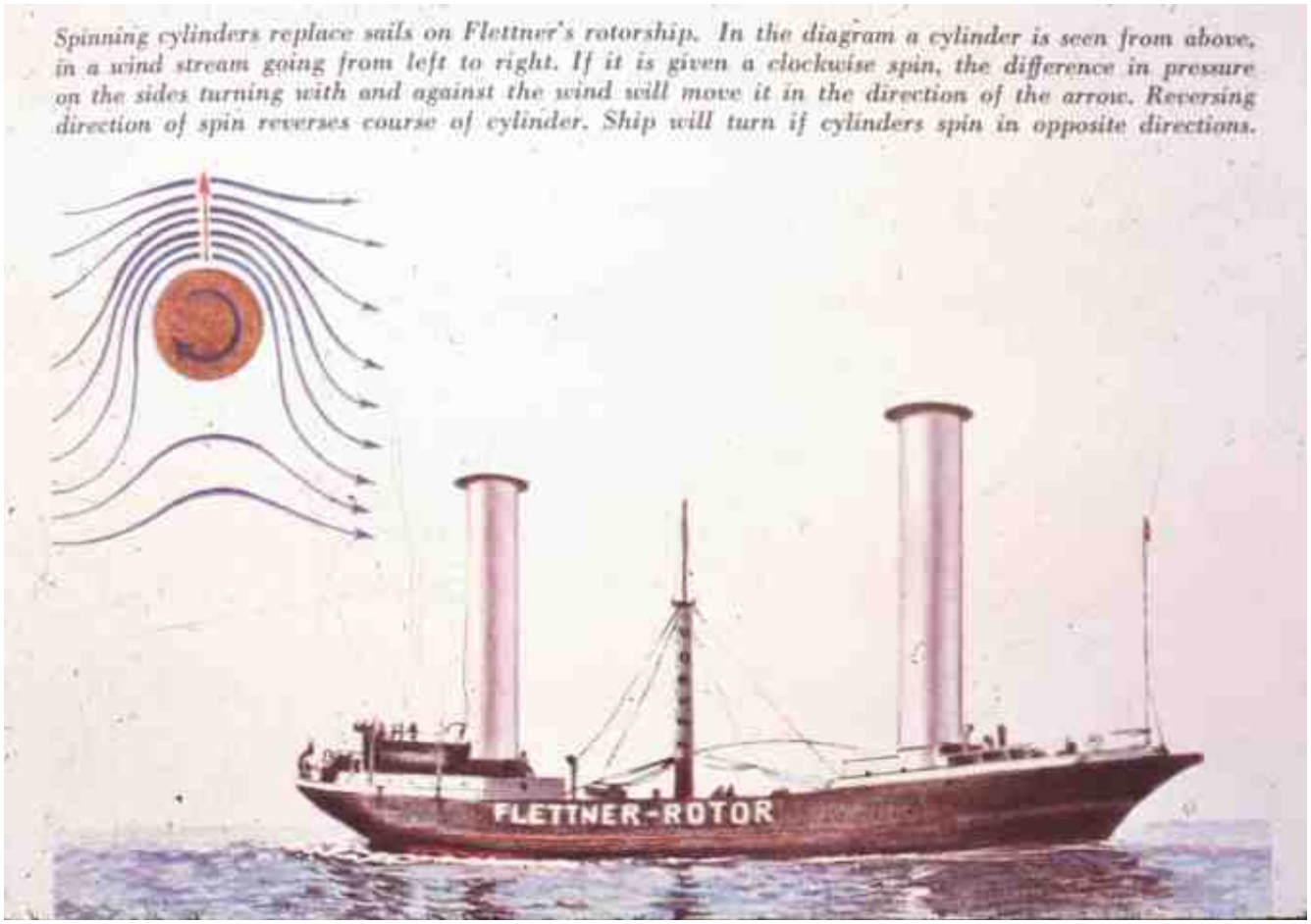






This phenomenon, known as the Magnus effect, occurs when air vortexes are shed as seen in the diagram at the right above.

This effect has actually been used in what is known as the *Flettner ship*, a ship that uses two large rotating stacks to create its forward thrust, as seen in the photograph below. Note that the explanation in terms of the Bernoulli effect, as seen in the drawing below, is incorrect, although the Bernoulli effect as shown predicts a force in the correct direction.



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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.