



A Basement Workshop . . . and So Much More

It sounds like a cliché—the lone inventor tinkering in his basement workshop. Perhaps you know someone who putters in a basement shop or garage, totally immersed in woodworking, car repair, or other hobbies. Maybe he or she has even invented a thing or two. But we are more likely to imagine today's inventors toiling away in corporate or university labs, not basements. Do independent inventors still exist? The Lemelson Center recently found one such person working in his basement in an unassuming home in Bethesda, Maryland. He is Chuck Popenoe, inventor of the SmartBolt and other deceptively simple devices. [Photo: Lemelson Center historian Maggie Dennis (l), Chuck Popenoe (c), Lemelson Center archivist Alison Oswald (r)].

[Read More...](#)



Notes From the Director

Welcome to our new online version of the Lemelson Center newsletter, *Prototype*. Appearing monthly, this e-newsletter will give up-to-date information about the activities of the Center and upcoming events. For example, the major news item to share with you this month is that the National Museum of American History will reopen from its renovation on November 21, and with it we'll unveil the new Lemelson Hall of Invention and its first exhibition, *Invention at Play*. Also debuting will be the Museum's former Hands On Science Center, which has been transformed into the Lemelson Center's Spark!Lab.

We'll continue to pass along advance notices of exciting educational programs, scholarly symposia, and publications. We'll keep you updated on the Center's latest findings about the history of invention and innovation, and provide views into our archival holdings. This month we spotlight Bernie Wood, whose designs helped fast-food restaurants deliver meals to customers. It's a recent invention-related addition to the Museum's Archives Center.

Past and present are inseparable. One of the great pluses of electronic communication is the ability to deliver timely historical information about matters of current concern. For example, Rudi Volti, author of *Cars and Culture*, recently visited us at the Lemelson Center and had some interesting perspectives on today's oil crisis. We'll share that with you in our next issue.

Thank you for subscribing to *Prototype*. We hope you enjoy the convenience of this new electronic format. We also want to hear from you. If there are topics you would like to know more about or ways we can make this newsletter more useful, please let us know by sending an email to prototype@si.edu.

With best regards until next month,

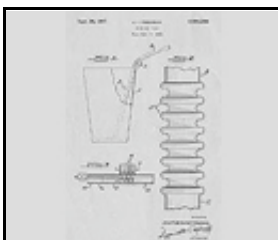
Art Molella
Jerome and Dorothy Lemelson Director



Have You Seen?

The Lemelson Center's *Invention at Play* exhibition will be a highlight at the National Museum of American History when we reopen in November after our renovation. If you didn't see *Invention at Play* when it toured the country, take a peek online at what the exhibition is all about and why the Center examined the ties between invention and children's play.

Does play matter? How have attitudes toward play changed over time? What kinds of toys did inventors play with as children? Is the quality and quantity of children's play changing? If it *is* changing, how will that affect invention? Reflect on these and other questions through video commentaries and toy displays at www.inventionatplay.org/matter_main.html.



Trivia Challenge

In each edition of *Prototype*, we'll offer a question about an invention or inventor that you and your friends and family can try to answer. Sometimes the answer can be found on the Lemelson Center's website, where you can also learn a little more about the subject. Email your answer to us at prototype@si.edu along with your name and mailing address.

Each month we'll select winners randomly to receive a small prize from the Center.

This month's question: What was the name of the San Francisco sweetshop where Joseph Friedman had the idea that led to the invention of a flexible drinking straw?



From the Archives

By obtaining, preserving, and increasing access to the records and artifacts of invention, the Lemelson Center is better able to help people understand the significant and varied role inventors have played in American history. Recently added to our collection is material from Arthur Bernie Wood (1921-1986), an inventor and advertising designer and consultant involved in the development of the restaurant franchise industry in America during the 1960s and 1970s. Particularly notable is his work with marketing, promotion, and merchandising for McDonald's Corporation during its formative years.

The collection documents the post-World War II franchise business system from an

insider's perspective. Wood participated in almost all aspects of franchising activities, from design to ownership. There are a wide variety of corporate identity elements—primarily visual—developed by Wood under contract to various corporations in the food service industry. He used photographic and lithographic media to deliver his design concepts and visuals for advertisers and industrial firms. His inventions include a beverage cupholder (US Patent 3,128,983), refreshment tray-forming template (US Patent 3,145,848), finger-grip food-product containers (US Patent 3,355,082), and a candy box (US Design Patent 208,112). — Alison Oswald



Inventive Ideas for Schools and Families

Do you have an old alarm clock, telephone, radio, or calculator that no longer works? Here's a family project that's de-structive, con-structive, and in-structive. Take it apart! (Be sure it's not plugged in and that any batteries are removed before you begin.) This "de-engineering" can teach you a lot about how things are put together and how they work.



Our Podcast—Prototype Online: Inventive Voices

Knowledge is power, so they say, and in the new edition of our podcast, Prototype Online: Inventive Voices, we look at two technologies helping residents of "fenceline communities" (residential areas near hazardous substances) monitor their air quality for pollutants. It's part of a study by Gwen Ottinger, a research fellow at the Chemical Heritage

Foundation in Philadelphia. Her work crosses the intersection of invention, public health, and environmental justice.

Each month on our podcast, we look at some of the inventors, innovations, and technologies of the 20th and 21st centuries. You can have them downloaded automatically to your computer or MP3 player through iTunes, or you can listen to each episode from your computer by visiting our website at invention.smithsonian.org/video.

Copyright Lemelson Center for the Study of Invention and Innovation. All Rights Reserved. 14th Street and Constitution Ave. NW, Washington DC 20560

Contact Us

General Smithsonian Visitor Information: 202-633-1000

or see more online:

[Our website](#)

[National Museum of American History Frequently Asked Questions](#)