

RAMSEY COUNTY
History
A Publication of the Ramsey County Historical Society

Winter, 2006

Volume 40, Number 4

Growing Up in St. Paul
The Andahazy School of
Classical Ballet

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“The Greatest Single Industry”
Crex: Created Out of Nothing

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This 1901 American Grass Twine publicity photo shows a room furnished and decorated almost entirely with wire grass products. The company processed all of the raw material and manufactured the floor coverings in St. Paul. It made the wicker items in New York. The wall matting and picture frames were probably made specially for this photograph. American Grass Twine later became Crex Carpet Company. Photo from *Creating New Industries in the Minnesota Historical Society collections*.

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RAMSEY COUNTY History

Volume 40, Number 4

Winter 2006

THE MISSION STATEMENT OF THE RAMSEY COUNTY HISTORICAL SOCIETY
ADOPTED BY THE BOARD OF DIRECTORS IN JULY 2003:

The Ramsey County Historical Society shall discover, collect,
preserve and interpret the history of the county for the general public,
recreate the historical context in which we live and work, and make
available the historical resources of the county. The Society's major
responsibility is its stewardship over this history.

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Clara M. Claussen and Frieda H. Claussen in memory of Henry H. Cowie Jr.
and by a contribution from the late Reuel D. Harmon

A Message from the Editorial Board

In this era when we seek to use natural products in new ways, we will enjoy reading Paul Nelson's lead article depicting a once-flourishing Ramsey County industry that manufactured twine, furniture, and carpet from a forgotten resource: wire grass! A modern-day visit to Crex Meadows in Wisconsin will evoke memories of workers harvesting this dense material, which was twisted and bent into wicker furniture that once graced the porches of St. Paul neighborhoods. A detailed portrait of the founders of the Andahazy dance studio, an account of an early rabies outbreak, and two book reviews round out this diverse issue.

We welcome as our new editor John Lindley, who takes the position following his tenure as editorial board chair. John brings to his new job years of professional publishing experience and a practiced, conscientious approach to the complex task of producing this magazine on a quarterly basis. Under his committed leadership we will maintain the high standards of content and production that have garnered *Ramsey County History* two national awards. As we greet John, we dearly miss our founding editor, Virginia Brainard Kunz, whom we profile in this issue. Her keen intelligence, lively curiosity, and abiding compassion have long guided our interest in local history, and she will always live on in our hearts.

Anne Cowie, Chair, Editorial Board

Virginia Brainard Kunz 1921-2006

A Remembrance

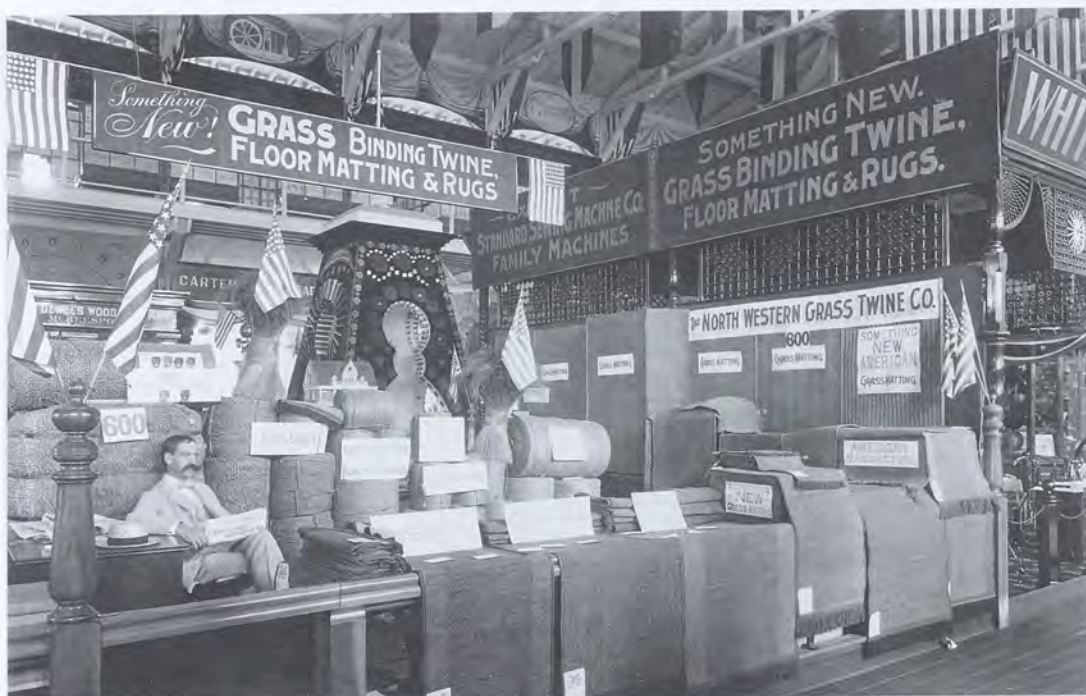
Virginia Brainard Kunz, editor of *Ramsey County History* for more than forty years, died on January 7, 2006, in Minneapolis. Members and supporters of the Ramsey County Historical Society will miss Virginia's deft editorial hand, her nearly encyclopedic knowledge of St. Paul history, and her talent as a writer.



Born in 1921 in St. Cloud, Minnesota, Virginia graduated from Iowa State University in 1943 with a degree in journalism. Shortly thereafter the *Minneapolis Tribune* hired Virginia. Her work with the newspaper involved cropping and sizing photos for news stories, writing short articles, and crafting headlines. These skills would serve her well when in 1962 she became the Ramsey County Historical Society's executive secretary. Two years later, Virginia founded *Ramsey County History*. At the time the Society's magazine came out twice a year. It expanded to quarterly publication in 1989. In 1973 the Society made Virginia its executive director, a position she held until her retirement sixteen years later.

During her tenure as executive director, Virginia oversaw the Society's move from offices at the Gibbs Farm Museum (now the Gibbs Museum of Pioneer and Dakotah Life) in Falcon Heights to larger quarters in the Landmark Center in downtown St. Paul. In the 1970s she was one of a number of civic-minded leaders who were involved in persuading St. Paul and Ramsey County officials to restore the old Federal Courts Building and convert it to the Landmark Center. A skilled manager, Virginia also oversaw the growth of the Society from operating two afternoons a week on an annual budget of \$10,000 to more than 1,200 members and a budget that exceeded \$500,000 at the time of her retirement.

In addition to all the responsibilities she had as executive director of the Society, Virginia found time
(continued on the reverse)



North Western Grass Twine Co.'s booth at the Trans-Mississippi Exposition of 1898, in Omaha. North Western was the prior name of American Grass Twine. Omaha Public Library photo.

“The Greatest Single Industry?” Crex: Created Out of Nothing

Paul D. Nelson

“If you were asked to make a guess as to the largest single industry in St. Paul, would you reply, ‘The American Grass Twine Company?’”

This rhetorical challenge rang out from the pages of *Book of Minnesota*, published by St. Paul’s *Pioneer Press* in 1903. Then came the answer:

Probably not. But you would thereby display your ignorance, for this concern is, in truth, the greatest single industry in St. Paul today. . . . No other single manufacturing industry in Minnesota can approach it in the volume of its manufactures, the scope of its enterprise or the size of its payroll.¹

Could it be true? In 1903 both the Great Northern and Northern Pacific railroads had their headquarters in St. Paul; three big shoe companies operated factories downtown; wholesale outfits sup-

plied goods for the entire Northern Plains from their warehouses near the river; government, banking, and insurance had been foundations of the local economy for half a century. Had American Grass Twine, an infant enterprise not five years old, somehow surpassed them all?

In a word—no. At that moment American Grass Twine ranked fifth as an employer of St. Paul workers, far behind railroads and meatpacking, and it would soon fall much lower.

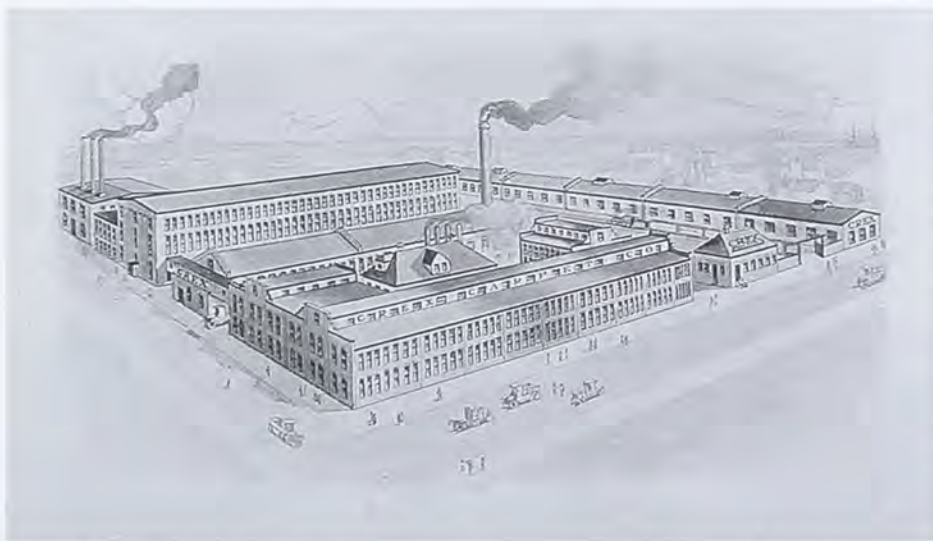
But the claim, “greatest single industry,” amounted only to puffery—not true yet not entirely false either. For in 1903 American Grass Twine was in fact St. Paul’s biggest manufacturing employer, with nearly nine hundred full-time workers, hundreds more seasonal employees, four factories in three states—its two biggest in St. Paul—huge real estate hold-

ings, and ambitious plans. And though the grand plans would soon be given up, the company prospered (mostly), and dominated its industry for the next thirty years. Greatness is subjective.

The American Grass Twine Co. grew up from a business concept of beautiful simplicity and power: Take a cheap, plentiful, and local material, add value by turning it into consumer goods, then ship those goods to ready markets around the country.

The raw material, wire grass (botanical name *carex stricta*), grows wild and tall in the peat bogs of the Upper Midwest. From the beginning of time it had no practical use. Animals do not eat it; Native Americans made nothing from it. Apart from occasional placement in landscaping, it has no use or value today.

But for one historical moment, roughly



The St. Paul grass works, Front Avenue in the foreground. In left background, American Grass Twine's 1899 factory addition. To the right, perpendicular to Front, a row of the company's warehouses. From the company's 1919 catalog, Minnesota Historical Society (MHS).

1895 to 1935, wire grass brought forth an industry. It inspired the ingenuity of engineers and mechanics, excited the hopes of investors and the imagination of crooks. Here, perhaps, was its greatness—to create an industry out of nothing: Wire grass built factories, furnished houses and hotels, and gave work to thousands of men and women (and not a few children.) And then it was gone.

This is the story of a unique American industry, one based St. Paul.

Oshkosh Origins

The story begins in Oshkosh, Wisconsin, in the mid-1890s, and it begins with twine. The mechanical reaper and later improvements created a huge United States market for binding twine. The reaper and self-binder (which bound cut grain into sheaves mechanically) enabled farmers to work vast tracts with small crews. But they had to have twine, miles of it. As one contemporary observer put it, "if the supply of twine for one harvest were suddenly to be cut off it would mean not simply a national but an international calamity. . . ." No twine, no wheat.

But during this period, the 1880s and '90s, the binding twine industry was new and unstable. Most of the fiber came from Mexico and the Philippines. It was not cheap, and Americans—especially the har-

vester makers—disliked foreign control of so vital a commodity. Control, and profit too, belonged in the U.S.A. Whoever developed a domestic source of binder twine stood to make a fortune.²

Wire grass grew abundantly in the Wolf River lowlands near Oshkosh. Its long (three to four feet), slim, clean, leafless, and unjointed stalks caught the attention of one or more curious minds as a possible source of twine fiber. Eastern capitalist James F. O'Shaughnessy gathered investors and put inventor George Lowry on the case. Lowry, a skilled hand with fiber in the cotton industry, devised a machine to twist and join staggered stalks of wire grass into lengths of passable twine. O'Shaughnessy built a small factory in Oshkosh and armed it with Lowry machines; an industry was born.

O'Shaughnessy and his partners soon decided that St. Paul, not Oshkosh, was the best place to make a fortune in twine. Headquarters of the Great Northern and Northern Pacific railroads, St. Paul was the rail transportation hub for the grain-growing regions of the Upper Midwest and Northern Plains, enormous markets for binder twine. What is more, *carex stricta* sprouted every spring in tens of thousands of acres of peat bogs nearby.

In 1899 O'Shaughnessy and his associates formed the American Grass Twine

Company from two companies they already controlled, Wisconsin Grass Twine and North Western Grass Twine. It was a Delaware corporation with its main office in New York City, but St. Paul was the center of manufacturing and distribution. American Grass Twine and its successor, Crex Carpet Co., dominated the national wire grass business then and for the next thirty-five years.

In 1898 the company bought and remodeled the seven-year-old Northwest Cordage Company factory on Front Avenue between Kent and Mackubin, just east of Dale Street. To this roomy (63 ft. x 328 ft.) mass of brick it added an enormous (68 ft. x 580 ft.) warehouse, then another factory building, 78 feet wide, 414 feet long, and three stories tall, both in 1899. It filled the factories with Lowry machines and their attendant web of belts, pulleys, and conveyors. AGT acquired vast expanses of marshland and set up a dozen permanent harvest camps complete with bunkhouses, mess halls, smithies, stables, and warehouses. It kept the original Oshkosh factory and set to work building another one near Duluth. The investment gushed, all in the hope of turning wire grass into gold.³

American Grass Binder Twine

It makes a better tie than Sisal or Manila,
and costs, yard for yard,
one-third less.

▲

AMERICAN GRASS BINDER TWINE, made from the Wire Grass found in such profusion in the vast marsh lands of the West and Northwest, is rapidly revolutionizing American harvesting methods. Wherever introduced it leaps into immediate popularity.



It makes a better bundle and it saves one-third of the twine bill.
Isn't that a proposition worth looking into?
The Combination Knotter which we put upon the "Minnie" binder uses *any* twine—Manila, Sisal or American Grass.

The "Minnie" Combination Knotter is not a mere talking point, but is the first improvement in years in Harvesting machinery that lessens the cost of harvesting grain.

No more 16-cent Binding Twine.
That's one of the reasons why it is such a money-saver and money-maker for the farmer.

Better work at less expense.
Look into it.
It is worthy careful investigation.

American Grass Twine is more fully described on pages 26 and 27.

A binder twine ad from a 1901 American Grass Twine catalog. Wisconsin Historical Society

Spinning Gold

The wire grass industry was made possible by the creation of a set of new or adapted machines, implements, and processes.

Everything began in peat bog country near St. Paul. Harvest season started in early July, as *carex stricta* reached maturity and the bogs began to dry in the summer heat. Harvest crews of transient laborers, supplemented by local men and women (and boys and girls), gathered in camps run first by the company and later by independent contractors. They cut the wire grass, dried it in the fields (a job that required all the sheaves to be turned over by workers called “rubberbacks”), piled it, baled it, and hauled it to warehouses where it awaited the call from St. Paul. They worked until first frost.

A simple device—the bog shoe—made an efficient harvest possible. Workers cut



A pair of bog shoes. Neil Bergerson collection.

the wire grass using a horse-drawn mower. When the marshes were wet, which was most of the time, horses tended to sink. To solve the problem, some tinkerer devised a wide wooden boot that attached to the horses' hooves. Like a snowshoe, the bog shoe spread the animals' weight over a wider area, reducing the sinking. The harvests went on.

The second key to efficient harvesting was the portable baler. After the wire grass was cut and then dried in the fields, it was bound into sheaves (mostly by hand and by women), then piled into enormous mounds. Horses then hauled the baler, adapted from the cotton industry, to the mounds; men scaled the mounds and pitched the sheaves into the baler's box-like opening. As the box filled, the weight of the grass forced it down inside the baler frame and tightened wire strung around the opening; when the



“Rubberbacks” at work in the wire grass harvest near Forest Lake. Ray Bergerson photo.

wire ends came together they were tied: a bale of wire grass. Horse-drawn wagons carried the bales to the warehouse and later to the railhead for shipment to St. Paul.⁴

All of this had to be undone in the factory, the 200-pound bales unpacked and untied, restored to their natural state of individual stalks. These were combed, apparently by hand, and poor quality stems removed. Then the George Lowry machines set to work. According to a 1901 article in *Scientific American Supplement*,

The combed grass then passes by a system of conveyers from the combing room to the spinning room. The spinning machines are of such a character that by them the grass fiber is automatically drawn out and laid end to end in “broken joints” in one continuous sliver. By the action of the drawing mechanism, this perfect sliver is drawn through the presses and in so doing it is given the proper twist to make a substantial cord or twine. This twine is now roped with a small thread of cotton, hemp or flax to keep the ends from projecting.



A portable baler in the field near Forest Lake. Ray Bergerson photo.

“Wet feet, a sore back, and lots of mosquito bites.”

Life in the Harvest Camps

Work in the wire grass harvest camps was hard. There were a few skilled positions: foreman, cook, teamster, blacksmith, but most were common laborers. These had four main jobs—cutting the grass, turning it for drying, tying it into sheaves, and baling. They worked ten hours a day, seven days a week, unless they went to church—a powerful encouragement to religion.

Those who cut the grass used horse-drawn mowers; this was surely one of the best jobs. The mowers left the grass in the field, in piles called flops, where it dried for a day. Then along came the “rubberbacks” to turn the flops for another day of drying. Next came the tyers, who bound the grass into sheaves or bundles, using a special knot. Many of these were women. The bundles were then piled into giant mounds to await baling.



Women workers in the harvest crew.

Ray Bergerson grew up in a Crex camp near Forest Lake where his father was foreman. Later, in 1930 and 1931, he worked on harvest crews. At the end of every work day, he recalls, “you had wet feet, a sore back, and lots of mosquito bites.”

The crews were made up of local men, women, and children, some as young as twelve, and transient laborers. According to Ray Bergerson, most of these were immigrants from Southern Europe, and most were drunks. They came long enough to get fed and get paid, then they moved on. “We always had three crews, one coming, one going, and one working.”

The men lived at the camps, eating in the mess hall and sleeping in the bunkhouses. The various camps competed for laborers through their food. “The food was the best you could get or you couldn’t keep ‘em.” Even so, it was simple: “Salt pork and potatoes, salt pork and potatoes.” Because the camps produced plenty of garbage, they kept



An American Grass Twine mess hall.

pigs too, so occasionally a pig roast was held. In fall there were locally hunted ducks. Fruit came in barrels, and they also had lots of apricot pie, for some reason. There were five meals a day, and lots of pastry and coffee.

Rules were strict: no drinking, no gambling, no language other than En-



Harvest workers gather. For a parade?

glish (so all grumbling could be understood). Amusements were few. At night, the men “slept with their companions,” explains Mr. Bergerson, as he pantomimes scratching himself all over—lice.



A mechanical sheaf binder called a gleaner.



A mower and crew. All photos from the Ray Bergerson collection.

This twine had a diameter of about 3/16 of an inch, comprising several stalks. It was then wound onto spools, twenty-two pounds each, for use on self-binders. A spool could last half a day in the field.

American Grass Twine designed its products to work on the self-binders then available to American farmers. But, not content with this (compatibility with those machines proved imperfect), and perhaps in a bully mood at the prospect of building an empire, the company's leaders made a daring leap. In 1900 they bought the dormant Walter A. Wood Harvester works (67 acres of shops, warehouses, a power plant, and two foundries,

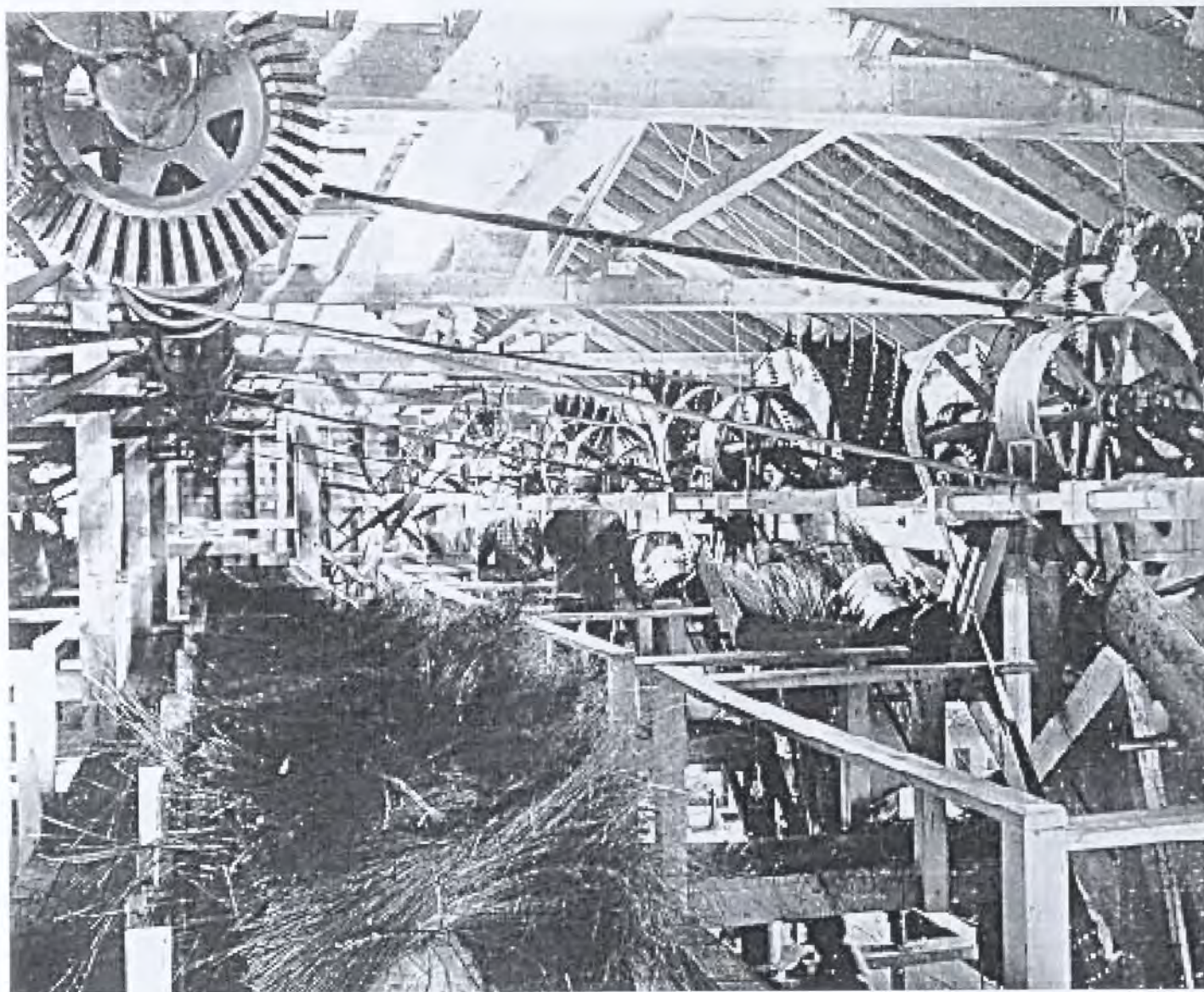
over twenty buildings in all) on St. Paul's East Side, refitted it, and revived its signature product, the Minnie Harvester, along with a complete line of attachments and accessories: knotter, mower, hay rake, flax attachment, and transport.

Starting from nothing just a few years before, American Grass Twine had made itself into a vertically integrated enterprise: It grew the raw material, made and distributed the finished product, and manufactured and sold the implements that used it. It had distributors throughout Midwestern farm country. By 1903, when *Book of Minnesota* came out, the company employed 860 full-time work-



The Minnie Harvester complex at Hazel Park, from The Story of Twine.

ers at its two St. Paul factories, making it the city's biggest manufacturing employer: a colossus built of twine.⁵



Inside the spinning room at the Front Avenue factory: bundles of wire grass are about to be spun into twine. From Creating New Industries, MHS.

Twine's End

Then, even more quickly than it had come together, the wire grass binder twine business fell apart. Late in 1903 the company sold its Minnie Harvester operation to what became the International Harvester Co., almost certainly at a loss. International, which had an intense interest in binder twine, turned the harvester works into a factory making twine out of flax straw. (That enterprise soon also failed.) By 1905, wire grass had been abandoned as a source of binder twine.

The Ten Leading Employers of St. Paul Workers, 1903

Great Northern Railroad	1,969
Omaha Railroad	1,448
Northern Pacific Railroad	1,207
Swift Packing	930
American Grass Twine	860
Twin City Rapid Transit	583
Chicago Great Western RR	512
Minn. Transfer Railroad	506
Gordon Ferguson Co.	490
Golden Rule Dept. Store	476

Figures are the author's count from the 1903 *St. Paul City Directory*. Swift Packing was located in South St. Paul but employed many St. Paul residents.

What happened? In the period 1898-1903 American Grass Twine aggressively publicized itself, claiming among other things that its twine had been extensively tested in the field and uniformly praised by farmers.

The grass-twine of today is a finished product, made so by patient, costly experiments, expensive mechanical appliances, and experience gathered from thousands of practical tests in American grain fields. . . . It never unties, never breaks, never rusts, never gets loose. . . . You cannot rot this twine nor will weevils and other insects touch it. . . . In the light of actual facts, there is no hesitancy in saying that the grass-twine . . . is not only better but cheaper, yard for yard, than the ordinary twines.

There may have been some puffery here too, but there is no doubt that wire grass attracted a fortune of investment in factories, machines, wages, and land. Its deficiencies could not have been readily apparent.

No one knows what went wrong with grass twine and no contemporary account of its failure can be found, so we are left with guesses. One is that better, faster self-binding devices put new stresses on the stuff that it could not withstand and that previous experience had not revealed. Conventional sisal twine, with its finer fibers, had to be stronger than wire grass. (If one holds a handful of dried wire grass today, the fibers seem brittle; one marvels that they ever could have been used for twine at all.) American companies, chiefly International Harvester, little by little took control of the Mexican supply, making sisal twine cheaper and more reliable than it had been. Perhaps AGT's leaders and owners simply saw the future clearly and got out before it was too late. We will probably never know.⁶

Fortunately, the same processes used to turn wire grass into twine could be used to make it into products that people actually wanted, floor coverings and furniture. Getting out of the binder twine business saved American Grass Twine.

New Markets

As the 19th century gave way to the 20th, the United States recovered from the prolonged depression of the 1890s. Prosperity released a pent-up demand for, among other goods, housing and furniture. Fashion trends also favored lighter home furnishing materials. These currents aligned nicely for products made from wire grass.

Wicker is a generic term for pliant fibers, such as certain reeds, rattan, wil-

low twigs, and the like that can be woven into useful goods. Wicker can and has been made from a great variety of materials, synthetic and natural. In the late 1890s American Grass Twine's predecessor companies began experimenting with using its twine in wicker furniture. Wound and woven around light wood frames, then suitably lacquered, the stuff worked well, and the timing was excellent: Wicker was in vogue and makers had the same worries about foreign supply that twine-makers did.

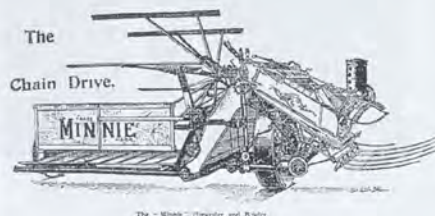


Two wicker chairs from AGT's 1903 collection. Library of Congress. To see more Crex photos, visit the RCHS web site at www.rchs.com.

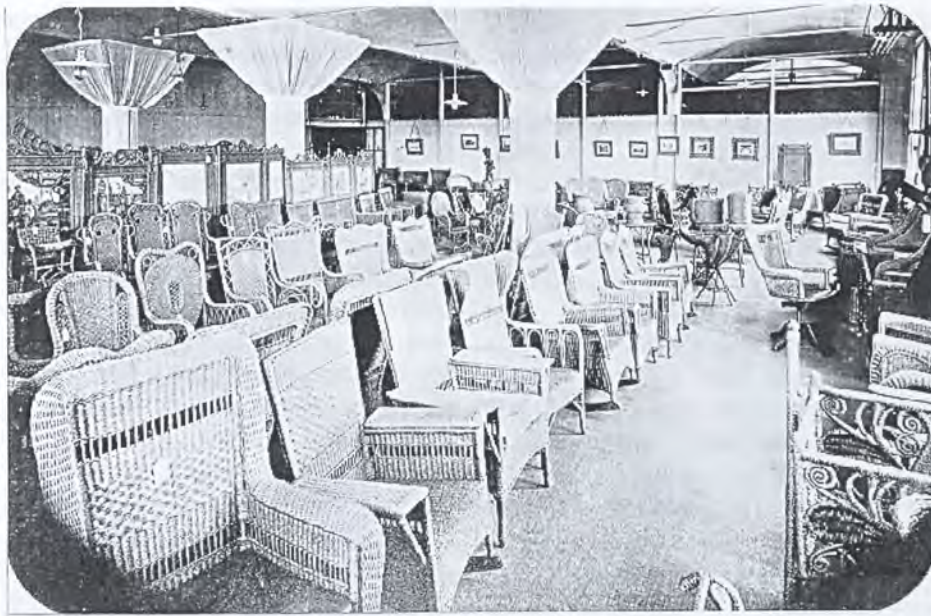
Rather than offer fiber to the many existing wicker furniture companies, AGT dove directly into the market, building a furniture factory in Brooklyn, then a larger one at Glendale, Long Island. According to wicker historian Jeremy Adamson, the company's "novel goods proved an immediate sensation," and soon were offered in the Montgomery Ward catalogs.

By 1903 the company offered a line of 260 products—chairs, divans, couches, tables, baby carriages, umbrella stands, music stands, screens, hampers, and benches. Ten years later the line had grown to 400. "For the most part," observes Adamson, the creations "mimicked popular designs in reed and rattan . . . many in the ornate style of Heywood Brothers and Wakefield," the industry leader. These products quickly became "well known to consumers throughout the United States," and the company claimed exalted international clients too:

Abroad, Crex is quite in vogue; the palace of the Viceroy of India, as well as famed salons of London, Paris, and Berlin, have



The Minnie Harvester, from *Creating New Industries*, MHS.



A Crex wicker showroom, circa 1903, from *Creating New Industries*, MHS.

their quota from the Glendale factory, and America's latest royal guest, Prince Henry of Prussia, was fondest of the special car fitted exclusively with artistic Crex Furniture.⁷

All of the fiber came from the St. Paul factory and all the furniture bore the Crex (a play on *carex stricta*) name. Whether American Grass Twine fully owned the wicker works is less clear. The furniture maker went by the name American Furniture and Manufacturing Company, later Prairie Grass Furniture Company, a subsidiary that may have become independent later on. No furniture operations appear in a 1908 submission the company made to the New York Stock Exchange.⁸

Both wicker and binder twine required small-diameter fiber, but the stalks of *carex stricta* could be bundled into almost any size. At about the same time they discovered wicker, the grass twine pioneers learned that pencil-thick ropes of about thirty strands could be tied together side-by-side to make floor coverings. When the binder-twine market disappeared, rugs became the company's most important product.

The basic processes of combing and bundling the stalks required little modification of twine making. Instead of being wound onto spindles, the ropes of wire grass fiber were sent to looms to be tied together into matting. Color and patterns

were added, first by wrapping the ropes with colored string, later by stencil. They were cut to conventional rug sizes, from 4x6 feet up to 12x15, and also long and narrow for runners. Heavy machines then pounded and abraded them to make the surfaces smooth and uniform.⁹

AGT's products, using the trade name

Crex, found a market in home and commercial use. Crex rugs were lighter than conventional, woven rugs, easy to clean (dirt simply sifted through), and cheaper. People found them especially pleasing for summer use, indoors and on porches and verandas, where their meadow-like aroma added to their charm. They were not as durable as conventional rugs, but because they were seasonal and cheap, this deficiency was minor. By 1905, Crex rugs had spread at least across the eastern half of the United States, and the company was making money.¹⁰

It got new management, too. The original investor-owners, including James O'Shaughnessy, perhaps disappointed by the end of the binder-twine dream, lost patience with profit and turned to theft. Under cover of falsified earnings and inflated asset values, they awarded themselves dividends that emptied the company's treasury into their pockets. A shareholder lawsuit exposed the fraud, and in 1905 they agreed to refund over \$640,000 and skulk away.¹¹

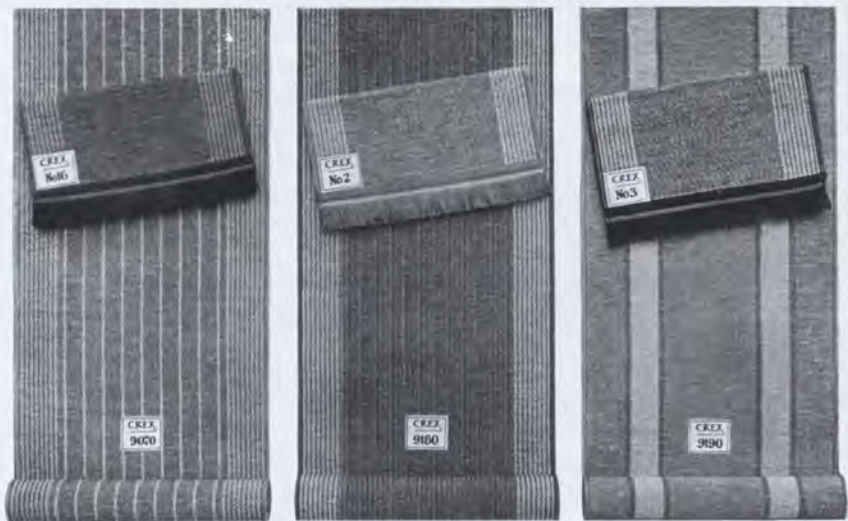
The company sailed on. It changed its name in 1908 to the Crex Carpet Company and got a listing on the New York Stock Exchange. It advertised in upscale magazines, improved and expanded its

8

JOHN H. PRAY & SONS CO., BOSTON.

Catalog No. 30.

CREX RUGS AND HALL RUNNERS



Crex Rugs Nos. 2, 3 and 10 are made in the following sizes:
 9x12 ft., 8x10 ft., 6x9 ft., 30x72 in., 30x90 in., 30x54 in., 21x45 in., 18x30 in.
 Crex Hall Runners Nos. 0970, 0180, 0100 have grown popular for hospitals and public halls.
 Widths carried in stock: 24 in., 30 in., 36 in.
 Widths to order: 27 in., 34 in., 42 in.

Crex carpet runners from a Boston rug seller's 1905 catalog, Library of Congress.



A typical Crex magazine ad, circa 1910-1920.

product line, and furnished fine hotels. The St. Paul works added a warehouse and expanded the factory twice more.¹²

The company made money every year but one from 1907 through 1925, peaking at over \$447,000 in fiscal 1920. During the decade 1916-1925, Crex averaged annual profits of \$140,000, roughly \$3,000,000 in current dollars.¹³

Girl Power

Most of these profits were produced by women. Women and girls: The majority (nearly 60%) of combers, spinners, cob winders, spoolers, beamers, weavers, menders, and other workers (about 300 in all) were female. In 1918, the only year for which we have ages, over half were 20 years old or younger; 30% were under 18, with the youngest just 14. They were single (84%) and three-quarters of them lived at home and contributed some or all of their earnings to the family. All of them lived in St. Paul.

They worked 54 hours per week on average, 9 and ¾ hours daily plus half a day Saturday. In 1918, again the only year for which we have wage figures, wages ranged from \$8.50 per week for 15-year-old cob carrier Dorothy Smith to \$18.00 per week for forelady Mary Hilgert. The more skilled, regardless of age, earned between \$13 and \$15 weekly. Their average wage came to \$11.75.

They worked side-by-side with men, and though we have no wage figures for male Crex workers specifically, there is good reason to believe the men earned a lot more: A 1920-1921 wage survey done by the State of Minnesota found that women in all industries averaged al-

most exactly half the pay of men. It is no wonder Crex hired so many women.

Many of them walked to work. Though the factory was well served by the Dale and Como streetcar routes, making both downtown and Frogtown easy hops, a remarkable number of workers lived nearby. In 1903 a fourth of the work force lived in the North End around Rice Street, between Oakland Cemetery and Dale Street, reminding us that before everyone had a car, businesses built where they could find workers close by, not the other way around.

For many, walking to work was a financial necessity; St. Paul streetcars then cost a nickel a ride, and ten cents would have taken a big bite out of earnings that averaged two dollars a day in 1918, and less in 1903.

In fiscal 1918 Crex Carpet Co. made a profit of \$195,341. Three hundred and four people worked at the St. Paul plant, 175 of them women and girls. Though this is a crude measure, if we were to assume for a moment that this 58% of the factory workforce produced 58% of the company's profit, we would find that the average female employee that year earned \$631.28 in wages and produced \$631.36 in profits; a dollar of profit for every dollar of pay.¹⁴

What was it like inside the factory? We have no first-person accounts, but an 1899 piece called "How Twine Is Made," based on a visit to a flax twine factory, probably comes close.

[The superintendent] led the way into a realm of clatter, roar, rattle and dust, the first impression at sight of which was that it was an inextricable confusion of girls and machinery, that the girls all had their hair in curl papers, and that they were a fine lot of sturdy-armed young Amazons. . . .

The air was thick with dust from the fibers, the floor polished by the . . . waste until it had the smoothness of ice. Twelve o'clock on Saturday was drawing near, and one by one the clattering machines were stopped, and the young women working them set to work like practical machinists, taking them apart, cleaning and oiling them, and putting them together. The whistle sounded, and before its echoes had died away the head coverings that had encouraged the universal curl-papers theory were whisked off, hasty washing up

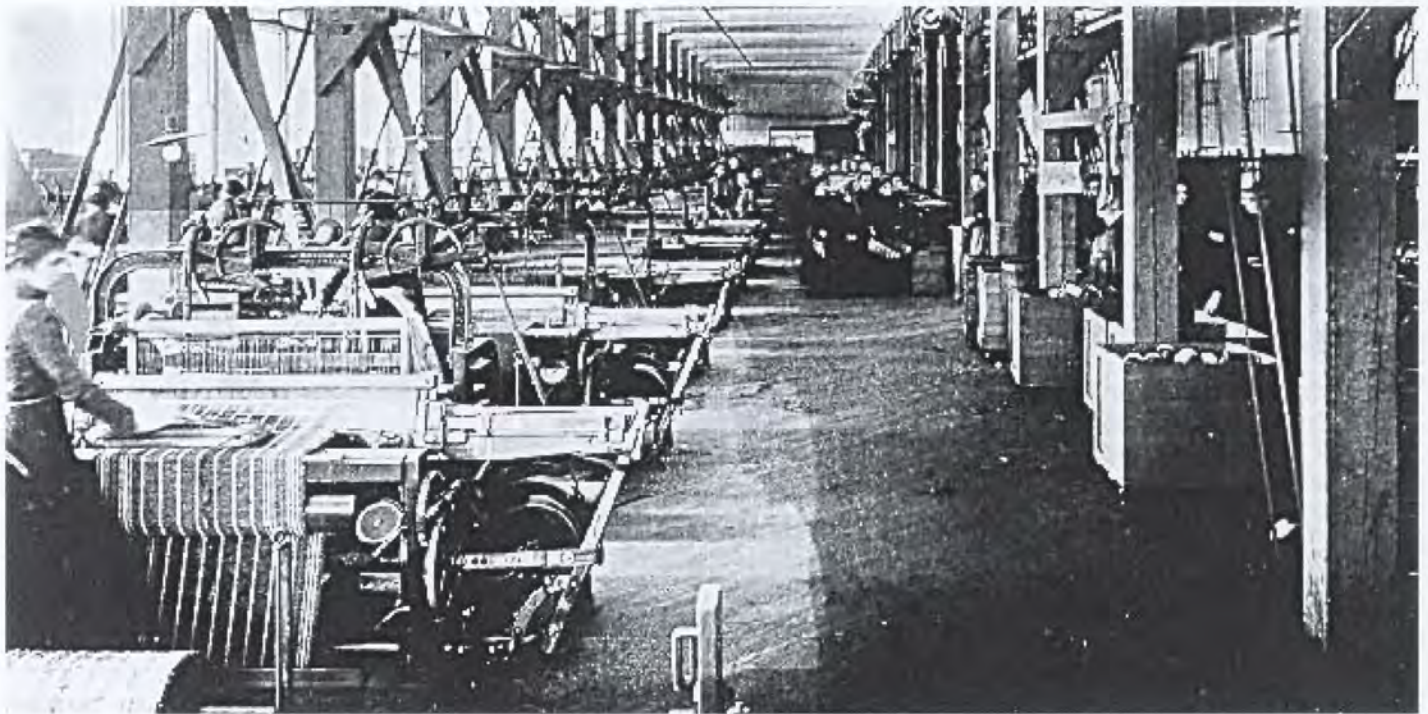


Sister Act

Clara, Tillie, and Rose Lachowitzer comprised just one of the many sets of sisters who worked for AGT/Crex over the years. Like most, they lived at home (in their case, 791 Lafond, shown below as the house appears in September 2005). Unlike most, they stayed there for many years, recalls their niece Gertrude Michel, who supplied the photo of Clara and Tillie above. Their names appear in the 1918 employee list, along with Mary, Agnes, and Jewel Clagherty, Rose and Hazel Sebastian, Catherine and Mary Hilgert, Ellen and Gertrude Johnson, Louise and Rose Soller.

Some readers of this magazine will have had relatives who worked for Crex. The two employee lists that we have compiled, from 1903 and 1918, will be posted on our web site, www.rchs.com, and we invite readers to search for their relatives. We also welcome any and all additional information readers may have about American Grass Twine and the Crex Carpet Company.





Women workers at Crex's power looms, 1903, *Creating New Industries, MHS.*

was performed, working shirts were thrown off, and the week's work was done.

We know even less about how these young women felt about their labor. Did they feel it a burden, five-and-a-half days of "clatter, roar, rattle and dust" for half the pay of others, and most of what they earned surrendered to their families? Or did they find satisfaction in camaraderie and at least a measure of self-reliance? We cannot know.



Combing the grass.

The End of Crex

The wicker business went first. Mostly, technology killed it. Synthetic wicker made of twisted paper had been invented in 1904. With refinements over the next several years it became cheaper and stronger than natural-fiber wicker, and gradually took over the market. By the end of World War I, and perhaps as early as 1917, Crex wicker products had passed from fashion and from the market.¹⁵

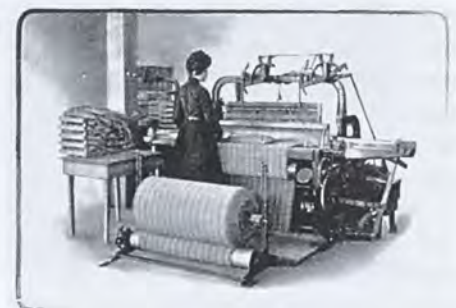
The bountiful rug profits that the company earned after 1910 proved to be the seeds of Crex Carpet Company's destruction. Company leaders, perhaps blinded by the firm's financial success, made mistakes and aggressive competitors found ways to increase their market share. The Depression administered the *coup de grace*.

The successful decade that began in 1910 tempted Crex Carpet Company to diversify and expand. It bought a factory on Long Island and added conventional Wilton rugs to its lines. It tried, how successfully we do not know, to get into the business of making liners for automobile tires. It created Crex England. These moves—seeking new markets and adding

complementary products—made sense. They came, unfortunately, just as new competition attacked.¹⁶

The rug market in Crex's time resembles that of today—a numberless array of products competing in price, function, quality, and design. Crex had made its niche in the upper end of the seasonal rug business. Asian imports, mostly from Japan, occupied the lower end.

In the early 1920s Japan suddenly multiplied its exports of grass matting, competing aggressively in price. The attack struck Crex at its point of greatest weakness. Though it had tried, Crex had failed to establish its rugs as year-round floor



Weaving Crex grass carpet. This and illustration at left from AGT's 1903 catalog, *Library of Congress.*

coverings. People did not buy them for durability; they packed them away every winter and did not expect them to last forever. The prices, always much lower than conventional rugs, reflected this. Japanese and Chinese matting in turn had always been cheaper than Crex rugs, but now the differential grew overwhelming.

Two ads on the same page of the *Minneapolis Journal* in June of 1926 (June was a big month for such ads as people made their summer furniture buys) tell the story. One offered Crex 9x12 rugs with a herringbone design on sale at \$15.00 each. The other offered imported "Grass rugs, each with a neat and attractive stenciled design," also 9x12, for \$2.98 each. What was a thrifty homemaker to do?

The U.S. Tariff Commission summed it up a few years later:

The imported product is largely made in Japanese homes by very low-paid labor and with a minimum of overhead expenses. Because of the difference in the raw material [the Japanese used rice straw] and in construction, the imported rugs are inferior in quality and durability to the domestic wire-grass rugs, but they are sold at prices so much lower that most consumers take them in preference, especially in times of reduced buying power.¹⁷

The red ink at Crex now flowed in earnest. The company lost \$30,000 in 1926, \$167,000 in 1927, \$267,000 in 1928, and \$396,000 in 1929—all this *before* the Depression hit.

The losses were catastrophic and unsustainable, and they coincided precisely with the boom of Japanese imports of floor covering, which had risen from 118,000 square yards in 1922 to over 6,000,000 in 1926. The company tried everything it could to survive; it sold assets, went to Congress for tariff protection, and stopped paying its property taxes, all for naught. The last wire grass harvest took place in 1931; the St. Paul factory slowly went quiet three years later. When the Crex Carpet Company filed its petition in bankruptcy in 1935, it had \$24.90 in the bank.¹⁸

Almost nothing of Crex remains. The factory is gone, replaced by Crossroads Elementary School. Here and there, perhaps, a Crex rug or wicker chair molders

in an attic. Though wicker is popular again and one can buy "grass" rugs, they are not made with *carex stricta*. Wire grass, so long useless and so briefly valued, is valueless again. The peat bogs that sustained it have become wildlife preserves. The Carlos Avery Wildlife Area just north of St. Paul is one of them. In another, and there only, the name lives on—Crex Nature Center in Grantsburg, Wisconsin.

Paul D. Nelson is a member of the Ramsey County Historical Society's Editorial Board and a frequent contributor to Ramsey County History.

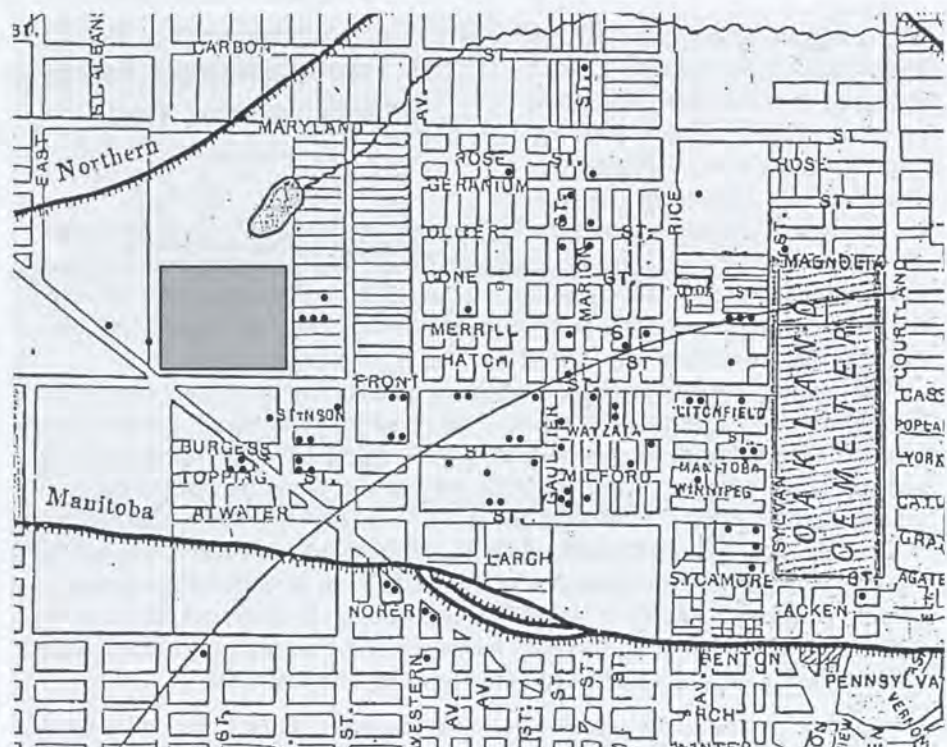
Acknowledgments

Special thanks must go to Ray Bergerson, the key preserver of the memory of the wire grass harvest camps, and his son, Neil. All of the photos published here of the wire grass harvest come from his collection; Neil Bergerson provided the bog shoes shown in the article. Thanks also to Stuart Glass of the New York Stock Exchange Archives, Brent Peterson of the Washington County Historical Society, and the staff of the St. Paul Public

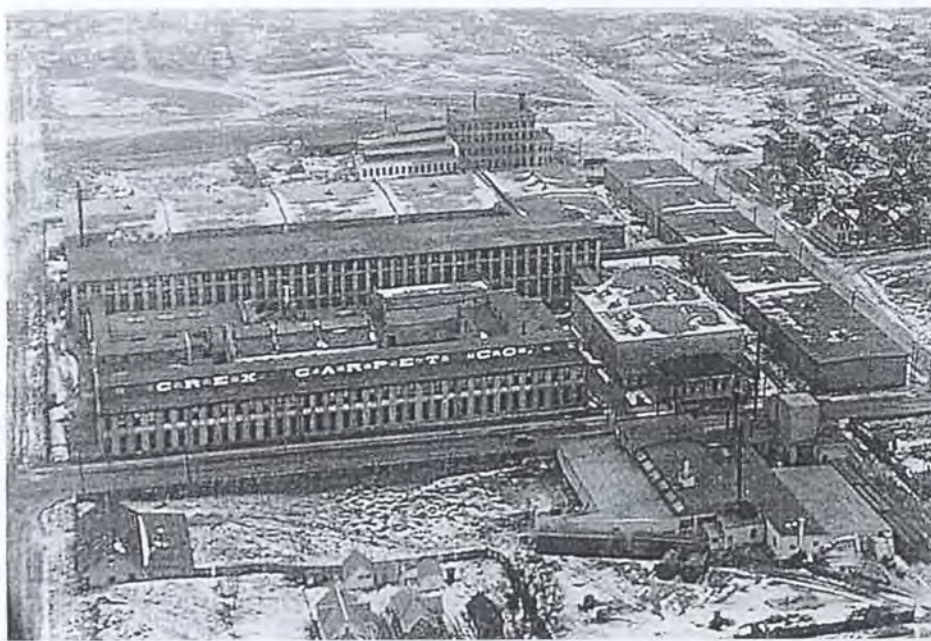
Library, though whom the miracle of interlibrary loan was so often and so productively performed.

Notes

1. J.G. Nielsen, *The Book of Minnesota* (St. Paul: Pioneer Press Co., 1903), 33. The author of the grass twine piece (probably Herbert Myrick; J.G. Nielsen merely assembled the book) reassured readers that their ignorance of American Grass Twine was "pardonable, for this concern has assumed its present gigantic proportions in such leaps and bounds that the public has not had time to follow its growth, nor appreciate its magnitude."
2. Allen Wells, *Yucatan's Golden Age* (Albuquerque: University of New Mexico Press, 1985), 37-38 (demand for twine); International Harvester Co., *Binder Twine Industry* (Chicago: 1912), 2 ("international calamity").
3. Herbert Myrick, *Creating New Industries* (Chicago: Orange Judd Co., 1901), VIII-X; Clinton F. Karlstaedt, ed., *Oshkosh, One Hundred Years A City* (Oshkosh: Castle-Pierce Printing Co., 1953), 240 (Oshkosh beginnings); Articles of Incorporation of American Grass Twine Co., June 6, 1899, New York Stock Exchange Archives; Letter from the law firm of Howland, Murray & Prentice, New York, to the St. Paul law firm Davis, Kellogg & Severance, March 20, 1903, Davis, Kellogg & Severance papers, Minnesota Historical Society (merger); Articles of Incorporation of Wisconsin



The Crex factory neighborhood, the factory in the shaded box. A remarkable number of Crex workers lived in the area bounded by Maryland Avenue on the north, the rail tracks on the south, Dale Street on the west and Oakland Cemetery on the east. The residences of 1903 workers who lived in this area are shown by dots on this map.



The Crex factory complex, 1928, looking north across Front Avenue, MHS.

American Grass Twine made one appearance on the front page of the *New York Times* (see right). Nine directors owned half or more of the company's 30,000 shares of stock. The company debuted as an unlisted stock on the New York Stock Exchange in November 1901 at \$45 per share. Starting in early 1902 the directors voted a series of quarterly dividends of 1.25% each. The market responded, pushing the stock to \$62 per share in August. Then, in December, the company suddenly cut the dividend by 80%. By the end of that week the stock price had fallen to \$30, the beginning of a long slide. In August of 1903 the stock bottomed out at \$6 per share. Some outside investors who had bought high, then watched their investment lose 90% of its value, smelled a rat.

The ensuing lawsuit revealed a series of frauds. Shortly before announcing the first dividend, company officials announced values of company assets of over \$15,000,000. The dividends paid were then based on these values—a fraud in itself, as dividends are supposed to be from profit, not assets. In any event, most of the stated values, in plants, patents, and anticipated profits, were hugely inflated. The only part of these reported values that was accurate was cash on hand, \$730,000, and most of that they promptly gave to themselves in dividends. Their \$640,000 disgorgement is equal to perhaps \$3,500,000 in today's dollars. Among the disgraced directors was Herbert Myrick, author of the company's official history and probably of most of the articles praising the company that appeared between 1898 and 1903.

Sources: *New York Times*, July 14, 1906, p. 14 and November 26, 1901, pp. 12–13; *Weekly Financial Review*, August 23, 1903, p. 1; December 13, 1902, p. 12; December 14, 1902, p. 1; August 23, 1903, p. 1; and August 2, 1903, p. 1; Samuel H. Williamson, "What Is Relative Value?" *Economic History Services*, April 2004, at www.eh.net/hmit/compare for the \$3,500,000 estimate.

**DIRECTORS PAY BACK
\$640,000 DIVIDENDS**
**Grass Twine Company's Former
Officers Forestall Trial.**

Grass Twine Co., December 22, 1896, Wisconsin Historical Society; Articles of Incorporation of North Western Grass Twine Co., January 22, 1898, Iowa Historical Society; "How Northwestern Grain is Bound With Grass Twine," 16:12 *The Northwest Magazine* (December 1898): 18 (purchase of cordage works); City of St. Paul, Minnesota, building permit #28468, December 31, 1892 (cordage factory), #36546, January 26, 1899 (warehouse), #36763, October 9, 1899 (factory addition—at a cost of \$60,000), Ramsey County Historical Society, St. Paul.

4. *Creating New Industries*, XII–XIV; Author interview with Ray Bergerson, April 26, 2005. Mr. Bergerson, who worked in the harvest camps in 1930 and 1931, and whose father was a camp foreman, provides invaluable first-hand information on the wire grass harvest. A summary of the interview is in the holdings of the Ramsey County Historical Society, St. Paul.

5. "Wire Grass—A New Industry," *Scientific American Supplement* No. 1352, (November 30, 1901): 21663–21665; *Creating New Industries*, XV–XXI (description of factory processes); *Pioneer Press*, May 3, 1900, p. 4 (purchase of harvester works); American Grass Twine Co., *Minnie Harvesting Machines and Grass Twine* (St. Paul: 1901), Wisconsin Historical Society (Minnie harvester and other products); *1903 St. Paul City Directory* (author's compilation of American Grass Twine employees). Of the 860 employees identified, 473 worked at the harvester operations, 387 at the twine and rug plant.

6. International Harvester Company, *The Story of Twine* (Chicago: 1931), 25; Department of Commerce and Labor, Bureau of Corporations, *The International Harvester Co.* (Washington, D.C.: Government Printing Office, 1913), 49, 139 (sale of harvester works and abandonment of grass twine); "How Northwestern Grain Is Bound With Grass Twine," 18 (quotation); Wells, *Yucatan's Golden Age*, 37–38 (control of sisal supply). Twine scholar Sterling Evans wrote recently that "wire grass and flax could not produce a twine that could be tied tightly enough for farmers' satisfaction or withstand the pressure of the mechanical knoter." This is plausible, even likely, though what Evans bases his judgment on is not clear from the article. Sterling Evans, "From Kanasin to Kansas: Mexican Sisal, Binder Twine, and the State Prison Twine Factory, 1890–1940," 24:4 *Kansas History* (Winter 2001–2002): 276–299, quotation at 294.

7. Jeremy Adamson, *American Wicker* (Washington, D.C.: Smithsonian Institution, 1993), 114–115; and "The Creation of Crex," *Harper's Magazine Advertiser* (January 1903) (Prince Henry).

8. Crex Carpet Company Application, October 23, 1908, New York Stock Exchange Archives (no reference to furniture operations). The 1917 Crex balance sheet, however, listed capital stock in Prairie Grass Furniture Company worth \$5,150. Crex Carpet Company Statement, June 30, 1917, William H. Brown Collection, Yale University Library. The company's 1916 catalog contains a line of wicker furniture and photos of "our factory at

**9 x 12 size
Grass Rugs**
\$2.98

Regular \$5.98 Grass Rugs, each with a neat and attractive stenciled design. They are the popular 9x12 size.

Dayton's ad, June 5, 1926.

Glendale, L.I. Crex furniture in the making." *Distinctive Rugs and Furniture by Crex* (New York: Crex Carpet Co., 1916). The Strong Museum, Rochester, New York.

9. "Wire Grass—A New Industry," 21663-21665; *Creating New Industries*, XV-XXI.

10. For general information about the American rug trade and about the place of matting (the category into which Crex products fell) see, Helen Von Rosenstiel, *American Rugs and Carpets* (New York: William Morrow & Co., 1978), 20–26. The rest of the observations made in this paragraph are based on the author's examination of newspaper and magazine ads during the period 1905–1925, on the Sears catalogs for the years 1909, 1912, 1913, and 1918 in the Minnesota Historical Society collections; and on the author's interview of Betty Maye Cutting, daughter of Raymond Horan, the last superintendent of the Crex factory in St. Paul. Even her family used Crex rugs only in summers and at the lake cabin. Author interview with Betty Maye Cutting, March 29, 2005, in author's possession.

11. *New York Times*, January 22, 1905, p. 1; July 14, 1906, p. 14. One of the disgraced directors (though not an initial investor) was Herbert Myrick, author of *Creating New Industries* and, one suspects from the striking similarity of language, all of the other unsigned pieces praising and promoting the company, such as those that appeared in *Scientific American Supplement*, *Harper's Magazine Advertiser*, and *The Northwest Magazine*.

**Crex Oil Stencilled
Grass Rugs—Lower
Priced**

These are 8x10 and 9x12. Drop pattern Crex rugs, of fine high grade, extra-heavy weaves. Oil stencilled patterns of pleasing design. Only the drop patterns are going for these less than usual prices, but you should profit by the savings you can make by buying now. COME SATURDAY.



\$21.85—8x10 De Luxe Weaves	\$16.00
\$19.75—9x12 Herringbone Weaves	\$15.00
\$17.50—8x10 Herringbone Weaves	\$13.75
\$16.75—8x10 Imperial Weaves	\$12.25

Boutell Brothers ad, June 5, 1926.

12. Crex Carpet Company Application, October 23, 1908, New York Stock Exchange Archives (name change); and *Distinctive Rugs and Furniture By Crex*, 16–17 (photo of the lobby of the Hotel Dennis, Atlantic City, furnished by Crex products). The author has found Crex ads in *House Beautiful*, *Good Housekeeping*, *American Magazine*, *People's Home Journal*, and *Hampton's Magazine Advertiser*. City of St. Paul building permit #52926 (new warehouse), August 5, 1909, #59253, June 21, 1912 (factory addition), #68067, May 13, 1916 (factory addition), Ramsey County Historical Society.

13. Crex Carpet Co. balance sheet, December 31, 1907, New York Stock Exchange Archives; *New York Times*, September 13, 1917, p. 17; September 11, 1918, p. 16; September 19, 1919, p. 25; August 24, 1920, p. 10; September 16, 1920, p. 14; September 16, 1921, p. 30; September 13, 1922, p. 30; September 18, 1923, p. 24; September 14, 1924, Sec. X, p. 8; Sept. 19, 1924, p. 35; September 18, 1925, p. 38.

14. Minnesota Commission of Public Safety, *Industrial Survey of Women Employed Outside the Home* (St. Paul: Minnesota Commission of Public Safety, 1918) and Minnesota Department of Labor and Industry, *Wage and Accident Studies 1920–1922* (St. Paul: Minnesota Department of Labor and Industry, 1922), Minnesota Historical Society (wage and hour information). The conclusions regarding walking to work are based on the author's examination of the workers' addresses relative to the factory location. Streetcar routes and fares: John W. Diers, "1890-1953: Sixty-three Years of Streetcars in St. Paul and Millions of Dollars in Investments," 40:1 *Ramsey County History* (Spring 2005), 14.

15. *American Wicker*, 115–116. While Crex's 1916 catalog included a full line of wicker furniture, its 1919 catalog had none; see *Distinctive Rugs and Furniture by Crex; 1919 Catalog of Crex Grass Rugs* (New York: Crex Carpet Co., 1919), Minnesota Historical Society.

16. *New York Times*, September 16, 1920, p. 14 (tire lining venture); September 18, 1923, p. 24 (Crex England); March 17, 1932, p. 38 (Wilton rug venture. Crex sold its Wilton plant in 1932 for \$400,000—a great deal of money, but not enough to save the company).

17. United States Tariff Commission, *Grass and Straw Rugs—Report to the President* (Washington, D.C.: Government Printing Office), quotation at p. 1. *Minneapolis Tribune*, June 5, 1926, p. 15. By 1930 Crex rugs had disappeared from the Sears catalog; Japanese straw rugs remained.

18. *New York Times*, September 17, 1926, p. 31; November 21, 1931, p. 27; Report on the Crex Carpet Company, December 10, 1932, New York Stock Exchange Archives (financial losses); *Grass and Straw Rugs*, 3 (imports from Japan); In the Matter of Crex Carpet Co., Bankrupt, U.S. District Court, District of Minnesota, Third Division, File No. 6636, Petition and Schedules, March 4, 1935, National Archives and Records Administration, Kansas City. The schedules list the company's assets at \$384,633, far exceeding its liabilities of \$138,625. But most of the assets were marshlands

valued at \$265,111, probably a fanciful figure because the market for wire grass had, with Crex's demise, just disappeared. Most of its debts were unpaid property taxes.

Danger on the Job

In July 1906 Teresa Franzen, age sixteen, took a job with American Grass Twine at the Front Avenue factory. On August 13 she started work operating one of the combing machines that cleaned and arranged the raw wire grass just before it got fed into the spinning machines. A spinning shaft with cog wheels powered the combing device.

Miss Franzen worked in a narrow, poorly lit space right next to the spinning shaft, which had no cover. On August 16 her right hand strayed into the cog wheels, which in their relentless and unforgiving rotation lopped off the tips of her index and middle fingers.

William H. Krekelberg worked near a spinning shaft too, this one in the department that dyed the warp and cotton thread used to give color and design to Crex rugs. He tended a machine that extracted water from the warp and cotton by spinning it in a chamber, like a clothes drier. Standard practice was to fill the chamber to the very top such that the workers constantly had to pound the contents to keep them from flying out as they spun.

On March 19, 1907, as Krekelberg pounded, his left arm (probably a sleeve) caught in the drive shaft in such a way that the arm wound around it as it spun at over 700 revolutions per minute, causing four fractures, some or all of them compound. Krekelberg lost the use of his arm forever and faced a lifetime of chronic pain. He was twenty-one years old.

We have these details because Franzen and Krekelberg sued. Both complaints allege negligence in safety measures. Both cases settled without trial. Though other workers also sued AGT/Crex, these are the only cases whose records have survived.

Sources: *Franzen v. American Grass Twine*, Ramsey County District Court file no. 94812; *Krekelberg v. American Grass Twine*, Ramsey County District Court file no. 96559.



Anna and Lorand Andahazy as Zobeide and the Golden Slave in Scheherazade. Miss Dee Studio photo, 1964, courtesy of Marius Andahazy.

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