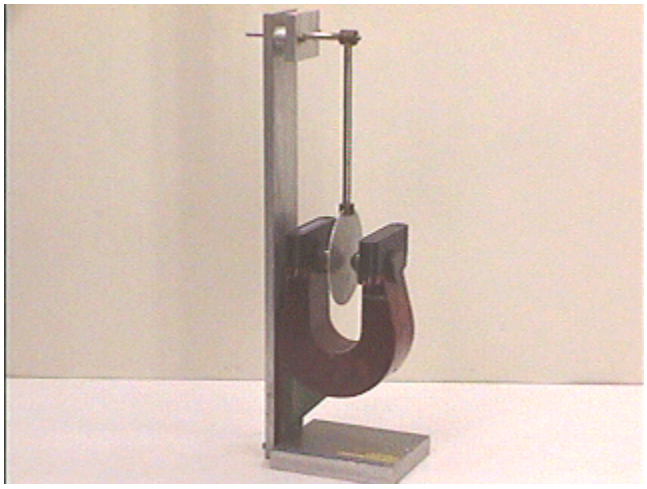
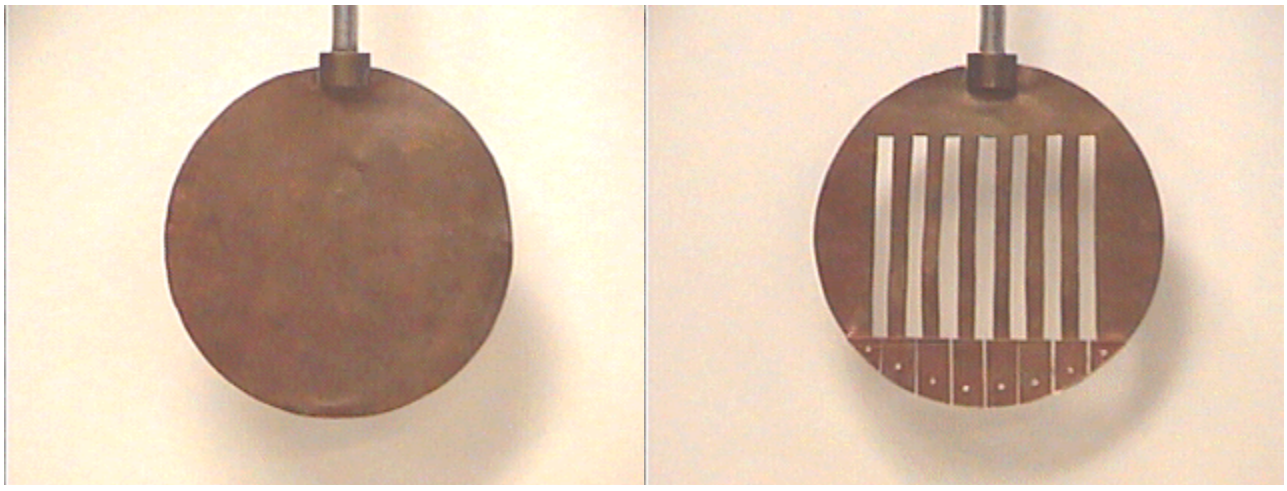
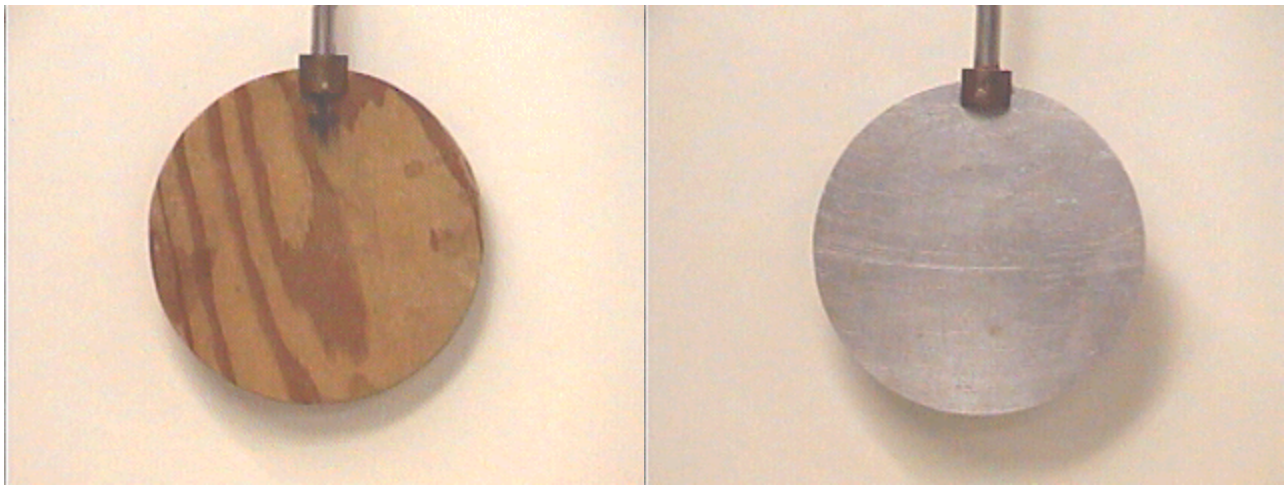
Answer #138

The answer is: (c) wooden bob, (b) long copper fingers, not connected at the bottom end, (d) large solid aluminum bob, (a) large solid copper bob.



View each experiment by clicking your mouse on the selection below. You may want to watch in slow motion or by single frames to see which slows down the fastest.





The large bob with non-connecting fingers is of interest because it is modeled after a laminated transformer core. The plates of the laminate are not connected together so that eddy currents cannot occur in the transformer core and reduce the efficiency of the transformer.

The wooden bob clearly is least effected by the magnetic field. The copper and aluminum bobs are both very strongly damped; with close observation of the videos the motion of the copper bob is seen to damp out just a smidgeon faster then that of the aluminum bob.

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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.