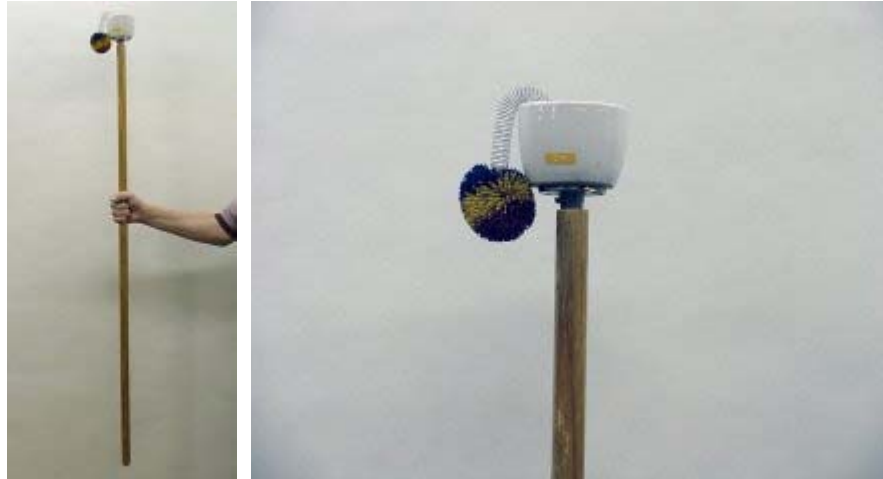


## Question #223

This is the first of a set of questions that will involve some of the concepts and equipment integral to contemporary study of the Einstein theory of relativity.



The device shown in the photographs above consists of a small cup on the top of a long pole; a small ball that does not bounce is attached to the inside center of the cup by a soft spring.

The pole will be held about 50cm from the cup, released from rest, and caught just before the cup falls about 50cm (before the cup falls 50 cm and reaches the hand). The question is where the ball will be after the action stops.

After the pole is caught and everything comes to a stop, the ball will be:

- (a) in the same place where it was before it was dropped.
- (b) in the cup.
- (c) hanging on the opposite side of the cup from where it was before it was dropped.

By the way, you **MUST** clearly explain your answer and try to convince those who are inclined to differ with you.

Click here for [Answer #223](#) after September 19, 2005.

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[Question of the Week](#)

[Outreach Index Page](#)

[Lecture-Demonstration Home Page](#)



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](#).