SECOND EDITION

PACKAGING DESIGN

Successful Product Branding from Concept to Shelf

Marianne Rosner Klimchuk and Sandra A. Krasovec

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Preface

The primary goal of this second edition of *Packaging Design: Successful Product Branding from Concept to Shelf* is to serve as a guide for those working in the disciplines of packaging and graphic design, marketing and communications, advertising, display and exhibit design, product development, manufacturing, and industrial design and engineering. Marketers, designers, researchers, product developers, manufacturers, printers, and any other professionals involved in the world of consumer branding will find this book an invaluable resource. Consumers, informed and design-savvy in their own right, will also find the process of getting a product "from concept to shelf"—whether that shelf be at the corner store or in a high-end retail environment—enlightening. Many will not have thought before about the complexity of developing the packaging design for all of the products they purchase.

This updated edition details, step-by-step, the design methodology for developing packaging designs and explains how those designs function as the marketing vehicles for consumer products. A condensed historical overview provides a perspective on the business of packaging design. The other sections thoroughly explicate the visual elements; design principles; processes from concept to production; consumer marketing strategies; and environmental, legal, and global economic issues that significantly impact packaging design.

The successful marketing of consumer products hinges on their packaging design; herein you will find more than two hundred images that include typographic studies and illustrations of concept sketches, design development, primary display panels, and packaging redesigns. Case studies round out the depiction of designs that stand out from their competition. The text also includes information on stakeholder roles, anecdotes from working designers, design pointers, and career advice, as well as interviews that reflect the life of an industry professional.

The authors, full-time faculty members at the Fashion Institute of Technology (FIT), the only institution in the United States that offers a BFA degree in packaging design, have each over thirty years of combined academic and professional experience. Their design thinking and business expertise as managing partners at designPracticum, along with their extensive experience and global industry contacts, provide for a comprehensive viewpoint on the business of packaging design.

Acknowledgments

We owe a debt of gratitude to all of our industry colleagues. It was their energy and enthusiasm that kept us motivated in authoring this second edition. It was our professional colleagues who responded to every request and submitted such inspiring work. These professionals, and the firms and agencies they represent, make packaging design successful from concept to shelf.

Projects of all sorts were submitted to us; many came with rich and interesting case studies. It is our hope that in these pages you will get a feel for the enormous effort that goes into creating successful packaging design. Collaboratively stitching together people's innovation, visionary ideas, production mastery, and leadership in sustainability is no easy feat. The fruits of those creative labors—packaging designs that are beautiful, successful, well-produced, and socially responsible—are what make our profession one we are proud to be part of. So thank you: to all the firms whose work is represented, and to the many other colleagues whose talents and support have inspired us.

Twenty-two years ago we met at a design firm, and we have shared an office—one filled floor-to-ceiling with packaging designs—for sixteen years since. During the time that we have been educators and consultants, we have developed a special bond. We owe much of our ongoing passion for packaging design to our students. It is their eagerness and enthusiasm for learning about the profession, their creative minds, their boundless energy, and their support of each other and of us that has kept us on our toes. Our alumni and countless industry colleagues have inspired us by their own enthusiasm for everything *design*.

We are grateful to all of our academic colleagues, outstanding design professionals in their own right: Candace Allenson, Cliff Bachner, Brian Hart, Susan Hewitt, Marilyn Johnson, Joan Nicosia, Diane Sheridan, Adam Straus, David Wagner, Barbara Wentz, George Wybenga, and countless others. Their professional knowledge, superb teaching abilities, and personal support have greatly influenced many aspects of this book. Karen Corell, our partner at designPracticum, and our spouses, Garth Klimchuk and Stephen Yip, have been patient beyond what we had a right to expect and forgave us the distractions of teaching, lecturing, and writing.

Our deepest gratitude goes to our families and friends for their love, patience, and support. In their own appreciation of packaging design, they have spent countless dollars on purchases that are engaging and worthy of our attention.

IN A PARTNERSHIP between marketing, design, and manufacturing, authorship and the creative process are shared so that ideas may flow freely. Professional pleasure comes from playing in a cooperative atmosphere that engenders openness, constructive criticism, and a contagious desire to assist each other in making motivational pictures. It is this attitude that makes anything possible.

Primo Angeli, *Making People Respond*

1 The History

Humans have needed to gather, collect, store, transport, and preserve goods since time immemorial. Following is a brief exploration of how the advancements of civilizations, the growth of trade between peoples, technological inventions, and countless other historical events facilitated the evolution of what we have come to call packaging design.

From as early as the Stone Age, containers were fashioned from woven grasses and fibers, bark, leaves, shells, clay pottery, and crude glassware. These materials were used for holding goods—food, drink, clothing, and tools—for everyday use (fig. 1.1). Archaeologists' discovery of such objects shows that early economies depended on packaging for sharing and transporting goods. As various peoples transitioned from nomadic hunting and gathering to settled agricultural production, demand was created for goods that were only produced in specific places. Trade in such goods was the forerunner to modern market economies (fig. 1.2).

The Sumerians, among the earliest of settled societies, dating back over five thousand years, developed a written communication system, initially consisting of a system of pictographs that enabled new forms of visual identification. With the Sumerian practice of year-round agriculture came a surplus of storable food, and pictographs served to identify these stored products (fig. 1.3). The Phoenician civilization inherited Sumerian

Fig. 1.1
Neolithic jar.

Fig. 1.2
Pictographics, *naos* of the temple at Ed Dakka, Egypt. Close examination of the image of an interior temple wall reveals the visual identification of goods by pictorial representation.

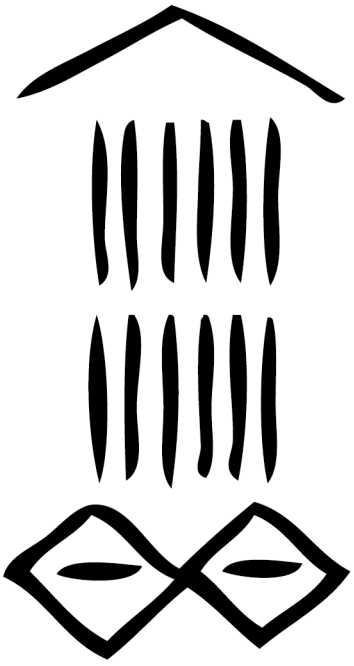

Fig. 1.3
Symbol for wheat.
The Sumerian symbol for wheat is one of the earliest examples of an icon used for visual communication.

Fig. 1.4
Early letterforms.

writing and further developed it, creating the single-sound symbols—an alphabet—that became the foundation for the further evolution of Western written languages. Thus Sumerian pictographs evolved into the syllabic symbols that became the basis for the forms of written communication used by many cultures for almost two thousand years.

These early symbol systems developed from the need to establish identity in three ways: personal (who is it?), ownership (who possesses it?), and origin (who made it?). Such symbols were the forerunners of trademarks and brand identities. The Greeks took the letters of the Phoenician alphabet and turned them into beautiful art forms, standardizing each with component vertical and horizontal strokes based on geometric constructions. This marked the beginning of letterform design (fig. 1.4).

Scrolls made from papyrus (a wetland plant) and dried reeds and parchment made from specially prepared animal pelts were among the first portable writing surfaces. The Chinese emperor Ho-di of the Han dynasty produced papers in approximately 105 BCE. Researchers have discovered that the Western Han dynasty used these materials not only for writing but also for wallpaper, toilet paper, napkins—and wrapping used for packaging. Chinese papermaking techniques advanced over the next fifteen hundred years, reaching the Middle East and then spreading across Europe.

The Growth of Trade

As people made their way around the world, goods were transported greater distances and so there was a need for vessels to carry these goods. Certain commodities are particularly identified with trade across great distances: perfumes, spices, wine, precious metals and textiles, and, later, coffee and tea. Merchants, missionaries, nomads, and soldiers traded such goods along early intercontinental trade routes linking Europe and Asia, the Silk Road being the most notable. Crusaders traded along routes between Europe and the Middle East. Such activity created the need for a wide variety of packaging to contain, protect, identify, and distinguish products along the way.

Hollow gourds and animal bladders were the precursors of glass bottles, and animal skins and leaves were the forerunners of paper bags and plastic wrap. Skilled artisans handcrafted ceramic bottles, jars, urns, containers, and other decorative receptacles to house incense, perfume, and ointments, as well as beer and wine (fig. 1.5).

In the twelfth and thirteen centuries, an identifiable merchant class, concerned with moving products from one locale to another, began to appear. Buying and selling goods, as opposed to farming or crafting material necessities, thus became a way to make a living.

Along with the merchant classes came an interest in the wider world and increased demand for goods from faraway places.

Fig. 1.5
Paper wrappers.
Paper wrappers are among the forerunners of modern packaging design. Here the actor Iwai Hanshiro VI holds a dish of rice cakes as a memorial offering, while a child at his feet holds a broadside of a paper game board.

Emerging Communication

Handwritten script on paper or parchment gave way to printing. The Chinese are credited with inventing the wooden printing press and then movable clay type. Tinplate iron, developed in Bohemia (a region in central Europe), allowed printing to take hold throughout Europe.

Around 1450, Johannes Gutenberg assembled his printing press. Utilizing movable and replaceable wooden or metal letters, it brought together the technologies of paper, oil-based ink, and the winepress to print books (fig. 1.6). The use of movable type lowered the cost of printing and, in turn, the price of printed materials. The general public's access to printing led to a rapid increase in the demand for paper and sparked a revolution in mass communication.

Innovations in book design emerged during the Renaissance (from the fourteenth to the seventeenth centuries) in the areas of typography, illustration, ornament, and page layout, as well as through new kinds of paper and printing materials. Visual communication was thus greatly advanced.

In the mid-1500s Andreas Bernhart, a German paper-mill owner, was among the first tradesmen to print his name (with a decorative design) on paper wrappers to package his products. Bernhart's wrappers pointed the way to merchandising with printed designs.

Billboards and broadsides—announcements of laws and government decrees posted on the sides of buildings—were the first forms of advertising. Advertising quickly became a vehicle for selling "consumer" products and frequently depicted the product's packaging design. In fact, in early British newspapers, dating from the early 1800s, vendors posted, or advertised, products

Fig. 1.6
Johannes Gutenberg examining his first press proof.

such as jars of tea, medicine bottles, and tobacco with illustrations of their printed labels.

Packaging design evolved with the marketing opportunities that the visual experience provided, and packaging became critical to sales. Design disciplines grew out of the need to communicate information in graphic form, melding with the material wants and needs of everyday life. In essence, the combination of the physical container, or packaging, and the written communication about the goods it contained became the foundation for packaging design today.

Early Commercial Expansion

Eighteenth-century Europe saw great commercial expansion, accompanied by the rapid growth of cities and a broader distribution of wealth that included the working class. Technological advancements allowed production cycles to keep up with the increased population. Mass production provided at low-cost, readily available goods, which in turn led to the concept known today as mass marketing.

In the 1740s, America, a British colony with a relatively small population, imported most manufactured luxury goods from England, France, Holland, and Germany. In 1750, there were only one million inhabitants of European origin in America, but by 1810 this number had ballooned to six million. Still, there was little to induce most traders to print their names and addresses on their goods, since most of the population of both America and Europe were illiterate. In Britain, for example, of its nine million inhabitants, only eighty thousand could read. However, packaging designs were created to attract these educated, wealthy, upper-class consumers.

Out of concern for hygiene among the growing bourgeoisie emerged two new features in the home: the toilet and the bathroom. As product development increased to meet consumer demand, packaging designs for products such as toiletries, bottled beers, antidotes, pots of snuff, canned and bottled fruits, mustards, pins, tobacco, tea, and powders functioned to identify their manufacturer and communicate the products' purpose (figs. 1.7, 1.8, and 1.9).

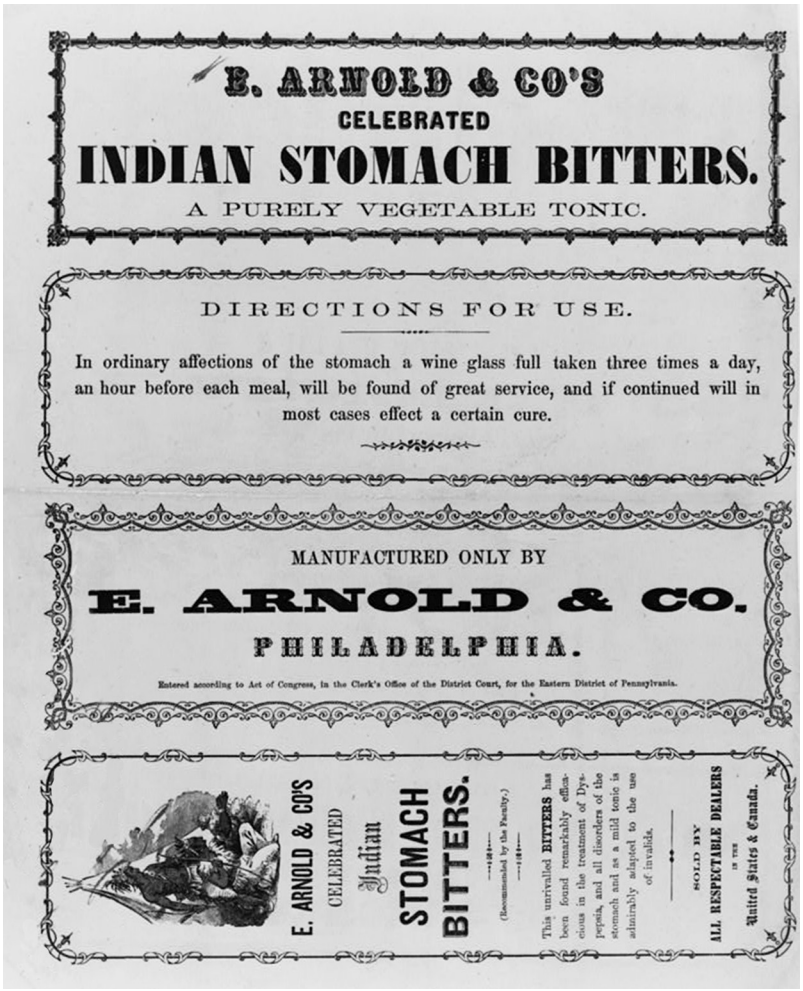

Fig. 1.7
Label for E. Arnold & Co.'s Celebrated Indian Stomach Bitters, circa 1850.

Fig. 1.8
Label for Champion American Soap Powder, circa 1887.

With the goal of attracting affluent consumers, coats of arms, crests, and shields were commonly used as graphic elements on packaging designs during this period. These symbols, ornately detailed, signified the family that manufactured the goods or provided a regional mark of distinction. Labels also often depicted images of powerful animals such as lions, unicorns, and dragons. Traditionally, such emblems adorned shields and armor as a means of distinguishing warriors on the battlefield; they now served a different form of competition. Their use in packaging designs—particularly on beer and spirits labels—visually communicated nobility, social status, influence, rank, geographical origin, tradition, or trustworthiness (figs. 1.10 and 1.11).

Fig. 1.9
Label for Sands's Sarsaparilla, circa 1840.

Before the development of lithography, every label or wrapper was printed by hand with wooden presses on handmade paper. By the mid-1800s, multiple-colored designs could be reproduced in large quantities. Wallpaper print techniques inspired by contemporary art influenced the design of labels, boxes, and tins (fig. 1.12).

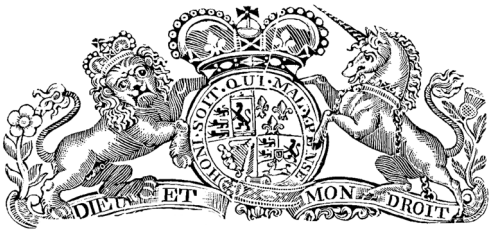

Fig. 1.10
Coats of Arms.

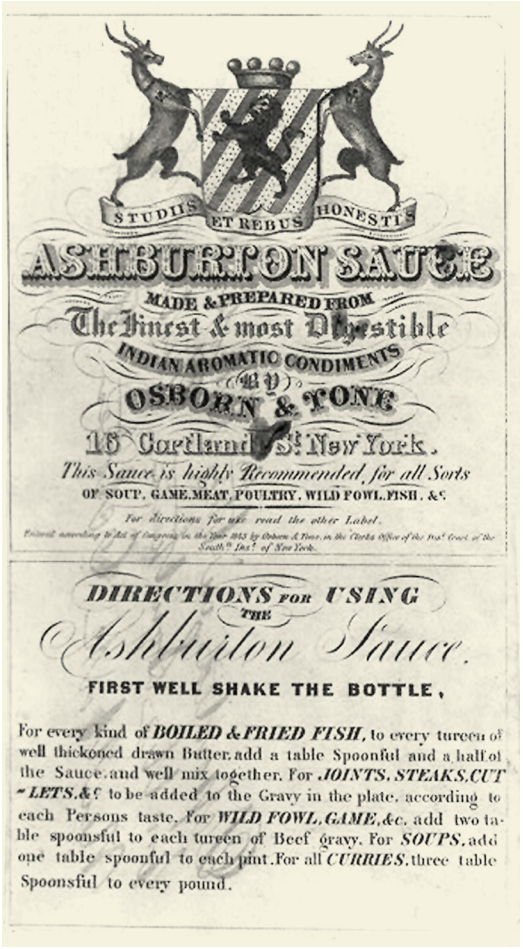

Fig. 1.11
Label for Ashburton Sauce, circa 1843.

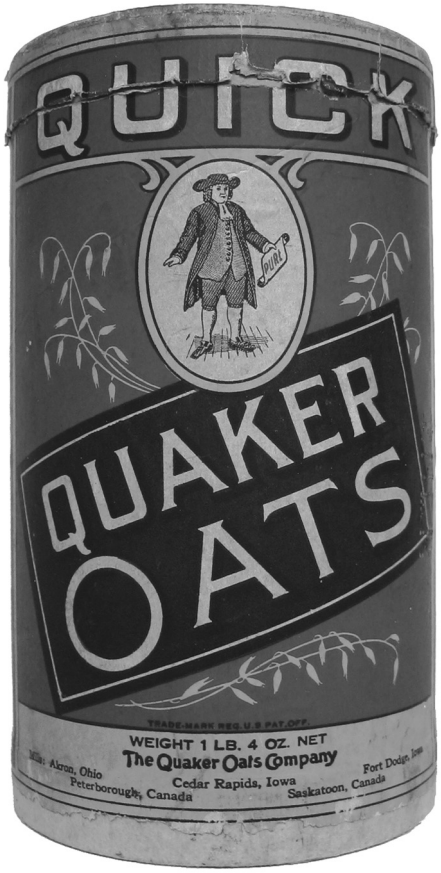

Fig. 1.12
Quaker Oats paperboard canister.

Fig. 1.13
Heinz Fifty-Seven Varieties advertisement.

Trademarked products were established. Brand names sought to make products appealing to the public and, through advertising, made them known worldwide. Packaging designs of consumer products were illustrated for newspaper advertisements, catalogues, signs, and posters. The growth of this form of pictorial advertising had a significant impact on the advancement of packaging design (fig. 1.13).

As early as the mid-1800s, manufacturers adopted the term brand, which derived from the use of a branding iron to burn a distinctive mark into the hides of livestock so ranchers could claim them as their rightful property (fig. 1.14). The communication of ownership through a visual symbol became the means by which merchants and manufacturers guaranteed the promise of the quality of their goods. The brand's symbol or name provided the consumer with a way to trace the product back to its source. The brand also became the vehicle for protecting a manufacturer's proprietary product information, as well as a means of visual recall for consumers.

Fig. 1.14
Branding cattle.

The Smith Brothers pioneered an official brand and trademark for their famous cough drops in Poughkeepsie, New York. First marketed in large glass jars in the mid-1800s, they had to be differentiated from candies sold the same way. The brothers decided to put their own pictures on small envelopes, which they supplied to shopkeepers, who used them to dole out the cough drops to customers. A picture of William with the word *trade* underneath and of Andrew with the word *mark* underneath on these preprinted envelopes helped make their product a success. Their idea of using the packaging to brand the product was revolutionary. As the packaging changed from envelopes to folding cartons, their "trademarked" pictures remained (figs. 1.15 and 1.16).

Fig. 1.15
Smith Brothers Cough Drops. The use of a "trade mark" was revolutionary for its time.

Fig. 1.16
Smith Brothers' Soothing Throat Drops, 2011.

The Industrial Revolution

The Industrial Revolution saw a large-scale shift from rural to urban life throughout Europe in the mid-1800s. There were massive changes in the nature of work, the consumer economy, women's roles in society, and even in the size and nature of families. Up to this time most consumer products were essentially luxuries that served what was known as "the carriage trade," or upper-class customers. New machinery and technologies brought about new products and services that were now available to the masses. Railways and steamships made it easier to move goods over long distances, and manufacturers marketed and distributed consumer goods nationally and internationally as a result. Packaging design grew alongside these developments.

Three important innovations arose almost simultaneously at the end of the nineteenth century:

- The commercial development of lithography
- The invention of the papermaking machine
- The development of American packaging

The printing method of lithography, invented by Alois Senefelder in 1798, was a significant milestone in the history of packaging design and was advanced by methods of industrial production. Since everything from cardboard boxes and wooden crates to bottles and tins had a paper label, the lithographic process of printing labels greatly enhanced packaging technologies.

The Linotype ("line of type") composing machine, invented in 1884 by Ottmar Mergenthaler, was regarded as the greatest advance in printing since the development of movable type four hundred years earlier. The first practical mechanized typecasting machine, it revolutionized the printing industry. The Linotype machine produced solid lines of text cast from rows of matrices. Each matrix was a block of metal—usually brass—into which an impression of a letter had been engraved or stamped. Matrices were selected by a keyboard operator and then transferred mechanically to a mold-making device, producing a bar of type. After its use for printing, the metal was melted down for reuse.

The typesetting machine was much faster than typesetting by hand, requiring fewer employees, and its economy allowed for a new freedom in creating printed materials. Newspapers, books, advertisements, and packaging grew as popular tools for visual communication. The new technology spawned new business trades that served specific manufacturers' needs. For example, a lithographer's directory in 1887 included Robert Gair, the pioneer of machine-made cartons, and George Harris & Sons, who printed colorful cigar boxes. Business listings used the titles such as "label manufacturers," "labels–cigar," and "labels for druggists" (fig. 1.17).

In 1798, Frenchman Nicholas-Louis Robert invented a papermaking machine that began the mass industrialization of paper. Robert's machine formed paper on a looped belt, eliminating the laborious handwork necessitated by separate molds for each sheet. His creation allowed paper to be produced faster and at lower prices. The machine arrived in the United States in the mid-1800s.

The mechanized process of making paper was followed by the invention of machines that made paperboard. This allowed paper, previously used mainly for graphics and the written word, to be used for structural packaging, as opposed to mere wrapping.

Paperboard packaging was being commercially produced by 1839, and within ten years boxes for a wide assortment of products were

being manufactured. Corrugated board appeared in the 1850s as a more durable secondary packaging material, suitable for shipping many items together. As competition between manufacturers took off, specialized equipment was developed to speed production and reduce costs.

Robert Gair, a Brooklyn printer and paper bag manufacturer, invented the bulk manufacture of paperboard boxes in 1890. When a metal ruler used to crease bags shifted out of place during a printing run and made a cut instead, he accidentally discovered that by cutting and folding in one operation he could make prefabricated cartons.

Around 1900, paperboard cartons began to replace the handmade boxes and wooden crates used for trade. This marked the origin of the cereal box, as it is known today. In the early 1900s, box making and tin can manufacturing grew significantly, both in America and England. As trade increased, new machinery was invented not only to *make* boxes but also to weigh their contents, and fill and seal them.

Fig. 1.17
Double Warp lithographed cigar box label, circa 1869.
Lithographed labels were a topic that interested even the *New York Sun*. In 1888, the newspaper commented, "A few years ago any kind of label was considered good enough to put on a cigar box. Then they cost about $10 for 1,000; the average price paid now is $50. The label is often better than the cigar."[1]

1 Quoted in Alec Davis, *Package and Print* (New York: Clarkson Potter, 1967), 27.

Mass Production

New mass-production and distribution methods, along with new packaging materials, changed the way food was integrated into people's lives. In 1899, wax-seal packaging, invented by Henry G. Eckstein, gave manufacturers the ability to more widely distribute fresh, perishable goods. These advances in packaging technology made staples like flour and meat more readily available. Hermetically sealed containers, which offered consumers shelf-stable food products, were another major development. The use of tin cans to seal cooked food made possible a year-round supply of foods that previously had been available only seasonally.

All the products that used these new inventions were advertised through the packaging design. This marked the beginning of the use of packaging design to communicate technological innovation and product developments (figs. 1.18 through 1.22).

The U.S. Congress, struggling with how to manage a free-market system and still protect consumers, passed the Pure Food and Drug Act in 1906. It was the first set of regulations imposed on packaging design. Although the law prohibited the use of false or misleading labeling, it did not require an accurate statement of ingredients, weight, or measure. Its mandate was, therefore, difficult to enforce.

With the occasional sale of inferior or impure goods making them wary, product protection became increasingly important to consumers. Honest merchants marked their goods with their own identification, both for consumer protection and

Fig. 1.18
Carnation condensed milk.

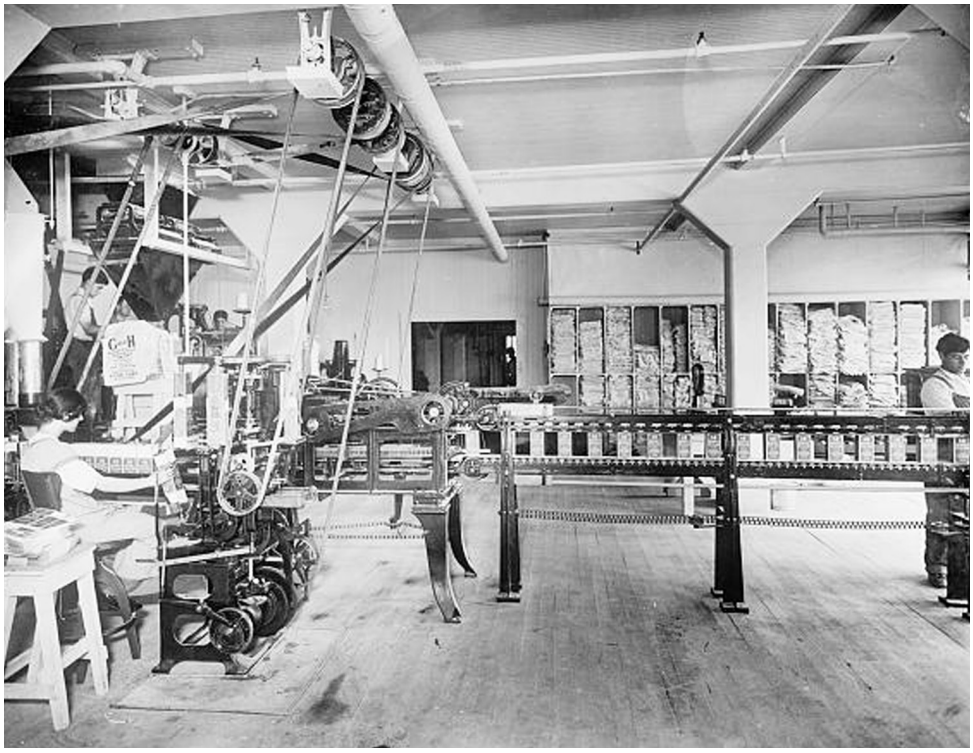

Fig. 1.19
Carton machine, circa 1910. This machine—which folded, glued, filled, weighed, and sealed thirty 2-pound or 5-pound cartons per minute and required only one operator—was revolutionary for its time.

Fig. 1.20
Waiter holding a bottle of Budweiser beer on a tray, circa 1908.

Fig. 1.21
Making up butter in pound packages, circa 1910.

Fig. 1.22
Ad for Kellogg's Waxtite Toasted Corn Flakes, *Ladies Home Journal,* April 1916. Kellogg's used paperboard cartons to hold flaked corn cereal. A heat-sealed bag of Waxtite was initially wrapped around the outside of the box and printed with the brand name and product information. Later, the waxed bag was moved inside the carton. The marketing of cereal through paperboard packaging reveals Kellogg's keen understanding of its brand's strength through the marriage of the structural and visual elements of the packaging design.