

Meet Mayhem's Master

An interview with Dr. Donald E. Simanek, curator of 'The Museum of Unworkable Devices'

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Power Play patrons may recall last month's drop-in at the **Museum of Unworkable Devices**—a virtual and pretty damn funny (www.lhup.edu) "celebration of fascinating devices that don't work."

In researching the story, we found the story of its founder—Dr. Donald E. Simanek, Emeritus Professor of Physics, Lock Haven University of Pennsylvania—as fascinating as his museum. Here's why.

To begin—this bears repeating (from Sept. *Power Play*, "The Museum of Unworkable Devices"). It is what you might call the museum's "mission statement," while also providing a fine example of the professor's sharply honed sense of humor, as he's the person who wrote it:

"The museum (www.lhup.edu) houses diverse examples of the perverse genius of inventors who refused to let their thinking become intimidated by the laws of nature, remaining optimistic in the face of repeated failures."

With that, some questions for the curious curator.

Power Play (PP). To be clear, the museum is your *brain child* yours and yours alone?

Donald Simanek

(DS). Yes. It began as a modest collection of puzzles for my physics students in the 1990s. I wanted students to exercise their understanding of physics by finding the flaws in classic PPM (process & packaging) machines, using only elementary physics. The ground rules were:

- (1) Friction is never the reason they don't work; remove all friction and dissipative processes and they still won't work.
- (2) Don't assert that "The laws of thermodynamics show they can't work." Of course, but that obscures the interesting details of fundamental physics laws. See (1).



I became aware that available books about perpetual motion history frequently glossed over the physics, and sometimes their "explanations" missed the mark. I try to correct that. Yet I try to keep the explanations at a level that can be understood by high school physics students—or even interested laymen.

Some have called me "the world's expert on perpetual motion"—a dubious honor. Actually there are three of us who take this subject seriously enough to discuss it in detail. The others are Hans-Peter Gramatke and Eric Krieg; both have web sites.

PP. Except for book excerpts, who provided the descriptive copy for the various devices, etc. for the site?

DS. I did. Sometimes I constructed the descriptions to enhance the deception. Most of the devices are classics, described in the references I supply. Some were sent to me by email, and were credited when the inventor wanted credit. Some don't. I have received many more than appear on my web pages.

PP. Is this strictly a "virtual" museum? Do you in fact possess any of the devices described or pictured?

DS. For demonstration purposes, I have made a few models. I have described those in the section "Building Perpetual Motion Machines." I encourage building small-scale models, for only then do inventors realize how badly they perform; most won't complete one revolution. One person took my advice and built a mechanical model to test his assumed motive principle. It showed up in a UPS package on my doorstep as "a contribution to your museum." The inventor—a talented machinist—had found it didn't work. It isn't large, made of machined aluminum and magnets. But it did stimulate the invention of an interesting and seemingly unrelated physics puzzle that I may publish in a physics

journal.

There does seem to be considerable activity by people who build "fake" perpetual motions just for fun, and put the results on U-Tube to mystify others. Some of these are quite ingenious. They don't try to sell them or defraud anyone. I liken this activity to the deceptions of a stage magician.

PP. What does *The Museum of Unworkable Devices, Myths, Mysteries and Legends* conference of the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP), October, 2003 refer to?

DS. It refers to one of the annual conferences of CSICOP. This one was held in Albuquerque, N.M. where I was invited to give a one hour talk on perpetual motion machines. It is now called Committee for Skeptical Inquiry (CSI) (www.csicop.org/). I have given similar invited presentations at colleges and universities.

PP. How active would you say the site is these days?

DS. Its expansion is slowing. People still send me their ideas by email, but mostly they are re-inventions of the square wheel—already described in books and even patents—presenting nothing really new or interesting. I'd be surprised to receive anything really original anymore. Once, I put my mind to devising a really original one myself, and thus I created the "Silly Slinky" machine. Not only does it not work, it illustrates several common misconceptions perpetual motions have. The closest thing to a perpetual motion is a simple wheel with frictionless bearing. Whenever you try to be clever by adding anything to that—e.g., swinging weights, rolling balls, articulated arms, gears, pulleys and gimmicks, the performance decreases.

Adding designer hubcaps to square wheels doesn't improve their performance. **PTE**