



INERTIA DEMONSTRATOR

IDEM01

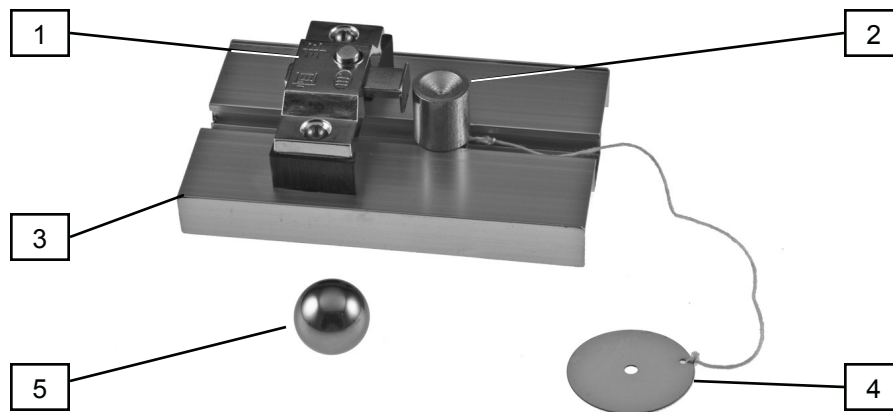


Figure 1

DESCRIPTION

The IDEM01 Inertia Demonstrator offers a dramatic and intuitive demonstration of the property of mechanical inertia—the tendency of bodies to remain in an unchanging state of rest or motion unless acted on by an outside force. The Demonstrator is a miniature version of the old party trick where a tablecloth is suddenly whisked from a table leaving the tableware on it standing in place. Whereas the trick often fails disastrously, the Demonstrator reliably succeeds.

The Demonstrator consists of a spring catch (1, *Figure 1*) and a support pillar (2) mounted on a rigid aluminum base (3). Attached to the bottom of the pillar by a cord is a thin metal disk (4) with a small central hole that serves to locate a steel ball (5) when the demonstration is set up.

The demonstration is carried out in two parts. First, the spring catch is armed, the metal disk is placed centrally on the pillar and the steel ball is balanced on it. When the catch is released, the disk is suddenly knocked out from under the ball, which remains in place on the pillar. In the second part, the Demonstrator is set up as before, but instead of the catch being triggered, cord is slowly pulled by hand. This time, the ball falls off the pillar with the disk.