

THE CURIOSITY CABINET COLLECTION

Website highlights the science behind the unusual objects amassed by chemist **T. ROSS KELLY**

BETHANY HALFORD, C&EN BOSTON

THIRTY YEARS AGO, chemistry professor T. Ross Kelly spotted an unusual object in a newspaper shop in Milan, Italy: a small, plastic soccer player that danced while a scaled-down ball nearby floated in an airstream. It enchanted Kelly, so he brought it back to his office at Boston College. In the intervening years, Kelly has collected about 75 different devices, gadgets, and gizmos that, like the soccer player, each illustrate a different scientific principle.

Until now, only visitors to Kelly's office got to see the objects.

Thanks to the help of two undergraduates, Jaclyn Lundberg and Omar A. Khan, anyone with an Internet connection can now get a glimpse of Kelly's collection of scientific curiosities. Last year, Lundberg and Khan began working with Kelly to create a website of videos explaining how a number of the objects in Kelly's office work. They hope students around the world will use the site—sites.google.com/a/bc.edu/curiosity-cabinet/—to learn about science. ■

LEE PELLEGRINI/BOSTON COLLEGE

CARBIDE CANNON

This little cannon uses the reaction of calcium carbide, CaC_2 , and water to make acetylene gas, which is then ignited to produce an explosion.

DÖBEREINER LIGHTER

One of Kelly's favorite objects, this rare lighter uses a reaction between sulfuric acid and zinc to create a flame.

FLORENTINE THERMOMETER

Purchased in Switzerland, this unusual-looking thermometer contains liquid that moves through the glass spiral as the temperature goes up.

ELECTRIC MOTOR This simple device spins because of electromagnetism. Basic motors like this are at the heart of many devices we use every day.

SQUARE GEARS

Square gears may seem impossible, but Kelly built these to demonstrate they can spin just fine.

RADIOMETER Kelly has several radiometers in his collection. The fin assemblies within their bulbs spin when exposed to light.

CENTER OF MASS

In this homemade center-of-mass demonstration, two interlaced forks and a coin balance on the edge of a champagne cocktail glass.

MOVA GLOBE Another one of Kelly's favorites, this globe rotates thanks to two solar cells and a clever internal system of motion.

& MORE ONLINE

To virtually explore Kelly's curious office, visit <http://cenm.ag/curiouskelly>.