

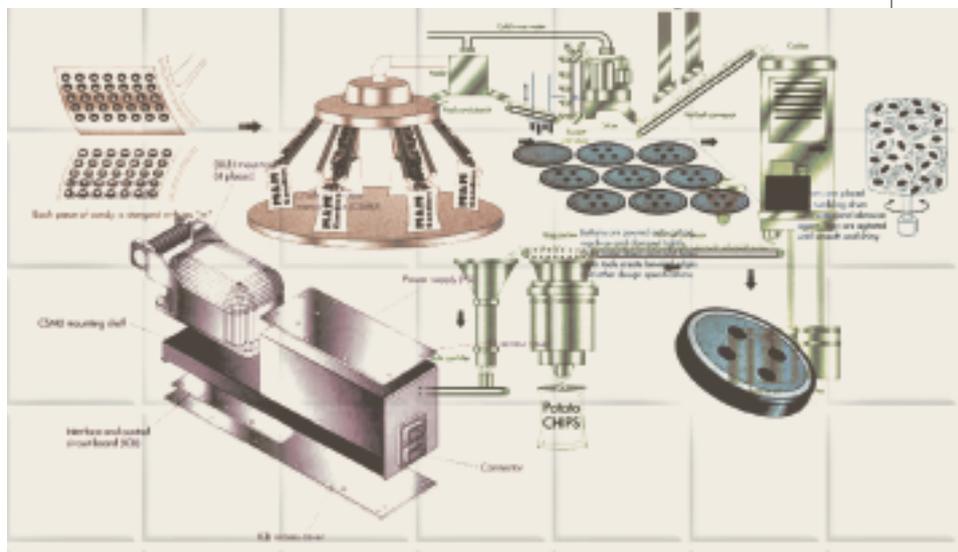
## How Do They Make Those Things?

Sometimes, how a product is made is as interesting or problematic as coming up with the idea in the first place. Say someone gave you a technical drawing for a fastening device, explained how it worked, and then gave you a schedule for production. Do you think you could figure out how to mass-produce those zipper things?

Or take another common fastener. Buttons have been around for thousands of years, yet the buttonhole wasn't invented until the 13th Century. Why would that be? And because wooden, bone, and plastic buttons break, a company recently developed an indestructible version called the Diamond 2. It's harder than steel and 2.5 times as flexible. It's made of ceramic.

These facts, along with descriptions of hundreds of other manufactured goods, can be found online at [www.madehow.com](http://www.madehow.com). Arranged alphabetically, each entry includes historical information, step-by-step manufacturing (with diagrams), a section on the future for the item, and a short bibliography.

Want to know how you get bauxite to take on the properties of aluminum foil? What's the best design for a secure lottery scratch-off ticket? Why use brass in the tip of a ballpoint pen rather than steel? How does an airline black box (flight recorder) survive a crash? What connection is there between the quarry-mining plankton and the classroom? (Clue: Look in



the blackboard tray.)

The site also covers processed foods and medicines. Ever wonder what's in that imitation crab meat? (It's called surimi.) Did you know that marshmallows originally were made from the root sap of the marsh mallow, a swamp plant, and that it could serve as a fine laxative? That M&Ms owe much of their success to air conditioning—or the lack of it—when they were invented? That potato chips originated from the spiteful response of a New York chef to French fries returned to his kitchen as too thick? He sent back a plate of fried potatoes cut paper thin—the first of what was to become America's favorite snack food.

Histories of companies, evolution of products, what happens on the assembly line—they're all at [www.madehow.com](http://www.madehow.com). ■