IN 1984 the Minnesota Historical Society acquired the Munsingwear, Inc., corporate records and product samples. These business records, photographs, promotional materials, and garments offer an especially broad and detailed documentation of the company's history from its inception in 1886 through the modern miracle-fiber era of the 1970s. While there are some gaps in several categories or time periods, the collection as a whole is a treasure trove of information about the company, its competitors worldwide, and the undergarment industry in general. It provides a rare opportunity to compare historical documents with material culture over a significant period of time. For more information on the collection, see inside the back cover.

THE INDUSTRIAL REVOLUTION affected nearly every aspect of daily life in the 19th century. Weapons, furniture, chromolithographs, appliances, and clothing, to name a few items, were standardized, and streamlined production made more—and new—products widely available. Although standardization and mass production limited creativity and uniqueness, their result was predictable: stable designs and reliable products that could evolve or be adapted to meet the needs of the mass market. The Industrial Revolution fostered the idea that the useful and the aesthetic were not necessarily antithetical and that the perfection of simplicity, predictability, and control were values to rival elite tastes for the beautiful and rare.

The machine-made knit-goods industry began in America in 1832, when Egbert Egberts developed equipment for knitting socks in Cohoes, New York. His simple production method contributed to the eventual replacement of woven goods (largely flannel) with knit goods in underwear. A multitude of inventions, almost entirely of American origin, aided the gradual perfection of the power knitting machine, and American ingenuity was largely responsible for the development of the hosiery and knit-goods arm of the textile industry. Several American inventors patented knitting machines in the 1850s. After E.E. Kilbourne's revolutionary invention in 1858 of an automatic knitting machine that permitted the production of "full-fashioned underwear," little remained for the hand laborer but the sewing on of buttons and the threading of neck ribbons. Unique, handmade clothing of all kinds (under and outerwear) was gradually replaced (except in high fashion or for the wealthy) by commercial, machine-produced, standardized garments.

While all aspects of human apparel were modified as a result of this mechanization, underwear—intimate apparel or foundations—experienced probably the greatest and most permanent change. Until the late 19th century, undergarments, like outer layers of clothing, went through vogues of

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their own. They provided “structural support” for the 16th-century “wheel farthingale,” for example, or for the 25-yard skirts of the mid-19th century, or the bustles of the 1880s and 1890s. By the 1880s, however, proponents of health and its relationship to undergarments began to have a significant impact on the clothing industry and particularly on women, many of whom were no longer willing to subject themselves to the discomfort and inconvenience of torturous and exaggerated foundation garments and layers of unwieldy underwear.

As early as the 1850s Amelia Jenks Bloomer, an American advocate of physical freedom and comfort for women, introduced the famous trouser costume that came to bear her name. Dr. Andrew Combe also believed that women’s clothes were too tight and unhealthy, and he promoted the salubrious practice of wearing flannel next to the skin. Dr. Gustav Jaeger, a German professor of zoology and physiology, challenged this use of flannel in 1878. He maintained that “only animal fibres prevented the retention of the ‘noxious exhalations’ of the body, retained the salutary emanations of the body which induce a sense of vigour and sound health and ensured warmth and ventilation.” According to Jaeger, 100 percent wool was the most healthful material to wear next to the skin. In the 1880s he developed sanitary stockinette-weave combinations (similar to those of the union suit) and a sanitary woolen corset which, along with other Jaeger garments, were sold with greatest success in England. That same decade a branch of Dr. Jaeger’s Sanitary Woolen System Company was open in New York City.

GEORGE D. MUNSING, the founder of Northwestern Knitting Company (which later became Munsingwear, Inc.), built his company by using the technological advances made in the clothing industry to respond to the growing desire for simpler, less cumbersome, comfortable undergarments. Information on Munsing’s early career is scanty; he first appeared in the Rochester, New York, city directory in 1883. From 1883 to 1886, while serving as superintendent of the Rochester Knitting Works, Munsing began experimenting with knit fabrics and ribbing. The Rochester Knitting Works had been established in 1866. In the 1870s the proprietor, Max Lowenthal, purchased six lamb knitting machines and began production of minor knit-goods specialties. By the 1880s the firm produced such articles as knit wool mittens, leggings, hosiery, hoods, jackets, scarves, undershirts, and infants’ shirts, distributing products to the trade directly. Without middlemen working on commission, the

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company intended to create a savings for both the manufacturer and the customer. Munsing wrestled concurrently with the problems of textile technology and human comfort in the hope of producing a woolen undergarment that would be healthy, comfortable, and "shaped to fit, yielding to every motion of the body yet always remaining in place."

Munsing married Effie MacDonald in December, 1885, and in 1886 moved to Minneapolis where, along with two young men from the Massachusetts Institute of Technology, Frank H. Page and Edward O. Tuttle, he formed a partnership to manufacture knit underwear for both men and women. Their concern, the Northwestern Knitting Company, grew and was incorporated on February 15, 1887, by Minneapolis patent attorney Amasa C. Paul, who was president in 1887 while Munsing served as vice-president, Tuttle as secretary, and Page as treasurer. The company moved quite a bit in its early years, relocating from its 1886 home in the Reese Storage Building, 410-412 Third Avenue North to the Dodson-Fisher-Brockman (saddlery) Building, 15-19 Third Street North in 1887, to 17 Third Street North from 1888 to sometime in 1890, and, finally, to 213 North Lyndale Avenue in 1890-91. There the landowner took partial payment for the property in company stock.

The early years of the company were filled with challenges and frustrations. Because the first Northwestern Knitting Company products were original in concept, rich in quality, and often custom-made for individuals as well as merchants, their prices initially were frequently higher than those of their competitors. Munsing was more an inventor/technician than a business manager. Convinced that once the customer used his combination garment or union suit he would be sold and little advertising or promotion would be necessary, Munsing was willing to take on unprofitable custom orders. As a result, the firm lacked manufacturing aims and a merchandising program. A letter from one of the company's drummers (salesmen), E.P. Allen, in 1887 from Poughkeepsie, New York, illustrates the kind of problems the fledgling enterprise, with its innovative materials, faced: "I am showing up the samples Munsing Silk Plate Underwear but find everybody is afraid of them not knowing how they will wear.

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Page attended MIT (1881-85) as a nondegree candidate in the Mechanical Engineering Department and the School of Industrial Science. By 1895 he was managing the Confectioners' Machinery and Manufacturing Co. of Springfield, Mass; in 1920 he was president of the National Equipment Co. in the same location. Tuttle attended MIT (1882-86) as a nondegree candidate in the School of Industrial Science. Information on Tuttle and Page, derived from MIT class directories for 1891, 1895, and 1920 and other records, was supplied by staff at the Institute of Archives and Special Collections, MIT Libraries, Cambridge, Mass.; Minnesota, Articles of incorporation, Book Q, p. 74, in Secretary of State's office, St. Paul; The Story of Munsingwear 1886-1961 (Minneapolis: The Company, 1961[?]), 7-8; Minneapolis City Directory, 1886-87, 501, 1887-88, 731, 1889-90, 958, 1890, 949, 1891, 1025."
as they are high price and the question is will they wear as good as all silk, now how much can you guarantee them as to durability—if you can guarantee them to be as good as silk I have [a?] customer that will try 2 shirts 38 in. in flesh color. Please forward them from your N.Y. office as the expense is to [sic] great from the factory.”

Munsing quickly applied himself to the problem. Writing shortly thereafter to another drummer, H.M. Sayres, he asked: “Can you find out the price of the cheapest silk vest (Ribbed) in the market to day get one if you can and send to me with price. I am going to make Silk & Lisle stripe, also a silk plate Lisle if I can compete with the cheapest All silk. Can make a dandy.”

The struggles to acquire equipment, locate mills willing to produce the required grade and weight of yarns, meet seasonal production quotas, generate sales, and build accounts are all well documented in early company files. Although it was company policy to maintain control over the product from beginning to end, customers, management, and sales personnel were frustrated by delays in shipping and their inability to obtain the goods they had ordered. Such problems forced Northwestern Knitting Company to subcontract with firms such as S. Brainard Pratt and Company of Boston, T.A. Shaw and Company and Mrs. H.C. Bohne’s Garden City Knitting Works, Chicago, and the St. Paul Work House, St. Paul, Minnesota, to meet deadlines.

Munsing shortly began to take a much more active role in marketing his product, asking his drummers to share ideas for new products and selling strategies and to request their views on the market. To Sayres he wrote: “We ship you today a nother [sic] case of Silk Plate goods. we now have over $10,000 worth of these goods on hand and are piling up every day what shall we do with them. I know you are working hard but push the S.P. [silk plate] for all its worth. You have got it in some good houses that ought to take a stack of it . . . We want to hear from you haven’t heard any thing from you only by telegram for money for a long time . . . You remember when I was there you told us to give you the Devil if you wasn’t doing just as we wanted. So let her go Galligher.” Early in 1888, Munsing wrote Tuttle, the company’s secretary: “our machines have been idle more or less, now we must keep them going on Lisle if possible for there is no doubt but what we can sell all we can make in the next two months which will be about 1500 doz providing we can

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get the stock out in this God forsaken country. . . . out of ribbon see our ribbon man and hurry him too, recd word from them that they would send soone [sic] soon we want it D quick.”

There are comparable examples in the files from the clients as well. Some of the correspondence is humorous, some is curt and businesslike, and some provides insight into the firm’s success and the public’s general willingness to give a new product the opportunity to prove itself. For example, Forbes and Wallace of Springfield, Massachusetts, wrote Munsing that “We return by Ex.[express] One lot Silk Plate underwear, rec’d from Minn. to day The goods are not what they should be it seems like an inferior quality They are not like what we rec’d earlier in the season. In order to keep the sales up and increase them the goods must be up to standard. We would like the same sizes as the qual. should be.”

A telegram from Philadelphia, dated November 28, 1888, simply reads “Its too late now cancel. Strawbridge & Clothier.” A night message from Anderson, Indiana, on October 3, 1888, reveals a sense of humor as well as dissatisfaction: “Letter recd wont keep people warm ship at once.” On July 5 of the same year the H.H. Corson family of New Richland, Minnesota, complained that “Our whole family had to lay in bed till our undershirts were washed and all because you haven’t sent us any new ones.”

In November John L. Wright, Hatter and Furnisher of Des Moines, Iowa, wrote, “As you have allowed the time to pass for sending me the sample underwear I will try to do without it this season, in fact have today gotten some thing to take its place. I understand you are unable to fill all your fall orders so my countermanding will make no difference, and next season I will try it again.” More welcome, no doubt, was the letter from W.H. Wright and Sons of Ogden, Utah, acknowledging receipt of goods and ordering more: “We have your favor of 13th and contents noted: You may complete our order with Scarlet suits.”

Northwestern Knitting Company was always proud to say it sold directly to the retailer and not to jobbers. The result was a direct relationship with dealers and one price (no discount for large orders), an arrangement that created a partnership in distribution. A temporary office and distributing center in New York helped Northwestern Knitting to succeed economically in the early years. Easterners could purchase stock from the New York offices, and the firm was able to save considerable expense for express mail orders from Minnesota.

Correspondence from drummers on various hotel letterheads, throughout 1887 and 1888, as well as numerous letters from stores requesting merchandise indicate the success of the young firm at marketing its product across the United States. Orders came from both the great centers and obscure backwaters of retailing. Customers included Wannamaker and Brown, St. Louis, Missouri; Ed. Weinlander Dry Goods, Maryville, California; Noble Bros., Wheeling, West Virginia; Cowhick Dry Goods Co., Cheyenne, Wyoming; Marshall Field and Co., Chicago; McFarland and French, The Dalles, Oregon; C.L. O’Gorman and Co., Macon, Georgia; The Magnet Dry Goods, Oskaloosa, Iowa; The Great Eastern Co., Spokane Falls, Washington Territory; Bloomingdale Bros., New York; Kohlberg, Strauss and Frohman, San Francisco; and Foster and Estes Mercantile Co., Anaconda, Montana.¹³

MUCH of the company’s success throughout its history derived from its early patents for revolutionary developments in the manufacture of knit undergarments. Munsing was a tireless inventor whose continued experimentation led to a patent (number 391,005) for a plated, elastic knit fabric in October of 1888. “It will be readily understood that the desirable qualities of a fabric for this purpose are that it shall be heavy enough [wool] to be sufficiently warm; that it shall also have a fine attractive, and handsomely finished outer surface and a soft but smooth under surface that will not irritate the flesh of the wearer.”¹⁴

This patent was accompanied by others: a knit undershirt of ribbed jersey fabric with a tight ribbed collar, cuffs, and bottom edge; and knit drawers of the same fabric, offering the option of an elastic waistband or button fly. A fourth patent (number 448,664) was received in March, 1891, for a crocheting machine that created a “scallop or shell-like border upon the edge of fabrics.” This trim or finish was used on many brands of underwear produced during the next several decades. These patents gave Northwestern Knitting Company a needed foothold in the market. The turning point in the firm’s fortunes, however, came with the production of the union suit in the early 1890s, making the business “the first knitting company in the United States to make and market knit union suits in a large way.” With the addition of Munsing’s plated yarn as a comfort factor, Northwestern Knitting’s place in the knitwear market was secured.

It seems that Munsing was able to read the market skillfully and adapt his designs to consumer needs and prefer-

¹³ Information from letterheads on orders, Munsingwear Records.

¹⁴ Here and below, see United States Patent Office, Official Gazette, Oct. 9, 1888, p. 230, Mar. 24, 1891, p. 1578; Clothier and Furnisher, clipping dated June, 1916, FMS Scrapbook, p. 77, Munsingwear Records. We have identified five patents by Munsing concerning processes related to knit-undergarment construction and mechanized garment detailing (nos. 391,005, 391,006, 391,007, 411,046, 448,664).
ences. The no-nonsense, high quality, eventual low pricing of the clothing exemplified the mass-production ideals that grew out of the Industrial Revolution, and the dependability of Munsing's products permitted him to compete successfully with more refined, individualized lines. Early advertisements present Northwestern Knitting Company goods as "sensible, serviceable, satisfactory" and promise a perfect fit.  

But there were struggles down the road, most of them financial. In 1887 Minneapolis businessmen Charles A. Pillsbury, Clinton Morrison, and Thomas Lowry bought stock, infusing needed capital into the company. Two years later Charles S. Gold purchased stock and became a director of the company as well as treasurer, a position he held for 28 years. Gold was instrumental in getting the organization on firm ground after its early rocky financial years. Other employees who rose through the ranks to positions of prominence secured the fledgling company's future. Fred M. Stowell, for example, graduated from office boy to president in his 42 years with Munsingwear (1890-1932), replacing Munsing as superintendent when the latter left in 1895. Edgar J. Cooper, who began as a shipping and receiving clerk in 1887, eventually served as secretary and then vice-president in charge of sales until he retired in 1917.

About 1890 or 1891 the company moved to its new plant at 213 North Lyndale Avenue. By 1895 when Munsing left the firm to pursue other research interests, all of the original partners had redirected their energies. Under the new management regime of Cooper, Stowell, and Gold, the company shifted its focus from invention to merchandising with dramatic results. So much growth took place in the next five years that more space was required. A large addition was built in 1910, but it was almost immediately inadequate. By 1914 the company erected an immense eight-story addition (finally totaling over 500,000 square feet) of an innovative, reinforced concrete construction. It was at this time that the original building at 213 Lyndale was torn down and replaced by the new buildings which occupied one full block bounded by Lyndale, Aldrich, Third, and Western avenues.

Two employees made especially valuable contributions to the firm's prosperity and expansion in the early years of this century. Frank Chatfield began as a fabric maker in 1902 and developed 133 patents, including the closed-crotch union suit, women's bloomers, a woman's undergarment with a closed crotch and open sides, and a fabric-stretching machine. His colleague George E. Rutledge joined the company

15 Virtually the same ad appeared in Minneapolis City Directory, 1906, 1907, 1908, all p. 120, 1909, 122, 1910, 120, 1911, 126, through at least 1918, 101.
16 Story of Munsingwear. 10-12. Munsing spent 24 years in Florida and Virginia promoting and running street railway systems. He died in Redbank, N. J., in 1921; Minneapolis Journal, July 23, 1921, p. 8.
in 1913 as vice-president, when Northwestern Knitting bought his business, the Vassar Swiss Underwear Company of Rochelle, Illinois, a firm that produced a high-priced line of men's underwear. Rutledge later joined with Chatfield on a patent modification of the union suit. The chief value of these patents lay not in their fashionable designs but in their economical use of knit goods and improved methods of production.¹⁵

A COMPARISON of price lists between 1900 and 1913 substantiates the growth of the company. The 1900 spring season price list offered 60 women's union-suit and vest models, ten misses' union suits, four boys' union suits, and six men's union suit styles. By 1906 production had reached 10,000 garments a day. In the 1913 fall season the styles available had more than doubled the offerings of 1900, and garments were offered for women, girls, misses, youths, men, and children.

¹⁵ Munsingwear Briefs, Sept., 1971, [p. 4].
The decade from 1910 through 1919 brought still greater production. By 1917 it had increased to 30,000 garments a day and Northwestern Knitting produced more than one-tenth of all the union suits manufactured in the United States. Two major factory additions were constructed, and a new line of woven-fabric garments was offered. In 1919 George Munsing returned to the firm in New York as a research specialist and in that same year the company was renamed the Munsingwear Corporation. At this time Munsingwear became one of the first firms of its type to establish its own design department. Earlier, garment styles were simple, and change was limited to processes that improved production, quality, or cost-effectiveness. It was during the late teens and 1920s that design became a real consideration and underwear began its evolution into the styles we are familiar with today.19

The 1920s saw the development of a large number of garment styles and weights. The “Complete 1922 Price List” offered underwear constructed of wool, cotton, silk, knit and woven goods. There were 102 styles with several model choices in each style to serve all age groups. The next year the firm was among those using rayon for women’s underwear. By 1923 the company, reconstituted as Munsingwear, Inc., had become the largest manufacturer in the world producing underwear under one trademark. The firm was the largest employer of women in Minnesota—85 percent of its 3,000 employees were female.20

Munsingwear, Inc., advertised itself as a maker of underwear, sleeping-and-lounging garments, hosiery, knit coats, and pull-ons in the 1930s. Heavy union suits were no longer the staple production garment, and standard fabrics had been expanded to include LasteX, rayon, tricot, cotton, wool, and cotton and wool blends. During the 1930s the bandeau or brassiere, “Foundette” girdles, full foundation garments, and all-wool bathing suits made their first appearances in the Munsingwear line.

As Munsingwear continued to prosper, it began accumulating a number of important manufacturing facilities. Acquisitions included the purchase in 1945 of Rollins Hosiery Mills, Inc., of Des Moines, Iowa, and the Vassar Company of Chicago in 1951. In 1958 the Hollywood-Maxwell Company of California was acquired and combined with the Vassar holdings to form the new Hollywood Vassarette Intimate Apparel Division.21

Innovations and trademarks associated with the Munsingwear name included the introduction of nylon tricot to

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the women's line in 1947, the no-sag nylon reinforced neck and leg bands in 1950, the Grand Slam golf shirt with the penguin trademark in 1955, "Stay-There™" foundation garments using Ban-Lon™ for cling and elasticity in 1958, multicolor Antron™ prints for co-ordinated intimate apparel in 1959, and cross-country ski wear in 1973. In the meantime, the growing popularity of insulated lightweight underwear reduced demand for the Munsing union suit, and in 1969 the firm ceased production of its famous garment.  

TODAY Munsingwear, Inc., consists of two divisions. The men’s division uses the Munsingwear name and includes the Grand Slam, Slammer USA, Cotton Classics, and Kangaroo lines of sport shirts and underwear. In 1982 the original Northwestern Knitting Company name was reintroduced as a new line, carrying a nostalgically styled logo. Northwestern garments include sleepwear, underwear, and "rugged" sportswear. The women's or intimate apparel division is marketed under the Vassarette label (Hollywood was dropped from the trademark in the mid-1970s), which includes brassieres, girdles, garter belts, camisoles, petticoats, full slips, teddies, tap or french pants, panties, body briefers, robes, gowns, and pajamas.

The old Munsingwear production plant was closed in 1981 and sold. While the corporate offices and men's division remain in Minneapolis at 724 North First Street, the women’s division relocated to Memphis, Tennessee, on October 31, 1986. Shortly after the Minneapolis plant was closed, Jim Klobuchar, a columnist for the Minneapolis Star and Tribune, expressed the customer sentiment that has made Munsingwear a product with staying power: “for generations, nobody made longjohns like Munsingwear. I don’t need Consumer Reports for corroboration. We wore them every day for seven months at a time in northern Minnesota. They were not only a life preservative but a barometer of social status. Every Monday was a reveille for the town's longjohns. They were marshaled in white regiments on the wash line, hanging in frozen attention.”

Fortunately for students of history and material culture, the design department staff at Munsingwear and the MHS have established an ongoing collecting agreement. As a result, the society will continue to receive product-line price guides and samples of new and successful garments annually. The history of this Minnesota centennial business will be documented as it is created in the years to come.

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SKITS, a new underwear design offering men a patented “stretchy seat,” appeared in the 1941-42 Munsingwear price lists.

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^3 Minneapolis Star and Tribune, July 28, 1984, p. 1B.

ALL illustrations in this article are from the MHS collections.