

For a true picture of that history, we first need to recognize an important, rather counterintuitive fact: the production of cow's milk in the Western world increased exponentially even before milk as a drink became truly popular. One reason for this lay hidden in the identity of milk as an industrial commodity from the 1850s. As Gail Borden proved, milk in cans, condensed or powdered, gained the portability and long life that the fragile liquid had always lacked. While his process remained widely used, other patents were issued worldwide, as determined experimenters added and subtracted ingredients (mainly sugar) to come up with a better product. Powdered milk, first developed in England in 1855, also took off as a market commodity, first as infant cereal and then as the basis for the manufacture of chocolate and confectionary products. In North America and Switzerland, the milk industry became just that: an enormously lucrative business that pushed the output of the product to extraordinary levels. The popularity of canned milk raises important questions, beginning with the obvious: What were consumers using canned milk for? Were most buyers pouring it into coffee? Did mothers concoct personal recipes for infant food from their cans? What proportion of cans sold was kept on hand for cooking purposes? All of these possibilities may suggest that processed milk was paving the way for a future form of market milk, a fresh liquid deemed safe and priced within reach of ordinary people. In any case, the enormous and growing demand for milk products had a collective impact of its own: it brought into being a modern attitude toward dairy farming, visible by the time of World War I.

A serious boost came from North America, where dairy agriculture had expanded beyond midwestern states into areas of the far west, such as Oregon and Washington. The rate of expansion in the condensed milk industry provides some insight into the growth of dairying at this time. Between 1890 and 1900, the amount of condensed milk produced in the United States grew by nearly five times, from 38 million to nearly 187

million pounds; by the outbreak of the First World War, the figure had reached over 875 million pounds. Demand from Europe during the war kept production climbing, so that in 1919, the United States was producing over 2 billion pounds of condensed milk, along with 44 million pounds of milk powders. And this absorbed only half of the total milk supply. With the ratio of cows to people growing to roughly 1 to 5 in the United States, the capacity to produce huge surpluses existed as early as 1900.<sup>16</sup>

Many forces converged to make this explosion of production take place, not least the rise of corporate business arrangements at the sale and distribution end of the industry. Big business emerged triumphant from the reorganization of western European and American capitalist economies at the end of the nineteenth century. The milk-processing industry was among the most successful food industries of the age, benefiting from the global network of food exports linked across oceans and into hitherto untouched markets. Companies utilized new features, such as cheap long-distance transport and the technologies of refrigeration, to compete in a world market for milk. Just as important, international business interests began to reorganize producers in foreign countries. Swiss agents settled in Norway and Spain; American entrepreneurs settled in Switzerland; Swiss immigrants transformed areas of the American Midwest. The landscape of milk production for big business scrambled the map of dairying, unsettling the idea of milk as a known and native product.

By 1920, for example, the Borden's Milk Company amounted to "one of the largest industrial concerns in the United States and Canada." Its vertical integration looked very modern even at that date: Borden owned and operated thirty-one condensaries, eleven "feeders," eleven tin can factories, two confectionery factories, two malted milk plants, and two dry milk plants. The company's subsidiary enterprise, Borden's Farm Products, delivered "large proportions of the fresh milk consumption of New York [C]ity, Chicago and Montreal," supplied by its "eight certified milk farms, 156 country bottling plants, and receiving stations, 70 city pasteurizing plants and distributing branches."<sup>17</sup>

Clever marketing strategies found ways of packaging milk that spoke to the times, an age of urbanization and anxieties about modern life. Talk in the board rooms of advertising companies was not overly concerned about debates over milk's purity. (At Borden's in Chicago, the problem

was settled simply by pasteurizing their supply, a gesture that combined public service with a business sensibility.) Familiar themes of milk history were struck when the Carnation Milk Company gave birth to its legendary phrase, “the milk of contented cows.” Around 1906, the company was searching for a hook for its annual advertising campaign. The chairman of the board, E. A. Stuart, met with members of the Mahin Advertising Company in its offices in Chicago. A new copywriter, Helen Mar Shaw Thomson, joined the group and listened to Stuart soliloquize on the company’s favored natural resource, placid bovines. As she recalled some twenty-five years later, the chairman delivered a performance equal to a bard of pastoral poetry. He spoke of “ever verdant pastures of Washington and Oregon, where grazed the carefully-kept Holstein herds, which yielded the rich milk used for Carnation” and described “the picturesque back-ground of these pastures—mountains often snow-capped, from which danced and dashed the pure sparkling waters which were to quench the thirst of the herds and render more juicy the tender grasses of the well-watered pastures.” “The delightful shade of luxuriant trees, beneath which the herds might rest during the heat of the day” completed Stuart’s rhapsody to the dairy.