INVENTIONS

The Tin Can

Its creation forever changed the way we eat

By Angela Paik Schaeffer

Maybe you don't often think about cans, but the containers that keep your beer cold, your soup fresh and your shaving cream foamy have a long history that started with an unlikely hero: Napoleon.

Today valued for its convenience, safety and afford-

ability, the can that pervades everyday life developed out of the French emperor's quest for dominance, according to a history compiled by the Can Manufacturers Institute.

Napoleon was desperate for a way to keep food unspoiled for long periods of time, to save his troops from the ravages of hunger and scurvy. In 1795, the French government offered a prize of 12,000 francs to anyone who could invent a method of preserving food. Fifteen years later, the emperor himself presented the prize to Parisian Nicholas Appert, who successfully "canned" food by partially cooking it, then sealing it in glass bottles and immersing them in boiling water, which expelled the air from the containers.

Englishman Peter Durand improved upon Appert's invention with a patent for preserving food in containers made of tin plate — iron coated with tin to prevent rust and corrosion which he knew would be more durable than glass. By 1812, the first commercial canning factory using tin plate cans had opened, with tins of food supplying the British army and navy within a year.

The can-making business soon took off in the United States, thanks to another Englishman, Thomas Kensett, who, with his father-in-law, Ezra Daggett, received the U.S. patent for preserving food in "vessels of tin" in 1825. (Today, most food containers are made of steel, although they're commonly referred to as tin cans because they're coated with a thin layer of tin that protects the cans' contents.)

Over the years, innovations in the industry improved food production and distribution time and again, extending the reach of farmers and making foods cheaper and more available to the public.

Enhancements in production processes, as well as to the can itself, meant that cans were soon commonplace containers for not only food, but household products such as

cleaners, shaving cream, pet food, paint and beverages.

After World War II, use of the can "just exploded," says

> Tom Hale, senior vice president of sales and marketing at Broomfield, Colo.-based Ball Corp., one of the country's biggest can manufacturers. "The supermarket industry started developing ... the homemaker could now go down to the store and buy canned corn. canned meat and vegetables," Hale says.

The Revnolds Metals Co. introduced an exciting new competitor to the soda can market in 1963: the aluminum can. Encasing a diet cola called "Slenderella," the can was made with just two pieces, a body and an end, making possible 360degree printing on the body of the can. Its ductility (ability to be molded), lighter weight, recycling value

and resistance to corrosion made the

container an overwhelming success.

More than 1,500 varieties of food are now available in cans, and, according to Can Manufacturers Institute president Robert Budway, the U.S. industry produced 133 billion cans in 2005. About 75 percent of those cans were for beer and other beverages.

Of course, debate continues over whether beer is best in bottles or cans. In his book, The Man Show on Tap: A Guide to All Things Beer, Ray James takes on the deep discussion with an assessment that comes out even in all categories (including taste and cost). His "TV toss" tiebreaker goes to the can, because, after all, it's still satisfying but considerably less messy to throw an empty can at the TV in disgust.