N 1921 EDWARD BOK, editor of Ladies’ Home Journal, held an unpleasant business meeting with Albert Lasker, president of the Lord & Thomas advertising agency which represented a Kimberly-Clark subsidiary. Lasker and Bok argued over a proposed advertisement for Kotex sanitary napkins. Bok, known as the “supreme arbiter of the manners and morals of middle-class American womanhood,”1 reportedly told the Chicago advertising executive that his decision not to publish the ad was “final.” Lasker, however, challenged the editor to bring his secretary into the office and read the Kotex advertisement. “If she’s embarrassed or repelled by it,” Lasker said, “I’ll accept your judgment. There’ll be no further argument.” Bok called in his white-haired secretary, a woman in her sixties, and handed her the copy. The two men watched in silence as the secretary started reading the ad. She stopped halfway through, looked at the editor and said, “Why, Mr. Bok, this is really a wonderful thing.” After finishing reading the ad, she looked up and opined, “I certainly think we should run this in the Journal, Mr. Bok. Women deserve to be told about it.” Bok turned to Lasker and said, “So you were right, Mr. Lasker. Now I’ll show you around the plant and then have lunch. Our advertising director will be there and you two can work out the details.”2

The episode, a textbook example of savvy salesmanship, marked a turning point in the history of Kimberly-Clark, which established a formidable presence in consumer nondurables during the 1920s. The
endorsement of Bok’s secretary opened the floodgates for an unprecedented marketing campaign that broke cultural norms about menstrual hygiene and helped define new ones. The success of Kotex marketing was far from certain, however, because most retailers initially refused to stock the product. Those who did frequently hid it under the counter. In response, the Kimberly-Clark subsidiary that sold sanitary napkins hired marketing professionals who helped turn the product into a success. This success encouraged the company to experiment with other consumer products, including Kleenex disposable handkerchiefs. Although initially viewed warily by Kimberly-Clark executives, who preferred more traditional products, the new consumer items contributed to Kimberly-Clark’s stellar financial performance in the 1920s.

The present chapter traces the technology and business strategies that turned the company into a major player in consumer markets. It explores the invention of the base product for Kotex and Kleenex during World War I, when Kimberly-Clark converted the material into sanitary wound dressings. It also examines the development of Kotex and other consumer nondurables in the broader context of the company’s postwar business strategy, which initially did not favor feminine hygiene products.

Our account of Kotex and Kleenex sales strategies contributes to a revisionist interpretation of interwar consumer industries. Most previous studies have attributed the success of major new consumer items to marketing professionals like Lasker, often revered in the marketing literature as the “Father of American Advertising” who helped launch products such as Lucky Strike cigarettes and Pepsodent toothpaste. Our analysis of Kotex and Kleenex marketing suggests that Kimberly-Clark profited as much from “innovation from the bottom up” as it did from the expertise of marketing professionals like Lasker. Consumers and small retailers played an active but overlooked role in the consumer culture revolution of the 1920s. Kimberly-Clark, Lasker, and other innovators succeeded in part because they integrated these creative impulses into their marketing strategies, facilitating the rise of consumer industries in the Roaring Twenties.

I.

Cellucotton, the base material for Kotex and Kleenex, was a by-product of diversification in the pulp and paper industry after the passage
of the Underwood Tariff Act in 1913. Scrambling for new business to keep their mills running, newsprint producers converted to tariff-protected book, magazine, wrapping, and toilet paper, precipitating price erosion in those markets in 1914, followed by a full-blown recession a year later. This demonstrated that a simple switch from newsprint to other conventional products offered no solution to the industry’s structural crisis, leading some manufacturers to experiment with new manufacturing techniques and product lines. Kimberly-Clark, whose management had predicted as early as 1908 that lifting the newsprint tariff would result in severe price competition in other markets, developed high-quality groundwood pulp for rotogravure papers. International Paper ventured into sulfate pulp, laying the groundwork for a vast kraft paper and paperboard business that became the company’s new core business during the interwar period. Philadelphia-based Scott Paper, which built its first mill in Chester, Pennsylvania, in 1910, launched a major product development effort in 1916 that improved the quality and uniformity of its toilet and tissue grades. When the United States entered World War I, Scott also developed Zorbik, a laminated cellulose substance for gas mask filters and surgical dressings that resembled Cellucotton.

Kimberly-Clark developed Cellucotton as a substitute for cotton-based surgical dressings; the trademarked name for the new product combined the words “cellulose” and “cotton.” The company’s decision to enter the market for cotton substitutes was probably based on an analysis of cotton prices, which increased by 30 percent in the half-decade before World War I. The premier cause was the infamous boll weevil, a beetle that devastated southeastern cotton farming at the time, severely tightening supply. Cotton substitutes were available from European papermakers, but many American hospitals rejected these products for lack of cleanliness and absorbency. American cotton supplies, meanwhile, declined further as a result of floods that took large fields along the Mississippi River out of production, causing the price of market cotton to soar. These trends motivated Kimberly-Clark, Scott, and other papermakers to develop Cellucotton, Zorbik, and similar cotton substitutes.

Kimberly-Clark looked back on decades of experience in developing wood-based substitutes for cotton rags in papermaking, but turning wooden logs into a cottonlike substance suitable for hospital use posed major technical challenges. Unlike printing paper which was designed to produce a given degree of brightness and ink absorbency, surgical dressings were antiseptic blood sponges that also protected...
wounds from postoperative infections. To gain basic technical knowledge, vice president James Kimberly and chemist Ernst Mahler traveled to Germany, where they held discussions with scientists and papermakers at the Darmstadt Institute of Pulp and Paper Technology, at other academic institutions, and at paper mills. The results were largely disappointing because Kimberly and Mahler learned that German papermakers made cotton substitutes from tree species that were unavailable in marketable quantities in the United States.7

Upon their return to Wisconsin, Mahler investigated the suitability of various tree species for the production of antiseptic surgical wadding. After several months he settled on spruce, citing its long, clean fiber and quick absorbency. Next Mahler and his three laboratory assistants experimented with pulping technologies. They ruled out conventional sulfite pulping because it failed to eliminate lignin and resinous substances that rendered the product unsuitable for hospital applications. After twelve months of research they developed a chemical pulping process that eliminated the impurities without damaging individual fibers, producing a pulp whose antiseptic properties resembled those of virgin cotton.8

Like other paper researchers, Mahler and his assistants tried to process the pulp on miniature paper machines built by the company’s engineering staff. When the results proved unsatisfactory, Mahler convinced management to turn the aging, two-machine Globe mill into an experimental mill. The challenge was to produce an ultrathin web, 3,300 square feet of which weighed only three pounds, on a paper machine without breaking the filmy web. This was accomplished with a custom-made felt designed to carry the web, as well as special calender and drying rolls, all of which had to be precision-synchronized to prevent breaks in the web. After rebuilding one of the Globe mill’s 80-inch cylinder machines for eight months, Mahler and his assistants produced the first acceptable Cellucotton wadding in 1915. Female employees laminated several dozen sheets and encased them in a gauze wrapper, turning the product into surgical dressings.9

While experimental production runs were underway, Kimberly-Clark asked several hospitals to participate in product testing. The first tests were conducted with satisfactory results at Mercy Hospital in Chicago under medical supervision. In addition to demonstrating that Cellucotton met hospitals’ sanitary standards, the tests determined that wood-based surgical dressings were several times as absorbent as comparable cotton and required changing at longer intervals than cotton-based dressings, a feature prized by efficiency-
minded hospital administrators. Furthermore, one pound of Cellucotton cost 60 percent less than a pound of cotton, creating a financial incentive for hospitals to introduce the substitute. By 1917 Kimberly-Clark had started to receive orders for Cellucotton from hospitals around the country.10

Somewhat ironically, America’s entry into the war generated unprecedented demand for surgical dressings, but Cellucotton did not become a profit maker for Kimberly-Clark. The company decided to supply surgical dressings to the Red Cross and the War Department at cost. One motive was to avoid the impression of wartime profiteering by a firm that employed ethnic Germans in key positions, including Frank Sensenbrenner as general manager and Mahler as chief chemist. Demand increased precipitously, thanks in part to clever sales tactics that capitalized on successful hospital testing. Shortly after the United States entered the war, Kimberly-Clark contacted the Surgeon General of the War Department, inviting him to review the product and test results. He promptly endorsed the product after the company announced its “patriotic” policy to forgo profits on sales to the government and the Red Cross. The latter, which usually shied away from sanctioning trademarked products for fear that the vendor would exploit the endorsement in advertisements, listed all wood-based surgical dressings as Cellucotton in its supply lists, the only instance in which the Red Cross listed a product under its trademarked name during World War I. Early in 1918 the Gas Defense Division of the Chemical Warfare Service investigated Cellucotton’s suitability as a filter material in gas masks to protect troops from German G-76 gas. When it asked Kimberly-Clark for research support, the company complied, turning its research laboratory over to the Army, whose scientists developed special Cellucotton wadding for gas masks at the Neenah lab in collaboration with company researchers.11

At the end of 1917 the Army and the Red Cross ordered Cellucotton surgical dressings by the carload. At the time, production was still concentrated at the Globe mill, which produced nine tons in January 1918. Volume increased rapidly to 42.5 tons in February and plateaued at 50 tons a month thereafter. To meet surging demand, Kimberly-Clark refitted the Neenah book paper mill for Cellucotton production at a cost of $65,000, more than doubling the company’s aggregate capacity. The Neenah mill shipped its first carload of 15.5 tons in July 1918, reaching its full capacity of 88 tons a month in October. Turning Cellucotton into surgical dressings, still a manual
operation, was organized by the Red Cross, which recruited thousands of volunteers to laminate sheets and encase them in gauze wrappers. The Armistice in November 1918 resulted in the cancellation of a partially fulfilled Army contract for 375 tons of Cellucotton, as well as a Red Cross contract for a similar amount. The Neenah mill phased out Cellucotton production almost immediately, but the Globe mill continued to run at wartime levels to supply hospitals that started to place orders at the end of 1918. Conditions deteriorated sharply in March 1919, however, when the Red Cross distributed its surplus surgical dressings to hospitals at no cost and the Army sold its excess stock to speculators who flooded the market. Kimberly-Clark scaled back production at the Globe mill to 13 tons in March, followed by an almost complete shutdown in May. The crisis of spring 1919 could have spelled the end of Kimberly-Clark’s foray into cellulose-based wadding. At the time, management would not have perceived this as a strategic loss because the company’s core business lay in bleached groundwood paper and other commodity printing grades. Cellucotton production involved only two aging mills whose narrow paper machines were unsuitable for most other grades. Taking a leaf from Scott Paper, which phased out Zorbik surgical dressings at the end of the war, Kimberly-Clark could have quietly abandoned Cellucotton.

II.

With the exception of Mahler and Kimberly, most Kimberly-Clark executives initially viewed Cellucotton as a diversion from more pressing business. Given the glut in the market for surgical dressings, Cellucotton would have to be converted into an alternative end product, distracting management from the daunting task of maintaining the company’s long-term viability in the chaotic postwar period. From 1914 to 1919 the overall consumer price index rose 73 percent, and raw material prices in the paper industry increased more than 100 percent. Kimberly-Clark reported an average 137 percent increase in hourly wages compared to 1914. Transportation costs rose at comparable rates because wartime service had worn out the railroads’ rolling stock, more than 15 percent of which was out of commission by 1919. Customers, notably book and magazine publishers, complained about a 135 percent increase in overall paper prices.
Industrial relations warranted close attention because workers were determined to secure wartime wage gains. By 1919 mill worker communities across the country were rife with rumors of looming strikes to fend off employers’ attempts to slash wages. Most paper companies did in fact announce wage cuts exceeding 20 percent in late April 1920, precipitating a labor conflict known as the “Great Paper War.” The latter paralyzed International Paper, which became embroiled in a year-long struggle with workers that produced staggering financial losses for the company and crippled industrial relations for more than a decade. More enlightened employers escaped a similar fate by negotiating less drastic wage cuts with the International Brotherhood of Pulp, Sulfite, and Paper Mill Workers. Kimberly-Clark shunned this strategy and instead established mill councils, a euphemism for company unions. In spring 1920 council members met with management representatives in each community to conduct surveys of retail prices and negotiate wage reductions. General manager Sensenbrenner later claimed that these investigations determined a 23.3 percent fall from 1919 to 1920 (an unrealistically high figure), justifying a 19 percent wage cut that was announced by the company in May 1920 with the consent of mill council members. Combined with a company pension plan, mill safety committees, company housing, and an employee newsletter, these tactics enabled Kimberly-Clark to avoid strike-related losses throughout the interwar years.15

In addition to maintaining manageable industrial relations, executives and middle managers spent considerable time and effort improving customer relations with paper merchants. The latter not only complained about soaring paper prices but also worried about trade gossip that Kimberly-Clark intended to increase its direct business with publishers, effectively cutting jobbers out of paper marketing. This strategy was pursued by other paper companies, notably International Paper, which negotiated the bulk of its contracts directly with publishers, souring business relations with Carter, Rice & Company and other prestigious paper merchant houses. James Kimberly, head of the sales department, and general manager Sensenbrenner tried to reassure jobbers that the company had no such plans, but he could not resist the temptation to “encourage” merchants to order more paper. In his keynote address at the company’s 1921 annual meeting with jobbers, Sensenbrenner directly addressed the rumor...
the direct business exclusively. I want to emphasize, as I said before, that nothing is further from our thought than that; that during last year we determined definitely that we were going to allot a certain part of our production for the merchant trade. . . .

But, he added,

It depends, of course, upon the merchants as to whether or not we can make good on that policy. Of course, if we don’t get any business from the merchants, why, we will have to look for channels of trade wherever we can find them and wherever we can place our product.16

Paper merchants duly increased their orders in 1922, although it remains unclear whether this was a result of Sensenbrenner’s veiled threat or, more likely, a sharp upsurge in demand for market book, magazine, and school paper in that year.

Strategic production issues also loomed large in the immediate postwar years. In 1920 Kimberly-Clark sold the aging two-machine Telulah mill in Appleton to the Fox River Paper Company and invested the proceeds into the construction of a refined groundwood paper mill in Niagara Falls, New York, to increase the company’s capacity to produce book and rotogravure magazine paper. The main objective of building a paper mill 700 miles east of Wisconsin was to improve the company’s competitive position in East Coast markets by decreasing transportation costs f.o.b. customer warehouses, most of which were located in New York City. The Niagara Falls mill featured an electric, 196-inch fourdrinier, the world’s largest paper machine at the time and only the second electric fourdrinier in the United States. Separate motors powered the belt, press dryers, and winder sections, creating major synchronization problems that took company engineers almost two years to solve. In September 1922 Sensenbrenner, Kimberly, and other executives who closely followed the engineers’ attempts to synchronize the prized machine breathed a collective sigh of relief when the Niagara Falls mill went onstream with a daily capacity for 75 tons, which doubled shortly thereafter with the installation of a second fourdrinier.17

The aging Atlas mill in Appleton presented a different set of problems. Saddled with outdated production equipment, it was no longer viable as a wrapping paper mill, forcing Kimberly-Clark to seek other product lines to avoid shutdown. Conversion to box cover
grades and colored kindergarten paper failed to sustain the mill during the post–World War I recession. After much internal debate Sensenbrenner and Kimberly received the board of directors’ approval of a plan to convert the mill to wallpaper. Initially lacking the machinery needed to manufacture finished wallpaper, the Atlas mill produced basic stock for United Wallpaper Factories, Inc., one of the nation’s largest wallpaper companies which applied various finishes at its plant in Jersey City, New Jersey. In 1919 Kimberly-Clark’s board approved funds for specialized embossing and rolling machines that enabled the mill to produce finished wallpapers. One of the first and most popular grades produced at the Atlas mill featured a rough texture known as “oatmeal finish” or Polychrome Duplex. Atlas papermakers used the technique to produce a variety of new wallpapers that produced a three-dimensional “cloud effect of visionary depth.” Machines effected the finish by coating conventional wallpaper stock with small but visible wood particles to roughen the stock’s surface and produce Polychrome’s soft, stylish appearance. Kimberly-Clark continued to develop its wallpaper business in close collaboration with United Wallpaper, which obtained designs, maintained an office at the Atlas mill that supervised various production steps, and handled marketing.18

Labor and customer relations—combined with the difficult startup of the Niagara Falls mill, the reconfiguration of the Atlas mill, and the construction of a sulfite pulp mill in the Canadian wilderness (see below)—preoccupied management in the immediate postwar years. As a result, most executives and middle managers initially wanted to phase out Cellucotton because it lacked a viable market and required a product development initiative that would divert precious financial and managerial resources. The product that later emerged as the company’s most reliable profit maker was looked upon as little more than a nuisance.

III.

Cellucotton survived as part of the Kimberly-Clark product line thanks to the initiative of Mahler and Kimberly. In February 1919 they visited Walter Luecke, a Chicago sales representative for Sears-Roebuck (which bought its catalog paper from Kimberly-Clark) to discuss a possible commercial use for Cellucotton. On March 1, 1919, after meeting general manager Sensenbrenner, Luecke was
offered a job with the company and was tasked with finding outlets for Cellucotton.19

Luecke saw some potential in converting the product into sanitary napkins, which he later described as the only market that required “the enormous volume needed to keep their factory busy.”20 The idea had been proposed to Kimberly-Clark by the American Fund for the French Wounded, which received letters from Army nurses claiming that they used Cellucotton surgical dressings as makeshift sanitary napkins. Luecke quickly became an outspoken advocate of the idea, urging Kimberly-Clark officials to go into the sanitary napkin business. Although Kimberly and Mahler agreed, Luecke was initially unable to find other supporters. Somewhat desperate, he then contacted two jobbers, offering them exclusive rights to Cellucotton for sanitary napkin manufacturing, provided that they agreed to use the entire Cellucotton product Kimberly-Clark could deliver. Both firms turned him down, claiming that the quantity was too great for them to commit to buying it, and arguing that sanitary napkins were too personal and could never be advertised.21

In summer 1919 the indefatigable Luecke continued to make the case for sanitary napkins in discussions with directors Sensenbrenner, William Bonifas, and Frank Shattuck, but he was unable to “get them to commit themselves definitely,” he later recalled.22 Upon consultation with Mahler and Kimberly, they reluctantly approved Luecke’s plan to resume Cellucotton production and convert the product into sanitary napkins in early September. Luecke, tasked with finding an advertising agency, recruited the Charles F. W. Nichols Company to handle marketing, including the development of a trademarked name. In one of his first meetings with A. B. Taylor, the Nichols agent who was in charge of the sanitary napkin project, Luecke discussed possible names. At a meeting in early September 1919, someone remarked that the filler used in the product featured a cottonlike texture. “Right there a name was coined,” Luecke later recalled, “namely, cottex, meaning cotton texture. We decided, however, that the name cottex would be mispronounced by some customers, so we simplified the pronunciation as well as the spelling and from that moment on, our sanitary napkin was known [as] ‘Kotex.’”23

Several days later Kimberly-Clark produced a few dozen Kotex samples for shipment to retail stores. One of the first boxes was sent to Woolworth, the New York retail giant, on September 23, 1919. Woolworth responded cautiously:
We do not know whether this all paper [sic] Fibre Napkin would be a good seller, and whether it would give satisfaction. We are, however, willing to try it out, and are issuing a list to stores under our Chicago District calling their particular attention to this, and asking them to give it a trial, and if it proves to be good we are willing to put it in all of our stores.”

Woolworth’s Chicago store sold the first box of Kotex in October.

The first episode in the history of Kotex encapsulated the complicated cultural and gender issues involved in marketing feminine hygiene products. First, Kimberly-Clark sold the first sanitary napkins under its own name, contrary to its intention of keeping the product at arm’s length from the company. This policy, motivated by fears that Kimberly-Clark’s reputation would suffer if the company came to be associated with a culturally sensitive item, was already evident in Luecke’s earliest discussions with Taylor, when he insisted that the name Kimberly-Clark was “in no way to be even suggested, all or in part, in the selection of a trade name.” In line with this policy Kimberly-Clark established a new subsidiary, the Cellucotton Products Company, whose name intentionally did not hint at its affiliation with Kimberly-Clark. The fact that Kimberly-Clark initially did sell Kotex under its own name suggests that the company was so anxious to dispose of its bulging Cellucotton inventory as to break its carefully-thought-out marketing rules. Second, the boxes that were for sale at Woolworth did not carry the content description “sanitary napkin.” Store clerks likely informed customers orally about the nature of the product, a potentially embarrassing situation because most clerks were men who were unaccustomed to discussing feminine hygiene issues. Vice versa, a female customer was unlikely to ask a male clerk for sanitary napkins. The multimillion-dollar Kotex marketing campaigns of the 1920s were designed to prevent precisely this type of encounter by establishing brand-name recognition through advertising, enabling customers to ask clerks for sanitary napkins by demanding the neutral-sounding Kotex—and without having to utter the dreaded term.

Commercial menstrual products had been available since the late 1880s, when some women replaced homemade pads (usually cotton batting wrapped in cheesecloth) with cotton-based sanitary napkins. By the end of the nineteenth century a variety of brands were available
from Sears, Roebuck; Montgomery Ward; and other mail-order houses, as well as from a few local pharmacies and drugstores. Ads appeared in *Harper’s Bazaar* and *Delineator*. As historians Jane Farrell-Beck and Laura Kidd have documented, however, menstrual product marketing dropped off after the turn of the century, perhaps because product quality fell precipitously (no single manufacturer remained in the sanitary napkin business for more than a few years). The vast majority of women continued to use homemade pads, but menstrual hygiene practices improved because nurses, whose professional training increasingly emphasized sterile wound treatment, helped disseminate information about proper pad use to obstetrical patients. Commercial sales remained abysmal, however, because the dozen or so manufacturers who produced sanitary napkins after World War I were unable or unwilling to meet the formidable challenges of marketing their products.  

In late fall 1919 Luecke got a taste of the cultural obstacles facing the new product. Dealers refused to display Kotex and did not put it in their show windows. Most kept it out of sight behind counters or in back rooms. Letters flooded Kimberly-Clark from individuals and organizations objecting to the sale of the product. Luecke pressed on, however, and in November 1919 he started a sales campaign in New York City, taking a sales crew of six agents with him. Since Kotex advertising campaigns were not launched until later, Luecke and his men had to buttress their initial sales pitches with copies of proposed trade ads, which they showed to pharmacists, department store purchase agents, and jobbers. “After much forceful selling talk,” they obtained a few orders.  

IV.

In 1920 Kimberly-Clark established the Cellucotton Products Company (CPC) as a wholly owned subsidiary capitalized at $400,000. Reflecting the continued disagreements among members of Kimberly-Clark’s board over the wisdom of entering the sanitary napkin field, director Harry Price voted against the move, making it one of the board’s few strategic decisions that lacked unanimity. The CPC board of directors consisted mostly of Kimberly-Clark executives: James Kimberly, Frank Sensenbrenner, Ernst Mahler, Frank Shattuck, Harry Price, and William Bonifas. They were by joined by two advertising professionals, Walter Luecke and A. B. Taylor. Mahler, the inventor of
Cellucotton, was elected president, but day-to-day management was handled by Luecke, who served as general manager. The company changed its name several times over the course of the 1920s, but in 1927 it settled on International Cellucotton Products Company.  

Luecke’s first order of business as general manager was to obtain a registered trademark for Kotex. Having used the brand name informally in correspondence with retailers and jobbers since September 1919, Luecke asked Wallace Meyer, the Nichols agent now in charge of Kotex marketing, to have the name researched by a Chicago law firm. The latter determined the existence of a Cotex Company, a New York–based furniture factory that sold Cotex upholstery products, but counseled Meyer that possible objections by the Cotex company to CPC’s trademark application would likely be rejected by the U.S. Patent Office. Meyer advised Luecke in August 1920 to apply for the trademark, adding, “‘Kotex’ is a wonderful name—easy, quick, inoffensive and already distinguishable.” The trademark was issued on September 21, 1920.

Kimberly-Clark tested the waters for Kotex marketing through direct sales, but the results were disappointing. Luecke sent samples to women whose addresses he took from the phone book, enclosing a letter that asked recipients to contact the company if they wished to obtain regular Kotex deliveries by mail. He did not receive a single response. He then tried sending the letter and sample separately, “but it did not bring any replies either, which shows that the direct selling method using the company’s name did not work out,” as Luecke told Sensenbrenner in April 1920. Touting his own horn a bit, he added, “[T]he only method of marketing this product is through the regular jobbing and retail channels. It will therefore be necessary that we immediately call on each and all of the jobbers and retailers in the country and that we also decide on our advertising campaign which, as has been agreed, is essential to get the volume business on this article.”

In 1920 Luecke and Meyer developed a marketing campaign aimed at retailers. They placed Kotex advertisements with a wide variety of specialized trade journals and magazines, including The American Druggist, Pharmaceutical Record, Retail Druggist, Western Druggist, Pacific Drug Review, Drug Topics, The Corset and Underwear Review, Dry Goods Merchants Trade Journal, Dry Goods Economist, Dry Goods Reporter, and The Modern Hospital Journal. The ads contained a brief history of Cellucotton and its conversion into Kotex. “Large hospitals in the United States now use Cellucotton
where a soft, rapidly-absorbing, moisture-retaining dressing is required, such as in obstetrical cases,” read the one of the first ads, published in November 1920 in the *Dry Goods Economist*. “This proves its superiority as a product to be used in the manufacture of a sanitary napkin.” Ads also contained basic technical information highlighting Cellucotton’s advantages over cotton: five times the absorption capacity, three times as rapid absorption, freedom from chafing because Cellucotton did not dry hard as cotton, and ease of disposal through disintegration in water. The ads also encouraged retailers to display Kotex in shop windows and on counters. The results were mixed, as many retailers continued to ignore the product. During a long and frustrating sales trip to Syracuse, New York, Taylor reported to Luecke about his difficulties to get drugstore owners to “talk Kotex.” Indicative of continued opposition against Kotex among retailers, one drugstore manager told Taylor that he wouldn’t “handle [sanitary] napkins of any kind.” An Erie, Pennsylvania, dealer was “interested but not at present.” Taylor summed up his frustrations in February 1921, when he told Luecke, “My sales for this month are ABSOLUTELY ROTTEN, as you will learn at the end of the month. I have suffered more abuse at the hands of the trade than ever before in my life.” But, he added, “[M]y enthusiasm for Kotex is not waning one bit.” He planned to go on another sales trip to New England, “to beat every buyer I call upon and I’ll be damned if any are going to beat or procrastinate with me.”

Consumer advertising of Kotex started in 1921. Written by Meyer, the first ad draft was developed two years before and played on three major themes: patriotism, war, and science (figure 2.1). Entitled “To Save Men’s Lives Science Discovered Kotex,” the copy omitted all direct references to Kimberly-Clark, whose management had stiffened its opposition to associating the company’s name with the product. The text read, “Our boys were falling wounded on the battlefields of France. Army doctors were calling for an unlimited supply of antiseptic surgical dressings that could be more absorbent than cotton. The government said, ‘Can you give us such a surgical dressing?’ We could and we did.” This account omitted the fact that Kimberly-Clark had initially sold Cellucotton surgical dressings to hospitals before 1917. It suggested instead that the product owed its existence to a company that heeded the nation’s call to arms. Under the heading “A War Emergency,” the draft continued with a fully fictionalized account of the product’s origins: “Men working in feverish haste built a great plant . . . near the forest district of the North.
a wonderful surgical dressing was produced.” The fact that Cellucotton was produced not at a brand-new plant hacked out of the wilderness but at the fifty-year old Globe mill apparently interfered with the proposed ad’s message that Cellucotton and Kotex were modern, scientific products. “Many a sorely wounded soldier has reason to thank American scientific inventive genius for this great practical discovery.” The proposed artwork reinforced the theme, depicting two uniformed men recuperating from war wounds under a tree, with two other soldiers—evidently recovered from their injuries—

FIGURE 2.1 Draft for Kotex print advertisement, 1921
standing in the background. Remarkably, the only woman depicted in the artwork was a nurse assisting one of the soldiers. Meyer, sensitive to the need to appeal to female audiences, viewed this as a significant flaw, citing it as his principal reason for rejecting the artwork. Moreover, unlike later ads, the draft did not explain that Army nurses had pioneered the use of wound dressings as sanitary napkins, leaving unexploited a major opportunity to gear the ad toward female audiences. Turning to a more upbeat theme, the draft copy portrayed Kotex as something of a “peace dividend,” declaring, “Now that the war is over we are devoting this great factory to peace time usefulness.” The draft text also ventured to predict that “before long Kotex will be available in restrooms, dry goods, department and drug stores all over the country”—a somewhat optimistic guess in light of Kimberly-Clark’s continuing difficulties with retailers. Elaborating a wound metaphor of menstruation, the draft noted that “Kotex are also excellent for dressing bad cuts, burns or bruises.” This statement insinuated a correlation between the menstrual cycle and injuries, evoking a problematic image of menstruation that has been criticized in much of the recent literature.

To Meyer’s credit, he substantially edited the draft before the first Kotex ads appeared in magazines. He eliminated the fictionalized account of Cellucotton’s origins in World War I and the recommendation to use Kotex pads as wound dressings. The artwork, drawn by the Nichols agency’s illustrator John Taucke, resembled that of the first draft, depicting a nurse and a woman assisting a man in a wheelchair; but on Meyer’s insistence Taucke added a young woman sitting on the grass (figure 2.2). This eliminated the draft’s visual predominance of men, unequivocally aiming the new ad at its intended target audience. In more subtle language than the first draft, the text elaborated the themes of war and science but scaled back company patriotism, proclaiming, “Kotex enters universal service from a romantic background. For, although a woman’s article, it started as Cellucotton—a wonderful sanitary absorbent which science perfected for use of our men and allied soldiers wounded in France.” The copy did not elaborate why “romantic” was an appropriate adjective to describe conditions on the Western Front. Unlike the first draft, the new copy did explain the inclusion of a nurse in the artwork, mentioning “letters from nurses in France, regarding a new use for this wonderful absorbent.” Remarkably, however, the text still left readers speculating what “a new use” for the product actually meant, avoiding the term “sanitary napkin” throughout (the term made its debut in a
Kotex ad in November 1921). Medical advice, nurses, and medical symbolism became standard features of Kotex ads throughout the interwar period to imply that sanitary napkins were quasi-medical products.

To drive home that message, designer Albert Ross included a white St. George’s cross on a blue background in the Kotex box design, shown in all ads. The purpose was to establish Kotex as a medical product by using the symbol of the Red Cross. The International Red Cross had adopted a red St. George’s cross on a white background as the organization’s symbol of neutrality and mercy at its founding convention in Geneva in 1863, reversing the color composition of the Swiss national flag. Keen to prevent its commercial use, the American Red Cross asked the United States Congress to protect the
symbol in its charter and supplemental legislation, including the U.S. Criminal Code. It did not, however, prevent marketers of medical items from using the St. George’s cross (usually in colors other than red) in advertisements to enhance product credibility by suggesting some type of Red Cross endorsement or to insinuate a product’s medical purpose. Ross followed this trend by choosing the cross as the Kotex symbol.44

Throughout 1921 Meyer and his team experimented with new marketing messages. Artwork unveiled in May marked a departure from World War I themes and concomitantly eliminated men, who disappeared from sanitary napkin advertisements until World War II. The May ad instead depicted two women in a study. One donned the bobbed hairdo that came in vogue in the early 1920s and held a sheet of paper45 (likely meant to represent Kotex information); a similarly coiffured woman wearing a stylishly loose dress was standing in front of her. The purpose was to show two New Women of the 1920s in a private conversation of feminine hygiene. More practical issues were addressed in an advertisement released in November 1921 depicting a mistress and her maid. Entitled “Simplify the Laundry Problem,” it was the first Kotex consumer advertisement that included the term “sanitary pads” and informed women that the product required no cleaning after use because it was “cheap enough to throw away, and easy to dispose of.” The latter claim, repeated in most Kotex ads of the 1920s, was dubious at best. Disposal required taking the filling out of the gauze, soaking it thoroughly, and flushing it down the toilet, with a similar procedure applied to the wrapper. Women who failed to follow this procedure usually had to call a plumber. Be this as it may, after Lasker had broken the ice in his famous meeting with the editor of Ladies’ Home Journal, the first consumer ads appeared in a variety of popular women’s magazines, principally LHJ, Cosmopolitan, Vogue, and Good Housekeeping.46

CPC’s advertising expenses totaled $173,000 in the first year and were projected to exceed $200,000 in 1922, raising questions among board members whether further investments were justifiable in light of disappointing sales. James Kimberly, who had supported Kotex from the beginning, later recalled saying at a meeting of the board of directors, “We knew this wasn’t a penny-ante game when we got into it. The pot is big and we’ve got to put more into it. I say, let’s not drop out.” Sensenbrenner, who turned from a skeptic to a Kotex convert, agreed. “This reminds me of a poker game” in which “it costs another million dollars to call the previous raise,” he remarked. “Since we
have so much money invested, I am perfectly agreeable to spending this additional money.‖ CPC’s board of directors approved the necessary investments into consumer advertising.

Sensenbrenner’s characterization of the investment as a high-stakes gamble was correct in light of the fact that Kotex sales remained slow. Like a Geneva, Illinois, merchant, who told CPC bluntly that he did “not care to handle this kind of an article,” most retailers refused to display the product openly. CPC frankly acknowledged that with some retailers it was “evident from the looks of their store that they will not be able to sell an article such as ours.” CPC tried to mobilize consumers by telling them that “nearly every store that caters to women can supply you with Kotex,” implying that customers should exert pressure on retailers to make the product available. The results were disappointing, demonstrating the limits of consumer advertising.

The decisive breakthrough came with the introduction of self-service in 1922, when CPC recommended that retailers place stacks of Kotex boxes on their counters. Druggists and department stores customarily displayed their wares on shelves behind the counter, creating the now-familiar situation that was uncomfortable to both customer and sales clerk. Self-service had been pioneered in groceries several years earlier, most famously by Clarence Saunders’s Piggly Wiggly store in Memphis, Tennessee, in 1916; but most retailers remained committed to traditional store service. CPC’s attempt to turn Kotex into a self-service item introduced many retailers to the new sales concept. A series of CPC trade ads instructed retailers, “Keep a supply of Kotex packages on a prominent counter.” Unlike sanitary napkin containers sold from behind the counter, the countertop boxes contained no labels or text except the name Kotex and the familiar white cross. Accompanying artwork suggested that this sales technique was particularly suitable for high-income groups whose members could presumably be trusted to pay for the product after taking a box from the stack. A coin box placed next to the stack where customers could deposit their 65¢ for a box of Kotex completely eliminated the need for communicative action. CPC later added package holders with instructions to “[w]rap the day’s supply of Kotex packages in plain paper. Use the attractive metal wrapped package holder we supply. . . Mark the goods plainly with the price, so that the customer can help herself, pay the clerk, without questions or conversations.”

The origin of the idea remains a matter of dispute. Lasker, never prone to diminishing his contributions to American marketing,
claimed credit thirty years later in an article for Advertising Age, writing, “We developed for Kotex the simple idea of putting wrapped packages on the dealer’s counter.” His claim was disputed twelve years later by Meyer who credited an ingenious Wisconsin druggist. According to Meyer:

The idea was first reported by a [Nichols agency] copywriter, O. T. Frash, while in Watertown, Wisconsin, on a field trip. He saw it in an Apothecary Shop owned by a German-American druggist who found that women would buy many more packages if they were wrapped in plain white paper and tied with blue string, then piled on the counter in a pyramid surmounted by a small neat card reading, “Kotex—Take a box—65 cents.”

According to Meyer, Frash returned to Chicago and convinced the Nichols agency to apply the idea to Kotex marketing. This account appears credible in part because it provides a level of specificity lacking in Lasker’s version. Unlike Lasker, Meyer made no attempt to claim credit for himself; furthermore, he recounted the story in an unpublished letter to the Wisconsin State Historical Society in an attempt to “set the historical record straight.” If Meyer’s account can be believed, self-service originated not as the brilliant invention of professional marketers but as an “innovation from the bottom up” that was incorporated into Kotex marketing by Nichols salesmen. It precipitated major increases in Kotex sales and was quickly adopted by other sanitary napkin marketers.

Technologically, Kotex production shifted from manual to machine folding in the early 1920s. The first pads, measuring 9 by 3½ inches and consisting of 40 plies of wadding wrapped in gauze, were made by hand at the Neenah mill by unskilled workers. Manual labor persisted until 1924, when CPC introduced a machine invented by company engineer William Bauer that automated production. The Bauer machine cut wadding and gauze from continuous strips and dropped wadding plies on the gauze, whose sides were folded over to form the pad. The machine then cut the folded gauze to leave a flap at both ends for fastening. In the early 1920s Kimberly-Clark installed eight Bauer machines at the Neenah mill, each with a capacity to fold thirty pads a minute. The machine was sufficiently flexible to produce pads of varying thickness, facilitating the switch from 40 plies in the first pad to 37 plies in a follow-up design introduced in 1924. That same year CPC introduced the Super Kotex whose 74
plies featured higher absorbency. Later changes reduced the pad's width from 3½ inches to 3¾ in 1925 and 3¼ a year later.\textsuperscript{55}

In 1924 Kimberly-Clark expanded its Kotex-related production capacity with the start-up of a wadding mill in Niagara Falls, New York, adjacent to its vast rotogravure paper mill. The new mill was built in 1922 as a joint venture between Kimberly-Clark and the Thilmany Pulp and Paper Company of Kaukauna, Wisconsin, to produce light wrapping paper. Strong Kotex sales, however, convinced Kimberly-Clark in 1924 to buy out Thilmany for $100,000, convert the mill to Cellucotton and Kotex, and upgrade it with a $500,000 investment. Its main production equipment consisted of two Yankee paper machines. A variation of the cylinder machine, the Yankee machine dried the cellulose web on a single steam-heated cylinder featuring a polished surface, unlike the fourdrinier machine that dried the web in press rolls. The Yankee process produced a variety of special finishes, including machine-glazed paper and machine-creped tissue, enabling Kimberly-Clark to convert the two machines from wrapping grades to Cellucotton with a few minor adjustments. Beginning in August 1924 the Yankee machines produced Kotex Cellucotton on a 24-hour-a-day production schedule. Their output was converted into Kotex in an adjoining building by workers tending eight Bauer cutting machines, each with a capacity to fold thirty-one sanitary napkins per minute.\textsuperscript{56}

Automated equipment also made its presence felt at the point of sale with the introduction of Kotex vending machines. Pioneered by marketers of candy and chewing gum, coin vending machines gained popularity for higher-priced items in the 1920s, when William Rowe developed one for cigarettes, later followed by Coca-Cola and by food marketers for other products. The Kotex machine was based on a patent by George Weiss, a Chicago engineer, who agreed to license the patent to CPC for a 75¢ royalty for every machine. Introduced in women's restrooms in 1922, it enabled CPC to expand sales far beyond traditional outlets, into restaurants, hotels, railroad cars, and offices (figure 2.3). The technology could have solved the company’s familiar marketing problems in one fell swoop by rendering store visits superfluous, but the company decided not to antagonize retailers whose patronage it had carefully nurtured. Instead of conventional Kotex boxes that contained twelve sanitary napkins, the vending machine dispensed single pads at 10¢ each, almost double the per-unit price of boxed pads. Although vending machines produced lucrative new business, Kotex sales remained primarily anchored in retail...
stores. Smaller manufacturers copied the strategy for their own products, including Neps pads, which were available from coin vending machines in the late 1920s.\textsuperscript{57}

Unsurprisingly, competitors quickly sought to capitalize on CPC’s success. In 1923 Bloomingdale Brothers, the J.C. Penney department store, and other, smaller competitors flooded the market with sanitary napkins priced 40 percent less than Kotex. Although Kimberly-Clark and CPC found it difficult to challenge the new products with patent litigation, they successfully struck out against trademark infringements. One Earl Wilson, for example, who sold “Protex” sanitary napkins in blue boxes emblazoned with the Geneva cross, was
promptly sued by CPC in the Federal District Court for the Northern District of Illinois for trademark infringement and unfair competition. In a consent decree dated December 1, 1923, the defendant agreed to refrain from “using the word ‘Pro-tex’ or any other word terminating in the suffix ‘otex’ or ‘tex’ or ‘tecs’ or ‘tec’ or any other word simulating the plaintiff’s trade-mark KOTEX as a trade-mark for catamenial bandages or sanitary napkins . . . or in connection with the advertising, offering for sale, or sale thereof.” Wilson also agreed to cease using “packaging, marketing, labeling, or dressing said bandages in any manner likely to cause the public to be confused, misled, or deceived.” CPC brought a similar trademark infringement suit against Bloomingdale’s, which also signed a consent decree in 1923. Attempts to protect the trademark through a ban on imported Kotex imitations were rejected by the Federal Trade Commission.

CPC and Kimberly-Clark responded to the introduction of cheaper sanitary napkins by improving Kotex, developing a variety of new pads, and changing the thrust of marketing campaigns. In 1924 a Kimberly-Clark research team developed the thick Super Kotex and added a deodorant based on boric acid and zinc phenyl sulfate. These changes precipitated a proliferation of advertising, reflected in the growth of CPC’s advertising budget from less than $400,000 in 1923 to more than $1 million two years later (table 2.1). To elaborate the medical themes of earlier marketing campaigns, CPC hired Ellen Buckland, a registered nurse, who endorsed the product in advertisements and letters that were inserted into Kotex boxes. George Williamson, billed a “consulting physician,” wrote a CPC booklet entitled “Hygiene of Menstruation,” the first piece of Kotex marketing material that included the term “menstruation.” In addition to a short description of the menstrual cycle and basic feminine hygiene procedures, the booklet contained lengthy discussions of diseases that could presumably be detected through proper pad use, including womb cancer and fibroid tumors. Reinforcing the message of recent trademark litigation, Williamson cautioned customers, “A large number of difficulties may be the result of unclean, improperly made pads that do not readily take up the discharges.” Buckland made similar claims, asserting that “60% of many ills, according to many leading medical authorities, are traced to the use of unsafe and unsanitary makeshift methods.” In the final analysis this marketing material conveyed the message that women needed “protection from themselves” which remained pervasive in twentieth-century menstrual product advertising, as historian Shelley Park has pointed out.
The advertising campaigns of the mid-1920s turned Kotex into a virtual synonym for sanitary napkin, a consumer survey commissioned by the company determined. Investigators reported that “Kotex is so common a term now that it has almost become disassociated in the minds of . . . women from the actual circumstances involved.” At a J.C. Penney department store that sold sanitary napkins under a store brand name at 19¢ a box, customers asked “for a 19¢ box of your Kotex.” Not all comments were positive: “I tried Kotex, several kinds of it, but they are all the same—hard and uncomfortable,” one customer opined.63

Kotex was the most expensive sanitary pad available, costing almost twice as much as other brands. Partly to recover its enormous advertising costs, CPC increased per-unit retail prices by 8 percent, from 5¢ (1921) to 5.41¢ (1924) at current prices (table 2.2). At Mahler’s initiative the CPC board brought the rapid increase in sales costs to a halt in 1928, allowing the company to cut per-unit retail prices from 5.41¢ to 3.75¢ in order to fend off smaller competitors. CPC estimated that it controlled 70 percent of the sanitary napkin market of the late 1920s, a credible figure because the company

![Graph of Kotex advertising expenses, 1921–1929](image)
included it in a report to the Federal Trade Commission, an unlikely venue for exaggerated claims of market dominance.  

CPC soon faced a formidable new competitor, Johnson & Johnson, which entered the sanitary napkin market in 1926. Founded forty years earlier in New Brunswick, New Jersey, the company initially produced cotton-based surgical dressings and in 1891 built a bacteriological research facility that was one of the nation’s first corporate laboratories. Five years later Johnson & Johnson introduced “Lister’s Towels,” probably the first commercial sanitary napkin in history, but it quickly abandoned the product because of marketing problems. In 1921 it entered the market for consumer nondurables with Band-Aid adhesive bandages and Johnson & Johnson baby cream while maintaining its position as the nation’s leading manufacturer of cotton-based surgical dressings. In 1926 the company established a permanent presence in sanitary napkins with the introduction of the cotton-based Modess and Nupak pads. An advertising campaign, whose stylish artwork made Kotex ads look pedestrian, helped launch the products. Further indicating that CPC was confronted with its first serious competitor, Johnson & Johnson commissioned Lillian Gilbreth to conduct the first scientific survey of the sanitary napkin market and to recommend product development and marketing strategies. Gilbreth, a proponent of scientific management who became the first female member of the American Society of Mechanical Engineers in

<table>
<thead>
<tr>
<th>Year</th>
<th>Per-Unit Price in Cents</th>
<th>Per-Unit Price in 1929 Cents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>5</td>
<td>4.78</td>
</tr>
<tr>
<td>1922</td>
<td>5</td>
<td>5.09</td>
</tr>
<tr>
<td>1923</td>
<td>5</td>
<td>5.41</td>
</tr>
<tr>
<td>1924</td>
<td>5.41</td>
<td>5.41</td>
</tr>
<tr>
<td>1925</td>
<td>5.41</td>
<td>5.29</td>
</tr>
<tr>
<td>1926</td>
<td>5.41</td>
<td>5.23</td>
</tr>
<tr>
<td>1927</td>
<td>5.41</td>
<td>5.32</td>
</tr>
<tr>
<td>1928</td>
<td>3.75</td>
<td>3.75</td>
</tr>
<tr>
<td>1929</td>
<td>3.75</td>
<td>3.75</td>
</tr>
</tbody>
</table>

TABLE 2.2
Kotex per-unit price in cents, 1921–1929
1926, wrote a 137-page, no-nonsense report that was based on a survey of menstrual hygiene practices among college students.\textsuperscript{65}

The report contained a thorough analysis of Kotex pads, setting the benchmark for all other sanitary napkins. As could be expected, most of the 1,037 students surveyed used Kotex, citing availability as the primary reason. CPC’s relentless efforts to convince retailers across the country to display the product and use innovative sales techniques evidently had paid off. Furthermore, Kotex earned high marks for name recognition, indicating that the millions invested into consumer advertising was money well spent. The name was so recognizable, in fact, that it survived some mispronunciations intact, as evidenced by the experience of a young German woman who “asked for kodaks in a shop and was promptly supplied with a box of Kotex.”\textsuperscript{66}

On the other hand, many respondents were critical of Kotex disposal methods. Some who did not follow the disposal instructions included in the box reported mortifying experiences with overflowing toilets. The report also indicated that disposal problems cost CPC valuable corporate business. The head nurse of Metropolitan Life Insurance Company, for example, struck CPC from the vendor list because office clerks flushed unopened pads down the toilet, resulting in higher plumber bills for the company. Gilbreth’s respondents also complained that Kotex pads were too long and bulky and that fillers required adjustments.\textsuperscript{67}

The report included withering reviews of other pads. Gilbreth deemed Flush Down Ideal “too clumsy and obvious” with an “unattractive” label that told “a lie. No gauze will flush.” The Safety Ideal box included “ugly phrasing, false wording, a lie.” “Mi Ladi Dainti” was “absolutely the opposite of the name. . . . It is too long, is spelled foolishly, and has no point.” To buy Gimbro Nap, “one would probably have to repeat [the brand name] a number of times to the clerk and finally ask in exasperation for a sanitary napkin.” The size of Johnson & Johnson’s Nupak was “all right while in use, but too large for carrying or packing.” Its cotton-based filler was “very good and it would be very soft and comfortable, but it is entirely too large and bulky. . . . [Some] of the thickness should be taken out of the center and more towards the ends.”\textsuperscript{68}

The report precipitated major changes in pad design. Gilbreth recommended that Johnson & Johnson reduce overall pad size, shorten front tabs, thicken fillers at the center, round filler corners and sides, and develop a softer gauze. She also suggested that Johnson & Johnson hire a female manager or researcher to support product design.
Johnson & Johnson's managers and staff researchers apparently studied the Gilbreth report carefully, because most of its suggestions were incorporated in the redesigned Modess pad. CPC took up the challenge. General manager Luecke, keenly aware that Johnson & Johnson intended to compete on the basis of product quality, urged the board to approve funds for a major product development effort in 1928. CPC product designers quickly introduced rounded corners, softer gauze, and thinner filling which enabled Kotex to keep pace with its largest competitor. In 1929 Kimberly-Clark established the Kotex Research Laboratory as part of its Neenah-based research
department which developed further product improvements in the 
1930s. Unwittingly heeding Gilbreth’s advice to Johnson & Johnson, 
Kimberly-Clark put the Kotex Research Department under a Mrs. 
Heitmeyer, the first woman employed in a Kimberly-Clark manage-
ment position.69

The redesigned Kotex was marketed in an innovative advertising 
campaign that included an ad released in 1929 (figure 2.4). The ad is 
remarkable for two reasons. First, it addressed concerns documented 
in the Gilbreth report that sanitary napkins were visible under gar-
ments, particularly thin silk dresses that gained popularity in the mid-
1920s. “Many a smart costume has failed its effect, many a perfect 
evening has been ruined because of certain outstanding flaws in 
grooming,” it stated. Following the first rule of marketing that ads 
should never state a problem without offering a solution, the text 
continued: “Women who have been aware of awkward bulkiness in 
sanitary protection now welcome the Improved Kotex, which is so 
rounded and tapered at the ends that it fits with an entirely new secu-
ritv. Now there is no break in the lines of a costume, no need for 
unhappy self-consciousness.” Playing on the cultural imperative that 
women should keep their menstrual cycle private, the product 
enhanced consumers’ ability to conceal evidence of their feminine 
hygiene practices.

Second, and more important, the ad featured fashion model Lee 
Miller, the first real person to appear in an advertisement for feminine 
hygiene products.70 Her appearance raised a number of complicated 
issues, not least for Miller herself, who was initially mortified finding 
herself depicted in Kotex ads. (She soon changed her mind, however, 
because the photographer, who had made her pictures available to the 
Kotex marketers without her knowledge, made amends by introduc-
ing her to surrealist Man Ray, facilitating her career as an avant-garde 
model and photographer in Paris.71) Virtually all artwork included in 
early feminine hygiene product ads depicted fictional characters in 
drawings, even though rotogravure papers which reduced the cost of 
reproducing photographs in magazines were widely available. Print 
advertisers’ reluctance to use photographs was widespread because 
many viewed the medium as ill-suited for visual idealization, deemed 
a critical element in early-twentieth-century marketing, as historian 
Elspeth Brown has shown. The use of fictional characters in advertis-
ing posed particular problems for feminine hygiene marketers because 
it inherently contradicted ad claims that customers could shop for 
sanitary napkins without feeling embarrassed. Unintentionally, the
The use of fictional ad characters actually reinforced the normative assumption that real people should not discuss menstrual hygiene in public. The Kotex ads featuring Miller, although highly controversial when initially released, resolved that contradiction, reestablishing CPC’s lead in sanitary napkin marketing vis-à-vis arch rival Johnson & Johnson on the eve of the Great Depression.72

Kotex and Cellucotton paid handsome financial returns. In 1923 Kimberly-Clark awarded a $10,000 bonus to inventor Mahler, followed by an identical bonus a year later. He also received 2 percent of all CPC profits not exceeding $25,000 annually. In 1926 Mahler asked the company’s board of directors to sell him one hundred CPC stock at $400 each from Kimberly-Clark’s holdings. The request was granted, but Bill Clark and Harry Price refused to vote, “having expressed their opinions as being opposed to this sale, on the ground that the Cellucotton Products Co. stock should be held as far as possible by Kimberly-Clark Co., and not by individual stockholders of Kimberly-Clark Co.”73 Kimberly-Clark established a stock deposit committee composed of directors Frank Sensenbrenner, William Babcock, Mahler, and others, who voted on behalf of the parent company in CPC stockholder meetings. Lasker and Charles S. Pearce joined the CPC board in 1927. In 1928 CPC reported a respectable $780,000 or 8.1 percent after-tax net profit, followed in 1929 by a remarkable $1.85 million, 14.7 percent, more than three-quarters of which went to Kimberly-Clark in the form of dividends.74

V.

New materials developed during the interwar period often found an astonishing range of applications. The best-known example is perhaps nylon, developed by DuPont as a silk substitute for women’s hosiery that was later used for parachutes, tents, ropes, and tires. Cellucotton, a similarly versatile material, was converted by Kimberly-Clark researchers into Kleenex tissues, barber strips, refrigerator lining, and packing material. Although less controversial than Kotex, some of these products profited from CPC’s experience in marketing sanitary napkins and solidified Kimberly-Clark’s presence in consumer nondurables and other product lines.

The origins of Kleenex dated to 1917, when company and Army researchers at the Neenah mill experimented with ultrathin Cellucotton samples to produce filter lining for gas masks. The experiments
produced viable lining that was manufactured in considerable quantities on two creped wadding machines at the Neenah mill, but Kimberly-Clark abandoned the product shortly after the Armistice when its market collapsed. The Army’s research files gathered dust until 1923, when one of Mahler’s laboratory assistants proposed to convert ultrathin Cellucotton into cleansing tissue to remove lipstick, rouge, and other cosmetics. 

Cosmetics was one of the fastest-growing industries of the 1920s. Prior to World War I, usage had been largely confined to prostitutes and professional actors, but cultural changes created vast new markets during the interwar period that also boosted demand for makeup removal tissue. Some historians and feminist scholars, piqued by the timing of the “cosmetics revolution” in the wake of the passage of the Nineteenth Amendment, have speculated that cosmetics “re-feminized” women whose enfranchisement and growing presence in the professions raised fears of the “masculine woman.” In applying makeup, historian Vincent Vinikas has written, “women could both acknowledge recent alterations in gender identity and mute the more threatening ambiguities that accompanied the emergence of the New Woman.” This intriguing interpretation suffers from a lack of evidentiary support, but the fact remains that by 1930, American women applied on average 6 tons of rouge, 24 tons of foundation cream, and 144 tons of cleansing cream a day.

To remove cosmetics, many women used general-purpose cotton towels, a practice quickly deemed as unsanitary by manufacturers and advertisers that were eager to sell cosmetics removal tissue. One of the first to do so was Elizabeth Arden, the beauty salon that established a thriving side-business in cleansing tissue during the early 1920s. Perhaps inspired by Arden’s success, CPC approved a proposal to turn Cellucotton into cleansing tissue in fall 1923. General manager Luecke met with Lasker to discuss brand names and marketing strategies. They determined that the product would be marketed by CPC as a disposable cold cream remover and settled on the trademark Kleenex. Taking a leaf from the medical references in Kotex advertising, the Kleenex marketers suggested that the “sanitary cold cream remover” was a more healthful product than cotton towels. CPC in fact trademarked Kleenex in 1925 as a brand name for “[a]bsorbent pads or sheets (not medicated) for surgical or curative purposes or in relation to the health [sic].”
Kleenex marketing initially evolved from Kotex campaigns but quickly developed its own dynamics. CPC released its first ads in 1924 in magazines with an aggregate circulation of 16.2 million that also advertised Kotex. Kleenex was for sale in department stores, pharmacies, and drugstores in 65¢ boxes, each containing 200 sheets measuring 5 by 6 inches, but it was not displayed in countertop stacks for self-service because the product was not burdened with cultural taboos. Initial sales were somewhat disappointing (they actually declined in the second year) but grew when CPC introduced a larger 9-inch-by-10-inch sheet in 1926 (table 2.3). Lasker later claimed credit for the idea, recalling:

I personally asked half a dozen women who I knew spent a lot of money on cosmetics to use [the 5-inch-by-6-inch Kleenex], and these half dozen all said, “it may be all right, but I can’t use it, it is too small; it ought to be the size that is now being put out in paper by Elizabeth Arden and the Dennison Company. . . . So I went to the Cellucotton people and told them, and they changed the size to 9 × 10.”

---

**TABLE 2.3**

Kleenex net sales, 1926–1929

<table>
<thead>
<tr>
<th>Year</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales (in thousands)</td>
<td>400,000</td>
<td>600,000</td>
<td>800,000</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>
The first boxes featured the widely known CPC blue color, another reference to Kotex, but were replaced in 1926 with boxes featuring gray stripes combined with lavender and Persian orange colors to distinguish the tissue product. In 1928 CPC introduced a pop-up box that left a new tissue available when one was pulled for use, making the product more consumer friendly. Kleenex was primarily marketed as a cold cream remover until 1930, when surveys determined that consumers preferred using it to wipe their noses. Consumer-induced product innovation turned Kleenex into one of the most profitable consumer nondurables of the 1930s.80

In the 1920s Kimberly-Clark introduced Sanek barber strips, another Cellucotton-based product. The strips, which evolved from sanitary surgical dressings, were initially distributed by the Lewis Manufacturing Company, a Kimberly-Clark contractor that helped organize the sales of wound dressings to hospitals. When the Lewis Company proved unable to develop even rudimentary sales, Kimberly-Clark took direct control of the product and assigned it to company salesman Neill Graham, who developed the trademarked brand name Sanek for the sanitary neck strip. Sales, initially concentrated in New York and Chicago, were handled by Graham and Biederman, who marketed the product to barber and beautician suppliers. They also lobbied for state sanitary regulations requiring the use of paper strips to prevent hair cloth from touching a patron’s hair. Marketing involved advertisements in the Beautician and other trade journals, as well as the introduction of a glass jar with an aluminum cover as a user-friendly container. As a result of these efforts, Sanek production at the Neenah mill increased from 5 tons in 1924 to 100 tons two years later. Advertising was minuscule compared to advertising of Kotex and Kleenex, with only $12,400 budgeted for 1928.81

Graham and Biederman also marketed Kimpak packaging material, the first Cellucotton product whose brand name suggested a Kimberly-Clark connection. The company developed the material in response to an initiative by the Simmons Company, a major producer of high-quality furniture. A Simmons representative, looking for packaging material for the company’s new line of steel-polished, wood-grain furniture which often suffered severe shipping damage, saw Cellucotton wadding at a hospital supply exhibit. Simmons inquired in 1923 whether Kimberly-Clark could convert Cellucotton into packaging material, prompting research that produced unbleached wadding. Named Kimpak in 1926, the product was marketed by Graham and Biederman to furniture companies and later
gained acceptance as a packaging material for other fragile items. Kimpak underwent further development in 1929, when a refrigerator company approached Kimberly-Clark with a request to turn the product into insulation panels. Researchers at Kimberly-Clark’s laboratory in Neenah developed a pulp additive that improved Cellu-cotton’s moisture resistance, laying the groundwork for a thriving business in refrigerator lining and building materials in the 1930s.82

VI.

Consumer nondurables emerged as a lucrative side business for Kimberly-Clark, but printing papers remained its core business. Capitalizing on prewar technological gains, the company refined and trademarked some of its most successful product lines for the booming magazine, book, and catalog paper markets of the 1920s. Annual magazine circulation increased by more than 56 percent over the course of the decade, reaching 202 million copies in 1929. The primary cause was the proliferation of general popular magazines, notably Time (founded in 1923), and the strong growth among magazines targeted at specific audiences, including women (Ladies’ Home Journal and Delineator) and upper-class readers (Saturday Evening Post and American Golfer).

Kimberly-Clark produced the bulk of its printing paper at the Niagara Falls (New York), Niagara (Wisconsin), and Kimberly (Wisconsin) mills. The Kimberly mill, a key facility in the Kimberly-Clark mill system of the interwar period, added a laboratory in 1925 where company researchers developed a variety of specialty papers. Most were first produced on a commercial scale on one of the Kimberly mill’s four paper machines. The first specialty grades in this category included the trademarked American Law Book paper, which combined a high-quality finish with durability for books that had to endure more frequent usage than most others: Bibles and legal reference texts. Furthermore, company researchers at the Kimberly mill developed a high-gloss grade that featured a deckle edge, the ragged sheet edge usually seen in handmade papers. To commercialize the grade, engineers installed a full deckle super calendar machine at the Kimberly mill in 1926. More conventional grades included catalog paper for National Bellas Hess, one of the nation’s largest mail-order companies that awarded most of its paper contracts to Kimberly-Clark. Kimberly-Clark also increased its sales of rotogravure paper
through a $120,000 advertising campaign handled by the Nichols agency.83

The company marketed its new grades under trademarked names. It did so to meet the demands of jobbers who argued that trademarks improved the marketability of specialty paper, citing the example of the Hammermill Paper Company, which had pioneered the practice before the war. One paper merchant recommended in 1921 that Sensenbrenner and Kimberly emulate the practice, claiming “Hammermill today are [sic] enjoying a much better profit on their papers by virtue of the fact that they have put through for several years a very strong campaign for advertising.”84 Kimberly-Clark duly developed colorful trademarks for most of its specialty grades, including Featherplate, Primoplate, and Rotindia.

Shortly before the onset of the Great Depression, Kimberly-Clark resurrected its newsprint business with the start-up of the Spruce Falls mill in Kapuskasing, Ontario. The move was part of a broader trend in the North American paper industry of the 1920s, when U.S. producers built newsprint mills in Canada. Sensenbrenner and other paper executives had speculated as early as 1908 that the removal of the newsprint tariff would encourage companies to invest north of the border, but few would have predicted that Canadian newsprint would assume the vast size it did in the 1920s. International Paper (IP), for example, built the world’s largest paper mill in Three Rivers, Quebec; their eight electric fourdrinier machines boasted an aggregate annual capacity of 240,000 tons. In the late 1920s IP built two more mills in Gatineau, Quebec, and Dalhousie, New Brunswick, and acquired an existing one in Corner Brook, Newfoundland, raising its aggregate annual capacity to a staggering 800,000 tons. Abitibi, Canada Power & Paper, and other Canadian companies launched similarly ambitious mill construction programs, quickly raising the specter of a market glut. The latter, in fact, started to materialize as early as 1926, when outsized supply precipitated price erosion in newsprint markets.85

Kimberly-Clark’s Canadian venture started in 1920, when it incorporated the Spruce Falls Company, Ltd. This new subsidiary secured extensive timber and water rights near Kapuskasing in Northern Ontario, a tiny settlement that had been founded as a prisoner-of-war camp several years earlier at a crossing of the Canadian National Railroad and the Kapuskasing River. The Spruce Falls Company built a sulfite pulp mill with a daily capacity of 115 tons, indicating that the venture’s initial purpose was to secure pulp supplies for
Kimberly-Clark’s book and magazine paper mills, not newsprint production. In 1923, however, Sensenbrenner approached Adolph Ochs of The New York Times, with a proposal to turn the Kapuskasing mill into a newsprint operation to supply The Times as well as other newspapers. The Times’s business relations with Kimberly-Clark dated back to 1915, when the paper company started to supply rotogravure grades for the newspaper’s Sunday magazine. Sensenbrenner, Ochs, and members of the Ochs family discussed the proposal until January 1926, when they incorporated the Spruce Falls Power & Paper Company. Its board of directors consisted of Sensenbrenner, James Kimberly, Mahler, Ochs, Arthur Hays Sulzberger (who succeeded Ochs, his father-in-law, as publisher of The Times in 1935), and Julius Ochs Adler (another Ochs son-in-law who later became an Army general). Sensenbrenner was elected president, and John H. Black, a Kimberly-Clark manager who had risen through the ranks at the Globe mill, served as general manager. Kimberly-Clark held 51 percent of the stock, and The Times 49 percent.

The Spruce Falls Power & Paper Company quickly grew into a major business. It acquired the holdings of the extant Kimberly-Clark subsidiary, added a newsprint mill with 650 tons daily capacity, constructed a power plant, and built a fifty-mile railroad track to transport pulpwood harvested north of Kapuskasing to the mill. The $16 million construction program (supported by CPC, which purchased $1 million in 5.5 percent bonds) amounted to one of the most ambitious building projects in Kimberly-Clark’s history. For three years workers hacked the mill site out of the wilderness, endured sixty-below-zero temperatures, and cut through river ice fourteen feet thick. The mill came onstream in early summer 1928, and the first issue of The New York Times printed on Spruce Falls paper was published on July 13, 1928.

Tumbling newsprint prices quickly convinced the board of directors and general manager Black to scale back their ambitions for the Spruce Falls mill. They shelved plans to supply other newspapers because market newsprint prices approached production costs during the Depression, leaving The Times as their sole customer. The sulfite plant produced pulp for the newsprint mill as well as for the Kimberly-Clark mill in Niagara Falls, New York, but rarely for the open market. Simultaneously, The Times provided the newsprint mill with a secure outlet for its 234,000 tons annual capacity, sparing Spruce Falls some of the financial problems that gripped other newsprint mills in the 1930s, when their markets collapsed.
In 1928 Kimberly-Clark was reorganized from a closely held company owned by a handful of shareholders into a publicly traded corporation that was listed on the Chicago and New York stock exchanges. Instigated by Sensenbrenner and Kimberly, the move was intended primarily to raise money for the massive Spruce Falls mill construction program and the acquisition of the Lakeview mill in Neenah, a replacement for the obsolete Neenah mill. The Kimberly-Clark Corporation, incorporated in Delaware to take advantage of that state’s hospitable statutory environment for holding companies, acquired the assets of Kimberly-Clark Company, including six wholly owned paper mills, six research facilities, and the subsidiaries CPC and Bonifas Lumber Company, as well as the company’s 51 percent share in the Spruce Falls newsprint mill. These holdings, combined with extensive timberlands in Michigan and waterpower rights at the various mill sites, were valued at $29.3 million. The $30 million capital stock consisted of 499,800 common stock, with a book value of $40 each, and 100,000 preferred shares. The preferred shares, valued at $100 each, resembled bonds because they carried a fixed dividend and lacked the voting rights of common stock. No common dividends could be issued before the company had paid its 6 percent preferred dividends from after-tax profits. The Kimberly-Clark Corporation also issued $6 million in 25-year, 5-percent mortgage bonds to finance various plant improvement and acquisition programs. The fourteen-member board of directors included representatives of major investors, notably John Hancock of Lehman Brothers, who were joined by seven veteran Kimberly-Clark stockholders and executives. The latter served as senior managers of the new company, principally Sensenbrenner as president and Mahler, William Bonifas, John Sensenbrenner, and Frank Shattuck as vice presidents. This personnel structure largely preserved Kimberly-Clark’s traditional unity of ownership and management, enabling the company to avoid wrenching disagreements between executives and boards of directors that became commonplace in the 1930s, when many boards—including that of International Paper (IP)—solved conflicts over financial strategy by firing senior managers.88

Kimberly-Clark was one of the most profitable pulp and paper companies of the late 1920s. The sterling performance of its printing papers and consumer nondurables produced a 12.8 percent net profit
in 1928. A year later Sensenbrenner reported that net earnings were “substantially more than [what] was forecast”—a whopping 19.3 percent on $22.3 million net sales, the best result in the industry. Scott Paper, the distant second, reported 11.5 percent. IP, the world’s largest pulp and paper company, announced an anemic 2 percent net profit; and Union Bag & Paper Company reported a 7.1 percent net loss.89

Kimberly-Clark, Scott, Hammermill, and successful companies like them differed from the industry’s underperformers in terms of marketing, product strategy, and commitment to research and development. IP largely ignored the consumer revolution of the 1920s and instead invested enormous sums into hydroelectric power plants and Canadian newsprint mills, which failed to produce the anticipated returns. Scott meanwhile, already one of the nation’s leading toilet paper companies, expanded its presence in consumer nondurables with ScotTowels, marketed in a clever advertising campaign that included a motion picture. The latter conceptualized the paper towel as a cartoon character named “Thirsty Fibre,” a tall, slender, fuzzy man, “in topper and tails,” with a walking stick in one outstretched hand and with long striding legs leading him to an oasis where he quenched his insatiable thirst. The campaign helped Scott develop a thriving paper towel business that underwrote much of the company’s financial success in the 1920s and the Great Depression.90